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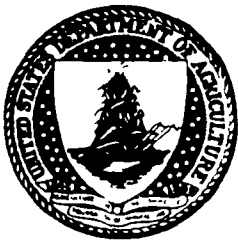
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### RADAR REMOTE SENSING FOR CROP CLASSIFICATION AND CANOPY CONDITION ASSESSMENT: GROUND DATA DOCUMENTATION

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16. Abstract <p>In 1982, an experiment was conducted in the vicinity of Lawrence, Kansas in support of the Free-Flying Imaging Radar Experiment (FIREX)/Shuttle Active Microwave Experiment (SAMEX) program. The experiment was designed to address specific questions pertaining to agricultural crop-identification and crop-condition assessment from data obtained from radar, and visible and infrared sensors.</p> <p>During the months from April to November of 1982, a vegetation and soil-moisture experiment was conducted in order to examine the microwave emission and backscattering from vegetation canopies and soils. This report describes the data-acquisition methodology used in conjunction with the Mobile Radar Scatterometer (MRS) systems, and documents associated ground-truth data. Test fields were located in the Kansas River floodplain north of Lawrence, Kansas. Ten fields each of wheat, corn, and soybeans were monitored over the greater part of their growing seasons. The tabulated data summarize measurements made by the sensor systems and represent target characteristics. Target parameters describing the vegetation and soil characteristics include plant moisture, density, height, and growth stage, as well as soil moisture and soil-bulk density.</p> <p>Complete listings of pertinent crop-canopy and soil measurements are given. These values correspond to the remotely sensed data documented in two companion volumes (RSL TR 580-1: Volumes I and II).</p>					
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RSL Technical Report 580-2

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## ABSTRACT

In 1982, an experiment was conducted in the vicinity of Lawrence, Kansas in support of the Free-Flying Imaging Radar Experiment (FIREX)/Shuttle Active Microwave Experiment (SAMEX) program. The experiment was designed to address specific questions pertaining to agricultural crop-identification and crop-condition assessment from data obtained from radar, and visible and infrared sensors.

During the months from April to November of 1982, a vegetation and soil-moisture experiment was conducted in order to examine the microwave emission and backscattering from vegetation canopies and soils. This report describes the data-acquisition methodology used in conjunction with the Mobile Radar Scatterometer (MRS) systems, and documents associated ground-truth data. Test fields were located in the Kansas River floodplain north of Lawrence, Kansas. Ten fields each of wheat, corn, and soybeans were monitored over the greater part of their growing seasons. The tabulated data summarize measurements made by the sensor systems and represent target characteristics. Target parameters describing the vegetation and soil characteristics include plant moisture, density, height, and growth stage, as well as soil moisture and soil-bulk density.

Complete listings of pertinent crop-canopy and soil measurements are given. These values correspond to the remotely sensed data documented in two companion volumes.

## 1.0 INTRODUCTION

The 1982 summer field-experiment program consisted of several experiments aimed at increasing our understanding of microwave emission and backscattering from vegetation canopies and soils. The objectives of the experiment-program were as follows:

1. To examine the crop discrimination capabilities of radar throughout the growing seasons of wheat, corn, and soybeans.

2. To examine the soil-moisture mapping capabilities of radar and microwave radiometers for vegetation-covered soils throughout the growing seasons of wheat, corn, and soybeans.

3. To examine the vegetation canopy as an emitter and scatterer of microwave energy as a function of canopy geometry and biomass.

4. To study, at different stages of crop growth, the effects of total-scene geometry in terms of soil surface roughness, row direction versus view angle, and canopy geometry.

5. To examine the data collected by visible/infrared remote sensing techniques, which will be used for comparison with microwave data.

To realize the above objectives, two different microwave systems were designed and used in monitoring the temporal behavior of the radar backscattering of crops. For crop-discrimination and soil-moisture experiments, ten fields each of wheat, corn, and soybeans were examined an average of

three times per week during their respective growing seasons (Table 1.) A crop calendar is presented in Figure 1.

In addition, several special experiments were conducted on selected fields to examine the vegetation and canopy geometry effects of each crop. These included row-direction experiments for bare and vegetated soil, defoliation experiments, and canopy attenuation and emission experiments.

## 2.0 EXPERIMENT TEST SITE

The 1982 summer experiment site is located on the Newman and Holiday Terraces of the Kansas River floodplain north of Lawrence, Kansas (Figure 2). This area is intensively cultivated and represents a typical agricultural scene of non-irrigated winter wheat and soybeans, and partially irrigated corn, although none of the test fields was irrigated during the summer experiment.

### 2.1 Field Selection

The criteria used to select the target fields were as follows:

1. Fields must be representative of the general population of fields at the test site.

2. Fields must have a relatively uniform surface in terms of soil type, slope, drainage, and planting characteristics in order to minimize within-field variability.

3. Fields for each crop should have a range of soil textures in order to maximize between-field variability.

TABLE 1  
Duration of Measurements

Crop Type	Duration	Canopy Height (cm)
Wheat	April 10 - July 7	23 - 104
Corn	May 19 - October 15	13 - 311
Soybeans	June 9 - November 1	6 - 112

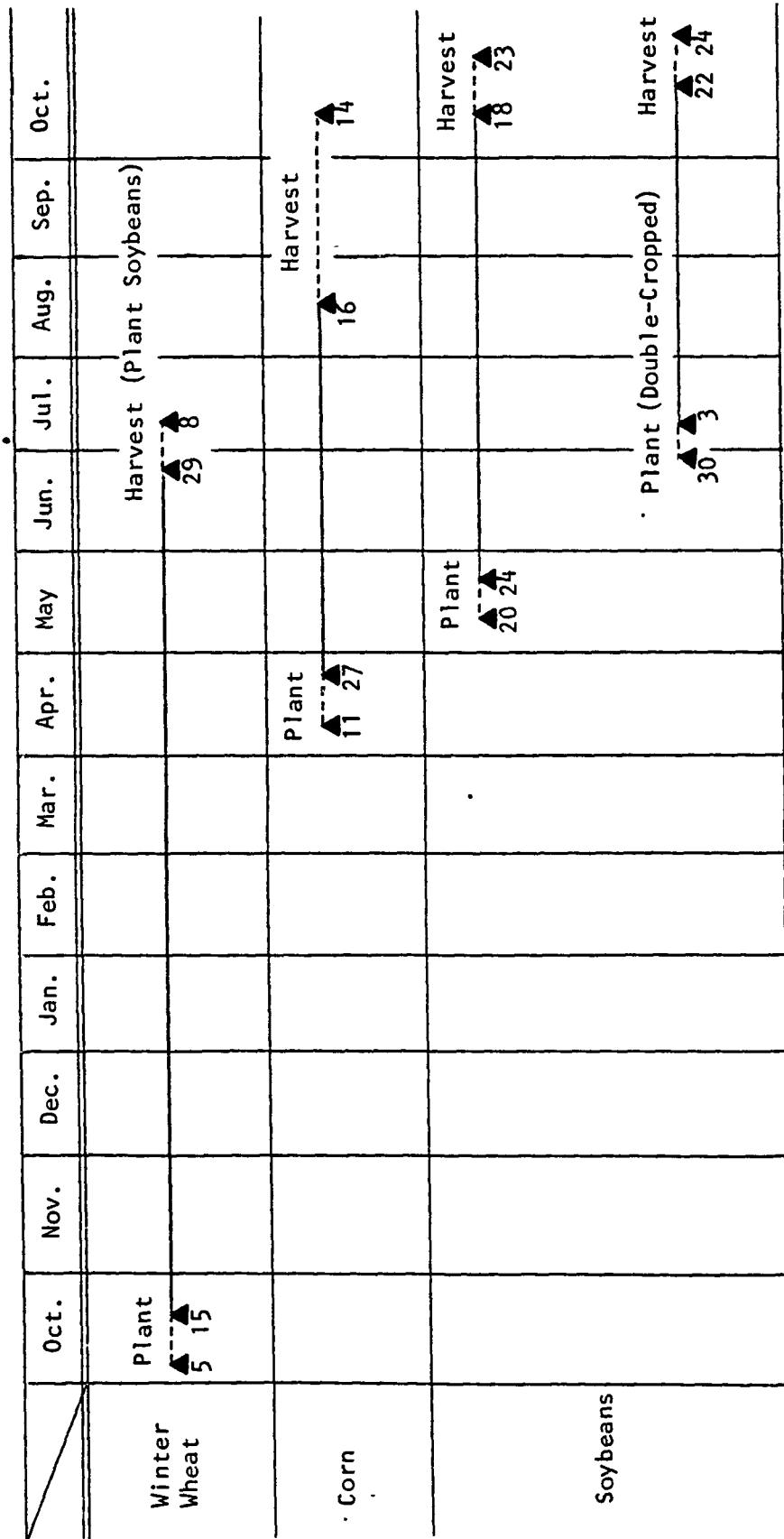


Figure 1. Crop calendar (October 1981 - October 1982).



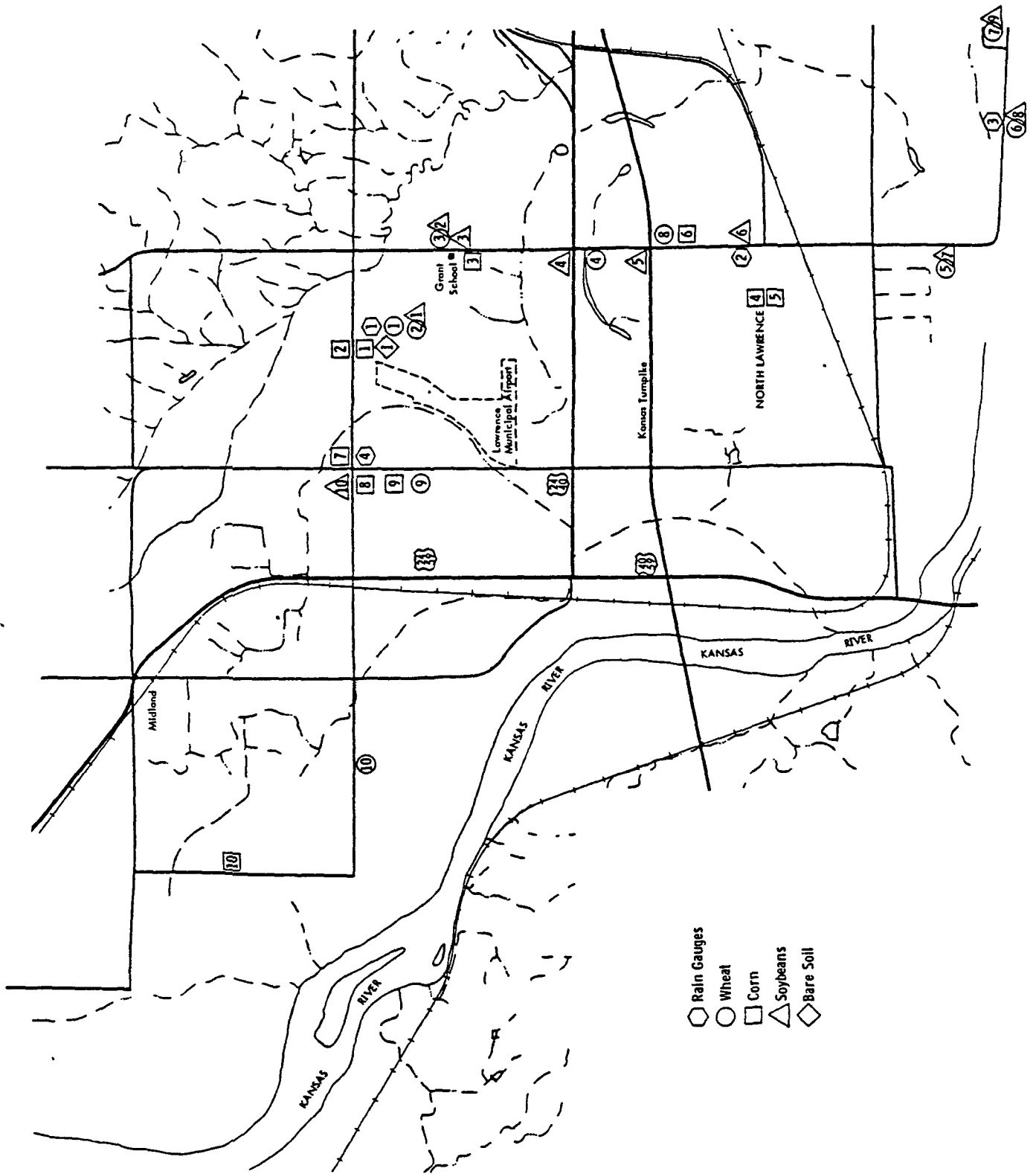


Figure 2. Test sites and field locations.

4. Fields must be readily accessible, and should be amenable to the data-collection activities of the truck-mounted sensor systems as well as of the ground-truth teams. Fields with a wide roadside ditch and/or roadside power lines should be avoided.

Using these criteria, ten fields of each crop were selected. Figure 2 shows their locations within the test site. It should be noted that Soybean Fields Nos. S1, S2, S7, S8, and S9 were double-cropped with wheat, and thus correspond to Wheat Fields Nos. W2, W3, W5, W6, and W7, respectively.

## 2.2 Field Preparation

The turn-rows within the fields were either 30 feet wide (about 9 m) or 60 feet wide (about 18 m). The turn-rows exhibit a crop row direction parallel to the adjacent access road. The illuminated ground swaths of both the radar and the Modular Multiband Radiometer (MMR) lie beyond the 30-foot-wide turn rows. Corn Fields Nos. C3, C4, C5, C6, C7, and C8, and Soybean Fields Nos. S3, S4, and S6 had 60-foot-wide turn-rows (about 18 m), so the swath fell within the turn-rows.

For data-sampling purposes, two red flags were positioned 100 feet (about 30 m) apart on the roadside to define the limits of each field. Six sampling grids were defined (Figure 3) for the collection of soil moisture samples, vegetation samples, and bulk-density samples. Ground-truth samples were taken without disturbing the radar

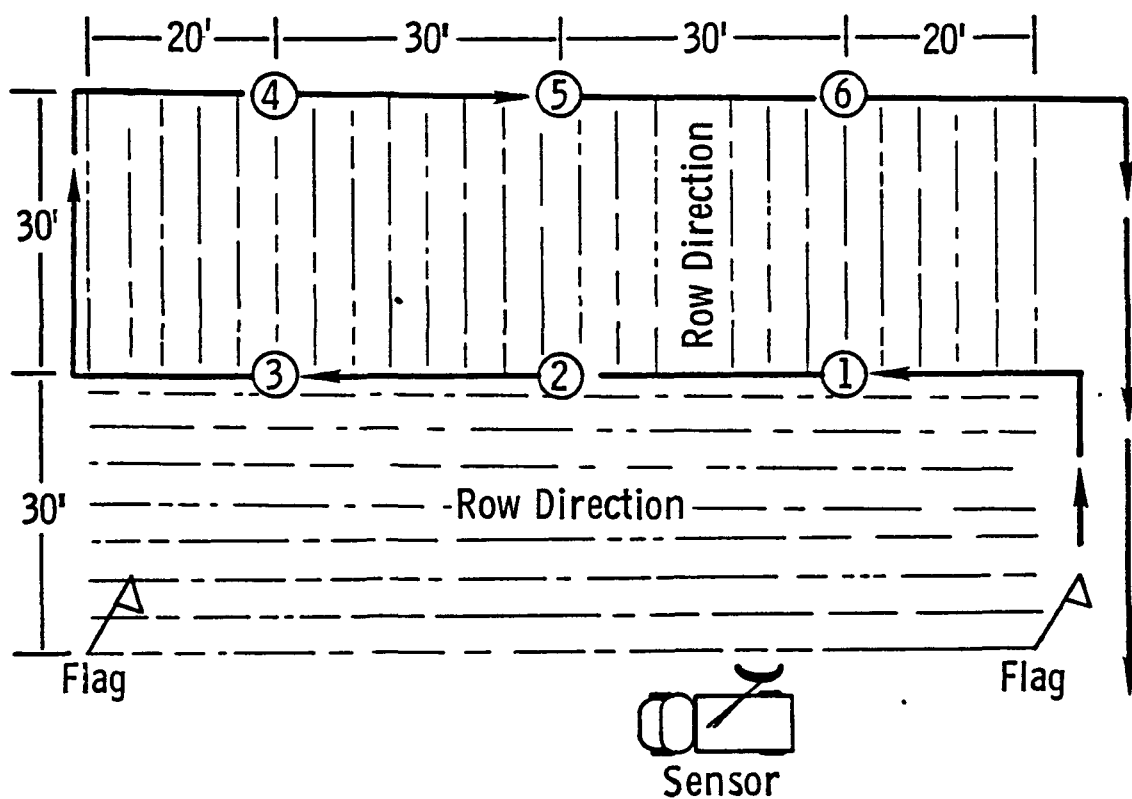


Figure 3. Field layout and sampling grid. Arrows indicate the route taken during ground-truth activities.

or MMR swaths.

### 2.3 Field Description

The following sections provide brief discussions, by crop\_type, of the test fields over time. For detailed observations concerning each field, see Appendices III.f, III.g, and III.i.

#### 2.3.1 Wheat Fields

Wheat fields W1 and W2 were located side-by-side on one agricultural field. Field W2 was designated to provide ground-truth support for the wheat screen experiment conducted immediately adjacent to W2.

All fields were planted with winter wheat in October 1981. The fields were fairly wet due to frequent rain and suffered moderate rainstorm damage early in the season. A severe thunderstorm on June 7, 1982 flattened many of the plants, and a considerable number of previously collected biomass samples were lost when the drying shed was blown away by the storm. By June 17, most of the crop stands had recovered from the storm damage; however, the radar swath portion of W5 did not recover.

The soil in Fields W3, W5, W6, W7, W8, and W10 was relatively well drained, whereas W9 was located in a low-lying area and remained partially flooded for many weeks early in the summer. Field W4 was located near a swampy area and standing water was observed from June until close to harvest time.

### 2.3.2 Corn Fields

The corn plants in ten test fields grew without incident. After the heading and flowering stages, most corn stands started to develop two or three cobs per plant. As moisture stress became a reality in the middle of the season, only the uppermost cob ripened and reached maturity in most cases.

Standing water was often observed in fields C1 and C2 early in the summer. Plant stands in C2 were not uniform, as piles of seeds were spilled during planting. Corn-screen and sliding-lens/horn experiments were conducted on C1. Field C4 was the healthiest and produced the tallest corn plants among the corn fields observed.

### 2.3.3 Soybean Fields

Soybean crops suffered moderate storm damage early in the season. Leaves were shredded and there were some soil-surface washouts. Field S4 was tilled and replanted.

Soybean fields S1, S2, S7, S8, and S9 were also wheat fields W2, W3, W5, W6, and W7, double-cropped. Soybeans were planted by the no-till method with minimum disturbance of the soil. Most of the double-cropped fields suffered from weed infestation, i.e., emerging wheat plants from seed spills initially, and taller broadleaf weeds later. There were more weeds than soybeans in S2, S7, and S9. Field S2 was the site of a weed defoliation experiment.

### 3.0 MEASUREMENT SCHEDULE AND DATA-ACQUISITION REQUIREMENTS

The measurement schedule shown in Table 2 formed the basis for obtaining an adequate number of samples for each experiment. Because of the possibility of weather problems and equipment failures, scheduling flexibility was maintained and implemented on a weekly basis. A measurement log was maintained by each ground-truth team and for each system in order to identify and tabulate the fields measured and problems encountered, and to record any other observations that might be helpful in the interpretation of the data.

The ground-truth measurements were designed to obtain sufficient information to describe target characteristics. The ground-truth data acquired during the experiment are listed in Table 3.

Daily weather measurements were obtained from the University of Kansas Weather Service, and included wind speed and direction, precipitation amounts, and temperature. Supplemental precipitation measurements were recorded on a daily basis from four rain gauges located in the vicinity of the test fields (see Figure 2). Weather data are reported in Appendix III.j.

### 4.0 EXPERIMENT DESCRIPTIONS

#### 4.1 Crop Description/Soil Moisture Experiments

Crop discrimination and soil-moisture experiments were conducted simultaneously, using built-in combinations of different system parameters (Table 4). Three crops (wheat,

TABLE 2  
Measurement Schedule

Week	Day	Activity
1	Monday	Crop ID/Soil Moisture
	Tuesday	Sliding Lens/Horn, Calibration
	Wednesday	Crop ID/Soil Moisture
	Thursday	Defoliation
	Friday	Crop ID/Soil Moisture
2	Monday	Crop ID/Soil Moisture
	Tuesday	Sliding Lens/Horn, Calibration
	Wednesday	Crop ID/Soil Moisture
	Thursday	Row Direction Experiment
	Friday	Crop ID/Soil Moisture

TABLE 3  
Data-Acquisition Requirements

Characteristics	Frequency
1. Atmospheric:	
Wind speed (km/hr)	Daily
Wind direction	Daily
Precipitation (mm)	Daily
Air temperature (°C)	Daily
Relative humidity (%)	2 per day
2. Crop Canopy:	
Height (cm):	3 per week
Total canopy height	
Lowest green-leaf height (corn only)	
Highest green-leaf height (corn and wheat only)	
Top fruit height (corn only)	
Growth stage and photo	Weekly
Leaf-area index (LAI)	Weekly
Wet biomass (layered & by part)	3 per week
Dry biomass (layered & by part)	Weekly
Plant density & row characterization	As necessary
Farm-operator activities	As they occur
3. Soil:	
Soil moisture (0-2 and 2-5 cm)	With radar
Soil bulk density (0-2 and 2-5 cm)	At least 3 times
Soil texture	At least 3 times
Surface roughness	As necessary



TABLE 4  
System Parameters

System	Band	Spectral Range (Frequency/Wavelength)	Polarization	Incidence Angle	Purpose
MARS-C/X	C	5.04 GHz	HH VV	50°	Crop ID
	C	5.04 GHz	HH HV	20°	Soil Moisture
	X	10.2 GHz	VV VH	50°	Crop ID
	X	10.2 GHz	VV VH	20°	Soil Moisture
MARS-L/S/C	L	1.6 GHz	HH VV	0-60°	Crop ID
	S	3.4 GHz	HH VV	0-60°	Crop ID
	C	5.04 GHz	HH VV	0-60°	Crop ID
MMR	1	0.45 - 0.52 $\mu\text{m}$	-- --	0°	Soil vs. Crop
	2	0.52 - 0.60 $\mu\text{m}$	-- --	0°	Crop Vigor
	3	0.63 - 0.69 $\mu\text{m}$	-- --	0°	Crop ID
	4	0.76 - 0.90 $\mu\text{m}$	-- --	0°	Biomass
	5	1.15 - 1.30 $\mu\text{m}$	-- --	0°	
	6	1.55 - 1.75 $\mu\text{m}$	-- --	0°	Plant Moisture
	7	2.08 - 2.35 $\mu\text{m}$	-- --	0°	Hydrothermal
	8	10.4 - 12.5 $\mu\text{m}$	-- --	0°	Crop Stress

corn, and soybeans) were examined, plus bare fields resulting from systematic defoliation. Each field was visited three times per week, on Monday, Wednesday, and Friday. Ground-truth data were taken within one hour of radar observation. In addition, selected fields were observed by the MMR, which is a Landsat-4 simulator. The MMR data were obtained on clear days only and within one hour of the Landsat overflight time, i.e., 09:30 local time or 10:30 Daylight Savings Time.

#### 4.2 Special Experiments

Special experiments were conducted on one or two selected fields per crop in support of regular crop-discrimination and soil-moisture experiments.

##### 4.2.1 Defoliation Experiments

Defoliation experiments were conducted on selected fields of wheat, corn, and soybeans in order to examine the vegetation canopy as an emitter and scatterer of microwave energy. The fields were observed by both the active and passive systems, from both row directions, at all available frequencies, and with both like- and cross-polarization. When using the passive system, both H- and V-polarizations were used to measure energy emission. The following target conditions were examined:

- Wheat:
1. soft dough stage
  2. prior to harvest

- Corn:
1. prior to cob development
  2. after cob development
  3. after canopy had dried

- Soybeans:
1. prior to podding
  2. after podding
  3. prior to harvest

Defoliation was accomplished using a combine for wheat, and by hand for corn and soybeans. Data were obtained for a range of incidence angles from 10° to 70° and from both row directions.

Each experiment was divided into several steps for each crop, depending on the growth status and the nature of the canopy being examined:

- Wheat:
1. with canopy
  2. with canopy removed (bare soil)

- Corn:
1. with full canopy
  2. with leaves removed
  3. with cobs removed
  4. with stalks removed (bare soil)

- Soybeans:
1. with canopy
  2. with canopy removed (bare soil)

At each step of the defoliation process, data from both systems were obtained as well as ground-truth data.

Soil-moisture samples for the 0- to 2-cm and 2- to 5-cm depths were collected from 12 sampling locations in a 60' x 60' (18 m x 18 m) defoliation plot, as shown in Figure 4. At six of these locations, row separation, plant density, and biomass samples were also obtained. Ground truth was collected while the systems were being repositioned in order to view the test plot from a different azimuth angle.

#### 4.2.2 Canopy Emission and Attenuation

Aluminum window screens were used in order to effectively block emission from the underlying soil; hence, the brightness temperature measured by the microwave radiometer is related solely to the emission from the canopy. The screened area was 30' x 30' (9 m x 9 m) in size. Each week the radiometer observed the screen-covered areas and an adjacent area (without screens) from both row directions. The screens were placed so as to cover the soil surface, while still allowing unhindered crop growth. For wheat, two layers of one-inch (1 inch = 2.54 cm) chicken wire were placed in early November 1981, while plants were emerging. To block the emission further, strips of six-inch-wide aluminum window screens were added between the rows in early May 1982, resulting in a gap of about one to three inches for crop stands. For corn and soybean plots, only aluminum screens were used. The width of the screens was 29 inches and the resulting gap between the screens was about two inches. Approximately 95 percent of the plots were covered with screens.

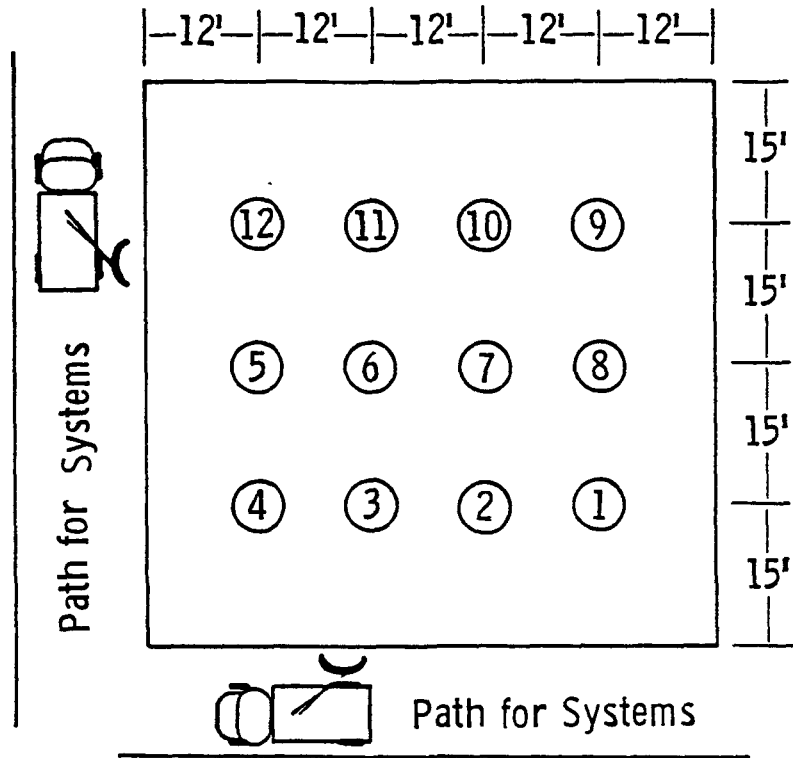


Figure 4. Defoliation plot.  
 Soil moisture sampling locations: 1 to 12.  
 Vegetation moisture sampling locations: 1 to 3  
 and 9 to 11.

Once a week, the canopy attenuation effect of each crop was measured by the scatterometers at each frequency. This was accomplished by measuring the backscattering from a sliding Luneberg lens as it was pulled along a trough (Figure 5). The lens was tied to the truck in order to allow it to slide at the same speed as the antennas. The radar system observed the lens through several rows of plants at a fixed angle of incidence. This procedure was repeated at the same range without pulling the lens, so that data comparisons could be made. In addition, a small receiving antenna was substituted for the Luneberg lens in order to measure one-way canopy attenuation.

#### 4.2.3 Row-Direction Experiments

The effects of crop row direction on emission and backscattering, both of which are caused by variations in the soil-surface geometry and by differential masking of the soil, were examined three times each for corn and soybeans, as well as for bare surfaces resulting from defoliation. Each row-direction experiment included observation of the crop or the bare soil from multiple azimuthal view angles ( $\alpha$ ). The purpose of this type of data acquisition was to investigate the azimuthal dependence of radar backscattering ( $\sigma^\circ$ ) and brightness temperature ( $T_B$ ) on the bare and vegetation-covered soils.

The experiments were scheduled with respect to crop growth stage and defoliation. The measurements often required a full day, and ground truth was usually taken two

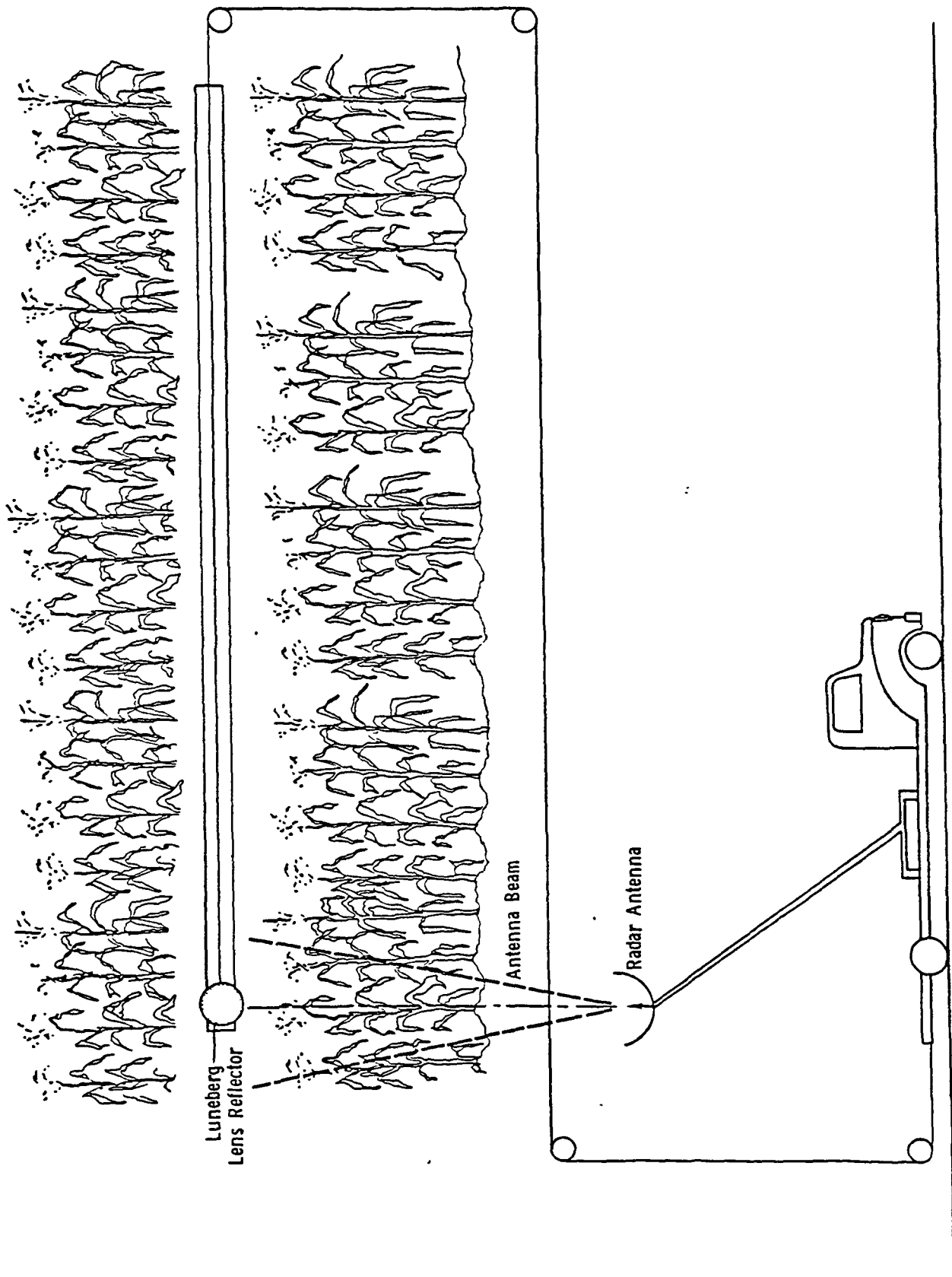


Figure 5. Measurement configuration of a sliding Luneberg lens.

times during an experiment.

Row-direction experiments were conducted for a range of incidence angles and for azimuth angles of 0°, 45°, 70°, and 90°. An azimuth view angle of 0° corresponds to an antenna beam direction (look) parallel to the crop-row direction, while an azimuth view angle of 90° corresponds to an antenna beam direction orthogonal to the crop-row direction (Figure 6).

In addition to regular ground-truth acquisition, soil-moisture samples were taken from six locations for depths of 0-2, 2-5, 5-9, and 9-15 cm.

#### 5.0 MRS/MMR DATA MEASUREMENTS

Two truck-mounted systems were used in the experiment. The MRS C/X-band scatterometer operated at 10.2 GHz (X-band) and 5.04 GHz (C-band), while the MRS-L/S/C system operated at 1.6 GHz (L-band), 3.4 GHz (S-band), and 5.4 GHz (C-band).

The MRS-C/X is a self-contained, automated system with which data can be acquired in either of two modes: the stationary-sweep mode or the mobile mode. It has a dual-polarized feed and operates simultaneously in both like- and cross-polarizations. The large 3-foot disc antenna was used for C-band, and the smaller (1-foot) antenna was used for the X-band like-polarized channel. The standard-gain horn was the receiving element for the X-band cross-polarized channel.



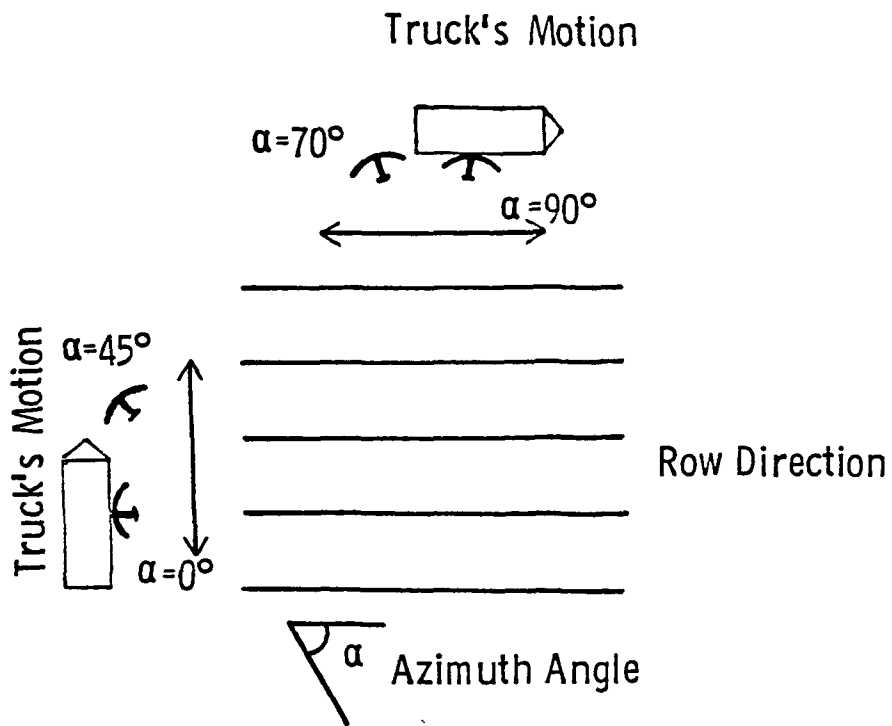


Figure 6. Definition of azimuth angle.

Internal calibration via a delay line and external calibration with a Luneberg lens were used to calibrate the instrument in terms of backscattering coefficients ( $\sigma^0$ ). Available radar data are summarized in Appendix II.a. For system specifications, see Table 5. Details on the system, data measurements, and processed data are reported by Aslam (1983b).

The MRS-L/S/C is a mobile FM-CW radar system mounted on two trucks. The RF section consists of L-band, S-band, and C-band subsections that share a common transmit-polarization switch, delay line, and antenna feed. The system employs two methods of calibration. Short-term system variations are handled by replacing the antenna with a coaxial delay line of constant loss. Absolute calibration is accomplished by referencing the power returned from a target to the power returned from a Luneberg lens of known cross-section. Calibration with the Luneberg lens was usually performed once a week and calibration against the delay line was performed every 15 minutes. Data were acquired while making azimuth sweeps with the truck's boom. The elevation angle of the antenna and the sweep limits for the boom were set by the operator. The computer then set the frequency and polarization for the system, and began the azimuth sweeps. Table 6 shows system specifications. Details on the system, measurement procedures, and processed data are reported in Mikinski (1983).

Selected fields were measured by the Modular Multiband

TABLE 5  
MRS-C/X SYSTEM SPECIFICATIONS

	<u>C-Band</u>	<u>X-Band</u>
Center Frequency:	5.04 GHz	10.2 GHz
Modulation Bandwidth $\Delta f$ :	270 MHz	420 MHz
IF Frequency:	22 kHz	22 kHz
Polarization:	HH, HV VH, VV	VV and VH
Transmitted Power:	10 dBm	17 dBm
Modulation Rate (FM Rate):	50-900 Hz	20-660 Hz
Modulation:	Triangular	Triangular
IF Bandwidth		
Wide Filter	6600 Hz	6600 Hz
Narrow Filter	100 Hz	100 Hz
Antennas:	Parabolic Dish for HH, HV, VH, VV	Parabolic Dish for VV Standard-Gain Horn for VH
Diameter:	36" (91.5 cm)	12" (30.5 cm)
Feed:	Dual-Pol. Quad-ridged Horn - 4-18 GHz	Double Dipole
Product Beamwidth:		
Elevation	HH 3.28°	VV 4.14°
Azimuth	HH 3.75°	VH 5.86°
Elevation	VV 3.59°	
Azimuth	VV 3.30°	
Dynamic Range	70 dB	70 dB
Look Angle in Mobile Mode:	10° - 80°	10° - 80°
Height Above Ground:	10 m	10 m
Calibration		
Internal:	Delay Line (16 m)	Delay Line (10 m)
External:	Luneberg Lens	Luneberg Lens

TABLE 6  
MRS-L/S/C SYSTEM SPECIFICATIONS

Center Frequencies:	1.6, 3.4, 5.4 GHz
Modulation Bandwidth $\Delta f$ :	250 MHz
IF Frequency:	22 kHz
Polarization:	VV, HH, VH, HV
Transmitted Power:	12 dBm
Modulation:	Triangular
Modulation Rate:	150 - 550 Hz
IF Bandwidth:	3.3 kHz
Antenna:	Parabolic Dish
Diameter:	48" (122 cm)
Feed:	Dual Polarized Log Periodic 1 - 12 GHz

Product Beamwidth:

1.6	Elevation	HH	6.36°
1.6	Azimuth	HH	6.71°
1.6	Elevation	VV	7.24°
1.6	Azimuth	VV	6.18°
3.4	Elevation	HH	2.95°
3.4	Azimuth	HH	2.95°
3.4	Elevation	VV	3.10°
3.4	Azimuth	VV	3.10°
5.4	Elevation	HH	1.94°
5.4	Azimuth	HH	2.05°
5.4	Elevation	VV	2.26°
5.4	Azimuth	VV	1.87°

Dynamic Range:	70 dB
Angle of Incidence Range:	0 - 70 degrees
Height Above Ground:	10 - 20 meters
Calibration	
Internal:	Delay Line (16 m)
External:	Luneberg Lens

Radiometer (MMR), which was designed as a Landsat-4 Thematic Mapper (TM) simulator suitable for operation from a helicopter, small plane, truck, or from tripod platforms. The unit is equipped with the seven TM spectral bands, and an additional band in the 1.15- to 1.30- $\mu\text{m}$  range (Table 4). The radiometer was operated from a truck boom. The MMR data were calibrated and reported by Aslam (1983b). The summary of available MMR measurements is shown in Appendix II.b.

## 6.0 GROUND-TRUTH MEASUREMENTS

### 6.1 Vegetation Data

#### 6.1.1 Height

For each field, the canopy height of each crop was measured three times per week. At each of six sampling locations within a field, a representative plant at a given location was randomly selected for sampling height and plant biomass. The following heights were measured with a meter-stick and recorded in centimeters.

- Wheat:
1. total canopy height
  2. height to top green leaf

- Corn:
1. total canopy height
  2. height to the top of the uppermost green leaf
  3. height to the top of the highest cob
  4. height to the lowermost green leaf

- Soybeans: total canopy height

Each height was measured from the plant's juncture with the soil. Figure 7 shows the position of each measurement.

#### 6.1.2 Plant Density

Plant density is measured in terms of the number of individual plants per unit area. Data were taken infrequently, depending upon stage of crop growth, tillage practices, diseases, and pest- or storm-losses. In addition, the densities of the corn cobs and soybean pods were measured at their respective ripe stages, usually just prior to harvest.

For wheat, the number of stems and grain heads was counted, and the length of the grain heads was measured along two adjacent rows 15 cm long at each of six locations. The average row-separation distance was measured in centimeters from the base of one row to the base of the row adjacent to it. The plant-density data for wheat are summarized in Appendix III.a.2.

For corn-crop density, both the number of plants and the total number of cobs were recorded along 5 meters of row at each of six sampling locations. Average row separation at each location was also measured. The corn-density data are summarized in Appendix III.b.2.

For soybean crop density, the number of plants was counted along one meter of row. The row separation was also recorded. To determine the number of beans, two plant samples were taken from each of six locations.

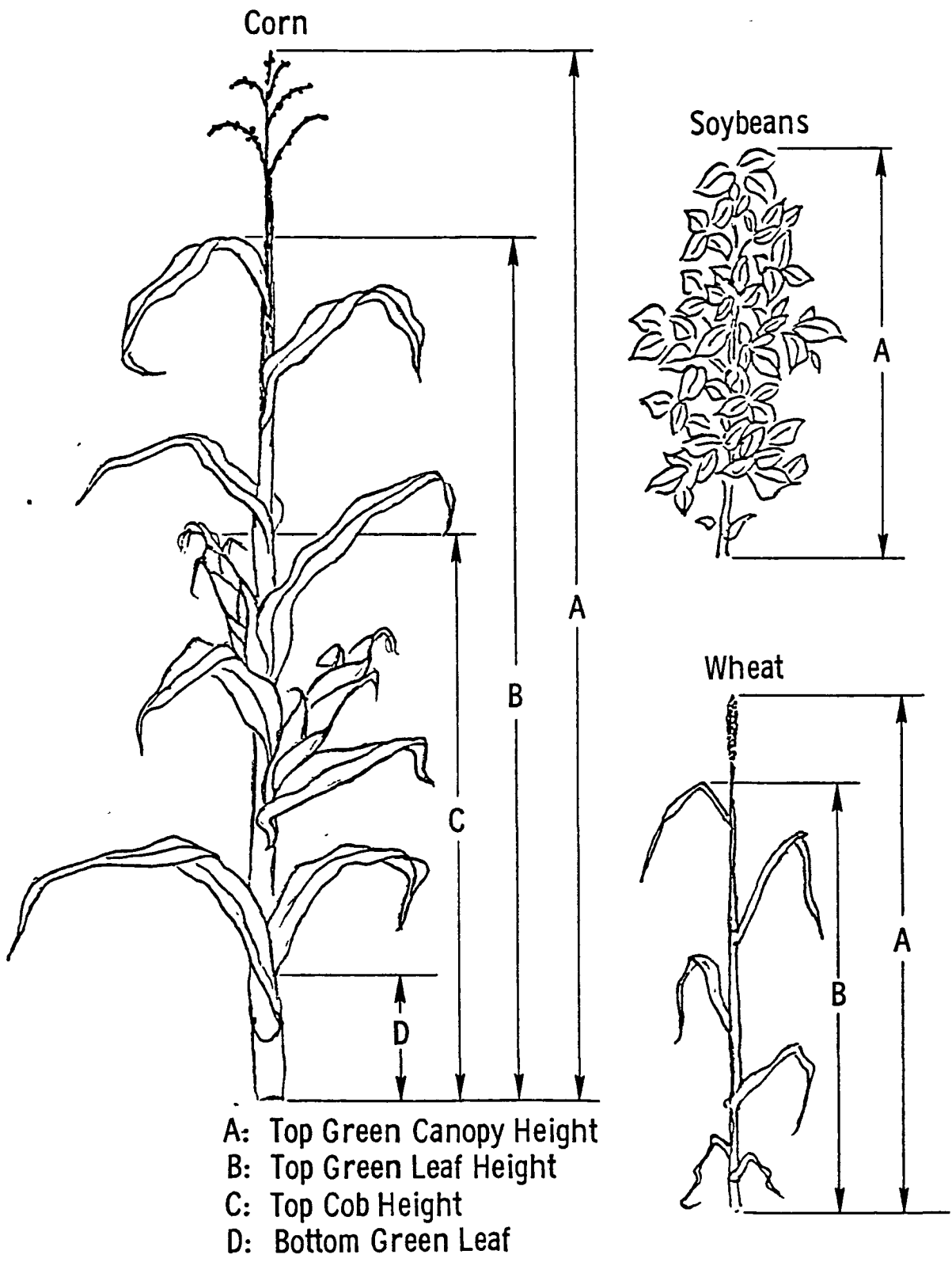


Figure 7. Canopy height measurements.

The number of mature beans per plant was calculated as a proportion of the weight of 100 beans to the weight of all the beans from 12 plant samples and divided by 12. The soybean-density data are summarized in Appendix III.c.2.

### 6.1.3 Biomass Data

After height determination, plants were cut at the soil juncture using the following method:

- Wheat: all plants whose stems were within 15 cm of row from each of six locations.
- Corn: one plant from each of six locations.
- Soybeans: same as wheat.

To prevent loss of moisture, the vegetation samples were placed in plastic bags and tied securely as soon as they were taken. On each bag, the date and the field number were written in indelible ink. A data card containing information about height and other field-observation information was included in each bag. The samples were then transported to the field laboratory as soon as possible for processing (vegetation samples were not taken until plants were over 15 cm in height).

In the field lab, vegetation samples were processed in the following manner:

A mean canopy height was calculated from the six locations sampled. For wheat, the average head length was deducted from the mean, and the upper ends of the plant samples were lined up. The plant samples were then



subdivided into plant parts from the three layers of the canopy. The thickness of each canopy layer was one-third of the mean canopy height as measured downward from the tops of the plant samples. Thus, the upper and middle layers are of equal thickness, while the bottom layer may be thicker or thinner since the canopy height of the individual plants varies about the mean (see Figure 8). Vegetation samples were subdivided into:

- Wheat:
1. grain heads (after heading)
  2. upper layer (leaves and stems)
  3. middle layer (leaves and stems)
  4. bottom layer (leaves and stems)

- Corn:
1. upper-layer leaves
  2. upper-layer stems
  3. middle-layer leaves
  4. middle-layer stems
  5. upper cob
  6. lower cob
  7. lower-layer leaves
  8. lower-layer stems

- Soybeans:
1. upper layer (leaves, stems, and pods)
  2. middle layer " " "
  3. lower layer " " "

The gross weight (including bag weight) of all vegetative material in a given layer for each plant part was

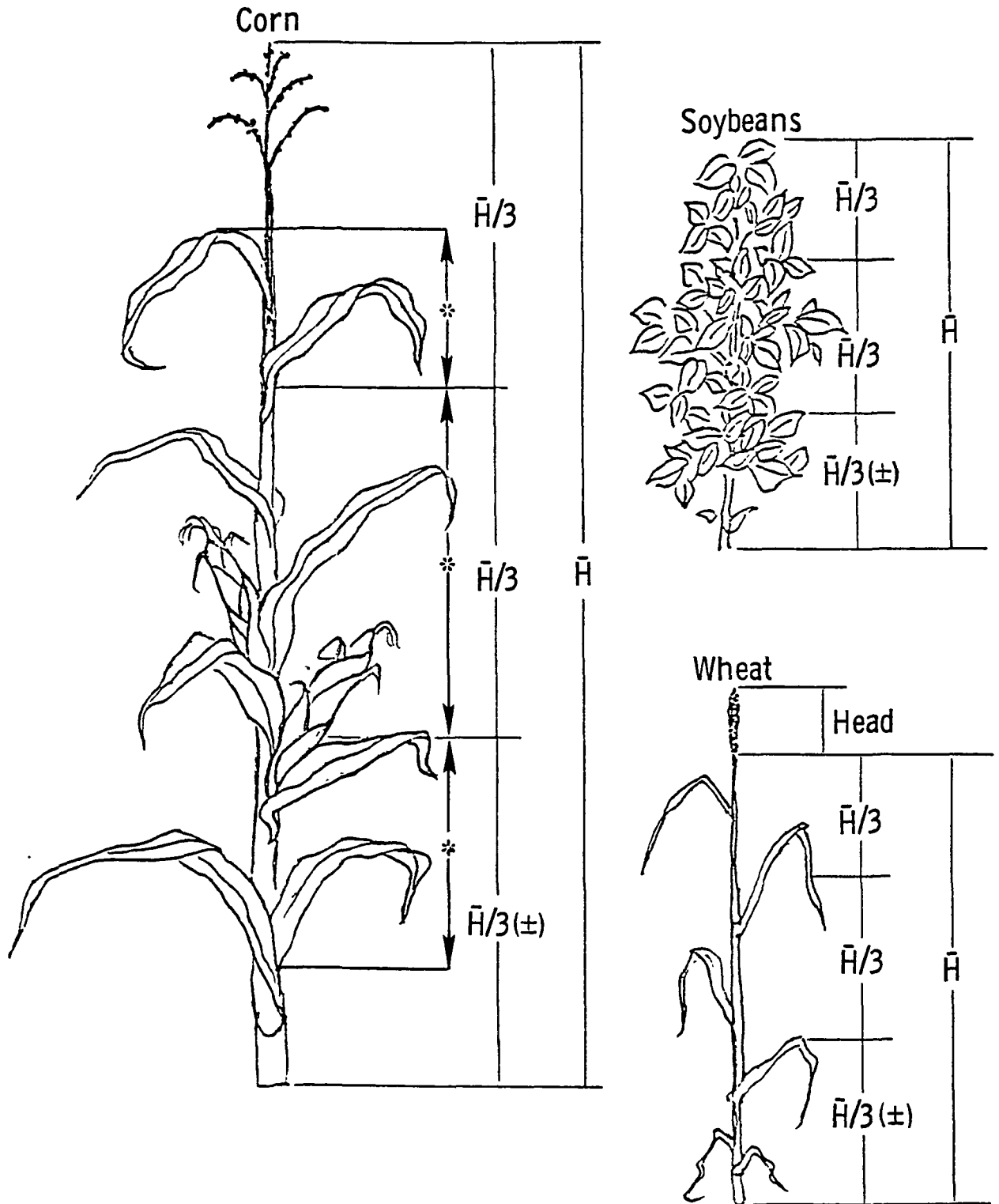


Figure 8. Plant subdivisions for biomass sampling.  
 Note: 1. Divisions of wheat and soybeans are treated as planes passing through canopy.  
 2. Divisions of corn are relative to stalk only (not planary).

\*Denotes the leaf layer thickness pertinent to density calculations.

recorded separately on a field-data sheet. Sample size, i.e., the number of plants contained in the length of row sampled, was also recorded if it was different from that given above.

Once each week the vegetation samples from each field were bagged and dried at an approximate temperature of 65°C in a closed drying van, until weight change was less than one-tenth of a gram. A gas heater and a dehumidifier were operated in the van to maintain the temperature and to expedite the drying process.

The following formulas were used to determine the vegetation characteristics of each plant part:

$$\% \text{ Plant Moisture} = \frac{\text{wet weight (g)} - \text{dry weight (g)}}{\text{wet weight (g)}} \times 100 (\%)$$

$$\text{Wet Biomass Density} = \frac{\text{wet weight (g)}/1000}{\text{RL} \cdot \text{SL} \cdot \text{RS} \cdot \text{HT}} \quad (\text{kg/m}^3)$$

$$\text{Dry Biomass Density} = \frac{\text{dry weight (g)}/1000}{\text{RL} \cdot \text{SL} \cdot \text{RS} \cdot \text{HT}} \quad (\text{kg/m}^3)$$

$$\text{Plant Water Density} = \frac{\text{wet weight (g)} - \text{dry weight (g)}}{\text{RL} \cdot \text{SL} \cdot \text{RS} \cdot \text{HT} \cdot 1000} \quad (\text{kg/m}^3)$$

where:

Wet Weight = wet biomass weight from six locations (g),

dry Weight = dry biomass weight from six locations (g),

RL = row length sampled (m),

SL           = number of sample locations (6),  
RS           = row separation (m),  
HT           = height of plant or plant part (cm).

Calculated vegetation data values are reported in Appendices III.2.1, III.b.1, and III.b.1. (See page 87 for further details on the calculation of corn vegetation data).

#### 6.1.4 Growth-Stage Observations (and Farm Operations)

The crop-growth stage of each field was monitored once a week using the Large Area Crop Inventory Experiment (LACIE) scheme given in Appendix III.e. Additionally, each field was rated for crop damage and weed condition using the code and scaling system also given in Appendix III.e.

Two color slides of each field were obtained on a weekly basis showing field number, date, and general field condition. One was a general view of the field and the other was a close-up of the field, taken to show crop and soil conditions in more detail. The growth-stage observations are listed in Appendix III.f.

For each field, information on the following agricultural operations was maintained as obtained from farm operators. These include pre-planting tillage operations, planting date, seed variety, herbicide and pesticide application, fertilizer application and rate, cultivation date, harvest date, and yield. This information is reported in Appendix III.h.

#### 6.1.5 Leaf-Area Index

A limited investigation into the relationship between

the leaf area and biomass of corn and soybean crops was also undertaken at the time. Two fields of corn (C1 and C3) and one field of soybeans (S3) were visited at least once per week throughout the growth cycle. Sampling consisted of five locations per field, one plant per location. Green and chloritic leaf areas were measured using a portable leaf-area meter, LI-COR 2000.

Area measurements of the corn plants could not be taken in situ because of the shredding of the leaves by the wind. Measurements were not possible for soybeans either, due to the trifoliate structure of the bean leaf. For these reasons, the leaves of a given plant were removed at their bases and placed in a clear plastic sheath. This allowed shredded leaves to be passed through the meter without an overlay and thus without subsequent data falsification. This also allowed dry, cracked leaves to be run through without their falling apart inside the meter. The plastic sheath itself only added  $0.5 \text{ cm}^2$  to the measurement, while it greatly increased repeatability.

After leaf-area determination, wet- and dry-biomass weights were obtained for each of three parts of each plant: leaves, stalks, and fruit. Soil moisture was also determined at each location, for 0- to 5-cm depths.

An evaluation of a proposed alternative sampling routine was incorporated into the leaf-area index experiment. This involved comparison of plant percent moistures from whole plants as well as plant subsamples. A subsample of that

plant part taken from several locations on the plant, totalling approximately 25 grams. For example, a stalk subsample might include a small section taken from the top, middle, and bottom regions of the stalk.

## 6.2 Soil Data

Soil data include bulk-density profiles, soil texture, surface roughness, and soil moisture.

### 6.2.1 Soil Moisture

Soil moisture samples were obtained for the 0- to 2-cm and the 2- to 5-cm depths at the six sampling locations shown in Figure 3. They were obtained within one hour before or after a radar measurement. An adequate sample consisted of at least 100 grams of dry material.

Tillage practices resulted in a distinct ridge-and-furrow pattern. Since soil moisture distribution varies from trough to crest, it was necessary to acquire two sets of soil samples: one from the peak and the other from the trough. Samples were taken from the peaks of the ridge crests at locations 2, 4, and 6 on even-numbered days and from the ridge crests of locations 1, 3, and 5 on odd-numbered days. If furrows were not distinctive, soil moisture samples were taken from between the rows.

Samples were obtained from a randomly selected spot at a given location. Soil samples of the 0- to 2-cm and 2- to 5-cm layers were each placed in a paper cup (the soil samples were to fill at least half the cup). Plastic lids were then firmly affixed, and the samples were transported as

soon as possible to the support van or to the field laboratory for processing. The wet samples were weighed and then dried in a microwave oven until dry weight change was less than one-tenth of a gram. The drying time varied according to the amount of moisture in the soil samples, and the number of samples in the oven.

The gravimetric soil moisture ( $M_g$ ) was computed for each depth as a percentage of the dry weight of soil as follows:

$$M_g = \frac{\text{wet weight (g)} - \text{dry weight (g)}}{\text{dry weight (g)}} \times 100.$$

All sample values, means, standard deviations, and coefficients of variation are reported in Appendices III.a.3, III.b.3, and III.c.3.

#### 6.2.2 Soil Bulk Density

A straight-sided steel corer with a diameter of 4.7 cm was used to extract soil samples of a known volume. The corer had lines engraved at 1-cm intervals on its exterior surface.

The soil-bulk-density profile was measured three times for each field of corn and soybeans, and twice for each wheat field. Bulk-density soil samples were taken at six locations per field, and at two depths per location: 0-2 cm and 2-5 cm. Both ridge- and furrow-measurements were obtained at each visit to provide a representative sample of the field's

surface variations.

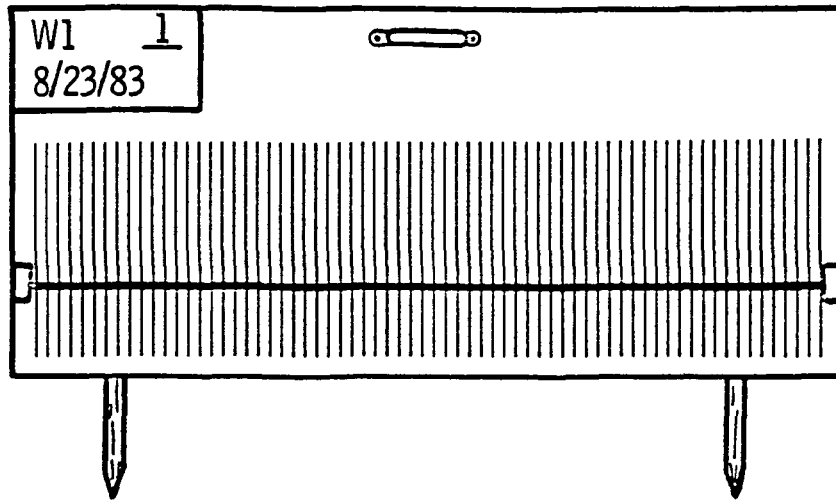
Soils containing high percentages of clay or organic matter made it more difficult to obtain accurate volumes. For all soil types, bulk density values for samples taken from the top 0-2 cm were less accurate than those taken from the 2- to 5-cm depth. This was due to the rough surface of the soil, especially after tilling. The soil-bulk density measurements are reported in Appendix III.d.1. The statistics for the correlation between gravimetric moisture and bulk density (0-5 cm) are reported in Appendix III.b.2.

#### 6.2.3 Surface Roughness

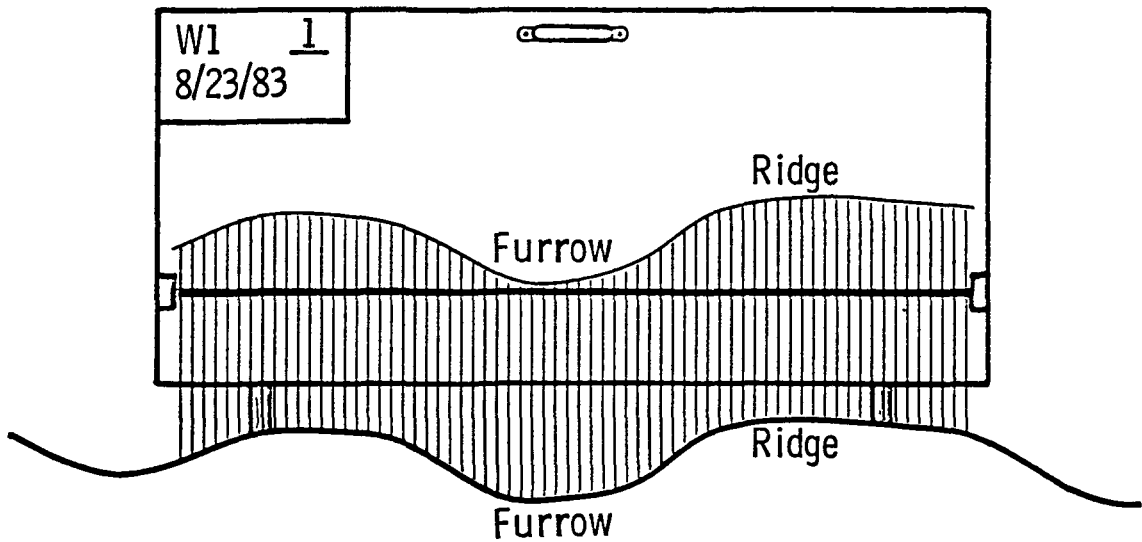
The soil surface roughness was measured with a "Ruffiometer," which was composed of a panel 123.5 cm in length with approximately 400 closely spaced pins mounted along the front of the panel (see Fig. 9). A frame with legs was used to hold the panel above the ground. This allowed a surface measurement to be taken with a minimum of disturbance to the surface microstructure. The panel was then made level by means of a leveling bubble, and the pins were released. The pins, painted black, were used to transfer the soil profile from ground level to a point midway up the white panel.

Once the panel was in place and level, it was photographed using large-format film and then moved in order to produce one contiguous profile. Two profiles were taken for a given field: (1) a profile perpendicular to the row direction (8 panels in length), and (2) a profile parallel to





- a. The pins are mounted along the front of the panel. The field number, orientation, and date are written in the upper lefthand corner of the panel.



- b. The pins are released and the soil roughness profile is transferred to the panel.

Figure 9. Soil surface roughness measurement with "Ruffiometer."

the rows (4 panels in length). The film was then processed and the negative was loaded onto a Video Digitizer (VDI) for quantification. After each image was digitized, the resulting lines were matched up to produce a continuous profile of the soil surface.

#### 6.2.4 Soil Texture

Soil samples for texture analysis were collected from six locations per field as shown in Figure 3. Texture determinations were made by the hydrometric method at the RSL Soils Laboratory. The results are reported in Appendix III.g.

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The experiment program was planned, coordinated, and executed by M. C. Dobson and D. Brunfeldt under the supervision of Dr. F. T. Ulaby, Principal Investigator.

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## APPENDIX I

### MEASUREMENT LOG

- Notes:
1. C, X-20, 50 indicates that radar measurements were made at C- and X-bands at angles of incidence of 20° and 50°.
  2. MMR measurements are marked with asterisks (\*).
  3. The numbers represent the test fields observed.
  4. Julian dates appear in parentheses.
  5. Abbreviations:
    - SM - Soil Moisture
    - VEG - Vegetation
    - BD - Soil Bulk Density
    - DEF - Defoliation Experiment
    - ROW - Row-Direction Experiment

Date (Julian)	Wheat		Corn		Soybeans		Notes
	SM	VEG	SM	VEG	SM	VEG	
04/10(100)	1-10						X-50
04/11(101)							
04/12(102)	1-10						
04/13(103)							
04/14(104)							
04/15(105)							
04/16(106)	1-10						
04/17(107)							
04/18(108)							
04/19(109)	1-3	1-4					X-50
04/20(110)							
04/21(111)							
04/22(112)							
04/23(113)							
04/24(114)							
04/25(115)							
04/26(116)	1-10	1-10					X-50 BD:W1-W10
04/27(117)							
04/28(118)							
04/29(119)							
04/30(120)	1-10	1-10	1-10	1-10			X-50

Date (Julian)	Wheat		Corn		Soybeans		Notes
	Radars	SM	Radars	SM	Radars	SM	
05/01(121)	1-10						X-50
05/02(122)							
05/03(123)	1-10	1-10	1-10				X-50
05/04(124)							
05/05(125)							
05/06(126)							
05/07(127)	1-8	1-9	1-9				X-50
05/08(128)							
05/09(129)							
05/10(130)	1-10	1-10					X-50
05/11(131)							
05/12(132)							
05/13(133)							
05/14(134)	1-10	1-10	1-10				X-50
05/15(135)							
05/16(136)							
05/17(137)	3-11	1-7	1-7				X-50
05/18(138)							
05/19(139)	1-4, 8-11	1-3, 9	1-3, 9	1-3, 7-10	1-3, 6-10	1-3, 7-10	X-50 started 6 lots
05/20(140)							
05/21(141)	3-8	1-9	1-9	1-8	1-6	1-9	X-50



Date (Julian)	Wheat		Corn		Soybeans		Notes
	Radar	SM	VEG	Radar	SM	Radar	
05/22(142)							
05/23(143)							
05/24(144)	1-4, 8	4-5, 8	4-5, 8	1-3, 6	6		X-50
05/25(145)							
05/26(146)	3-10	1-3, 9-10	1-3, 9-10	1-10	1-3, 8-10		X-50
05/27(147)							
05/28(148)							
05/29(149)							
05/30(150)							
05/31(151)							
06/01(152)	3-10	1-3, 5-10	1-3, 5-10	1, 3-10	3-10		X-50
06/02(153)	1-10	3-5-5, 8-9	3-5-6, 8-9	1-10	1, 3-9		X-50
06/03(154)							BD:C1-C10
06/04(155)	3-10	1-4, 8-10		1-10	1-3, 7-10		X-50
06/05(156)							
06/06(157)							
06/07(158)	3-10	3, 5-10	3, 5-10	3-10	3-10		X-50
06/08(159)							
06/09(160)	3-8,10	3,5-8, 10	3,5-8, 10	3,6	3,6,10	3-6	X-50
06/10(161)							
06/11(162)							

Date (Julian)	Wheat		Corn		Soybeans		Notes
	RadAr	SM	VEG	RadAr	SM	RadAr	
06/12(163)							
06/13(164)							
06/14(165)	3,8	1-3, 8-10	1-3, 8-10	1-3, 6-9	1-3,6, 9-10	3,5-6, 10	X-50
06/15(166)							
06/16(167)	1-10	1-3, 5-10	1-3, 5-10	1-10	1-10	3,5-6, 10,21	X-50
06/17(168)							BD:C6
06/18(169)	3-10	5-8, 10	3,5-8,3,5-7, 10	3-6, 9,10	3-6, 10	3,5-6, 21	X-50
06/19(170)							
06/20(171)							
06/21(172)	1-10	1-3, 5-10	1-3, 5-10	1-9	1-10	3-6, 10	X-50
06/22(173)	2,3			1,4*		3*	BD:S3-S6, S10
06/23(174)	3-4,8	3	3	3,6	3	3-6,10	X-50
06/24(175)	2,3			1,4*		3*	
06/25(176)	1-10	1-3, 5-10	1-3, 5-10	1-10	1-10	3-6, 10,21	X-50
06/26(177)							
06/27(178)							
06/28(179)	1-10	1-3, 5-10	1-3, 5-10	1-10	1-10	3,5-6, 21	X-50
06/29(180)							BD:W1-W10
06/30(181)							
07/01(182)							
07/02(183)	2,7*	9-10	9-10	1*	9-10	4,6*	

Date(Julian)	Wheat		Corn		Soybeans		Notes
	Radar	SM	VEG	Radar	SM	VEG	
07/03(184)			6				
07/04(185)							
07/05(186)							
07/06(187)		1-6, 8	1-5, 7	1-6	3-6, 9,21	3-6, 21	
07/07(188)	1*	1-4, 8-10	1,3-4,1,6* 8-10	1-3, 6-10	1-3,6,6* 7-10	3-5, 10	
07/08(189)	1*		1*		4,6*		
07/09(190)	4-8	5,9-10 9-10	5,7, 9	4-6 9-10	4-5, 7-10	6,10, 21	x-50
07/10(191)							
07/11(192)							
07/12(193)	3,5-7 1*,3*	1,5,8, 10	4-5,7 7	1-6 9-10	1-7, 9-10	2-6, 8,21	3-6,8, 10,21 x-50
07/13(194)	3**	1,5, 8-10	7	1**,7-8 2-3	1,4-10 4-10	2-6, 8-9,21	**C,X-30 C,X-50 corn def
07/14(195)							
07/15(196)		1,9			1-10	3-6	1,6, 10 5
07/16(197)							
07/17(198)							
07/18(199)							
07/19(200)					1-6	1-5,7-9	B0:C1-C6 S1,S4-S6 C,X-50
07/20(201)					1-7,9 10,1*	7-10 7-10(B0)	B0:S2,S7,S10 corn row
07/21(202)					1-3, 6-9	2,3* 2,3*	corn row
07/22(203)						21	soybean def
07/23(204)					1*,b1*	1-10 1-10	1,4-6, 10

Date(Julian)	Wheat		Corn		Soybeans		Notes
	Radar	SM	Radar	SM	Radar	SM	
07/24(205)					VEG		
07/25(206)					VEG		
07/26(207)			1-3,6-9 1*,b1*	1-10	1-10	1-3,5-10,b1 b1,1*,3*	3-6,8, 10 C,X-20,50 BD:53,58-59,52
07/27(208)							
07/28(209)			4,6-9 b1	1-8	1-9	4-10	1-10, 7-8 C,X-20,50
07/29(210)							soybean row
07/30(211)			1-3,6-9 b1*,1*	1-3, 6-8	1-3, 6-9	1-7,10 1*,3*	1-7, 10 C,X-20,50
07/31(212)							
08/01(213)							
08/02(214)			1-3 b1	1-3, 7-9	1-5, 7-9	1-3	1-3,6, 8-9 C,X-20,50
08/03(215)			5-9 1*,b1*	7-9		6,10 2*,3*	C,X-20,50
08/04(216)			4-6,9 1*,b1*	4-9	5-9	6-9,b2 1*,3*	5-7, 10,21 C,X-20,50
08/05(217)							
08/06(218)			1-3	3	1-6	2,3	
08/07(219)							
08/08(220)							
08/09(221)			1-9 b1	2-9	1-9	1-10 b2	1-9, 21 1-10
08/10(222)							
08/11(223)				1	1		
08/12(224)							2
08/13(225)							

Date (Julian)	Wheat		Corn		Soybeans		Notes
	Radar	SM	Radar	SM	Radar	SM	
08/16(228)			1-9	1-6	1-10 b2 1*,3	1-9, 21	1-10,21 21 corn def
08/17(229)			1*				
08/18(230)			2-3,7-9 b1*,1*	1-3 7-9	1-4, 10,1*	1-4	1-3 4,6 soybean row
08/19(231)							
08/20(232)			b1*	1	1*		6
08/21(233)						21	21
09/02(245)			1,3, 7-9	1-3,7,9	1-4, 10	1-4,	1-4, 10 BD:C1-C3, S1-S4
09/09(252)			1-3, 6-7	1-3, 6-7	1-10	1-9	1-10 C,X-20,60
09/10(253)						21	
09/11(254)							
09/12(255)							
09/13(256)			1*		1*,3*	21	21
09/14(257)							
09/15(258)							
09/16(259)			1-4 1*	1-3, 6-7	1-10 1*,3*	1-10	1-10 C,X-20,60 alfalfa
09/17(260)						21	21
09/18(261)							
09/19(262)							
09/20(263)							
09/21(264)			1*		1*,3*		corn def
09/22(265)			1*		1*,3*		corn def

Date (Julian)	Wheat		Corn		Soybeans		Notes
	Radar	SM	Radar	SM	Radar	SM	
09/23(266)	2		2	2	1-4, 10, 21	1-4, 10, 21	C, X-20, 60 BD: S1-S2
09/24(267)	1*				1*, 3*		
09/25(268)							
09/26(269)							
09/27(270)					1*, 3*		
09/28(271)			2	2	1-10, 21	1-10, 21	C, X-20, 60 BD: S7-S9
09/29(272)					1*, 3*		
09/30(273)	2		2	2	1-10, 21	1-10, 21	C, X-20, 50 soybean row
10/01(274)					5821(80)		
10/02(275)							
10/03(276)							
10/04(277)							
10/05(278)	2		2	2	1-5, 7-9	1-9	C, X-20, 50 soybean def
10/06(279)							
10/07(280)					1-2, 7-9, 1*, 3*	1-2, 7-9	C, X-20, 50 alfalfa

**APPENDIX II**

**SENSOR DATA SUMMARY**

- a. Radar Data Summary
- b. MMR Data Summary

# Appendix II.a

## Badac Data Summary

FD	April	May	June	July	August	September	October
W1	10 19 26 30	1 3 7 10 14	19 24	16 21 25 28			
W2	10 19 26 30	1 3 7 10 14	19 24	16 21 25 28			
W3	10 19 26 30	1 3 7 10 14	17 19 21 24 26	12 13 23 25 28			
W4	10 19 26 30	1 3 7 10 14	17 19 21 24 26	9 12 23 25 28			
W5	10 19 26 30	1 3 7 10 14	17 19 21 24 26	9 12 23 25 28			
W6	10 19 26 30	1 3 7 10 14	17 19 21 24 26	9 12 23 25 28			
W7	10 19 26 30	1 3 7 10 14	17 19 21 24 26	9 12 23 25 28			
W8	10 19 26 30	1 3 7 10 14	17 19 21 24 26	9 12 23 25 28			
W9	10 19 26 30	1 3 7 10 14	17 19 21 24 26	9 12 23 25 28			
W10	10 19 26 30	1 3 7 10 14	17 19 21 24 26	9 12 23 25 28			
C1			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12
C2			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12
C3			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12
C4			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12
C5			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12
C6			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12
C7			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12
C8			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12
C9			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12
C10			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12
S1			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12 14 19 21
S2			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12 14 19 21 26
S3			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12 14 19
S4			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12 14
S5			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12 14
S6			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12 14 19 21 26
S7			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12 14 19 21 26
S8			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12 14 19 21 26
S9			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12 14 19 21 26
S10			19 21 24 26	12 13 20 26 30	6 9 16 18	9 16 23 30	5 12 14 19 21 26

Note: 1. The numbers represent the dates measurements were taken.  
 2. Abbreviations: FD - Field Designation  
 W - Wheat Field  
 C - Corn Field  
 S - Soybean Field



Appendix II.b  
MMR Data Summary

FD June	July	August	September	October
B1	23 26 30	3 4 18 20		
C1 22 24	2 7 8 20 23 26 30	3 4 17 18	13 16 21 22 24	
C4 22 24				
C6	7			
GR		18		
S1	23 26 30	4 18 20	13 16 21 22 24 27 28	7 11 12 14
S2		3		
S3 22 24	12 20 23 26 30	3 4 17	13 16 21 22 24 27 28	7 11 12
S4	2 8			
S6	2 7 8			
WA	26			
W1	7 8 12			
W2 22 24	2			
W3 22 24	12 20			
W7	2			

Note: 1. The numbers represent the dates measurements were taken.

2. Abbreviations: FD - Field Designation  
 B - Bare Soil  
 C - Corn Field  
 GR - Grass  
 S - Soybean Field  
 WA - Water  
 W - Wheat Field

## APPENDIX III.a

### GROUND-TRUTH DATA - WHEAT

1. Wheat Vegetation Data
2. Plant Density Data
3. Soil Moisture Data

Appendix III.a.1

Wheat Vegetation Data

Wheat Field # 1 DATE: 4/30/82 (Julian:120)  
 Time:12:49 Mean Canopy Height: 40.7 cm Top Leaf Height: 40.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0. 82.02 79.76 77.01 80.02 80.02  
 Wet Biomass Density: 0. 6.66 5.48 3.96 5.36 5.36  
 Dry Biomass Density: 0. 1.20 1.11 0.91 1.07 1.07  
 Plant Water Density: 0. 5.46 4.37 3.05 4.29 4.29

Wheat Field # 1 DATE: 5/ 3/82 (Julian:123)  
 Time:13:15 Mean Canopy Height: 40.7 cm Top Leaf Height: 40.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0. 82.79 84.80 83.60 83.75 83.75  
 Wet Biomass Density: 0. 7.06 7.63 7.87 7.52 7.52  
 Dry Biomass Density: 0. 1.22 1.16 1.29 1.22 1.22  
 Plant Water Density: 0. 5.85 6.47 6.58 6.30 6.30

Wheat Field # 1 DATE: 5/ 7/82 (Julian:127)  
 Time:14:05 Mean Canopy Height: 44.0 cm Top Leaf Height: 44.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0. 89.34 83.04 83.38 84.91 84.91  
 Wet Biomass Density: 0. 7.88 10.85 9.48 9.40 9.40  
 Dry Biomass Density: 0. 0.84 1.84 1.57 1.42 1.42  
 Plant Water Density: 0. 7.04 9.01 7.90 7.98 7.98

Wheat Field # 1 DATE: 5/14/82 (Julian:134)  
 Time:13:50 Mean Canopy Height: 68.7 cm Top Leaf Height: 68.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0. 83.13 82.77 91.34 85.15 85.15  
 Wet Biomass Density: 0. 8.13 8.80 6.05 7.66 7.66  
 Dry Biomass Density: 0. 1.37 1.52 0.52 1.14 1.14  
 Plant Water Density: 0. 6.76 7.29 5.52 6.52 6.52

Wheat Field # 1 DATE: 5/17/82 (Julian:137)  
 Time:15:28 Mean Canopy Height: 70.7 cm Top Leaf Height: 70.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0. 78.16 79.30 85.68 81.96 81.96  
 Wet Biomass Density: 0. 3.98 4.79 7.48 5.41 5.41  
 Dry Biomass Density: 0. 0.87 0.99 1.07 0.98 0.98  
 Plant Water Density: 0. 3.11 3.80 6.41 4.44 4.44

Wheat Field # 1 DATE: 5/19/82 (Julian:139)  
 Time:10:26 Mean Canopy Height: 76.2 cm Top Leaf Height: 67.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0. 7.43 12.06 13.63 11.04 11.04  
 Wet Biomass Density: 0. 7.43 12.06 13.63 11.04 11.04  
 Dry Biomass Density: 0. 7.43 12.06 13.63 11.04 11.04  
 Plant Water Density: 0. 7.43 12.06 13.63 11.04 11.04

Wheat Field # 1 DATE: 5/21/82 (Julian:141)  
 Time:15:07 Mean Canopy Height: 85.0 cm Top Leaf Height: 78.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0. 5.28 16.07 21.25 14.20 14.20  
 Wet Biomass Density: 0. 5.28 16.07 21.25 14.20 14.20  
 Dry Biomass Density: 0. 5.28 16.07 21.25 14.20 14.20  
 Plant Water Density: 0. 5.28 16.07 21.25 14.20 14.20

Wheat Field # 1 DATE: 5/24/82 (Julian:144)  
 Time:12:05 Mean Canopy Height: 91.5 cm Top Leaf Height: 75.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0. 5.28 16.07 21.25 14.20 14.20  
 Wet Biomass Density: 0. 5.28 16.07 21.25 14.20 14.20  
 Dry Biomass Density: 0. 5.28 16.07 21.25 14.20 14.20  
 Plant Water Density: 0. 5.28 16.07 21.25 14.20 14.20

Wheat Field # 1 DATE: 5/26/82 (Julian:146)  
 Time:13:07 Mean Canopy Height: 94.7 cm Top Leaf Height: 76.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 12.39 3.54 7.34 8.03 6.30 6.89  
 Wet Biomass Density: 12.39 3.54 7.34 8.03 6.30 6.89  
 Dry Biomass Density: 12.39 3.54 7.34 8.03 6.30 6.89  
 Plant Water Density: 12.39 3.54 7.34 8.03 6.30 6.89

Wheat Field # 1 DATE: 6/ 1/82 (Julian:152)  
 Time:15:07 Mean Canopy Height: 109.0 cm Top Leaf Height: 78.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 14.80 3.20 7.29 6.71 5.73 6.50  
 Wet Biomass Density: 14.80 3.20 7.29 6.71 5.73 6.50  
 Dry Biomass Density: 14.80 3.20 7.29 6.71 5.73 6.50  
 Plant Water Density: 14.80 3.20 7.29 6.71 5.73 6.50

Wheat Field # 1 DATE: 6/ 2/82 (Julian:153)  
 Time:09:41 Mean Canopy Height: 88.5 cm Top Leaf Height: 63.8 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 16.69 3.03 7.73 8.12 6.29 7.24  
 Wet Biomass Density: 16.69 3.03 7.73 8.12 6.29 7.24  
 Dry Biomass Density: 16.69 3.03 7.73 8.12 6.29 7.24  
 Plant Water Density: 16.69 3.03 7.73 8.12 6.29 7.24

Wheat Field # 1 DATE: 6/ 4/82 (Julian:155)  
 Time:14:25 Mean Canopy Height: 101.5 cm Top Leaf Height: 72.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 16.69 3.03 7.73 8.12 6.29 7.24  
 Wet Biomass Density: 16.69 3.03 7.73 8.12 6.29 7.24  
 Dry Biomass Density: 16.69 3.03 7.73 8.12 6.29 7.24  
 Plant Water Density: 16.69 3.03 7.73 8.12 6.29 7.24

Wheat Field # 1 DATE: 6/14/82 (Julian:165)  
 Time:14.40 Mean Canopy Height: 101.3 cm Top Leaf Height: 73.0 cm  
 Plant Parts: Head Top1/3 Midl/3 Lowl/3 All Layers Whole Plant  
 % Plant Moisture: 55.14 64.63 70.18 69.00 68.79 65.43  
 Wet Biomass Density: 9.88 1.32 3.28 4.46 3.02 3.64  
 Dry Biomass Density: 4.43 0.47 0.98 1.38 0.94 1.26  
 Plant Water Density: 5.45 0.85 2.30 3.08 2.08 2.38

Wheat Field # 1 DATE: 6/16/82 (Julian:167)  
 Time:09.14 Mean Canopy Height: 99.0 cm Top Leaf Height: 75.5 cm  
 Plant Parts: Head Top1/3 Midl/3 Lowl/3 All Layers Whole Plant  
 % Plant Moisture: 14.13 2.56 5.01 6.12 4.57 5.46  
 Wet Biomass Density: 14.13 2.56 5.01 6.12 4.57 5.46  
 Dry Biomass Density: 14.13 2.56 5.01 6.12 4.57 5.46  
 Plant Water Density: 14.13 2.56 5.01 6.12 4.57 5.46

Wheat Field # 1 DATE: 6/21/82 (Julian:172)  
 Time:09.38 Mean Canopy Height: 97.2 cm Top Leaf Height: 74.0 cm  
 Plant Parts: Head Top1/3 Midl/3 Lowl/3 All Layers Whole Plant  
 % Plant Moisture: 37.44 58.66 65.31 65.70 64.38 58.06  
 Wet Biomass Density: 12.28 1.94 7.29 3.32 4.18 4.95  
 Dry Biomass Density: 7.68 0.80 2.53 1.14 1.49 2.08  
 Plant Water Density: 4.60 1.14 4.76 2.18 2.69 2.87

Wheat Field # 1 DATE: 6/25/82 (Julian:176)  
 Time:11.10 Mean Canopy Height: 95.2 cm Top Leaf Height: 74.3 cm  
 Plant Parts: Head Top1/3 Midl/3 Lowl/3 All Layers Whole Plant  
 % Plant Moisture: 8.08 1.67 2.92 3.94 2.84 3.35  
 Wet Biomass Density: 8.08 1.67 2.92 3.94 2.84 3.35  
 Dry Biomass Density: 8.08 1.67 2.92 3.94 2.84 3.35  
 Plant Water Density: 8.08 1.67 2.92 3.94 2.84 3.35

Wheat Field # 1 DATE: 6/28/82 (Julian:179)  
 Time:13.50 Mean Canopy Height: 84.0 cm Top Leaf Height: 65.2 cm  
 Plant Parts: Head Top1/3 Midl/3 Lowl/3 All Layers Whole Plant  
 % Plant Moisture: 19.08 41.21 58.10 60.59 57.43 48.42  
 Wet Biomass Density: 9.03 1.21 4.38 5.26 3.62 4.21  
 Dry Biomass Density: 7.31 0.71 1.84 2.07 1.54 2.17  
 Plant Water Density: 1.72 0.50 2.55 3.19 2.08 2.04

Wheat Field # 1 DATE: 7/ 6/82 (Julian:187)  
 Time:10.37 Mean Canopy Height: 41.8 cm Top Leaf Height: cm  
 Plant Parts: Head Top1/3 Midl/3 Lowl/3 All Layers Whole Plant  
 % Plant Moisture: 0.00 0.00 0.00 0.00 0.00 10.04  
 Wet Biomass Density: 0.00 0.00 0.00 0.00 0.00 0.00  
 Dry Biomass Density: 0.00 0.00 0.00 0.00 0.00 0.00  
 Plant Water Density: 0.00 0.00 0.00 0.00 0.00 0.00

Wheat Field # 1 DATE: 7/ 7/82 (Julian:188)  
 Time:13.43 Mean Canopy Height: 23.8 cm Top Leaf Height: cm  
 Plant Parts: Head Top1/3 Midl/3 Lowl/3 All Layers Whole Plant  
 % Plant Moisture: 0.00 0.00 0.00 0.00 0.00 12.42  
 Wet Biomass Density: 0.00 0.00 0.00 0.00 0.00 0.00  
 Dry Biomass Density: 0.00 0.00 0.00 0.00 0.00 0.00  
 Plant Water Density: 0.00 0.00 0.00 0.00 0.00 0.00

Wheat Field # 2 DATE: 4/30/82 (Julian:120)  
 Time:12.55 Mean Canopy Height: 36.3 cm Top Leaf Height: 36.3 cm  
 Plant Parts: Head Top1/3 Midl/3 Lowl/3 All Layers Whole Plant  
 % Plant Moisture: 0. 77.67 80.18 80.27 79.45 79.45  
 Wet Biomass Density: 0. 6.43 5.94 8.56 6.98 6.98  
 Dry Biomass Density: 0. 1.44 1.18 1.69 1.43 1.43  
 Plant Water Density: 0. 4.99 4.76 6.87 5.54 5.54

Wheat Field # 2 DATE: 5/ 3/82 (Julian:123)  
 Time:13.20 Mean Canopy Height: 43.7 cm Top Leaf Height: 43.7 cm  
 Plant Parts: Head Top1/3 Midl/3 Lowl/3 All Layers Whole Plant  
 % Plant Moisture: 0. 83.99 84.96 86.45 85.06 85.06  
 Wet Biomass Density: 0. 7.66 8.71 6.61 7.66 7.66  
 Dry Biomass Density: 0. 1.23 1.31 0.90 1.14 1.14  
 Plant Water Density: 0. 6.43 7.40 5.71 6.52 6.52

Wheat Field # 2 DATE: 5/ 7/82 (Julian:127)  
 Time:14.00 Mean Canopy Height: 48.0 cm Top Leaf Height: 48.0 cm  
 Plant Parts: Head Top1/3 Midl/3 Lowl/3 All Layers Whole Plant  
 % Plant Moisture: 0. 81.09 81.09 81.09 81.09 81.09  
 Wet Biomass Density: 0. 5.12 2.71 11.60 6.47 6.47  
 Dry Biomass Density: 0. 0.97 0.97 0.97 0.97 0.97  
 Plant Water Density: 0. 4.15 4.15 4.15 4.15 4.15

Wheat Field # 2 DATE: 5/14/82 (Julian:134)  
 Time:13.56 Mean Canopy Height: 63.3 cm Top Leaf Height: 63.3 cm  
 Plant Parts: Head Top1/3 Midl/3 Lowl/3 All Layers Whole Plant  
 % Plant Moisture: 0. 75.17 82.59 83.56 81.02 81.02  
 Wet Biomass Density: 0. 4.15 5.90 5.91 5.32 5.32  
 Dry Biomass Density: 0. 1.03 1.03 0.97 1.01 1.01  
 Plant Water Density: 0. 3.12 4.87 4.94 4.31 4.31

Wheat Field # 2 DATE: 5/17/82 (Julian:137)  
 Time:15.08 Mean Canopy Height: 65.0 cm Top Leaf Height: 65.0 cm  
 Plant Parts: Head Top1/3 Midl/3 Lowl/3 All Layers Whole Plant  
 % Plant Moisture: 0. 86.00 85.06 78.59 82.90 82.90  
 Wet Biomass Density: 0. 5.18 5.61 6.53 5.77 5.77  
 Dry Biomass Density: 0. 0.72 0.84 1.40 0.99 0.99  
 Plant Water Density: 0. 4.45 4.77 5.14 4.79 4.79

Wheat Field # 2 DATE: 5/19/82 (Julian:139)  
 Time:10:50 Mean Canopy Height: 72.3 cm Top Leaf Height: 61.2 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0. 1.77 7.04 11.97 6.93 6.93  
 Wet Biomass Density: 0. 1.77 7.04 11.97 6.93 6.93  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 2 DATE: 5/21/82 (Julian:141)  
 Time:15:10 Mean Canopy Height: 85.5 cm Top Leaf Height: 67.2 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0. 6.17 8.45 8.81 7.81 7.81  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 2 DATE: 5/24/82 (Julian:144)  
 Time:12:00 Mean Canopy Height: 100.2 cm Top Leaf Height: 80.2 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 2 DATE: 5/26/82 (Julian:146)  
 Time:13:15 Mean Canopy Height: 102.8 cm Top Leaf Height: 83.3 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 13.14 4.12 9.03 7.99 7.05 7.58  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 2 DATE: 6/1/82 (Julian:152)  
 Time:15:06 Mean Canopy Height: 102.2 cm Top Leaf Height: 86.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 13.41 2.26 5.22 6.57 4.68 5.44  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 2 DATE: 6/2/82 (Julian:153)  
 Time:09:40 Mean Canopy Height: 103.3 cm Top Leaf Height: 87.8 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 2 DATE: 6/4/82 (Julian:155)  
 Time: Mean Canopy Height: 94.2 cm Top Leaf Height: 73.5 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 15.44 2.35 6.13 6.79 5.09 6.07  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 2 DATE: 6/14/82 (Julian:165)  
 Time:14:38 Mean Canopy Height: 85.2 cm Top Leaf Height: 61.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 57.26 67.69 73.04 73.63 72.74 69.30  
 Wet Biomass Density: 12.00 1.61 5.90 7.17 4.89 5.64  
 Dry Biomass Density: 5.13 0.52 1.59 1.89 1.33 1.73  
 Plant Water Density: 6.87 1.09 4.31 5.28 3.56 3.91

Wheat Field # 2 DATE: 6/16/82 (Julian:167)  
 Time:09:35 Mean Canopy Height: 88.3 cm Top Leaf Height: 60.8 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 18.54 1.45 4.70 6.03 4.06 5.52  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 2 DATE: 6/21/82 (Julian:172)  
 Time:09:50 Mean Canopy Height: 94.0 cm Top Leaf Height: 70.2 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 44.68 55.28 64.64 67.88 65.47 58.41  
 Wet Biomass Density: 14.73 0.77 3.69 4.52 2.99 4.11  
 Dry Biomass Density: 8.15 0.34 1.30 1.45 1.03 1.71  
 Plant Water Density: 6.58 0.42 2.39 3.07 1.96 2.40

Wheat Field # 2 DATE: 6/25/82 (Julian:176)  
 Time:11:25 Mean Canopy Height: 92.0 cm Top Leaf Height: 67.5 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 16.01 1.17 3.76 5.84 3.59 4.79  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 2 DATE: 6/28/82 (Julian:179)  
 Time:15:00 Mean Canopy Height: 85.2 cm Top Leaf Height: 66.2 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 25.46 41.72 55.41 59.48 55.65 46.04  
 Wet Biomass Density: 9.84 1.00 2.56 3.81 2.46 3.23  
 Dry Biomass Density: 7.34 0.58 1.14 1.54 1.09 1.74  
 Plant Water Density: 2.51 0.42 1.42 2.27 1.37 1.49

Wheat Field # 2 DATE: 7/ 6/82 (Julian:187)  
 Time:10:49 Mean Canopy Height: 42.8 cm Top Leaf Height: 0. cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant 5 55  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 3 DATE: 4/30/82 (Julian:120)  
 Time:13:10 Mean Canopy Height: 42.0 cm Top Leaf Height: 42.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant 79.93  
 % Plant Moisture: 0 72.73 81.38 83.09 79.93  
 Wet Biomass Density: 0 5.31 8.80 8.07 7.39  
 Dry Biomass Density: 0 1.45 1.64 1.36 1.48  
 Plant Water Density: 0 3.86 7.16 6.70 5.91

Wheat Field # 3 DATE: 5/ 3/82 (Julian:123)  
 Time:14:25 Mean Canopy Height: 51.0 cm Top Leaf Height: 51.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant 81.76  
 % Plant Moisture: 0 83.96 81.70 80.28 81.76  
 Wet Biomass Density: 0 6.68 8.66 9.59 8.31  
 Dry Biomass Density: 0 1.07 1.58 1.89 1.52  
 Plant Water Density: 0 5.61 7.07 7.70 6.79

Wheat Field # 3 DATE: 5/ 7/82 (Julian:127)  
 Time:15:40 Mean Canopy Height: 55.3 cm Top Leaf Height: 55.3 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant 79.74  
 % Plant Moisture: 0 81.24 79.74  
 Wet Biomass Density: 0 10.58 9.51 6.46 8.85  
 Dry Biomass Density: 0 1.98 1.31  
 Plant Water Density: 0 8.60 5.15

Wheat Field # 3 DATE: 5/14/82 (Julian:134)  
 Time:14:15 Mean Canopy Height: 72.3 cm Top Leaf Height: 72.3 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant 80.74  
 % Plant Moisture: 0 80.01 80.15 81.92 80.74  
 Wet Biomass Density: 0 4.37 4.37 4.90 4.55  
 Dry Biomass Density: 0 0.87 0.87 0.89 0.88  
 Plant Water Density: 0 3.50 3.51 4.02 3.67

Wheat Field # 3 DATE: 5/17/82 (Julian:137)  
 Time:15:55 Mean Canopy Height: 78.3 cm Top Leaf Height: 78.3 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant 7.40  
 % Plant Moisture:  
 Wet Biomass Density: 0 7.31 8.13 6.76 7.40  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 3 DATE: 5/19/82 (Julian:139)  
 Time:14:15 Mean Canopy Height: 83.5 cm Top Leaf Height: 79.5 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant 8.13  
 % Plant Moisture:  
 Wet Biomass Density: 0 5.31 9.85 9.21 8.13  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 3 DATE: 5/21/82 (Julian:141)  
 Time:14:36 Mean Canopy Height: 89.5 cm Top Leaf Height: 80.2 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant 7.82  
 % Plant Moisture: 0 5.73 7.66 10.07 7.82  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 3 DATE: 5/24/82 (Julian:144)  
 Time: Mean Canopy Height: 100.7 cm Top Leaf Height: 83.5 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 3 DATE: 5/26/82 (Julian:146)  
 Time:14:21 Mean Canopy Height: 104.8 cm Top Leaf Height: 78.8 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant 4.19  
 % Plant Moisture:  
 Wet Biomass Density: 7 18 1.30 4.59 5.77 3.89  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 3 DATE: 6/ 1/82 (Julian:152)  
 Time:13:00 Mean Canopy Height: 109.7 cm Top Leaf Height: 79.8 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant 6.07  
 % Plant Moisture:  
 Wet Biomass Density: 14.34 2.82 6.27 6.71 5.27  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 3 DATE: 6/ 2/82 (Julian:153)  
 Time:12:22 Mean Canopy Height: 91.2 cm Top Leaf Height: 68.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant 5.72  
 % Plant Moisture:  
 Wet Biomass Density: 12.15 2.47 5.69 6.71 4.96  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 3 DATE: 6/ 4/82 (Julian:155)  
 Time: Mean Canopy Height: 82.5 cm Top Leaf Height: 67.8 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 11.94 2.28 5.70 6.67 4.88 5.71  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 3 DATE: 6/ 7/82 (Julian:158)  
 Time: Mean Canopy Height: 76.7 cm Top Leaf Height: 62.2 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 17.10 3.57 7.21 8.60 6.46 7.81  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 3 DATE: 6/ 9/82 (Julian:160)  
 Time: Mean Canopy Height: 85.3 cm Top Leaf Height: 67.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 54.74 66.10 72.52 74.16 72.36 68.93  
 Wet Biomass Density: 9.60 2.23 5.83 7.22 5.09 5.61  
 Dry Biomass Density: 4.35 0.75 1.60 1.87 1.41 1.74  
 Plant Water Density: 5.26 1.47 4.23 5.35 3.69 3.86

Wheat Field # 3 DATE: 6/14/82 (Julian:165)  
 Time: Mean Canopy Height: 101.7 cm Top Leaf Height: 72.3 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 58.18 64.80 71.45 70.88 70.03 66.49  
 Wet Biomass Density: 14.31 1.87 4.13 4.64 3.54 4.57  
 Dry Biomass Density: 5.99 0.66 1.18 1.35 1.06 1.53  
 Plant Water Density: 8.33 1.21 2.95 3.29 2.48 3.04

Wheat Field # 3 DATE: 6/16/82 (Julian:167)  
 Time: Mean Canopy Height: 98.7 cm Top Leaf Height: 71.8 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 15.08 1.08 4.08 6.08 3.75 4.86  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 3 DATE: 6/18/82 (Julian:169)  
 Time: Mean Canopy Height: 94.2 cm Top Leaf Height: 73.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 13.52 2.84 3.38 3.63 3.28 4.34  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 3 DATE: 6/21/82 (Julian:172)  
 Time: Mean Canopy Height: 102.0 cm Top Leaf Height: 70.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 46.70 54.26 65.83 70.63 67.06 60.71  
 Wet Biomass Density: 10.82 0.88 2.61 4.05 2.51 3.30  
 Dry Biomass Density: 5.77 0.40 0.89 1.19 0.83 1.30  
 Plant Water Density: 5.05 0.48 1.72 2.86 1.68 2.00

Wheat Field # 3 DATE: 6/23/82 (Julian:174)  
 Time: Mean Canopy Height: 91.2 cm Top Leaf Height: 68.3 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 17.61 1.87 4.33 5.79 4.00 5.44  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 3 DATE: 6/25/82 (Julian:176)  
 Time: Mean Canopy Height: 92.3 cm Top Leaf Height: 69.5 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 10.49 1.49 2.88 3.94 2.77 3.58  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 3 DATE: 6/28/82 (Julian:179)  
 Time: Mean Canopy Height: 92.0 cm Top Leaf Height: 65.2 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 26.27 49.50 63.84 68.11 63.80 53.42  
 Wet Biomass Density: 10.64 1.48 3.48 4.88 3.28 4.06  
 Dry Biomass Density: 7.84 0.75 1.26 1.56 1.19 1.89  
 Plant Water Density: 2.79 0.73 2.22 3.32 2.09 2.17

Wheat Field # 3 DATE: 7/ 6/82 (Julian:187)  
 Time: Mean Canopy Height: 39.7 cm Top Leaf Height: 0. cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 23.14

Wheat Field # 3 DATE: 7/ 7/82 (Julian:188)  
 Time: Mean Canopy Height: 38.2 cm Top Leaf Height: 0. cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 4	DATE: 4/30/82 (Julian:120)	Top Leaf Height: 35.7 cm	Top Leaf Height: 35.7 cm
Time:14:20	Mean Canopy Height: 80.72	Head Top1/3 Mdl1/3 Low1/3 All Layers Whole Plant	80.68
Plant Parts:	0.	81.06	79 74 80.68
% Plant Moisture:	0.	5.24	10.33 4.44 6.67 6.67
Wet Biomass Density:	0.	1.01	1.96 0.90 1.29 1.29
Dry Biomass Density:	0.	4.23	8.38 3.54 5.38 5.38
Plant Water Density:			
Wheat Field # 4	DATE: 5/ 3/82 (Julian:123)	Top Leaf Height: 49.0 cm	Top Leaf Height: 49.0 cm
Time:13:42	Mean Canopy Height: 83.37	Head Top1/3 Mdl1/3 Low1/3 All Layers Whole Plant	82.72
Plant Parts:	0.	82.49	82.38 82.72 82.72
% Plant Moisture:	0.	5.86	5.29 7.72 6.29 6.29
Wet Biomass Density:	0.	0.97	0.93 1.36 1.09 1.09
Dry Biomass Density:	0.	4.88	4.36 6.36 5.20 5.20
Plant Water Density:			
Wheat Field # 4	DATE: 5/ 7/82 (Julian:127)	Top Leaf Height: 54.0 cm	Top Leaf Height: 54.0 cm
Time:14:30	Mean Canopy Height: 81.89	Head Top1/3 Mdl1/3 Low1/3 All Layers Whole Plant	79.84
Plant Parts:	0.	7.74	8.48 3.94 6.72 6.72
% Plant Moisture:	0.	1.40	0.79 0.79 0.79 0.79
Wet Biomass Density:	0.	6.34	3.14 3.14 3.14 3.14
Dry Biomass Density:			
Plant Water Density:			
Wheat Field # 4	DATE: 5/14/82 (Julian:134)	Top Leaf Height: 74.3 cm	Top Leaf Height: 74.3 cm
Time:14:26	Mean Canopy Height: 83.17	Head Top1/3 Mdl1/3 Low1/3 All Layers Whole Plant	84.41
Plant Parts:	0.	7.45	6.96 7.20 7.20 7.20
% Plant Moisture:	0.	1.25	1.03 1.09 1.12 1.12
Wet Biomass Density:	0.	6.20	6.16 5.87 6.07 6.07
Dry Biomass Density:			
Plant Water Density:			
Wheat Field # 4	DATE: 5/17/82 (Julian:137)	Top Leaf Height: 78.7 cm	Top Leaf Height: 78.7 cm
Time:14:20	Mean Canopy Height: 81.91	Head Top1/3 Mdl1/3 Low1/3 All Layers Whole Plant	81.72
Plant Parts:	0.	5.45	3.32 5.81 4.86 4.86
% Plant Moisture:	0.	0.99	0.73 0.95 0.89 0.89
Wet Biomass Density:	0.	4.47	2.59 4.86 3.97 3.97
Dry Biomass Density:			
Plant Water Density:			
Wheat Field # 4	DATE: 5/21/82 (Julian:141)	Top Leaf Height: 79.5 cm	Top Leaf Height: 79.5 cm
Time:10:25	Mean Canopy Height: 81.91	Head Top1/3 Mdl1/3 Low1/3 All Layers Whole Plant	81.72
Plant Parts:	0.	3.94	8.13 9.55 7.21 7.21
% Plant Moisture:	0.	6.28	0.58 0.99 1.97 1.97
Wet Biomass Density:	0.	1.18	1.18 1.18 1.18 1.18
Dry Biomass Density:			
Plant Water Density:			
Wheat Field # 4	DATE: 5/24/82 (Julian:144)	Top Leaf Height: 84.3 cm	Top Leaf Height: 84.3 cm
Time:10:05	Mean Canopy Height: 7.52	Head Top1/3 Mdl1/3 Low1/3 All Layers Whole Plant	4.25
Plant Parts:	0.	0.84	4.62 6.25 3.90 3.90
% Plant Moisture:	0.	8.38	1.98 4.32 4.39 4.39
Wet Biomass Density:	0.	4.00	4.00 4.00 4.00 4.00
Dry Biomass Density:			
Plant Water Density:			
Wheat Field # 4	DATE: 5/28/82 (Julian 148)	Top Leaf Height: 104.0 cm	Top Leaf Height: 80.2 cm
Time:13:13	Mean Canopy Height: 8.38	Head Top1/3 Mdl1/3 Low1/3 All Layers Whole Plant	4.00
Plant Parts:	0.	1.98	4.32 4.39 3.56 3.56
% Plant Moisture:	0.	8.38	1.98 4.32 4.39 4.00
Wet Biomass Density:	0.	4.00	4.00 4.00 4.00 4.00
Dry Biomass Density:			
Plant Water Density:			
Wheat Field # 4	DATE: 6/ 4/82 (Julian:155)	Top Leaf Height: 103.8 cm	Top Leaf Height: 73.8 cm
Time:15:31	Mean Canopy Height: 15.75	Head Top1/3 Mdl1/3 Low1/3 All Layers Whole Plant	4.25
Plant Parts:	0.	2.12	4.70 5.95 4.25 4.25
% Plant Moisture:	0.	4.25	4.25 4.25 4.25 4.25
Wet Biomass Density:	0.	5.30	5.30 5.30 5.30 5.30
Dry Biomass Density:			
Plant Water Density:			
Wheat Field # 4	DATE: 6/29/82 (Julian:180)	Top Leaf Height: 89.5 cm	Top Leaf Height: 73.2 cm
Time:14:00	Mean Canopy Height: 13.36	Head Top1/3 Mdl1/3 Low1/3 All Layers Whole Plant	22.40
Plant Parts:	0.	0.90	1.40 1.78 1.36 1.36
% Plant Moisture:	0.	6.25	0.80 0.72 1.41 0.98
Wet Biomass Density:	0.	0.96	0.10 0.68 0.37 0.39
Dry Biomass Density:			
Plant Water Density:			
Wheat Field # 4	DATE: 7/ 6/82 (Julian:187)	Top Leaf Height: 84.5 cm	Top Leaf Height: 71.3 cm
Time:14:00	Mean Canopy Height: 13.36	Head Top1/3 Mdl1/3 Low1/3 All Layers Whole Plant	22.40
Plant Parts:	0.	0.90	1.40 1.78 1.36 1.36
% Plant Moisture:	0.	6.25	0.80 0.72 1.41 0.98
Wet Biomass Density:	0.	0.96	0.10 0.68 0.37 0.39
Dry Biomass Density:			
Plant Water Density:			
Wheat Field # 4	DATE: 7/ 7/82 (Julian:188)	Top Leaf Height: 86.0 cm	Top Leaf Height: 86.0 cm
Time:15:15	Mean Canopy Height: 6.28	Head Top1/3 Mdl1/3 Low1/3 All Layers Whole Plant	1.74
Plant Parts:	0.	0.58	0.99 1.97 1.18 1.18
% Plant Moisture:	0.	1.18	1.18 1.18 1.18 1.18
Wet Biomass Density:	0.	1.74	1.74 1.74 1.74 1.74
Dry Biomass Density:			
Plant Water Density:			



Wheat Field # 4 DATE: 7/12/82 (Julian:193)  
Time:11:17 Mean Canopy Height: 22.6 cm Top Leaf Height: 0 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0  
Wet Biomass Density: 0.61 0.83 1.16 0.86  
Dry Biomass Density: 0.164 1.40 3.50 2.18  
Plant Water Density: 0

Wheat Field # 5 DATE: 4/30/82 (Julian:120)  
Time:14:35 Mean Canopy Height: 26.7 cm Top Leaf Height: 26.7 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0 72.94 62.80 75.16 71.60 71.60  
Wet Biomass Density: 0 2.24 2.23 4.66 3.04 3.04  
Dry Biomass Density: 0 0.61 0.83 1.16 0.86 0.86  
Plant Water Density: 0 1.64 1.40 3.50 2.18 2.18

Wheat Field # 5 DATE: 5/3/82 (Julian:123)  
Time:13:51 Mean Canopy Height: 37.7 cm Top Leaf Height: 37.7 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0 79.86 83.65 78.52 80.14 80.14  
Wet Biomass Density: 0 5.89 3.39 6.33 5.20 5.20  
Dry Biomass Density: 0 1.19 0.55 1.36 1.03 1.03  
Plant Water Density: 0 4.71 2.83 4.97 4.17 4.17

Wheat Field # 5 DATE: 5/7/82 (Julian:127)  
Time:14:45 Mean Canopy Height: 41.0 cm Top Leaf Height: 41.0 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0 75.43 74.21 73.97 74.51 74.51  
Wet Biomass Density: 0 4.28 4.57 4.61 4.49 4.49  
Dry Biomass Density: 0 1.05 1.18 1.20 1.14 1.14  
Plant Water Density: 0 3.23 3.39 3.41 3.34 3.34

Wheat Field # 5 DATE: 5/14/82 (Julian:134)  
Time:14:35 Mean Canopy Height: 53.0 cm Top Leaf Height: 53.0 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0 70.83 73.86 75.98 73.49 73.49  
Wet Biomass Density: 0 3.83 2.64 3.72 3.40 3.40  
Dry Biomass Density: 0 1.12 0.69 0.89 0.90 0.90  
Plant Water Density: 0 2.71 1.95 2.83 2.50 2.50

Wheat Field # 5 DATE: 5/17/82 (Julian:137)  
Time:16:19 Mean Canopy Height: 65.7 cm Top Leaf Height: 65.7 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0 75.96 75.72 73.19 74.96 74.96  
Wet Biomass Density: 0 4.91 4.16 4.60 4.56 4.56  
Dry Biomass Density: 0 1.18 1.01 1.23 1.14 1.14  
Plant Water Density: 0 3.73 3.15 3.37 3.42 3.42

Wheat Field # 5 DATE: 5/21/82 (Julian:141)  
Time:11:40 Mean Canopy Height: 86.0 cm Top Leaf Height: 75.7 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0  
Wet Biomass Density: 0 4.61 10.25 13.10 9.32 9.32  
Dry Biomass Density: 0  
Plant Water Density: 0

Wheat Field # 5 DATE: 5/24/82 (Julian:144)  
Time:10:32 Mean Canopy Height: 90.2 cm Top Leaf Height: 75.8 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 9.19 1.37 6.97 6.92 5.09 5.50  
Wet Biomass Density: 0  
Dry Biomass Density: 0  
Plant Water Density: 0

Wheat Field # 5 DATE: 6/1/82 (Julian:152)  
Time:14:30 Mean Canopy Height: 82.8 cm Top Leaf Height: 62.8 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 14.66 3.15 7.44 7.40 6.00 6.95  
Wet Biomass Density: 0  
Dry Biomass Density: 0  
Plant Water Density: 0

Wheat Field # 5 DATE: 6/2/82 (Julian:153)  
Time:13:35 Mean Canopy Height: 83.8 cm Top Leaf Height: 65.5 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 15.28 4.69 9.18 8.12 7.33 8.20  
Wet Biomass Density: 0  
Dry Biomass Density: 0  
Plant Water Density: 0

Wheat Field # 5 DATE: 6/7/82 (Julian:158)  
Time:11:07 Mean Canopy Height: 67.8 cm Top Leaf Height: 57.0 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 8.03 1.38 3.85 7.07 4.10 4.63  
Wet Biomass Density: 0  
Dry Biomass Density: 0  
Plant Water Density: 0

Wheat Field # 5 DATE: 6/9/82 (Julian:160)  
Time:15:17 Mean Canopy Height: 59.8 cm Top Leaf Height: 58.3 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 50.32 74.16 48.25 66.07 61.82 57.22  
Wet Biomass Density: 9.13 1.36 2.38 3.63 2.46 3.47  
Dry Biomass Density: 4.54 0.35 1.23 1.23 0.94 1.49  
Plant Water Density: 4.60 1.01 1.15 2.40 1.52 1.99

Wheat Field # 5 DATE: 6/16/82 (Julian:167)  
 Time:13.47 Mean Canopy Height: 60.3 cm Top Leaf Height: 50.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 48.07 56.45 66.27 68.86 65.50 60.02  
 Wet Biomass Density: 11.11 2.37 5.34 5.18 4.30 5.32  
 Dry Biomass Density: 5.77 1.03 1.80 1.61 1.48 2.13  
 Plant Water Density: 5.34 1.34 3.54 3.57 2.81 3.19

Wheat Field # 5 DATE: 6/18/82 (Julian:169)  
 Time:11.20 Mean Canopy Height: 56.3 cm Top Leaf Height: 47.2 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 14.41 3.42 7.87 9.91 7.07 8.25  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 5 DATE: 6/21/82 (Julian:172)  
 Time:14.20 Mean Canopy Height: 56.0 cm Top Leaf Height: 45.2 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 39.26 53.48 66.43 67.10 64.33 57.50  
 Wet Biomass Density: 11.49 3.27 7.33 7.26 5.95 6.85  
 Dry Biomass Density: 6.98 1.52 2.46 2.39 2.12 2.91  
 Plant Water Density: 4.51 1.75 4.87 4.87 3.83 3.94

Wheat Field # 5 DATE: 6/25/82 (Julian:176)  
 Time:14:30 Mean Canopy Height: 63.5 cm Top Leaf Height: 47.3 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 10.89 1.43 3.67 5.08 3.40 4.47  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 5 DATE: 6/28/82 (Julian:179)  
 Time:11:30 Mean Canopy Height: 65.3 cm Top Leaf Height: 47.2 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 15.84 83.05 53.37  
 Wet Biomass Density: 11.54 5.18 4.24 6.16 5.19 6.08  
 Dry Biomass Density: 9.71 0.88 1.97  
 Plant Water Density: 1.83 4.30 2.26

Wheat Field # 5 DATE: 7/6/82 (Julian:187)  
 Time:14:30 Mean Canopy Height: 24.3 cm Top Leaf Height: 0. cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 5 DATE: 7/9/82 (Julian:190)  
 Time:10:37 Mean Canopy Height: 22.5 cm Top Leaf Height: 0. cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 5 DATE: 7/12/82 (Julian:193)  
 Time:13:30 Mean Canopy Height: 23.5 cm Top Leaf Height: 0. cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 6 DATE: 4/30/82 (Julian:120)  
 Time:14:45 Mean Canopy Height: 23.3 cm Top Leaf Height: 23.3 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0. 72.93 77.53 76.04 76.02 76.02  
 Wet Biomass Density: 0. 3.24 6.52 5.27 5.01 5.01  
 Dry Biomass Density: 0. 0.88 1.46 1.26 1.20 1.20  
 Plant Water Density: 0. 2.36 5.05 4.01 3.81 3.81

Wheat Field # 6 DATE: 5/3/82 (Julian:123)  
 Time:13:59 Mean Canopy Height: 31.7 cm Top Leaf Height: 31.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0. 85.57 83.33 83.60 84.04 84.04  
 Wet Biomass Density: 0. 4.43 6.56 4.72 5.24 5.24  
 Dry Biomass Density: 0. 0.64 1.09 0.77 0.84 0.84  
 Plant Water Density: 0. 3.79 5.46 3.95 4.40 4.40

Wheat Field # 6 DATE: 5/7/82 (Julian:127)  
 Time:15:00 Mean Canopy Height: 40.0 cm Top Leaf Height: 40.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0. 78.32 76.84 75.35 76.75 76.75  
 Wet Biomass Density: 0. 4.51 3.92 5.27 4.57 4.57  
 Dry Biomass Density: 0. 0.98 0.91 1.30 1.06 1.06  
 Plant Water Density: 0. 3.53 3.01 3.97 3.51 3.51

Wheat Field # 6 DATE: 5/14/82 (Julian:134)  
 Time:14:43 Mean Canopy Height: 55.7 cm Top Leaf Height: 55.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0. 78.75 79.01 77.76 78.64 78.64  
 Wet Biomass Density: 0. 4.54 4.96 2.67 4.06 4.06  
 Dry Biomass Density: 0. 0.96 1.04 0.59 0.87 0.87  
 Plant Water Density: 0. 3.57 3.92 2.08 3.19 3.19

Wheat Field # 6 DATE: 5/17/82 (Julian:137)  
Time:16:19 Mean Canopy Height: 61.0 cm Top Leaf Height: 61.0 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0 75.54 77 57 77.91 76 98 76.98  
Wet Biomass Density: 0 2.89 2.22 3.08 2.73 2.73  
Dry Biomass Density: 0 0.71 0.50 0.68 0.63 0.63  
Plant Water Density: 0 2.19 1.72 2.40 2.10 2.10

Wheat Field # 6 DATE: 5/21/82 (Julian:141)  
Time:11:18 Mean Canopy Height: 86.8 cm Top Leaf Height: 65.8 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0 2.19 3.72 4.67 3.53 3.53  
Wet Biomass Density: 0 2.19 3.72 4.67 3.53 3.53  
Dry Biomass Density: 0 0.71 0.50 0.68 0.63 0.63  
Plant Water Density: 0 2.19 1.72 2.40 2.10 2.10

Wheat Field # 6 DATE: 5/24/82 (Julian:144)  
Time:13:25 Mean Canopy Height: 92.3 cm Top Leaf Height: 71.3 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0 2.19 3.72 4.67 3.53 3.53  
Wet Biomass Density: 0 2.19 3.72 4.67 3.53 3.53  
Dry Biomass Density: 0 0.71 0.50 0.68 0.63 0.63  
Plant Water Density: 0 2.19 1.72 2.40 2.10 2.10

Wheat Field # 6 DATE: 6/ 9/82 (Julian:160)  
Time:15:27 Mean Canopy Height: 73.5 cm Top Leaf Height: 51.8 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 66.06 81.11 86.56 77.72 82.08 77.37  
Wet Biomass Density: 16.27 2.52 5.61 5.21 4.45 5.65  
Dry Biomass Density: 5.52 0.48 0.75 1.16 0.80 1.28  
Plant Water Density: 10.75 2.05 4.86 4.05 3.65 4.37

Wheat Field # 6 DATE: 6/16/82 (Julian:167)  
Time:13:50 Mean Canopy Height: 85.7 cm Top Leaf Height: 59.5 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 45.22 60.22 56.16 55.73 56.66 51.80  
Wet Biomass Density: 14.32 0.96 2.01 2.62 1.86 2.95  
Dry Biomass Density: 7.85 0.38 0.88 1.16 0.81 1.42  
Plant Water Density: 6.48 0.58 1.13 1.46 1.05 1.53

Wheat Field # 6 DATE: 6/18/82 (Julian:169)  
Time:10:53 Mean Canopy Height: 85.0 cm Top Leaf Height: 55.7 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 18.06 1.00 2.29 3.16 2.15 3.56  
Wet Biomass Density: 18.06 1.00 2.29 3.16 2.15 3.56  
Dry Biomass Density: 18.06 1.00 2.29 3.16 2.15 3.56  
Plant Water Density: 18.06 1.00 2.29 3.16 2.15 3.56

Wheat Field # 6 DATE: 6/21/82 (Julian:172)  
Time:14:44 Mean Canopy Height: 88.3 cm Top Leaf Height: 60.3 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 32.47 47.30 49.77 51.68 50.34 42.47  
Wet Biomass Density: 10.97 0.57 1.41 1.90 1.29 2.12  
Dry Biomass Density: 7.41 0.30 0.71 0.92 0.64 1.22  
Plant Water Density: 3.56 0.27 0.70 0.98 0.65 0.90

Wheat Field # 6 DATE: 6/25/82 (Julian:176)  
Time:14:45 Mean Canopy Height: 77.2 cm Top Leaf Height: 56.5 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 9.35 0.80 1.46 2.21 1.49 2.25  
Wet Biomass Density: 9.35 0.80 1.46 2.21 1.49 2.25  
Dry Biomass Density: 9.35 0.80 1.46 2.21 1.49 2.25  
Plant Water Density: 9.35 0.80 1.46 2.21 1.49 2.25

Wheat Field # 6 DATE: 6/28/82 (Julian:179)  
Time:12:15 Mean Canopy Height: 31.8 cm Top Leaf Height: 0 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0 0 0 0 0 0  
Wet Biomass Density: 0 0 0 0 0 0  
Dry Biomass Density: 0 0 0 0 0 0  
Plant Water Density: 0 0 0 0 0 0

Wheat Field # 6 DATE: 6/ 1/82 (Julian:152)  
Time:14:11 Mean Canopy Height: 93.3 cm Top Leaf Height: 63.5 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 13.08 0.47 2.63 3.80 2.30 3.17  
Wet Biomass Density: 13.08 0.47 2.63 3.80 2.30 3.17  
Dry Biomass Density: 13.08 0.47 2.63 3.80 2.30 3.17  
Plant Water Density: 13.08 0.47 2.63 3.80 2.30 3.17

Wheat Field # 6 DATE: 6/ 2/82 (Julian:153)  
Time:13:55 Mean Canopy Height: 90.5 cm Top Leaf Height: 62.5 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 12.84 1.09 2.19 2.70 1.99 2.89  
Wet Biomass Density: 12.84 1.09 2.19 2.70 1.99 2.89  
Dry Biomass Density: 12.84 1.09 2.19 2.70 1.99 2.89  
Plant Water Density: 12.84 1.09 2.19 2.70 1.99 2.89

Wheat Field # 6 DATE: 6/ 7/82 (Julian:158)  
Time:11:23 Mean Canopy Height: 66.0 cm Top Leaf Height: 46.2 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 15.24 1.92 3.54 4.32 3.26 4.62  
Wet Biomass Density: 15.24 1.92 3.54 4.32 3.26 4.62  
Dry Biomass Density: 15.24 1.92 3.54 4.32 3.26 4.62  
Plant Water Density: 15.24 1.92 3.54 4.32 3.26 4.62

Wheat Field # 7 DATE: 4/30/82 (Julian:120)  
 Time:15:02 Mean Canopy Height: 34.0 cm Top Leaf Height: 34.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0 59.42 71.83  
 Wet Biomass Density: 0 2.73 6.16 5.12 4.67 4.67  
 Dry Biomass Density: 0 1.11 1.74  
 Plant Water Density: 0 1.62 4.43

Wheat Field # 7 DATE: 5/ 3/82 (Julian 123)  
 Time:14:10 Mean Canopy Height: 38.3 cm Top Leaf Height: 38.3 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0 80.35 80.05 79.53 79.98 79.98  
 Wet Biomass Density: 0 5.48 8.39 5.87 6.58 6.58  
 Dry Biomass Density: 0 1.08 1.67 1.20 1.32 1.32  
 Plant Water Density: 0 4.40 6.72 4.67 5.26 5.26

Wheat Field # 7 DATE: 5/ 7/82 (Julian:127)  
 Time:15:55 Mean Canopy Height: 48.7 cm Top Leaf Height: 48.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0 78.52 80.23  
 Wet Biomass Density: 0 5.23 9.57 2.88 5.89 5.89  
 Dry Biomass Density: 0 1.12 1.89  
 Plant Water Density: 0 4.10 7.67

Wheat Field # 7 DATE: 5/14/82 (Julian:134)  
 Time:15:02 Mean Canopy Height: 65.7 cm Top Leaf Height: 65.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0 76.32 78.75 81.53 79.51 79.51  
 Wet Biomass Density: 0 3.18 3.79 6.46 4.48 4.48  
 Dry Biomass Density: 0 0.75 0.81 1.19 0.92 0.92  
 Plant Water Density: 0 2.43 2.99 5.26 3.56 3.56

Wheat Field # 7 DATE: 5/17/82 (Julian:137)  
 Time:16:36 Mean Canopy Height: 78.0 cm Top Leaf Height: 78.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0 73.86  
 Wet Biomass Density: 0 4.26 6.23 4.03 4.84 4.84  
 Dry Biomass Density: 0 1.05  
 Plant Water Density: 0 2.97

Wheat Field # 7 DATE: 5/21/82 (Julian:141)  
 Time:11:22 Mean Canopy Height: 76.5 cm Top Leaf Height: 68.2 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0  
 Wet Biomass Density: 5.42 2.91 5.66 4.30 4.29 4.46  
 Dry Biomass Density: 0  
 Plant Water Density: 0

Wheat Field # 7 DATE: 5/24/82 (Julian:144)  
 Time:13:22 Mean Canopy Height: 86.0 cm Top Leaf Height: 67.3 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0  
 Wet Biomass Density: 0  
 Dry Biomass Density: 0  
 Plant Water Density: 0

Wheat Field # 7 DATE: 6/ 1/82 (Julian:152)  
 Time:14:14 Mean Canopy Height: 88.8 cm Top Leaf Height: 65.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0  
 Wet Biomass Density: 11.12 1.20 6.48 8.14 5.28 6.04  
 Dry Biomass Density: 0  
 Plant Water Density: 0

Wheat Field # 7 DATE: 6/ 7/82 (Julian:158)  
 Time:11:25 Mean Canopy Height: 71.3 cm Top Leaf Height: 59.2 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0  
 Wet Biomass Density: 10.63 1.17 4.19 9.23 4.86 5.80  
 Dry Biomass Density: 0  
 Plant Water Density: 0

Wheat Field # 7 DATE: 6/ 9/82 (Julian:160)  
 Time:15:30 Mean Canopy Height: 80.0 cm Top Leaf Height: 58.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 64.07 58.73 65.48 64.56 64.09 64.08  
 Wet Biomass Density: 10.40 1.49 4.06 4.93 3.49 4.49  
 Dry Biomass Density: 3.74 0.61 1.40 1.75 1.25 1.61  
 Plant Water Density: 6.67 0.87 2.66 3.18 2.24 2.88

Wheat Field # 7 DATE: 6/16/82 (Julian:167)  
 Time:13:48 Mean Canopy Height: 84.5 cm Top Leaf Height: 57.8 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 54.84 61.02 63.82 64.62 63.59 60.02  
 Wet Biomass Density: 12.57 1.71 3.60 3.41 2.91 4.23  
 Dry Biomass Density: 5.68 0.67 1.30 1.21 1.06 1.69  
 Plant Water Density: 6.89 1.04 2.30 2.21 1.85 2.54

Wheat Field # 7 DATE: 6/18/82 (Julian:169)  
 Time:10:55 Mean Canopy Height: 80.2 cm Top Leaf Height: 54.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0  
 Wet Biomass Density: 14.51 1.77 4.14 5.05 3.65 5.22  
 Dry Biomass Density: 0  
 Plant Water Density: 0

Wheat Field # 7 DATE: 6/21/82 (Julian:172)  
Time:14.45 Mean Canopy Height: 78.0 cm Top Leaf Height: 54.8 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 47.28 50.50 59.81 66.95 61.75 55.50  
Wet Biomass Density: 11.19 1.34 2.52 3.85 2.57 3.85  
Dry Biomass Density: 5.90 0.66 1.01 1.27 0.98 1.71  
Plant Water Density: 5.29 0.68 1.51 2.57 1.59 2.14

Wheat Field # 7 DATE: 6/25/82 (Julian:176)  
Time:14.47 Mean Canopy Height: 82.0 cm Top Leaf Height: 57.0 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 11.56 1.58 2.05 2.74 2.13 3.46  
Wet Biomass Density: 7.38 0.58 1.19 2.13 1.30 2.16  
Dry Biomass Density: 4.79 0.31 0.66 1.32 0.76 1.33  
Plant Water Density: 2.60 0.26 0.54 0.81 0.54 0.83

Wheat Field # 7 DATE: 6/28/82 (Julian:179)  
Time:12.13 Mean Canopy Height: 82.2 cm Top Leaf Height: 57.3 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 35.16 45.85 44.89 38.04 41.29 38.33  
Wet Biomass Density: 7.38 0.58 1.19 2.13 1.30 2.16  
Dry Biomass Density: 4.79 0.31 0.66 1.32 0.76 1.33  
Plant Water Density: 2.60 0.26 0.54 0.81 0.54 0.83

Wheat Field # 7 DATE: 7/6/82 (Julian:187)  
Time:10.42 Mean Canopy Height: 28.5 cm Top Leaf Height: 0 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0.00 0.00 0.00 0.00 0.00 0.00  
Wet Biomass Density: 0.00 0.00 0.00 0.00 0.00 0.00  
Dry Biomass Density: 0.00 0.00 0.00 0.00 0.00 0.00  
Plant Water Density: 0.00 0.00 0.00 0.00 0.00 0.00

Wheat Field # 7 DATE: 7/12/82 (Julian:193)  
Time: Mean Canopy Height: 31.8 cm Top Leaf Height: 0 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0.00 0.00 0.00 0.00 0.00 0.00  
Wet Biomass Density: 0.00 0.00 0.00 0.00 0.00 0.00  
Dry Biomass Density: 0.00 0.00 0.00 0.00 0.00 0.00  
Plant Water Density: 0.00 0.00 0.00 0.00 0.00 0.00

Wheat Field # 7 DATE: 7/13/82 (Julian:194)  
Time:11.32 Mean Canopy Height: 18.7 cm Top Leaf Height: 0 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0.00 0.00 0.00 0.00 0.00 0.00  
Wet Biomass Density: 0.00 0.00 0.00 0.00 0.00 0.00  
Dry Biomass Density: 0.00 0.00 0.00 0.00 0.00 0.00  
Plant Water Density: 0.00 0.00 0.00 0.00 0.00 0.00

Wheat Field # 8 DATE: 4/30/82 (Julian:120)  
Time:13:21 Mean Canopy Height: 33.7 cm Top Leaf Height: 33.7 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0. 78.92 79.68 75.53 78.61 78.61  
Wet Biomass Density: 0. 3.36 8.01 3.14 4.83 4.83  
Dry Biomass Density: 0. 0.71 1.63 0.77 1.03 1.03  
Plant Water Density: 0. 2.65 6.38 2.37 3.80 3.80

Wheat Field # 8 DATE: 5/3/82 (Julian:123)  
Time:14:33 Mean Canopy Height: 38.0 cm Top Leaf Height: 38.0 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0. 82.03 82.93 82.87 82.60 82.60  
Wet Biomass Density: 0. 6.33 6.69 5.05 6.02 6.02  
Dry Biomass Density: 0. 1.14 1.14 0.87 1.05 1.05  
Plant Water Density: 0. 5.19 5.55 4.19 4.98 4.98

Wheat Field # 8 DATE: 5/7/82 (Julian:127)  
Time:16:30 Mean Canopy Height: 48.3 cm Top Leaf Height: 48.3 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0. 83.44 82.49 82.35 82.80 82.80  
Wet Biomass Density: 0. 7.46 5.88 6.69 6.68 6.68  
Dry Biomass Density: 0. 1.24 1.03 1.18 1.15 1.15  
Plant Water Density: 0. 6.22 4.85 5.51 5.53 5.53

Wheat Field # 8 DATE: 5/14/82 (Julian:134)  
Time:15:15 Mean Canopy Height 68.7 cm Top Leaf Height: 68.7 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0. 82.44 84.31 83.23 83.31 83.31  
Wet Biomass Density: 0. 9.18 8.63 8.61 8.80 8.80  
Dry Biomass Density: 0. 1.61 1.35 1.44 1.47 1.47  
Plant Water Density: 0. 7.57 7.27 7.16 7.34 7.34

Wheat Field # 8 DATE: 5/21/82 (Julian:141)  
Time:10:28 Mean Canopy Height: 89.7 cm Top Leaf Height: 68.3 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0. 2.28 3.85 5.55 3.89 3.89  
Wet Biomass Density: 0. 2.28 3.85 5.55 3.89 3.89  
Dry Biomass Density: 0. 2.28 3.85 5.55 3.89 3.89  
Plant Water Density: 0. 2.28 3.85 5.55 3.89 3.89

Wheat Field # 8 DATE: 5/24/82 (Julian:144)  
Time:10.02 Mean Canopy Height: 89.8 cm Top Leaf Height: 69.3 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 12.02 1.15 5.59 6.79 4.51 5.08  
Wet Biomass Density: 12.02 1.15 5.59 6.79 4.51 5.08  
Dry Biomass Density: 12.02 1.15 5.59 6.79 4.51 5.08  
Plant Water Density: 12.02 1.15 5.59 6.79 4.51 5.08

Wheat Field # 8 DATE: 5/28/82 (Julian:148)  
 Time:13:26 Mean Canopy Height: 92.2 cm Top Leaf Height: 67.5 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 12 80 1.44 3.91 4.18 3 18 3.90  
 Wet Biomass Density: 17 87 1.54 2 80 2 38 3.67  
 Dry Biomass Density: 8.41 0.59 0.98 0 98 0.85 1.48  
 Plant Water Density: 9 46 0 95 1.82 1.82 1.53 2.19

Wheat Field # 8 DATE: 6/ 1/82 (Julian:152)  
 Time 13:26 Mean Canopy Height: 97.7 cm Top Leaf Height: 67.5 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 20.22 1.37 5 05 4.90 3 77 4.94  
 Wet Biomass Density: 17 87 1.54 2 80 2 38 3.67  
 Dry Biomass Density: 8.41 0.59 0.98 0 98 0.85 1.48  
 Plant Water Density: 9 46 0 95 1.82 1.82 1.53 2.19

Wheat Field # 8 DATE: 6/ 2/82 (Julian:153)  
 Time:12:50 Mean Canopy Height: 92.2 cm Top Leaf Height: 60.8 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 17.42 1.92 4.06 4.30 3.43 4 47  
 Wet Biomass Density: 20.61 0.95 2.62 3.61 2 39 3.90  
 Dry Biomass Density: 8.41 0.59 0.98 0 98 0.85 1.48  
 Plant Water Density: 9 46 0 95 1.82 1.82 1.53 2.19

Wheat Field # 8 DATE: 6/ 4/82 (Julian:155)  
 Time:14:31 Mean Canopy Height: 87.0 cm Top Leaf Height: 59.3 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 18 12 1.22 3.84 4.68 3.24 4 42  
 Wet Biomass Density: 16 28 1.68 3 46 3.76 2 97 4 02  
 Dry Biomass Density: 8.41 0.59 0.98 0 98 0.85 1.48  
 Plant Water Density: 9 46 0 95 1.82 1.82 1.53 2.19

Wheat Field # 8 DATE: 6/ 7/82 (Julian:158)  
 Time:10:24 Mean Canopy Height: 87.7 cm Top Leaf Height: 60.5 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 16 28 1.68 3 46 3.76 2 97 4 02  
 Wet Biomass Density: 17 87 1.54 2 80 2 38 3.67  
 Dry Biomass Density: 8.41 0.59 0.98 0 98 0.85 1.48  
 Plant Water Density: 9 46 0 95 1.82 1.82 1.53 2.19

Wheat Field # 8 DATE: 6/ 9/82 (Julian:160)  
 Time: Mean Canopy Height: 85.8 cm Top Leaf Height: 63.3 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 55.89 62 50 64 41 58.85 61.60 59 65  
 Wet Biomass Density: 15.60 1.06 3 20 3.60 2.62 3.66  
 Dry Biomass Density: 6.88 0 40 1.14 1.48 1 01 1 48  
 Plant Water Density: 8.72 0 66 2.06 2.12 1 61 2.19

Wheat Field # 8 DATE: 6/14/82 (Julian:165)  
 Time:16:03 Mean Canopy Height: 83 0 cm Top Leaf Height: 62 5 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 52.94 61.72 64.84 65.13 64.28 59.68  
 Wet Biomass Density: 17 87 1.54 2 80 2 38 3.67  
 Dry Biomass Density: 8.41 0.59 0.98 0 98 0.85 1.48  
 Plant Water Density: 9 46 0 95 1.82 1.82 1.53 2.19

Wheat Field # 8 DATE: 6/16/82 (Julian:167)  
 Time: Mean Canopy Height: 83.2 cm Top Leaf Height: 58.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 6.06 0.97 2 27 2.52 1 92 2.26  
 Wet Biomass Density: 17 87 1.54 2 80 2 38 3.67  
 Dry Biomass Density: 8.41 0.59 0.98 0 98 0.85 1.48  
 Plant Water Density: 9 46 0 95 1.82 1.82 1.53 2.19

Wheat Field # 8 DATE: 6/18/82 (Julian:169)  
 Time: Mean Canopy Height: 83 3 cm Top Leaf Height: 57.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 20.61 0 95 2.62 3.61 2 39 3.90  
 Wet Biomass Density: 17 87 1.54 2 80 2 38 3.67  
 Dry Biomass Density: 8.41 0.59 0.98 0 98 0.85 1.48  
 Plant Water Density: 9 46 0 95 1.82 1.82 1.53 2.19

Wheat Field # 8 DATE: 6/21/82 (Julian:172)  
 Time:13:48 Mean Canopy Height: 91.3 cm Top Leaf Height: 60.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 40.86 51.86 57.62 55.47 55.45 49.17  
 Wet Biomass Density: 16 26 1 11 1 80 2 37 1 76 2 86  
 Dry Biomass Density: 9.62 0.53 0 76 1.06 0 78 1 45  
 Plant Water Density: 6.64 0.57 1 04 1.32 0 98 1 40

Wheat Field # 8 DATE: 6/25/82 (Julian:176)  
 Time:13:38 Mean Canopy Height: 88 2 cm Top Leaf Height: 62.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 17.98 0 81 1.92 3.63 2 12 3.36  
 Wet Biomass Density: 17 87 1.54 2 80 2 38 3.67  
 Dry Biomass Density: 8.41 0.59 0.98 0 98 0.85 1.48  
 Plant Water Density: 9 46 0 95 1.82 1.82 1.53 2.19

Wheat Field # 8 DATE: 6/28/82 (Julian:179)  
 Time:10:45 Mean Canopy Height: 82.0 cm Top Leaf Height: 58.8 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 19.14 29.51 45.93 48.10 45.82 35.03  
 Wet Biomass Density: 14 97 0 52 1 93 3 63 2 03 3 12  
 Dry Biomass Density: 12 11 0 37 1 05 1 88 1 10 2 02  
 Plant Water Density: 2 87 0 15 0 89 1 74 0 93 1 09

Wheat Field # 8 DATE: 7/ 7/82 (Julian:188)  
Time:15:19 Mean Canopy Height: 33.7 cm Top Leaf Height: 0. cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant 15.85  
% Plant Moisture:  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density:

Wheat Field # 9 DATE: 5/21/82 (Julian:141)  
Time:16:03 Mean Canopy Height: 68.5 cm Top Leaf Height: 56.2 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0 1.86 3.57 4.47 3 30 3.30  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density:

Wheat Field # 9 DATE: 5/26/82 (Julian:144)  
Time:14:20 Mean Canopy Height: 68.2 cm Top Leaf Height: 60 0 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture:  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density:

Wheat Field # 9 DATE: 5/26/82 (Julian:146)  
Time:11:01 Mean Canopy Height: 75 3 cm Top Leaf Height: 57.3 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 5 26 1 16 3.11 4.24 2.84 3 09  
Dry Biomass Density:  
Plant Water Density:

Wheat Field # 9 DATE: 6/ 1/82 (Julian:152)  
Time:10:20 Mean Canopy Height: 71.3 cm Top Leaf Height: 50.5 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 5.95 0.57 2.17 2.79 1 84 2.30  
Dry Biomass Density:  
Plant Water Density:

Wheat Field # 9 DATE: 6/ 2/82 (Julian:153)  
Time:15:20 Mean Canopy Height: 72.8 cm Top Leaf Height: 54 2 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 8 16 1.13 3 36 3.84 2.78 3 36  
Dry Biomass Density:  
Plant Water Density:

Wheat Field # 9 DATE: 6/ 4/82 (Julian:155)  
Time:10:07 Mean Canopy Height: 65.3 cm Top Leaf Height: 47.5 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture:  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density:

Wheat Field # 8 DATE: 7/ 7/82 (Julian:188)  
Time:15:19 Mean Canopy Height: 33.7 cm Top Leaf Height: 0. cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant 15.85  
% Plant Moisture:  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density:

Wheat Field # 9 DATE: 4/30/82 (Julian:120)  
Time:13:34 Mean Canopy Height: 27 0 cm Top Leaf Height: 27 0 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0. 66.08 65.26 65.64 65.73 65.73  
Wet Biomass Density: 0. 3.43 2.17 1.97 2.52 2.52  
Dry Biomass Density: 0. 1 16 0.75 0.68 0 86 0 86  
Plant Water Density: 0. 2.27 1.42 1 29 1.66 1.66

Wheat Field # 9 DATE: 5/ 3/82 (Julian:123)  
Time:15:10 Mean Canopy Height: 37 3 cm Top Leaf Height: 37.3 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0. 68 54 74.42 78.76 75.67 75.67  
Wet Biomass Density: 0. 2 52 5.08 7.89 5 16 5.16  
Dry Biomass Density: 0. 0.79 1 30 1.68 1.26 1.26  
Plant Water Density: 0. 1 72 3.78 6.21 3 91 3.91

Wheat Field # 9 DATE: 5/ 7/82 (Julian:127)  
Time:16:45 Mean Canopy Height: 46.7 cm Top Leaf Height: 46.7 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0. 79.36 82.53 79.04 80.74 80.74  
Wet Biomass Density: 0. 4.31 9.62 6.57 6 83 6 83  
Dry Biomass Density: 0. 0 89 1.68 1.38 1 32 1 32  
Plant Water Density: 0. 3 42 7 94 5 19 5.52 5 52

Wheat Field # 9 DATE: 5/14/82 (Julian:134)  
Time:15:47 Mean Canopy Height: 58.3 cm Top Leaf Height: 58.3 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture: 0. 81.41 72.80  
Wet Biomass Density: 0. 8.27 8.47 2.86 6.53 6 53  
Dry Biomass Density: 0. 1 57 0.78  
Plant Water Density: 0. 6.89 2.08

Wheat Field # 9 DATE: 5/19/82 (Julian:139)  
Time:15:30 Mean Canopy Height: 68.0 cm Top Leaf Height 58.7 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 6.18 2.44 4.60 5.91 4 32 4.53  
Dry Biomass Density:  
Plant Water Density:

Wheat Field # 9 DATE: 6/ 7/82 (Julian:158)  
 Time:14:24 Mean Canopy Height: 67.5 cm Top Leaf Height: 51.3 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 10.55 0.86 2.35 3.00 2.07 3.06  
 Wet Biomass Density: 6.99 0.79 1.52 1.47 1.26 1.96  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 9 DATE: 6/14/82 (Julian:165)  
 Time:10:36 Mean Canopy Height: 64.0 cm Top Leaf Height: 49.3 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 51.08 56.85 60.33 59.96 59.55 55.86  
 Wet Biomass Density: 11.87 1.23 3.20 2.06 2.17 3.36  
 Dry Biomass Density: 5.81 0.53 1.27 0.83 0.88 1.48  
 Plant Water Density: 6.06 0.70 1.93 1.24 1.29 1.88

Wheat Field # 9 DATE: 6/16/82 (Julian:167)  
 Time:15:06 Mean Canopy Height: 66.7 cm Top Leaf Height: 51.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 12.41 1.00 2.12 2.53 1.88 3.13  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 9 DATE: 6/21/82 (Julian:172)  
 Time:11:15 Mean Canopy Height: 68.3 cm Top Leaf Height: 50.5 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 36.69 56.37 45.42 52.02 49.73 44.14  
 Wet Biomass Density: 7.79 0.62 1.82 1.62 1.35 2.10  
 Dry Biomass Density: 4.93 0.27 0.99 0.78 0.68 1.17  
 Plant Water Density: 2.86 0.35 0.83 0.84 0.67 0.93

Wheat Field # 9 DATE: 6/25/82 (Julian:176)  
 Time:10:10 Mean Canopy Height: 66.3 cm Top Leaf Height: 51.8 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 6.77 0.44 1.51 2.15 1.37 2.01  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 9 DATE: 6/28/82 (Julian:179)  
 Time:15:00 Mean Canopy Height: 67.0 cm Top Leaf Height: 48.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 32.65 31.46 28.28 37.17 33.25 33.06  
 Wet Biomass Density: 3.68 0.54 1.03 1.55 1.04 1.35  
 Dry Biomass Density: 2.48 0.37 0.74 0.97 0.69 0.90  
 Plant Water Density: 1.20 0.17 0.29 0.57 0.34 0.45

Wheat Field # 9 DATE: 7/ 2/82 (Julian:183)  
 Time:10:33 Mean Canopy Height: 64.8 cm Top Leaf Height: cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 6.99 0.79 1.52 1.47 1.26 1.96  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field # 9 DATE: 7/ 7/82 (Julian:188)  
 Time:10:33 Mean Canopy Height: 65.7 cm Top Leaf Height: cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 6.14 39.96 20.97 23.70 26.92 20.58  
 Wet Biomass Density: 6.86 1.62 2.09 2.71 2.14 2.71  
 Dry Biomass Density: 6.44 0.97 1.65 2.07 1.56 2.15  
 Plant Water Density: 0.42 0.65 0.44 0.64 0.58 0.56

Wheat Field # 9 DATE: 7/ 9/82 (Julian:190)  
 Time:15:21 Mean Canopy Height: 28.3 cm Top Leaf Height: 0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field #10 DATE: 4/30/82 (Julian:120)  
 Time:15:45 Mean Canopy Height: 25.0 cm Top Leaf Height: 25.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0 70.13 70.76 76.67 73.72 73.72  
 Wet Biomass Density: 0. 2.64 2.83 6.03 3.83 3.83  
 Dry Biomass Density: 0. 0.79 0.83 1.41 1.01 1.01  
 Plant Water Density: 0. 1.85 2.01 4.62 2.83 2.83

Wheat Field #10 DATE: 5/ 3/82 (Julian:123)  
 Time:15:30 Mean Canopy Height 35.0 cm Top Leaf Height: 35.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0. 73.50 70.81 74.20 73.09 73.09  
 Wet Biomass Density: 0. 4.35 2.86 4.26 3.82 3.82  
 Dry Biomass Density: 0. 1.15 0.83 1.10 1.03 1.03  
 Plant Water Density: 0 3.20 2.02 3.16 2.79 2.79

Wheat Field #10 DATE: 5/14/82 (Julian:134)  
 Time:16:15 Mean Canopy Height: 52.0 cm Top Leaf Height: 52.0 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 0 78.03 77.95 77.27 77.74 77.74  
 Wet Biomass Density: 0 5.73 3.55 5.05 4.78 4.78  
 Dry Biomass Density: 0 1.26 0.78 1.15 1.06 1.06  
 Plant Water Density: 0 4.47 2.77 3.90 3.72 3.72



Wheat Field #10 DATE: 5/24/82 (Julian:144)  
Time:14:20 Mean Canopy Height: 75.5 cm Top Leaf Height: 55.2 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant

% Plant Moisture: 50.49 51.78 52.92 55.40 53.83 52.37  
Wet Biomass Density: 7.83 0.55 1.34 1.49 1.12 1.79  
Dry Biomass Density: 3.88 0.26 0.63 0.66 0.52 0.85  
Plant Water Density: 3.95 0.28 0.71 0.82 0.61 0.94

Wheat Field #10 DATE: 5/26/82 (Julian:146)  
Time:09:43 Mean Canopy Height: 74.7 cm Top Leaf Height: 58.0 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant

% Plant Moisture: 50.49 51.78 52.92 55.40 53.83 52.37  
Wet Biomass Density: 7.83 0.55 1.34 1.49 1.12 1.79  
Dry Biomass Density: 3.88 0.26 0.63 0.66 0.52 0.85  
Plant Water Density: 3.95 0.28 0.71 0.82 0.61 0.94

Wheat Field #10 DATE: 6/ 1/82 (Julian:152)  
Time:10:50 Mean Canopy Height: 82.8 cm Top Leaf Height: 60.0 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant

% Plant Moisture: 50.49 51.78 52.92 55.40 53.83 52.37  
Wet Biomass Density: 7.83 0.55 1.34 1.49 1.12 1.79  
Dry Biomass Density: 3.88 0.26 0.63 0.66 0.52 0.85  
Plant Water Density: 3.95 0.28 0.71 0.82 0.61 0.94

Wheat Field #10 DATE: 6/ 4/82 (Julian:155)  
Time:10 52 Mean Canopy Height: 84.7 cm Top Leaf Height: 62.3 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant

% Plant Moisture: 50.49 51.78 52.92 55.40 53.83 52.37  
Wet Biomass Density: 7.83 0.55 1.34 1.49 1.12 1.79  
Dry Biomass Density: 3.88 0.26 0.63 0.66 0.52 0.85  
Plant Water Density: 3.95 0.28 0.71 0.82 0.61 0.94

Wheat Field #10 DATE: 6/ 7/82 (Julian:158)  
Time:12.05 Mean Canopy Height: 77.5 cm Top Leaf Height: 53.3 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant

% Plant Moisture: 50.49 51.78 52.92 55.40 53.83 52.37  
Wet Biomass Density: 7.83 0.55 1.34 1.49 1.12 1.79  
Dry Biomass Density: 3.88 0.26 0.63 0.66 0.52 0.85  
Plant Water Density: 3.95 0.28 0.71 0.82 0.61 0.94

Wheat Field #10 DATE: 6/ 9/82 (Julian:160)  
Time:13:17 Mean Canopy Height: 77.5 cm Top Leaf Height: 54.5 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant

% Plant Moisture: 50.49 51.78 52.92 55.40 53.83 52.37  
Wet Biomass Density: 7.83 0.55 1.34 1.49 1.12 1.79  
Dry Biomass Density: 3.88 0.26 0.63 0.66 0.52 0.85  
Plant Water Density: 3.95 0.28 0.71 0.82 0.61 0.94

Wheat Field #10 DATE: 6/14/82 (Julian:165)  
Time:10:10 Mean Canopy Height: 79.2 cm Top Leaf Height: 52.5 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant

% Plant Moisture: 50.49 51.78 52.92 55.40 53.83 52.37  
Wet Biomass Density: 7.83 0.55 1.34 1.49 1.12 1.79  
Dry Biomass Density: 3.88 0.26 0.63 0.66 0.52 0.85  
Plant Water Density: 3.95 0.28 0.71 0.82 0.61 0.94

Wheat Field #10 DATE: 6/16/82 (Julian:167)  
Time:15:00 Mean Canopy Height: 74.8 cm Top Leaf Height: 53.2 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant

% Plant Moisture: 50.49 51.78 52.92 55.40 53.83 52.37  
Wet Biomass Density: 7.83 0.55 1.34 1.49 1.12 1.79  
Dry Biomass Density: 3.88 0.26 0.63 0.66 0.52 0.85  
Plant Water Density: 3.95 0.28 0.71 0.82 0.61 0.94

Wheat Field #10 DATE: 6/18/82 (Julian:169)  
Time:14:06 Mean Canopy Height: 77.0 cm Top Leaf Height: 54.7 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant

% Plant Moisture: 50.49 51.78 52.92 55.40 53.83 52.37  
Wet Biomass Density: 7.83 0.55 1.34 1.49 1.12 1.79  
Dry Biomass Density: 3.88 0.26 0.63 0.66 0.52 0.85  
Plant Water Density: 3.95 0.28 0.71 0.82 0.61 0.94

Wheat Field #10 DATE: 6/21/82 (Julian:172)  
Time:11:50 Mean Canopy Height: 73.0 cm Top Leaf Height: 53.0 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant

% Plant Moisture: 50.49 51.78 52.92 55.40 53.83 52.37  
Wet Biomass Density: 7.83 0.55 1.34 1.49 1.12 1.79  
Dry Biomass Density: 3.88 0.26 0.63 0.66 0.52 0.85  
Plant Water Density: 3.95 0.28 0.71 0.82 0.61 0.94

Wheat Field #10 DATE: 6/25/82 (Julian:176)  
Time: Mean Canopy Height: 69.3 cm Top Leaf Height: 52.2 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant

% Plant Moisture: 50.49 51.78 52.92 55.40 53.83 52.37  
Wet Biomass Density: 7.83 0.55 1.34 1.49 1.12 1.79  
Dry Biomass Density: 3.88 0.26 0.63 0.66 0.52 0.85  
Plant Water Density: 3.95 0.28 0.71 0.82 0.61 0.94

Wheat Field #10 DATE: 6/28/82 (Julian:179)  
Time:15:40 Mean Canopy Height: 72.0 cm Top Leaf Height: 52.3 cm  
Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant

% Plant Moisture: 50.49 51.78 52.92 55.40 53.83 52.37  
Wet Biomass Density: 7.83 0.55 1.34 1.49 1.12 1.79  
Dry Biomass Density: 3.88 0.26 0.63 0.66 0.52 0.85  
Plant Water Density: 3.95 0.28 0.71 0.82 0.61 0.94

Wheat Field #10 DATE: 7/ 2/82 (Julian:183)  
 Time:10:13 Mean Canopy Height: 68.5 cm Top Leaf Height: 50.7 cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 4.90 0.33 1.10 0.41 0.61 1.11  
 Dry Biomass Density:  
 Plant Water Density:

Wheat Field #10 DATE: 7/ 7/82 (Julian:188)  
 Time:11:10 Mean Canopy Height: 30.2 cm Top Leaf Height: 0. cm  
 Plant Parts: Head Top1/3 Mid1/3 Low1/3 All Layers Whole Plant  
 % Plant Moisture: 4.49  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Appendix III.a.2  
Wheat Vegetation Density Data

Field	Row Separation			Number of Plant Stems per 15 cm Row			Number of Heads per 15 cm Row			Head Length (cm)			Number of Plants per Meter of Row	Number of Plant Stems per m <sup>2</sup>
	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N		
1	12.9	3.6	18	34.1	13.7	18	37.9	14.7	12	9.2	0.7	6	227.3	1762.3
2	14.3	1.2	18	16.6	9.5	18	28.2	10.4	12	8.9	0.9	6	177.3	1240.1
3	14.8	0.7	18	18.2	5.0	18	21.3	5.9	12	9.7	1.5	6	121.3	819.8
4	16.8	1.5	6	22.3	1.6	6	--	--	--	9.4	1.1	6	148.7	884.9
5	16.1	0.7	18	22.4	13.6	18	25.2	12.7	12	9.1	0.7	6	149.3	927.5
6	15.3	0.7	18	15.1	6.7	18	15.8	7.8	12	7.5	0.9	6	100.7	658.0
7	17.2	0.9	18	15.9	5.6	18	17.1	6.2	12	11.6	0.5	6	106.0	616.3
8	15.9	1.6	18	25.1	5.2	18	25.3	5.8	12	6.9	0.7	6	167.3	1052.4
9	15.7	1.0	18	11.2	3.0	18	11.5	3.3	12	7.9	1.0	6	74.7	475.8
10	15.9	2.4	18	15.0	3.3	18	14.7	3.2	12	7.9	0.8	6	100.0	628.9

Appendix III.a.3  
Wheat Field Soil Moisture Data

Wheat	Field#: 1	Date: 4/12/82 (Julian: 102)	Time: 15:10		Wheat	Field#: 1	Date: 5/14/82 (Julian: 134)	Time: 13:45
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean S.D. S.D./Mean		Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean S.D. S.D./Mean
0-2 cm	20.67	26.46 22.74	23.29 2.93 1.26		0-2 cm	30.21	31.91 27.12	29.75 2.43 0.82
2-5 cm	20.67	26.46 22.74	23.29 2.93 1.26		2-5 cm	30.21	31.91 27.12	29.75 2.43 0.82
0-5 cm	20.67	26.46 22.74	23.29 2.93 1.26		0-5 cm	30.21	31.91 27.12	29.75 2.43 0.82
Wheat	Field#: 1	Date: 4/16/82 (Julian: 106)	Time: 12:55		Wheat	Field#: 1	Date: 5/17/82 (Julian: 137)	Time: 15:09
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean S.D. S.D./Mean		Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean S.D. S.D./Mean
0-2 cm	25.62	18.63 14.80	19.68 5.49 2.79		0-2 cm	34.78	33.85 30.79	33.14 2.08 0.63
2-5 cm	25.62	18.63 14.80	19.68 5.49 2.79		2-5 cm	34.78	33.85 30.79	33.14 2.08 0.63
0-5 cm	25.62	18.63 14.80	19.68 5.49 2.79		0-5 cm	34.78	33.85 30.79	33.14 2.08 0.63
Wheat	Field#: 1	Date: 4/19/82 (Julian: 109)	Time: 12:55		Wheat	Field#: 1	Date: 5/19/82 (Julian: 139)	Time: 10:26
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean S.D. S.D./Mean		Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean S.D. S.D./Mean
0-2 cm	18.73	13.85 18.38	16.98 2.72 1.60		0-2 cm	26.11	30.32 28.54 32.18 34.00 35.95 31.18 3.61 1.16	
2-5 cm	18.73	13.85 18.38	16.98 2.72 1.60		2-5 cm	27.18	28.94 24.28 26.23 29.13 31.02 27.80 2.40 0.86	
0-5 cm	18.73	13.85 18.38	16.98 2.72 1.60		0-5 cm	26.75	29.49 25.98 28.61 31.08 32.99 29.15 2.88 0.98	
Wheat	Field#: 1	Date: 4/26/82 (Julian: 116)	Time: 12:45		Wheat	Field#: 1	Date: 5/21/82 (Julian: 141)	Time: 15:10
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean S.D. S.D./Mean		Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean S.D. S.D./Mean
0-2 cm	18.13	21.90 17.66	19.23 2.33 1.21		0-2 cm	29.38	29.00 27.64 29.40 29.37 29.07 28.98 0.68 0.23	
2-5 cm	18.13	21.90 17.66	19.23 2.33 1.21		2-5 cm	28.64	27.06 32.11 29.55 27.58 28.91 28.97 1.78 0.61	
0-5 cm	18.13	21.90 17.66	19.23 2.33 1.21		0-5 cm	28.94	27.84 30.32 29.49 28.30 28.97 28.98 1.34 0.46	
Wheat	Field#: 1	Date: 4/30/82 (Julian: 120)	Time: 12:45		Wheat	Field#: 1	Date: 5/26/82 (Julian: 146)	Time: 15:07
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean S.D. S.D./Mean		Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean S.D. S.D./Mean
0-2 cm	22.45	25.67 25.20	24.44 1.74 0.71		0-2 cm	36.25	34.45 30.60 31.68 32.41 33.08 2.26 0.68	
2-5 cm	22.45	25.67 25.20	24.44 1.74 0.71		2-5 cm	29.66	30.67 31.75 29.14 34.36 32.90 31.41 1.99 0.63	
0-5 cm	22.45	25.67 25.20	24.44 1.74 0.71		0-5 cm	32.29	32.18 31.29 33.29 32.70 32.08 2.10 0.65	
Wheat	Field#: 1	Date: 5/ 3/82 (Julian: 123)	Time: 13:15		Wheat	Field#: 1	Date: 6/ 1/82 (Julian: 152)	Time: 15:07
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean S.D. S.D./Mean		Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean S.D. S.D./Mean
0-2 cm	43.93	45.05 41.69	43.56 1.71 0.39		0-2 cm	34.43	35.00 34.73 35.98 39.07 37.04 36.04 1.76 0.49	
2-5 cm	43.93	45.05 41.69	43.56 1.71 0.39		2-5 cm	34.19	35.39 33.61 33.44 36.59 32.10 34.22 1.58 0.46	
0-5 cm	43.93	45.05 41.69	43.56 1.71 0.39		0-5 cm	34.29	35.23 34.06 34.46 37.58 34.07 34.95 1.65 0.47	
Wheat	Field#: 1	Date: 5/ 7/82 (Julian: 127)	Time: 14:05		Wheat	Field#: 1	Date: 6/ 4/82 (Julian: 155)	Time: 14:25
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean S.D. S.D./Mean		Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean S.D. S.D./Mean
0-2 cm	27.45	26.55 26.59	26.86 0.51 0.19		0-2 cm	33.06	29.11 26.52 31.10 38.24 42.57 33.43 5.98 1.79	
2-5 cm	27.45	26.55 26.59	26.86 0.51 0.19		2-5 cm	28.42	31.08 32.50 31.88 34.19 38.83 32.82 3.51 1.07	
0-5 cm	27.45	26.55 26.59	26.86 0.51 0.19		0-5 cm	30.27	30.29 30.11 31.57 35.81 40.33 33.06 4.50 1.36	
Wheat	Field#: 1	Date: 5/10/82 (Julian: 130)	Time: 14:00		Wheat	Field#: 1	Date: 6/14/82 (Julian: 165)	Time: 14:40
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean S.D. S.D./Mean		Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean S.D. S.D./Mean
0-2 cm	19.01	24.19 23.54	22.25 2.82 1.27		0-2 cm	39.05	37.01 36.20 35.88 36.03 34.92 36.52 1.41 0.39	
2-5 cm	19.01	24.19 23.54	22.25 2.82 1.27		2-5 cm	33.95	34.99 34.12 33.92 34.38 35.15 34.42 0.53 0.15	
0-5 cm	19.01	24.19 23.54	22.25 2.82 1.27		0-5 cm	35.99	35.80 34.96 34.71 35.04 35.05 35.26 0.88 0.25	

Wheat										Field#: 1	Date: 7/15/82 (Julian: 196)	Time: 10:46						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	37.73	43.73	36.30	39.93	39.32	37.97	39.16	2.57	0.66	28.96	32.24	40.31	37.31	39.21	30.82	34.80	4.76	1.37
2-5 cm	39.49	42.33	35.89	40.70	44.13	36.03	39.76	3.34	0.84	28.02	28.63	36.95	33.60	32.87	31.26	31.90	3.32	1.04
0-5 cm	38.78	42.89	36.05	40.39	42.21	36.80	39.52	3.03	0.77	28.41	30.08	38.29	35.09	35.41	31.08	33.06	3.89	1.17
Wheat										Field#: 2	Date: 4/12/82 (Julian: 102)	Time: 15:20						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	36.61	39.63	37.53	35.76	34.80	34.39	36.45	1.94	0.53	11.47	12.98	13.99				12.81	1.26	0.99
2-5 cm	36.26	35.75	33.90	35.43	36.16	34.75	35.37	0.91	0.26	11.47	12.98	13.99				12.81	1.26	0.99
0-5 cm	36.40	37.30	35.35	35.56	35.62	34.60	35.81	1.32	0.37	11.47	12.98	13.99				12.81	1.26	0.99
Wheat										Field#: 1	Date: 6/25/82 (Julian: 176)	Time: 11:10						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	34.50	37.96	34.57	43.27	35.34	35.70	36.89	3.37	0.91	8.82	7.09	7.14				7.68	0.99	1.28
2-5 cm	32.83	33.50	33.71	37.19	34.75	29.40	33.56	2.55	0.76	8.82	7.09	7.14				7.68	0.99	1.28
0-5 cm	33.50	35.28	34.05	39.62	34.99	31.92	34.89	2.88	0.82	8.82	7.09	7.14				7.68	0.99	1.28
Wheat										Field#: 2	Date: 6/28/82 (Julian: 179)	Time: 13:50						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	36.52	35.11	33.86	35.40	35.94	43.84	36.78	3.57	0.97	13.95	9.29	10.19				11.14	2.48	2.22
2-5 cm	37.66	31.97	32.12	35.41	33.60	35.03	34.30	2.18	0.63	13.95	9.29	10.19				11.14	2.48	2.22
0-5 cm	37.20	33.23	32.82	35.40	34.53	38.56	35.29	2.74	0.77	13.95	9.29	10.19				11.14	2.48	2.22
Wheat										Field#: 1	Date: 7/6/82 (Julian: 187)	Time: 12:50						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	33.74	30.81	31.29	33.29	33.46	33.70	32.72	1.31	0.40	13.73	14.87	11.90				13.50	1.50	1.11
2-5 cm	33.53	31.83	31.57	31.07	32.59	33.18	32.30	0.97	0.30	13.73	14.87	11.90				13.50	1.50	1.11
0-5 cm	33.62	31.42	31.46	31.96	32.94	33.39	32.46	1.10	0.34	13.73	14.87	11.90				13.50	1.50	1.11
Wheat										Field#: 2	Date: 7/7/82 (Julian: 188)	Time: 13:40						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	32.14	30.76	30.15	31.97	35.07	33.50	32.27	1.80	0.56	25.08	22.90	24.08				24.02	1.09	0.45
2-5 cm	30.56	30.34	29.09	31.84	33.71	31.91	31.24	1.60	0.51	25.08	22.90	24.08				24.02	1.09	0.45
0-5 cm	31.19	30.51	29.51	31.89	34.26	32.54	31.65	1.68	0.53	25.08	22.90	24.08				24.02	1.09	0.45
Wheat										Field#: 1	Date: 7/12/82 (Julian: 193)	Time: 10:10						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	36.51	36.39	36.47	33.21	36.08	43.76	37.07	3.51	0.95	41.46	41.94	42.79				42.06	0.67	0.16
2-5 cm	30.43	36.73	32.79	32.36	31.34	34.87	33.09	2.33	0.70	41.46	41.94	42.79				42.06	0.67	0.16
0-5 cm	32.86	36.59	34.26	32.70	33.23	38.42	34.68	2.80	0.80	41.46	41.94	42.79				42.06	0.67	0.16
Wheat										Field#: 2	Date: 7/13/82 (Julian: 194)	Time: 14:00						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	28.92	32.24	20.48	30.82			28.12	5.27	1.87	28.47	28.83	30.61				29.31	1.15	0.39
2-5 cm	28.06	28.63	16.11	31.90			26.18	6.92	2.64	28.47	28.83	30.61				29.31	1.15	0.39
0-5 cm	28.41	30.08	17.86	31.47			26.95	6.26	2.34	28.47	28.83	30.61				29.31	1.15	0.39

Wheat	Field#:	2	Date:	5/10/82 (Julian: 130)	Time: 13:55	Mean	S.D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6		
0-2 cm	19.43	18.74	20.30				19.49	0.78
2-5 cm	19.43	18.74	20.30				19.49	0.78
0-5 cm	19.43	18.74	20.30				19.49	0.78
Wheat	Field#:	2	Date:	5/14/82 (Julian: 134)	Time: 13:50	Mean	S.D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6		
0-2 cm	32.16	30.34	30.96				31.15	0.92
2-5 cm	32.16	30.34	30.96				31.15	0.92
0-5 cm	32.16	30.34	30.96				31.15	0.92
Wheat	Field#:	2	Date: <th>5/17/82 (Julian: 137)</th> <th>Time: 15:28</th> <th>Mean</th> <th>S.D.</th> <th>S.D./Mean</th>	5/17/82 (Julian: 137)	Time: 15:28	Mean	S.D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6		
0-2 cm	31.33	35.27	34.25				33.62	2.04
2-5 cm	31.33	35.27	34.25				33.62	2.04
0-5 cm	31.33	35.27	34.25				33.62	2.04
Wheat	Field#:	2	Date: <th>5/19/82 (Julian: 139)</th> <th>Time: 10:50</th> <th>Mean</th> <th>S.D.</th> <th>S.D./Mean</th>	5/19/82 (Julian: 139)	Time: 10:50	Mean	S.D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6		
0-2 cm	27.20	28.12	27.92	32.85	34.08	31.32	30.25	2.89
2-5 cm	26.49	25.86	26.45	34.10	29.40	33.32	29.27	3.66
0-5 cm	26.77	26.76	27.04	33.60	31.27	32.52	29.66	3.35
Wheat	Field#:	2	Date: <th>5/21/82 (Julian: 141)</th> <th>Time: 15:07</th> <th>Mean</th> <th>S.D.</th> <th>S.D./Mean</th>	5/21/82 (Julian: 141)	Time: 15:07	Mean	S.D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6		
0-2 cm	37.02	32.69	32.24	31.54	32.24	30.74	32.74	2.20
2-5 cm	31.55	31.26	29.25	30.25	32.61	29.35	30.71	1.33
0-5 cm	33.74	31.83	30.45	30.77	32.46	29.90	31.52	1.68
Wheat	Field#:	2	Date: <th>5/26/82 (Julian: 146)</th> <th>Time:</th> <th>Mean</th> <th>S.D.</th> <th>S.D./Mean</th>	5/26/82 (Julian: 146)	Time:	Mean	S.D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6		
0-2 cm	30.75	31.52	34.84	32.87	32.12	31.27	32.23	1.47
2-5 cm	30.40	31.32	33.79	33.07	30.83	31.33	31.79	1.34
0-5 cm	30.54	31.40	34.21	32.99	31.35	31.30	31.96	1.39
Wheat	Field#:	2	Date: <th>6/1/82 (Julian: 152)</th> <th>Time: 15:06</th> <th>Mean</th> <th>S.D.</th> <th>S.D./Mean</th>	6/1/82 (Julian: 152)	Time: 15:06	Mean	S.D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6		
0-2 cm	30.05	32.81	39.38	42.84	34.15	29.62	34.81	5.28
2-5 cm	31.45	33.07	36.74	37.21	34.07	30.42	33.83	2.75
0-5 cm	30.89	32.97	37.79	39.46	34.10	30.10	34.22	3.76
Wheat	Field#:	2	Date: <th>6/4/82 (Julian: 155)</th> <th>Time: 14:35</th> <th>Mean</th> <th>S.D.</th> <th>S.D./Mean</th>	6/4/82 (Julian: 155)	Time: 14:35	Mean	S.D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6		
0-2 cm	27.98	30.42	36.15	41.14	32.88	25.49	32.34	5.69
2-5 cm	28.46	27.79	32.92	35.34	31.80	27.91	30.70	3.13
0-5 cm	28.27	28.84	34.21	37.66	32.23	26.94	31.36	4.15
Wheat	Field#:	2	Date: <th>6/10/82 (Julian: 161)</th> <th>Time: 14:38</th> <th>Mean</th> <th>S.D.</th> <th>S.D./Mean</th>	6/10/82 (Julian: 161)	Time: 14:38	Mean	S.D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6		
0-2 cm	30.60	33.09	33.90	35.75	34.78	30.96	33.51	2.20
2-5 cm	30.81	36.35	35.57	33.32	33.05	30.62	33.29	2.36
0-5 cm	30.72	35.85	34.90	34.29	33.74	30.76	33.38	2.30
Wheat	Field#:	2	Date: <th>6/16/82 (Julian: 167)</th> <th>Time: 09:35</th> <th>Mean</th> <th>S.D.</th> <th>S.D./Mean</th>	6/16/82 (Julian: 167)	Time: 09:35	Mean	S.D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6		
0-2 cm	32.46	37.60	36.75	40.57	36.73	34.03	36.36	2.83
2-5 cm	30.60	38.01	36.06	35.65	35.97	33.60	34.98	2.57
0-5 cm	31.34	37.85	36.34	37.62	36.27	33.77	35.53	2.67
Wheat	Field#:	2	Date: <th>6/21/82 (Julian: 172)</th> <th>Time: 09:50</th> <th>Mean</th> <th>S.D.</th> <th>S.D./Mean</th>	6/21/82 (Julian: 172)	Time: 09:50	Mean	S.D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6		
0-2 cm	29.57	33.85	35.61	33.62	34.13	30.56	32.89	2.32
2-5 cm	27.09	36.76	33.93	32.84	31.35	29.60	31.93	3.38
0-5 cm	28.08	35.59	34.60	33.15	32.47	29.98	32.31	2.96
Wheat	Field#:	2	Date: <th>6/25/82 (Julian: 176)</th> <th>Time: 11:25</th> <th>Mean</th> <th>S.D.</th> <th>S.D./Mean</th>	6/25/82 (Julian: 176)	Time: 11:25	Mean	S.D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6		
0-2 cm	29.96	31.75	33.45	32.37	34.48	31.72	32.29	1.56
2-5 cm	27.32	29.32	33.54	31.32	33.35	29.88	30.79	2.42
0-5 cm	28.37	30.30	33.50	31.74	33.80	30.61	31.39	2.08
Wheat	Field#:	2	Date: <th>6/28/82 (Julian: 179)</th> <th>Time: 14:00</th> <th>Mean</th> <th>S.D.</th> <th>S.D./Mean</th>	6/28/82 (Julian: 179)	Time: 14:00	Mean	S.D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6		
0-2 cm	30.17	32.18	31.34	36.19	32.20	32.31	32.40	2.03
2-5 cm	28.26	27.80	30.09	30.50	30.53	31.86	29.84	1.53
0-5 cm	29.02	29.56	30.59	32.78	31.20	32.04	30.86	1.73
Wheat	Field#:	2	Date: <th>7/6/82 (Julian: 187)</th> <th>Time:</th> <th>Mean</th> <th>S.D.</th> <th>S.D./Mean</th>	7/6/82 (Julian: 187)	Time:	Mean	S.D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6		
0-2 cm	21.72	28.32	31.92	31.94	20.95	23.26	26.35	5.03
2-5 cm	22.92	28.67	28.26	30.90	23.23	24.57	26.43	3.30
0-5 cm	22.44	28.53	29.73	31.31	22.32	24.04	26.40	3.99
Wheat	Field#:	2	Date: <th>7/7/82 (Julian: 188)</th> <th>Time: 14:00</th> <th>Mean</th> <th>S.D.</th> <th>S.D./Mean</th>	7/7/82 (Julian: 188)	Time: 14:00	Mean	S.D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6		
0-2 cm	26.94	28.83	31.00	31.28	28.09	24.37	28.42	2.60
2-5 cm	25.02	27.28	29.22	30.26	28.96	22.28	27.17	3.02
0-5 cm	25.79	27.90	29.93	30.67	28.61	23.12	27.67	2.85
Wheat	Field#:	3	Date: <th>4/12/82 (Julian: 102)</th> <th>Time: 15:30</th> <th>Mean</th> <th>S.D.</th> <th>S.D./Mean</th>	4/12/82 (Julian: 102)	Time: 15:30	Mean	S.D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6		
0-2 cm	16.56	20.30	15.35				17.40	2.58
2-5 cm	16.56	20.30	15.35				17.40	2.58
0-5 cm	16.56	20.30	15.35				17.40	2.58

Wheat										Field#: 3	Date: 4/16/82 (Julian: 106)						Time: 13:10		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean						
0-2 cm	16.59	14.54	9.81								13.64	3.48	2.55						
2-5 cm	16.59	14.54	9.81								13.64	3.48	2.55						
0-5 cm	16.59	14.54	9.81								13.64	3.48	2.55						
Wheat										Field#: 3	Date: 4/19/82 (Julian: 109)						Time: 13:20		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean						
0-2 cm	17.26	10.18	10.81								12.75	3.92	3.07						
2-5 cm	17.26	10.18	10.81								12.75	3.92	3.07						
0-5 cm	17.26	10.18	10.81								12.75	3.92	3.07						
Wheat										Field#: 3	Date: 4/26/82 (Julian: 116)						Time: 13:05		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean						
0-2 cm	11.68	13.11	16.47								13.75	2.46	1.79						
2-5 cm	11.68	13.11	16.47								13.75	2.46	1.79						
0-5 cm	11.68	13.11	16.47								13.75	2.46	1.79						
Wheat										Field#: 3	Date: 4/30/82 (Julian: 120)						Time: 14:07		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean						
0-2 cm	24.77	24.32	18.84								22.64	3.30	1.46						
2-5 cm	24.77	24.32	18.84								22.64	3.30	1.46						
0-5 cm	24.77	24.32	18.84								22.64	3.30	1.46						
Wheat										Field#: 3	Date: 5/ 3/82 (Julian: 123)						Time: 14:48		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean						
0-2 cm	37.34	43.11	49.09								43.18	5.88	1.36						
2-5 cm	37.34	43.11	49.09								43.18	5.88	1.36						
0-5 cm	37.34	43.11	49.09								43.18	5.88	1.36						
Wheat										Field#: 3	Date: 5/ 7/82 (Julian: 127)						Time: 15:40		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean						
0-2 cm	22.30	24.10	27.89								24.76	2.85	1.15						
2-5 cm	22.30	24.10	27.89								24.76	2.85	1.15						
0-5 cm	22.30	24.10	27.89								24.76	2.85	1.15						
Wheat										Field#: 3	Date: 5/10/82 (Julian: 130)						Time: 14:50		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean						
0-2 cm	15.90	19.80	16.27								17.32	2.16	1.24						
2-5 cm	15.90	19.80	16.27								17.32	2.16	1.24						
0-5 cm	15.90	19.80	16.27								17.32	2.16	1.24						
Wheat										Field#: 3	Date: 5/14/82 (Julian: 134)						Time: 14:20		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean						
0-2 cm	25.98	25.25									25.61	0.52	0.20						
2-5 cm	25.98	25.25									25.61	0.52	0.20						
0-5 cm	25.98	25.25									25.61	0.52	0.20						
Wheat										Field#: 3	Date: 5/17/82 (Julian: 137)						Time: 16:00		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean						
0-2 cm	29.69	26.64									28.16	2.16	0.77						
2-5 cm	29.69	26.64									28.16	2.16	0.77						
0-5 cm	29.69	26.64									28.16	2.16	0.77						
Wheat										Field#: 3	Date: 5/19/82 (Julian: 139)						Time:		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean						
0-2 cm	24.24	23.08	21.87	25.06	37.26	18.92	18.92	18.92	18.92	18.92	25.07	6.35	2.53						
2-5 cm	24.30	24.28	22.27	24.82	25.36	26.06	24.52	24.52	24.52	24.52	25.07	6.35	2.53						
0-5 cm	24.28	23.80	22.11	24.92	30.12	23.21	24.74	24.74	24.74	24.74	25.07	6.35	2.53						
Wheat										Field#: 3	Date: 5/21/82 (Julian: 141)						Time: 14:36		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean						
0-2 cm	27.58	25.65	22.32	24.63	25.83	27.89	25.65	25.65	25.65	25.65	27.89	2.04	0.80						
2-5 cm	27.20	26.46	22.70	24.62	25.87	28.57	25.90	25.90	25.90	25.90	27.89	2.04	0.80						
0-5 cm	27.35	26.14	22.55	24.62	25.85	28.29	25.80	25.80	25.80	25.80	27.89	2.04	0.80						
Wheat										Field#: 3	Date: 5/26/82 (Julian: 146)						Time: 14:21		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean						
0-2 cm	28.23	26.22	25.50	29.20	25.58	27.65	27.06	27.06	27.06	27.06	27.65	1.52	0.56						
2-5 cm	29.72	26.09	27.10	28.97	26.27	27.72	27.64	27.64	27.64	27.64	27.65	1.52	0.56						
0-5 cm	29.13	26.14	26.46	29.06	25.99	27.69	27.41	27.41	27.41	27.41	27.65	1.52	0.56						
Wheat										Field#: 3	Date: 6/ 1/82 (Julian: 152)						Time: 13:00		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean						
0-2 cm	27.16	28.36	27.04	25.98	28.20	26.77	27.25	27.25	27.25	27.25	27.65	0.90	0.33						
2-5 cm	27.64	28.80	28.10	26.17	26.98	27.15	27.47	27.47	27.47	27.47	27.65	0.90	0.33						
0-5 cm	27.45	28.62	27.68	26.09	27.47	27.00	27.38	27.38	27.38	27.38	27.65	0.90	0.33						
Wheat										Field#: 3	Date: 6/ 2/82 (Julian: 153)						Time: 12:22		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean						
0-2 cm	26.48	27.29	24.89	26.22	27.73	30.80	27.23	27.23	27.23	27.23	27.65	2.00	0.74						
2-5 cm	26.33	27.23	26.04	26.55	31.93	29.12	27.87	27.87	27.87	27.87	27.65	2.00	0.74						
0-5 cm	26.39	27.25	25.58	26.42	30.25	29.79	27.61	27.61	27.61	27.61	27.65	2.00	0.74						
Wheat										Field#: 3	Date: 6/ 4/82 (Julian: 155)						Time: 16:07		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean						
0-2 cm	27.79	31.25	25.40	26.51	28.94	24.37	27.38	27.38	27.38	27.38	27.65	2.50	0.91						
2-5 cm	23.61	26.03	31.22	27.78	27.35	33.38	28.23	28.23	28.23	28.23	27.65	2.50	0.91						
0-5 cm	25.28	28.12	28.89	27.27	27.98	29.77	27.89	27.89	27.89	27.89	27.65	2.50	0.91						
Wheat										Field#: 3	Date: 6/ 7/82 (Julian: 158)						Time:		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean						
0-2 cm	27.91	27.86	28.28	30.08	29.10	28.67	28.65	28.65	28.65	28.65	28.65	0.85	0.29						
2-5 cm	27.75	28.38	27.49	29.32	30.07	29.03	28.67	28.67	28.67	28.67	28.65	0.85	0.29						
0-5 cm	27.81	28.17	27.81	29.62	29.68	28.89	28.66	28.66	28.66	28.66	28.65	0.85	0.29						

Field#: 3 Date: 6/9/82 (Julian: 160) Time: 13:54									
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	30 01	30 06	24.61	27.29	29.68	32.90	29.09	2.83	0.97
0-2 cm	30 23	29 93	26.99	25.93	28.20	32.17	28.91	2.30	0.80
2-5 cm	30 14	29.98	26.03	26.48	28.79	32.46	28.98	2.51	0.87
0-5 cm									
Field#: 3 Date: 6/14/82 (Julian: 165) Time: 15:20									
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	27.73	27.50	26.38	25.60	26.70	26.75	26.78	0.77	0.29
0-2 cm	27.65	26.72	26.68	26.22	26.82	27.07	26.86	0.47	0.18
2-5 cm	27.68	27.03	26.56	25.97	26.77	26.94	26.83	0.59	0.22
0-5 cm									
Field#: 3 Date: 6/16/82 (Julian: 167) Time: 10:27									
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	28.27	27.61	26.97	26.51	27.11	29.13	27.60	0.96	0.35
0-2 cm	28.53	28.88	27.13	27.39	27.21	30.04	28.20	1.16	0.41
2-5 cm	28.42	28.37	27.06	27.04	27.17	29.68	27.96	1.08	0.39
0-5 cm									
Field#: 3 Date: 6/18/82 (Julian: 169) Time: 13:24									
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	27.05	27.53	24.48	26.11	25.94	29.72	26.80	1.77	0.66
0-2 cm	26.66	27.88	24.96	26.41	27.58	31.00	27.42	2.04	0.74
2-5 cm	26.82	27.74	24.77	26.29	26.92	30.49	27.17	1.93	0.71
0-5 cm									
Field#: 3 Date: 6/21/82 (Julian: 172) Time: 09:57									
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	26.23	27.32	26.57	24.91	26.80	27.81	26.60	1.00	0.38
0-2 cm	25.56	25.92	25.88	24.56	26.24	27.54	25.95	0.97	0.37
2-5 cm	25.83	26.48	26.15	24.70	26.46	27.65	26.21	0.98	0.37
0-5 cm									
Field#: 3 Date: 6/23/82 (Julian: 174) Time: 15:00									
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	27.27	25.72	25.16	25.79	28.46	28.70	26.85	1.51	0.56
0-2 cm	26.96	26.53	25.78	11.69	29.76	28.62	24.89	6.63	2.66
2-5 cm	27.08	26.20	25.53	17.33	29.24	28.65	25.67	4.58	1.82
0-5 cm									
Field#: 3 Date: 6/25/82 (Julian: 176) Time: 13:00									
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	21.81	24.12	23.05	22.61	25.14	26.14	23.82	1.63	0.69
0-2 cm	21.90	24.22	23.10	22.90	25.05	26.45	23.94	1.64	0.69
2-5 cm	21.87	24.18	23.08	22.79	25.09	26.33	23.89	1.64	0.69
0-5 cm									
Field#: 3 Date: 6/28/82 (Julian: 179) Time: 14:00									
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	25.45	23.68	19.67	28.92	28.80	25.30	3.87	1.53	0.53
0-2 cm	26.09	25.60	23.73	23.82	34.83	28.04	27.02	4.15	1.53
2-5 cm	25.54	23.71	22.16	32.47	28.35	26.33	4.03	1.53	0.53
0-5 cm									

Field#: 3 Date: 7/6/82 (Julian: 187) Time: 10:40									
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	20.55	15.35	6.06	22.18	21.54	24.09	18.30	6.67	3.65
0-2 cm	20.89	18.69	18.40	20.86	23.73	20.51	2.15	1.05	2.09
2-5 cm	20.75	17.35	13.46	21.13	23.87	19.63	3.96	2.09	2.09
0-5 cm									
Field#: 3 Date: 7/7/82 (Julian: 188) Time: 14:40									
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	21.07	19.08	18.76	18.44	20.73	21.83	19.98	1.40	0.70
0-2 cm	21.04	20.87	19.22	20.48	21.93	22.68	21.04	1.19	0.57
2-5 cm	21.05	20.15	19.04	19.66	21.45	22.34	20.62	1.28	0.62
0-5 cm									
Field#: 4 Date: 4/12/82 (Julian: 102) Time: 15:40									
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	8.60	14.08	12.97				11.88	2.89	2.44
0-2 cm	8.60	14.08	12.97				11.88	2.89	2.44
2-5 cm	8.60	14.08	12.97				11.88	2.89	2.44
0-5 cm									
Field#: 4 Date: 4/16/82 (Julian: 106) Time: 13:20									
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	8.14	4.95					6.55	2.25	3.44
0-2 cm	8.14	4.95					6.55	2.25	3.44
2-5 cm	8.14	4.95					6.55	2.25	3.44
0-5 cm									
Field#: 4 Date: 4/19/82 (Julian: 109) Time: 13:25									
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	9.43	8.67	11.11				9.74	1.25	1.28
0-2 cm	9.43	8.67	11.11				9.74	1.25	1.28
2-5 cm	9.43	8.67	11.11				9.74	1.25	1.28
0-5 cm									
Field#: 4 Date: 4/26/82 (Julian: 116) Time: 13:15									
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	11.08	13.77	8.61				11.15	2.58	2.31
0-2 cm	11.08	13.77	8.61				11.15	2.58	2.31
2-5 cm	11.08	13.77	8.61				11.15	2.58	2.31
0-5 cm									
Field#: 4 Date: 4/30/82 (Julian: 120) Time: 14:21									
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	14.97	10.61	15.99				13.85	2.86	2.06
0-2 cm	14.97	10.61	15.99				13.85	2.86	2.06
2-5 cm	14.97	10.61	15.99				13.85	2.86	2.06
0-5 cm									
Field#: 4 Date: 5/3/82 (Julian: 123) Time: 13:50									
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	28.95	27.53	29.56				28.68	1.04	0.36
0-2 cm	28.95	27.53	29.56				28.68	1.04	0.36
2-5 cm	28.95	27.53	29.56				28.68	1.04	0.36
0-5 cm									



Wheat	Field#:	4	Date:	5/7/82 (Julian: 127)	Time:	14:35			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	16.61	17.59	20.18				18.13	1.85	1.02
2-5 cm	16.61	17.59	20.18				18.13	1.85	1.02
0-5 cm	16.61	17.59	20.18				18.13	1.85	1.02
Wheat	Field#:	4	Date:	5/10/82 (Julian: 130)	Time:	14:20			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	11.12	9.58	10.97				10.55	0.85	0.80
2-5 cm	11.12	9.58	10.97				10.55	0.85	0.80
0-5 cm	11.12	9.58	10.97				10.55	0.85	0.80
Wheat	Field#:	4	Date:	5/14/82 (Julian: 134)	Time:				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	19.77	17.97	24.18				20.64	3.20	1.55
2-5 cm	19.77	17.97	24.18				20.64	3.20	1.55
0-5 cm	19.77	17.97	24.18				20.64	3.20	1.55
Wheat	Field#:	4	Date:	5/17/82 (Julian: 137)	Time:	16:01			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm							19.22		
2-5 cm							19.22		
0-5 cm							19.22		
Wheat	Field#:	4	Date:	5/21/82 (Julian: 141)	Time:	10:25			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	37.06	28.84	29.14	27.20	31.41	25.70	29.89	4.01	1.34
2-5 cm	32.83	30.12	26.54	24.43	24.39	29.25	27.93	3.38	1.21
0-5 cm	34.52	29.61	27.58	25.54	27.20	27.83	28.71	3.63	1.26
Wheat	Field#:	4	Date:	5/24/82 (Julian: 144)	Time:	10:05			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	37.45	29.65	27.95	25.68	21.53	29.72	28.66	5.28	1.84
2-5 cm	32.65	28.78	26.83	26.50	28.15	28.36	28.54	2.20	0.77
0-5 cm	34.57	29.13	27.28	26.17	25.50	28.90	28.59	3.43	1.20
Wheat	Field#:	4	Date:	5/28/82 (Julian: 148)	Time:				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	31.96	30.42	26.10	26.29	30.79	36.02	30.26	3.73	1.23
2-5 cm	29.58	29.45	24.98	25.07	28.59	28.55	27.70	2.12	0.76
0-5 cm	30.53	29.84	25.43	25.55	29.47	31.54	28.73	2.76	0.95
Wheat	Field#:	4	Date:	6/4/82 (Julian: 155)	Time:	15:31			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	37.08	44.19		33.24	34.04	31.11	35.93	5.09	1.42
2-5 cm	30.30	30.60		31.37	29.20	29.52	30.20	0.87	0.29
0-5 cm	33.01	36.04		32.12	31.14	30.15	32.49	2.56	0.74

Wheat	Field#:	4	Date:	6/29/82 (Julian: 180)	Time:	13:40			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm				33.72	33.61		33.66	0.08	0.02
2-5 cm				30.68	32.40		31.54	1.22	0.39
0-5 cm				31.89	32.88		32.39	0.76	0.24
Wheat	Field#:	4	Date:	7/6/82 (Julian: 187)	Time:				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	39.06	35.58	42.72	46.70	37.71	33.97	40.86	7.88	1.93
2-5 cm	34.51	35.02	32.83	36.99			34.84	1.71	0.49
0-5 cm	36.33	35.25	35.05	37.69			36.08	1.67	0.46
Wheat	Field#:	4	Date:	7/7/82 (Julian: 188)	Time:	15:15			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	31.72	52.36	42.72	46.70	37.71	33.97	40.86	7.88	1.93
2-5 cm	35.35	31.49	31.60	33.48	31.92	28.78	32.10	2.20	0.68
0-5 cm	33.90	39.84	36.05	38.77	34.24	30.85	35.61	4.47	1.18
Wheat	Field#:	5	Date:	4/12/82 (Julian: 102)	Time:	15:45			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	9.78	10.72	11.58				10.70	0.90	0.84
2-5 cm	9.78	10.72	11.58				10.70	0.90	0.84
0-5 cm	9.78	10.72	11.58				10.70	0.90	0.84
Wheat	Field#:	5	Date:	4/16/82 (Julian: 106)	Time:	13:25			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	8.19	7.37	9.46				8.34	1.05	1.26
2-5 cm	8.19	7.37	9.46				8.34	1.05	1.26
0-5 cm	8.19	7.37	9.46				8.34	1.05	1.26
Wheat	Field#:	5	Date:	4/26/82 (Julian: 116)	Time:	13:20			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	8.64	11.74	11.31				10.56	1.68	1.59
2-5 cm	8.64	11.74	11.31				10.56	1.68	1.59
0-5 cm	8.64	11.74	11.31				10.56	1.68	1.59
Wheat	Field#:	5	Date:	4/30/82 (Julian: 120)	Time:	14:33			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	16.51	12.46	10.99				13.32	2.86	2.14
2-5 cm	16.51	12.46	10.99				13.32	2.86	2.14
0-5 cm	16.51	12.46	10.99				13.32	2.86	2.14
Wheat	Field#:	5	Date:	5/3/82 (Julian: 123)	Time:	13:55			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	32.89	31.81	30.93				31.88	0.98	0.31
2-5 cm	32.89	31.81	30.93				31.88	0.98	0.31
0-5 cm	32.89	31.81	30.93				31.88	0.98	0.31

Wheat	Field#: 5	Date: 5/7/82 (Julian: 127)	Time: 14:48				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	
0-2 cm	17.44	15.86	16.79				S.D. S.D./Mean
2-5 cm	17.44	15.86	16.79				0.79 0.48
0-5 cm	17.44	15.86	16.79				0.79 0.48
Wheat	Field#: 5	Date: 5/10/82 (Julian: 130)	Time:				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	
0-2 cm	14.08	10.47	12.97				S.D. S.D./Mean
2-5 cm	14.08	10.47	12.97				12.50 1.48
0-5 cm	14.08	10.47	12.97				12.50 1.48
Wheat	Field#: 5	Date: 5/14/82 (Julian: 134)	Time: 14:40				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	
0-2 cm	16.65	16.93	21.79				S.D. S.D./Mean
2-5 cm	16.65	16.93	21.79				18.46 2.89 1.56
0-5 cm	16.65	16.93	21.79				18.46 2.89 1.56
Wheat	Field#: 5	Date: 5/17/82 (Julian: 137)	Time: 16:19				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	
0-2 cm	20.64	17.40					S.D. S.D./Mean
2-5 cm	20.64	17.40					19.02 2.29 1.20
0-5 cm	20.64	17.40					19.02 2.29 1.20
Wheat	Field#: 5	Date: 5/21/82 (Julian: 141)	Time:				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	
0-2 cm	20.78	29.21	33.46	21.78	18.10	17.73	S.D. S.D./Mean
2-5 cm	20.94	29.41	34.61	24.61	19.70	23.67	6.40 2.72
0-5 cm	20.88	31.03	33.48	23.48	19.06	23.60	4.36 1.84 2.19
Wheat	Field#: 5	Date: 5/24/82 (Julian: 144)	Time: 10:32				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	
0-2 cm	23.45	23.98	27.41	21.68	17.09	17.78	S.D. S.D./Mean
2-5 cm	17.54	23.95	26.57	19.97	16.51	15.94	3.93 1.79
0-5 cm	19.91	23.96	26.91	20.65	16.74	16.68	4.33 2.15 2.01
Wheat	Field#: 5	Date: 6/1/82 (Julian: 152)	Time: 14:30				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	
0-2 cm	23.68	27.04	26.65	23.61	22.33	20.10	S.D. S.D./Mean
2-5 cm	23.21	25.82	25.32	23.49	21.43	20.02	2.62 1.10
0-5 cm	23.40	26.31	25.86	23.54	21.79	20.05	2.22 0.96 1.01
Wheat	Field#: 5	Date: 6/2/82 (Julian: 153)	Time: 13:35				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	
0-2 cm	26.05	28.59	33.22	23.03	21.43	19.62	S.D. S.D./Mean
2-5 cm	25.22	26.75	31.80	21.83	20.18	19.82	5.03 1.99
0-5 cm	25.56	27.48	32.37	22.31	20.68	19.74	4.61 1.90 1.93
Wheat	Field#: 5	Date: 6/7/82 (Julian: 158)	Time: 11:01				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	
0-2 cm	24.15	30.42	31.98	24.20	25.23	19.94	S.D. S.D./Mean
2-5 cm	23.32	28.92	31.48	21.98	22.06	21.53	4.46 1.71
0-5 cm	23.65	29.52	31.68	22.87	23.33	20.90	4.24 1.70 4.33 1.71
Wheat	Field#: 5	Date: 6/9/82 (Julian: 160)	Time: 15:17				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	
0-2 cm	23.53	28.23	28.73	19.10	22.25	24.33	S.D. S.D./Mean
2-5 cm	28.38	30.21	20.90	21.28	26.15	24.12	3.66 1.50
0-5 cm	26.44	29.42	24.03	20.41	24.59	24.20	3.77 1.50 3.73 1.50
Wheat	Field#: 5	Date: 6/16/82 (Julian: 167)	Time: 13:47				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	
0-2 cm	23.90	28.87	27.75	27.14	25.68	22.49	S.D. S.D./Mean
2-5 cm	11.93	22.14	27.39	27.49	25.35	20.23	2.42 0.93
0-5 cm	16.71	24.83	27.53	27.35	25.48	21.14	22.42 5.90 2.63 1.95
Wheat	Field#: 5	Date: 6/18/82 (Julian: 169)	Time: 11:15				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	
0-2 cm	21.88	27.17	27.73	25.02	20.81	18.69	S.D. S.D./Mean
2-5 cm	23.14	26.89	27.12	23.06	18.46	19.96	3.65 1.55
0-5 cm	22.64	27.00	27.37	23.84	19.40	19.45	23.11 3.52 1.52 1.53
Wheat	Field#: 5	Date: 6/21/82 (Julian: 172)	Time: 14:20				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	
0-2 cm	21.99	28.28	27.79	22.73	21.41	18.61	S.D. S.D./Mean
2-5 cm	22.94	26.83	26.05	21.60	20.38	18.95	3.81 1.62
0-5 cm	22.56	27.41	26.74	22.05	20.79	18.81	22.79 3.13 1.37 1.47
Wheat	Field#: 5	Date: 6/25/82 (Julian: 176)	Time: 14:30				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	
0-2 cm	23.71	27.20	26.51	20.93	19.77	21.77	S.D. S.D./Mean
2-5 cm	22.18	26.91	25.52	20.04	20.13	17.57	3.04 1.30
0-5 cm	22.79	27.03	25.92	20.40	19.98	19.25	22.06 3.56 1.62 1.49
Wheat	Field#: 5	Date: 6/28/82 (Julian: 179)	Time: 11:30				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	
0-2 cm	19.60	26.31	26.81	22.80	20.90	17.35	S.D. S.D./Mean
2-5 cm	23.12	26.17	25.83	22.62	21.29	25.51	3.75 1.68
0-5 cm	21.71	26.23	26.22	22.69	21.14	22.25	24.09 2.01 0.84 1.17
Wheat	Field#: 5	Date: 7/6/82 (Julian: 187)	Time:				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	
0-2 cm	9.87	16.61	10.48	17.46	26.65	21.70	S.D. S.D./Mean
2-5 cm	21.98	21.80	21.13	25.45	20.55	22.18	6.46 3.77
0-5 cm	17.13	17.27	19.66	25.93	21.01	20.16	1.91 0.86 3.73 2.03

Wheat Field#: 5 Date: 7/ 9/82 (Julian: 190) Time: 10:37										Wheat Field#: 6 Date: 5/ 7/82 (Julian: 127) Time: 15:00									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	21.50	19.34	7.13	22.24	13.92	16.43	16.76	5.66	3.38	23.67	20.69	21.56	21.56	21.56	21.97	21.97	1.53	0.70	
2-5 cm	20.70	20.82	15.71	22.67	26.98	21.38	21.38	4.06	1.90	23.67	20.69	21.56	21.56	21.56	21.97	21.97	1.53	0.70	
0-5 cm	21.02	20.23	12.28	22.50	21.76	19.53	19.53	4.70	2.49	23.67	20.69	21.56	21.56	21.56	21.97	21.97	1.53	0.70	
Wheat Field#: 5 Date: 7/12/82 (Julian: 193) Time: 13:20										Wheat Field#: 6 Date: 5/10/82 (Julian: 130) Time: 14:30									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	22.31		27.26	22.77	19.80	23.03	3.11	1.35		13.21	14.80	10.95	10.95	10.95	12.98	12.98	1.93	1.49	
2-5 cm	20.70		25.29	20.81	19.56	21.59	2.53	1.17		13.21	14.80	10.95	10.95	10.95	12.98	12.98	1.93	1.49	
0-5 cm	21.34		26.08	21.59	19.66	22.17	2.76	1.24		13.21	14.80	10.95	10.95	10.95	12.98	12.98	1.93	1.49	
Wheat Field#: 5 Date: 7/13/82 (Julian: 194) Time: 16:00										Wheat Field#: 6 Date: 5/14/82 (Julian: 134) Time: 14:55									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	15.57	16.28	20.19	17.18	18.39	16.29	3.43	2.11		23.92	23.48	24.98	24.98	24.98	24.13	24.13	0.77	0.32	
2-5 cm	17.18	22.65	21.85	21.86	19.89	17.76	20.20	2.31	1.14	23.92	23.48	24.98	24.98	24.98	24.13	24.13	0.77	0.32	
0-5 cm	16.54	20.10	21.19	19.99	19.29	14.71	18.64	2.76	1.53	23.92	23.48	24.98	24.98	24.98	24.13	24.13	0.77	0.32	
Wheat Field#: 6 Date: 4/12/82 (Julian: 102) Time: 16:00										Wheat Field#: 6 Date: 5/17/82 (Julian: 137) Time: 16:20									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	10.71	11.39	9.66			10.59	0.87	0.83		24.86	22.61				23.74	23.74	1.59	0.67	
2-5 cm	10.71	11.39	9.66			10.59	0.87	0.83		24.86	22.61				23.74	23.74	1.59	0.67	
0-5 cm	10.71	11.39	9.66			10.59	0.87	0.83		24.86	22.61				23.74	23.74	1.59	0.67	
Wheat Field#: 6 Date: 4/16/82 (Julian: 106) Time: 13:30										Wheat Field#: 6 Date: 5/21/82 (Julian: 141) Time: 16:05									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	6.47	6.74	9.04			7.42	1.41	1.90		20.34	25.98	17.77	22.50	21.83	19.68	21.35	2.82	1.32	
2-5 cm	6.47	6.74	9.04			7.42	1.41	1.90		25.67	22.54	16.98	16.57	20.33	27.31	21.57	4.43	2.06	
0-5 cm	6.47	6.74	9.04			7.42	1.41	1.90		23.54	23.91	17.30	18.94	20.93	24.26	21.48	3.79	1.76	
Wheat Field#: 6 Date: 4/26/82 (Julian: 116) Time: 13:25										Wheat Field#: 6 Date: 5/28/82 (Julian: 148) Time: 16:05									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	11.74	11.59	12.42			11.92	0.44	0.37		21.58	22.17	21.05	21.83	17.97	17.72	20.39	2.01	0.98	
2-5 cm	11.74	11.59	12.42			11.92	0.44	0.37		20.95	17.19	20.43	17.38	18.67	17.95	18.76	1.59	0.85	
0-5 cm	11.74	11.59	12.42			11.92	0.44	0.37		21.20	19.18	20.68	19.16	18.39	17.86	19.41	1.76	0.90	
Wheat Field#: 6 Date: 4/30/82 (Julian: 120) Time: 14:45										Wheat Field#: 6 Date: 6/ 1/82 (Julian: 152) Time: 14:11									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	18.52	16.54	15.24			16.77	1.66	0.99		23.55	22.45	24.24	19.61	17.52	25.53	22.15	3.03	1.37	
2-5 cm	18.52	16.54	15.24			16.77	1.66	0.99		24.47	24.38	22.85	19.35	17.79	22.82	21.94	2.75	1.25	
0-5 cm	18.52	16.54	15.24			16.77	1.66	0.99		24.10	23.61	23.41	19.45	17.68	23.90	22.03	2.86	1.30	
Wheat Field#: 6 Date: 5/ 3/82 (Julian: 123) Time: 14:05										Wheat Field#: 6 Date: 6/ 2/82 (Julian: 153) Time: 13:55									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	31.69	33.25	37.57			34.17	3.05	0.89		22.83	23.07	21.85	20.06	20.96	20.73	21.58	1.21	0.56	
2-5 cm	31.69	33.25	37.57			34.17	3.05	0.89		21.83	22.69	21.97	19.44	22.36	21.46	21.62	1.15	0.53	
0-5 cm	31.69	33.25	37.57			34.17	3.05	0.89		22.23	22.84	21.92	19.69	21.80	21.17	21.61	1.17	0.54	

Wheat	Field#:	6	Date:	6/7/82	(Julian:	158)	Time:	11:23						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean					
0-2 cm	23.22	23.59	27.37	19.82	20.39	26.86	23.54	3.15	1.34					
2-5 cm	23.35	23.32	23.18	21.05	18.39	23.68	22.16	2.08	0.94					
0-5 cm	23.30	23.43	24.86	20.56	19.19	24.95	22.71	2.50	1.10					
Wheat	Field#:	6	Date:	6/9/82	(Julian:	160)	Time:	15:27						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean					
0-2 cm	23.35	23.45	26.12	21.22	17.44	20.32	21.98	3.00	1.37					
2-5 cm	22.49	22.68	23.48	21.02	16.92	21.03	21.27	2.34	1.10					
0-5 cm	22.84	22.99	24.54	21.10	17.13	20.74	21.56	2.61	1.21					
Wheat	Field#:	6	Date:	6/16/82	(Julian:	167)	Time:	13:50						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean					
0-2 cm	22.52	22.86	21.42	19.92	15.68	21.28	20.62	2.63	1.28					
2-5 cm	21.92	22.13	20.84	18.64	16.15	21.54	20.20	2.35	1.17					
0-5 cm	22.16	22.42	21.07	19.15	15.97	21.44	20.37	2.46	1.21					
Wheat	Field#:	6	Date:	6/18/82	(Julian:	169)	Time:	10:53						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean					
0-2 cm	21.58	21.03	19.76	18.20	16.44	18.81	19.30	1.90	0.98					
2-5 cm	21.33	21.02	19.44	17.90	16.83	18.41	19.15	1.78	0.93					
0-5 cm	21.43	21.03	19.57	18.02	16.67	18.57	19.21	1.83	0.95					
Wheat	Field#:	6	Date:	6/21/82	(Julian:	172)	Time:	14:44						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean					
0-2 cm	22.46	22.97	10.11	17.86	17.33	20.68	18.57	4.74	2.55					
2-5 cm	20.94	22.12	21.11	17.91	17.98	23.69	20.63	2.29	1.11					
0-5 cm	21.55	22.46	16.71	17.89	17.72	22.48	19.80	3.27	1.69					
Wheat	Field#:	6	Date:	6/25/82	(Julian:	176)	Time:	14:45						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean					
0-2 cm	21.43	20.79	13.36	11.81	9.35	17.60	15.73	4.97	3.16					
2-5 cm	20.18	20.65	19.16	16.42	13.12	19.52	18.18	2.88	1.59					
0-5 cm	20.68	20.71	16.84	14.58	11.61	18.75	17.20	3.72	2.21					
Wheat	Field#:	6	Date:	6/28/82	(Julian:	179)	Time:	12:15						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean					
0-2 cm	21.94	23.11	17.04	20.52	14.23	19.37	19.37	3.67	1.89					
2-5 cm	20.46	23.09	23.03	19.63	15.01	20.24	3.31	1.63	1.63					
0-5 cm	21.05	23.10	20.63	19.99	14.70	19.89	3.45	1.74	1.74					
Wheat	Field#:	6	Date:	7/6/82	(Julian:	187)	Time:	15:00						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean					
0-2 cm	18.32	25.06	21.67	21.21	7.22	10.16	17.27	7.05	4.08					
2-5 cm	22.78	24.44	22.45	19.07	14.65	22.04	20.90	3.53	1.69					
0-5 cm	20.99	24.69	22.14	19.92	11.68	17.29	19.45	4.93	2.64					
Wheat	Field#:	7	Date:	4/12/82	(Julian:	102)	Time:	16:05						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean					
0-2 cm	10.19	16.87	13.09				13.38	3.35	2.50					
2-5 cm	10.19	16.87	13.09				13.38	3.35	2.50					
0-5 cm	10.19	16.87	13.09				13.38	3.35	2.50					
Wheat	Field#:	7	Date:	4/16/82	(Julian:	106)	Time:	13:37						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean					
0-2 cm	6.71	8.52	11.20				8.81	2.26	2.56					
2-5 cm	6.71	8.52	11.20				8.81	2.26	2.56					
0-5 cm	6.71	8.52	11.20				8.81	2.26	2.56					
Wheat	Field#:	7	Date:	4/26/82	(Julian:	116)	Time:	13:35						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean					
0-2 cm	9.19	9.28	7.60				8.69	0.94	1.09					
2-5 cm	9.19	9.28	7.60				8.69	0.94	1.09					
0-5 cm	9.19	9.28	7.60				8.69	0.94	1.09					
Wheat	Field#:	7	Date:	4/30/82	(Julian:	120)	Time:	15:02						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean					
0-2 cm	16.27	11.18	15.13				14.20	2.67	1.88					
2-5 cm	16.27	11.18	15.13				14.20	2.67	1.88					
0-5 cm	16.27	11.18	15.13				14.20	2.67	1.88					
Wheat	Field#:	7	Date:	5/3/82	(Julian:	123)	Time:	14:27						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean					
0-2 cm	45.97	31.69	30.32				35.99	8.67	2.41					
2-5 cm	45.97	31.69	30.32				35.99	8.67	2.41					
0-5 cm	45.97	31.69	30.32				35.99	8.67	2.41					
Wheat	Field#:	7	Date:	5/7/82	(Julian:	127)	Time:	15:58						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean					
0-2 cm	27.68	19.13	19.63				22.15	4.80	2.17					
2-5 cm	27.68	19.13	19.63				22.15	4.80	2.17					
0-5 cm	27.68	19.13	19.63				22.15	4.80	2.17					
Wheat	Field#:	7	Date:	5/10/82	(Julian:	130)	Time:	14:45						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean					
0-2 cm	11.04	13.97	12.80				12.60	1.47	1.17					
2-5 cm	11.04	13.97	12.80				12.60	1.47	1.17					
0-5 cm	11.04	13.97	12.80				12.60	1.47	1.17					
Wheat	Field#:	7	Date:	5/14/82	(Julian:	134)	Time:	14:59						
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean					
0-2 cm	23.16	27.16	22.88				24.40	2.39	0.98					
2-5 cm	23.16	27.16	22.88				24.40	2.39	0.98					
0-5 cm	23.16	27.16	22.88				24.40	2.39	0.98					

Wheat	Field#: 7	Date: 5/17/82 (Julian: 137)	Time:	S D.	S.D./Mean
Depth	LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6		Mean		
0-2 cm	23.97 25.75 22.80		24.17	1.49	0.62
2-5 cm	23.97 25.75 22.80		24.17	1.49	0.62
0-5 cm	23.97 25.75 22.80		24.17	1.49	0.62
Wheat	Field#: 7	Date: 5/21/82 (Julian: 141)	Time:	S D.	S.D./Mean
Depth	LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6		Mean		
0-2 cm	26.24 25.26 24.08 24.55 23.24 26.38		24.96	1.24	0.50
2-5 cm	30.94 25.36 23.95 24.03 22.69 25.48		25.41	2.90	1.14
0-5 cm	29.06 25.32 24.00 24.24 22.91 25.84		25.23	2.24	0.88
Wheat	Field#: 7	Date: 5/28/82 (Julian: 148)	Time: 16:08		
Depth	LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6		Mean	S.D.	S.D./Mean
0-2 cm	24.79 20.31 12.08 21.78 22.25 26.00		21.20	4.92	2.32
2-5 cm	23.32 19.68 22.08 21.75 21.94 24.30		22.18	1.57	0.71
0-5 cm	23.91 19.93 18.08 21.76 22.07 24.98		21.79	2.91	1.35
Wheat	Field#: 7	Date: 6/1/82 (Julian: 152)	Time: 14 14		
Depth	LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6		Mean	S.D.	S.D./Mean
0-2 cm	25.13 22.36 24.87 22.15 25.00 25.73		24.21	1.54	0.64
2-5 cm	23.85 23.41 24.67 23.31 20.39 25.31		23.49	1.70	0.72
0-5 cm	24.36 22.99 24.75 22.85 22.24 25.48		23.78	1.64	0.69
Wheat	Field#: 7	Date: 6/7/82 (Julian: 158)	Time: 11:25		
Depth	LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6		Mean	S.D.	S.D./Mean
0-2 cm	24.53 27.81 26.80 24.92 24.33 27.51		25.98	1.57	0.60
2-5 cm	22.69 25.02 26.13 24.14 25.32 26.56		24.98	1.40	0.56
0-5 cm	23.43 26.14 26.39 24.45 24.92 26.94		25.38	1.47	0.58
Wheat	Field#: 7	Date: 6/9/82 (Julian: 160)	Time: 15:30		
Depth	LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6		Mean	S.D.	S.D./Mean
0-2 cm	26.88 26.58 24.49 26.66 26.15 27.41		26.36	1.01	0.38
2-5 cm	25.79 23.77 24.97 25.46 26.17 25.39		25.26	0.83	0.33
0-5 cm	26.23 24.90 24.77 25.94 26.16 26.19		25.70	0.90	0.35
Wheat	Field#: 7	Date: 6/16/82 (Julian: 167)	Time: 13:48		
Depth	LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6		Mean	S.D.	S.D./Mean
0-2 cm	26.70 22.82 27.05 10.19 22.27 23.54		22.09	6.17	2.79
2-5 cm	24.93 22.52 23.55 9.48 22.40 24.39		21.21	5.83	2.75
0-5 cm	25.63 22.64 24.95 9.76 22.35 24.05		21.56	5.97	2.77
Wheat	Field#: 7	Date: 6/18/82 (Julian: 169)	Time: 10:55		
Depth	LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6		Mean	S.D.	S.D./Mean
0-2 cm	23.98 23.44 28.67 21.16 22.70 28.63		24.76	3.15	1.27
2-5 cm	24.73 22.79 20.01 20.05		24.93	2.41	1.07
0-5 cm	24.43 23.05 23.47 20.49		26.41	2.71	1.15

Wheat	Field#: 7	Date: 6/21/82 (Julian: 172)	Time: 14:45		
Depth	LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6		Mean	S.D.	S.D./Mean
0-2 cm	20.46 15.93 20.80 9.12 12.56 20.72		16.60	4.94	2.98
2-5 cm	20.84 17.40 20.28 15.31 19.20 22.30		19.22	2.52	1.31
0-5 cm	20.69 16.82 20.49 12.84 16.54 21.67		18.17	3.49	1.98
Wheat	Field#: 7	Date: 6/25/82 (Julian: 176)	Time: 14:47		
Depth	LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6		Mean	S.D.	S.D./Mean
0-2 cm	18.66 17.80 16.99 20.85 21.92 20.78		19.50	1.96	1.00
2-5 cm	19.54 18.99 16.90 24.43 22.23 20.65		20.46	2.63	1.29
0-5 cm	19.19 18.51 16.94 23.00 22.10 20.70		20.07	2.36	1.17
Wheat	Field#: 7	Date: 6/28/82 (Julian: 179)	Time: 12:13		
Depth	LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6		Mean	S.D.	S.D./Mean
0-2 cm	20.70 21.93 19.56 21.91 18.44 23.02		20.93	1.70	0.81
2-5 cm	20.60 18.65 20.35 20.12 19.90 23.02		20.44	1.43	0.70
0-5 cm	20.64 19.96 20.03 20.83 19.31 23.02		20.63	1.54	0.75
Wheat	Field#: 8	Date: 4/12/82 (Julian: 102)	Time: 16:15		
Depth	LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6		Mean	S.D.	S.D./Mean
0-2 cm	12.04 11.59 11.98		11.87	0.25	0.21
2-5 cm	12.04 11.59 11.98		11.87	0.25	0.21
0-5 cm	12.04 11.59 11.98		11.87	0.25	0.21
Wheat	Field#: 8	Date: 4/16/82 (Julian: 106)	Time: 13:45		
Depth	LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6		Mean	S.D.	S.D./Mean
0-2 cm	15.73 5.07 6.36		9.05	5.82	6.43
2-5 cm	15.73 5.07 6.36		9.05	5.82	6.43
0-5 cm	15.73 5.07 6.36		9.05	5.82	6.43
Wheat	Field#: 8	Date: 4/26/82 (Julian: 116)	Time: 13:40		
Depth	LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6		Mean	S.D.	S.D./Mean
0-2 cm	10.17 10.63 10.14		10.31	0.28	0.27
2-5 cm	10.17 10.63 10.14		10.31	0.28	0.27
0-5 cm	10.17 10.63 10.14		10.31	0.28	0.27
Wheat	Field#: 8	Date: 4/30/82 (Julian: 120)	Time: 13:25		
Depth	LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6		Mean	S.D.	S.D./Mean
0-2 cm	17.87 19.96 20.45		19.43	1.37	0.71
2-5 cm	17.87 19.96 20.45		19.43	1.37	0.71
0-5 cm	17.87 19.96 20.45		19.43	1.37	0.71
Wheat	Field#: 8	Date: 5/3/82 (Julian: 123)	Time:		
Depth	LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6		Mean	S.D.	S.D./Mean
0-2 cm	36.79		36.79		
2-5 cm	36.79		36.79		
0-5 cm	36.79		36.79		

Field#: 8 Date: 6/ 4/82 (Julian: 155) Time: 14:31											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	22.21	21.84	22.37				22.14	0.27	0.12		
0-2 cm	22.21	21.84	22.37				22.14	0.27	0.12		
0-5 cm	22.21	21.84	22.37				22.14	0.27	0.12		
Field#: 8 Date: 6/ 7/82 (Julian: 158) Time: 10:24											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	16.77	14.79	20.16				17.24	2.71	1.57		
0-2 cm	16.77	14.79	20.16				17.24	2.71	1.57		
0-5 cm	16.77	14.79	20.16				17.24	2.71	1.57		
Field#: 8 Date: 6/ 9/82 (Julian: 160) Time: 15:10											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	24.77	25.45	24.30				24.84	0.58	0.23		
0-2 cm	24.77	25.45	24.30				24.84	0.58	0.23		
0-5 cm	24.77	25.45	24.30				24.84	0.58	0.23		
Field#: 8 Date: 6/14/82 (Julian: 165) Time: 16:03											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	27.08	29.16	27.84	29.48	29.24	28.38	28.53	0.94	0.33		
0-2 cm	27.08	29.16	27.84	29.48	29.24	28.38	28.53	0.94	0.33		
0-5 cm	27.12	28.47	27.70	29.26	29.10	30.79	28.74	1.51	0.52		
Field#: 8 Date: 6/16/82 (Julian: 167) Time: 10:00											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	27.66	28.02	31.59	27.42	29.91	26.75	28.56	1.83	0.64		
0-2 cm	27.66	28.02	31.59	27.42	29.91	26.75	28.56	1.83	0.64		
0-5 cm	27.09	31.27	27.92	27.35	28.57	22.32	27.42	2.91	1.06		
Field#: 8 Date: 6/18/82 (Julian: 169) Time: 10:00											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	27.05	28.08	29.08	28.84	29.21	26.81	28.18	1.05	0.37		
0-2 cm	27.05	28.08	29.08	28.84	29.21	26.81	28.18	1.05	0.37		
0-5 cm	26.61	26.54	28.07	28.05	27.06	26.79	27.19	0.70	0.26		
Field#: 8 Date: 6/21/82 (Julian: 172) Time: 13:48											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	25.02	26.78	24.44	26.19	30.06	25.68	26.36	1.99	0.76		
0-2 cm	25.02	26.78	24.44	26.19	30.06	25.68	26.36	1.99	0.76		
0-5 cm	25.32	25.94	24.61	26.02	28.46	24.62	25.83	1.50	0.58		
Field#: 8 Date: 6/25/82 (Julian: 176) Time: 13:38											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	26.30	26.67	27.03	26.89	30.83	25.78	27.25	1.81	0.66		
0-2 cm	26.30	26.67	27.03	26.89	30.83	25.78	27.25	1.81	0.66		
0-5 cm	25.89	26.89	26.43	26.56	29.72	24.86	26.72	1.63	0.61		

Wheat	Field#: 8	Date: 6/28/82	(Julian: 179)	Time: 10:45			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean S.D. S.D./Mean
0-2 cm	28.07	28.47	27.26	29.40	30.87	27.48	28.59 1.35 0.47
2-5 cm	27.07	28.73	27.88	28.39	29.80	27.53	28.23 0.97 0.34
0-5 cm	27.47	28.63	27.63	28.79	30.23	27.51	28.38 1.12 0.40
Wheat	Field#: 8	Date: 7/6/82	(Julian: 187)	Time: 14:10			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean S.D. S.D./Mean
0-2 cm	30.89	33.32	30.80	31.82	32.30	14.79	28.99 7.02 2.42
2-5 cm	28.43	30.84	28.41	29.28	31.75	29.21	29.65 1.35 0.46
0-5 cm	29.42	31.83	29.37	30.30	31.97	23.44	29.39 3.62 1.24
Wheat	Field#: 8	Date: 7/7/82	(Julian: 188)	Time: 15:19			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean S.D. S.D./Mean
0-2 cm	23.29	26.43	28.76	28.37	27.86	23.92	26.44 2.34 0.89
2-5 cm	22.81	25.17	27.42	26.26	27.93	25.00	25.76 1.86 0.72
0-5 cm	23.00	25.67	27.96	27.11	27.90	24.57	26.03 2.05 0.79
Wheat	Field#: 8	Date: 7/12/82	(Julian: 193)	Time: 11:15			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean S.D. S.D./Mean
0-2 cm	14.32	16.87	28.45	20.27	11.68	7.77	16.56 7.23 4.36
2-5 cm	20.13	23.87	25.25	21.92	24.86	18.72	22.46 2.66 1.18
0-5 cm	17.80	21.07	26.53	21.26	19.59	14.34	20.10 4.48 2.46
Wheat	Field#: 8	Date: 7/13/82	(Julian: 194)	Time: 11:01			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean S.D. S.D./Mean
0-2 cm	23.95	32.13	28.34	29.77	21.01	27.60	27.13 4.03 1.49
2-5 cm	32.32	27.01	27.44	28.70	30.36	29.16	29.16 2.19 0.75
0-5 cm	28.97	29.06	27.80	29.13	26.62	28.35	2.93 1.05
Wheat	Field#: 9	Date: 4/12/82	(Julian: 102)	Time: 16:30			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean S.D. S.D./Mean
0-2 cm	16.76	7.99	15.53	13.43	4.74	3.53	13.43 4.74 3.53
2-5 cm	16.76	7.99	15.53	13.43	4.74	3.53	13.43 4.74 3.53
0-5 cm	16.76	7.99	15.53	13.43	4.74	3.53	13.43 4.74 3.53
Wheat	Field#: 9	Date: 4/16/82	(Julian: 106)	Time: 14:15			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean S.D. S.D./Mean
0-2 cm	12.96	14.25	15.46	14.22	1.25	0.88	14.22 1.25 0.88
2-5 cm	12.96	14.25	15.46	14.22	1.25	0.88	14.22 1.25 0.88
0-5 cm	12.96	14.25	15.46	14.22	1.25	0.88	14.22 1.25 0.88
Wheat	Field#: 9	Date: 4/26/82	(Julian: 116)	Time: 14:05			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean S.D. S.D./Mean
0-2 cm	15.03	16.10	13.37	14.83	1.38	0.93	14.83 1.38 0.93
2-5 cm	15.03	16.10	13.37	14.83	1.38	0.93	14.83 1.38 0.93
0-5 cm	15.03	16.10	13.37	14.83	1.38	0.93	14.83 1.38 0.93

Wheat	Field#: 9	Date: 4/30/82	(Julian: 120)	Time: 13:45			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean S.D. S.D./Mean
0-2 cm	33.78	28.58	31.15	31.17	2.60	0.84	31.17 2.60 0.84
2-5 cm	33.78	28.58	31.15	31.17	2.60	0.84	31.17 2.60 0.84
0-5 cm	33.78	28.58	31.15	31.17	2.60	0.84	31.17 2.60 0.84
Wheat	Field#: 9	Date: 5/7/82	(Julian: 127)	Time: 16:45			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean S.D. S.D./Mean
0-2 cm	32.17	31.27	29.56	31.00	1.33	0.43	31.00 1.33 0.43
2-5 cm	32.17	31.27	29.56	31.00	1.33	0.43	31.00 1.33 0.43
0-5 cm	32.17	31.27	29.56	31.00	1.33	0.43	31.00 1.33 0.43
Wheat	Field#: 9	Date: 5/10/82	(Julian: 130)	Time: 15:20			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean S.D. S.D./Mean
0-2 cm	23.15	18.90	22.16	21.40	2.22	1.04	21.40 2.22 1.04
2-5 cm	23.15	18.90	22.16	21.40	2.22	1.04	21.40 2.22 1.04
0-5 cm	23.15	18.90	22.16	21.40	2.22	1.04	21.40 2.22 1.04
Wheat	Field#: 9	Date: 5/14/82	(Julian: 134)	Time: 15:44			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean S.D. S.D./Mean
0-2 cm	32.53	40.46	40.46	36.49	5.60	1.54	36.49 5.60 1.54
2-5 cm	32.53	40.46	40.46	36.49	5.60	1.54	36.49 5.60 1.54
0-5 cm	32.53	40.46	40.46	36.49	5.60	1.54	36.49 5.60 1.54
Wheat	Field#: 9	Date: 5/19/82	(Julian: 139)	Time: 15:30			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean S.D. S.D./Mean
0-2 cm	32.07	31.51	39.65	35.47	32.45	34.23	3.39 0.99
2-5 cm	29.22	29.19	37.42	37.60	36.49	34.44	4.08 1.18
0-5 cm	30.36	30.12	38.42	36.08	35.01	34.36	3.80 1.11
Wheat	Field#: 9	Date: 5/21/82	(Julian: 141)	Time: 16:03			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean S.D. S.D./Mean
0-2 cm	42.15	41.40	46.15	47.30	40.51	44.77	43.71 2.75 0.63
2-5 cm	40.45	40.41	41.97	43.58	39.75	40.47	41.11 1.42 0.34
0-5 cm	41.13	40.81	43.64	45.07	40.05	42.19	42.15 1.95 0.46
Wheat	Field#: 9	Date: 5/26/82	(Julian: 146)	Time: 11:01			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean S.D. S.D./Mean
0-2 cm	35.74	39.06	37.40	2.35	0.63	37.40 2.35 0.63	
2-5 cm	35.44	38.60	37.02	2.23	0.60	37.02 2.23 0.60	
0-5 cm	35.56	38.79	37.17	2.28	0.61	37.17 2.28 0.61	
Wheat	Field#: 9	Date: 6/1/82	(Julian: 152)	Time: 10:20			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean S.D. S.D./Mean
0-2 cm	42.28	48.26	49.56	55.98	50.31	44.73	48.52 4.76 0.98
2-5 cm	40.11	46.90	56.47	43.44	41.03	45.38	5.95 1.31
0-5 cm	40.98	45.89	47.96	56.27	46.19	42.51	46.63 5.47 1.18

Field#: 9 Date: 6/2/82 (Julian: 153) Time: 15:20											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	42.54	46.72	47.18	44.86	43.22	36.99	43.59	3.72	0.85		
0-2 cm											
2-5 cm	38.04	41.68	42.30	44.30	40.44	35.11	40.31	3.28	0.81		
0-5 cm	39.84	43.69	44.25	44.52	41.55	35.86	41.62	3.46	0.83		
Field#: 9 Date: 6/7/82 (Julian: 158) Time: 14:24											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	51.25	55.02	61.14	63.22	61.03	53.54	57.53	4.88	0.85		
0-2 cm											
2-5 cm	54.53	57.73	60.37	63.93	57.23	51.62	57.57	4.31	0.75		
0-5 cm	53.22	56.65	60.68	63.65	58.75	52.39	57.56	4.54	0.79		
Field#: 9 Date: 6/14/82 (Julian: 165) Time: 10:36											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	41.47	43.72	38.87	46.08	44.07	38.94	42.19	2.93	0.70		
0-2 cm											
2-5 cm	41.09	35.06	35.35	37.86	37.35	24.51	35.20	5.67	1.61		
0-5 cm	41.24	38.52	36.76	41.15	40.03	30.28	38.00	4.58	1.24		
Field#: 9 Date: 6/16/82 (Julian: 167) Time: 15:06											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	43.67	53.35	43.60	58.16	45.07	38.55	47.07	7.25	1.54		
0-2 cm											
2-5 cm	43.11	47.24	41.11	45.91	40.42	36.74	42.42	3.84	0.91		
0-5 cm	43.33	49.68	42.11	50.81	42.28	37.46	44.28	5.21	1.16		
Field#: 9 Date: 6/21/82 (Julian: 172) Time: 11:15											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	42.27	44.21	34.07	43.51	41.61	37.02	40.45	4.02	0.99		
0-2 cm											
2-5 cm	24.47	36.29	40.16	38.17	37.97	35.33	35.40	5.61	1.58		
0-5 cm	31.59	39.46	37.73	40.30	39.43	36.01	37.42	4.97	1.35		
Field#: 9 Date: 6/25/82 (Julian: 176) Time: 10:10											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	37.87	44.59	37.18	43.59	43.61	38.67	40.92	3.35	0.82		
0-2 cm											
2-5 cm	45.45	35.59	42.94	45.20	45.02	34.58	41.46	5.03	1.21		
0-5 cm	42.42	39.19	40.64	44.55	44.46	36.21	41.25	4.36	1.06		
Field#: 9 Date: 6/28/82 (Julian: 179) Time: 15:06											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	39.01	49.62	32.47	53.55	44.34	43.80	43.80	8.38	1.91		
0-2 cm											
2-5 cm	36.08	39.36	46.38	40.76	40.29	40.72	40.60	3.33	0.82		
0-5 cm	37.25	43.47	40.82	45.59	42.17	41.88	41.88	5.35	1.26		
Field#: 9 Date: 7/2/82 (Julian: 183) Time: 10:35											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	40.91	24.11	34.03	23.47	38.32	38.59	33.24	7.65	2.30		
0-2 cm											
2-5 cm	30.56	27.30	33.94	35.45	31.76	30.28	31.55	2.89	0.91		
0-5 cm	34.70	26.03	33.98	30.66	34.38	33.60	32.22	4.79	1.47		
Field#: 9 Date: 7/7/82 (Julian: 188) Time: 10:40											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	6.65	6.72	7.99	8.31	6.66	7.60	7.32	0.74	1.02		
0-2 cm											
2-5 cm	20.51	22.54	23.65	22.58	22.31	17.31	21.48	2.28	1.06		
0-5 cm	14.96	16.21	17.39	16.87	16.05	13.43	15.82	1.67	1.04		
Field#: 9 Date: 7/9/82 (Julian: 190) Time: 15:21											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	7.79	8.32	9.38	9.42	10.10	8.31	8.89	0.88	0.99		
0-2 cm											
2-5 cm	15.69	19.57	17.75			16.67	17.42	1.66	0.95		
0-5 cm	12.53	15.07	14.40			13.32	14.01	1.35	0.97		
Field#: 9 Date: 7/13/82 (Julian: 194) Time: 15:27											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	17.81	20.24	20.80	19.01	20.28	27.44	20.93	3.37	1.61		
0-2 cm											
2-5 cm	27.01	32.47	34.00	33.12	35.06	30.40	32.01	2.91	0.91		
0-5 cm	23.33	27.58	28.72	27.48	29.15	29.22	27.58	3.09	1.19		
Field#: 9 Date: 7/15/82 (Julian: 196) Time: 16:50											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	26.20	13.29	14.08	26.30	14.18	14.50	18.09	6.33	3.50		
0-2 cm											
2-5 cm	31.60	32.57	32.06	27.82	30.89	28.43	30.56	1.98	0.65		
0-5 cm	29.44	24.86	24.87	27.21	24.20	22.86	25.57	3.72	1.79		
Field#: 10 Date: 4/12/82 (Julian: 102) Time: 16:50											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	6.74	8.03	7.62				7.46	0.66	0.88		
0-2 cm											
2-5 cm	6.74	8.03	7.62				7.46	0.66	0.88		
0-5 cm	6.74	8.03	7.62				7.46	0.66	0.88		
Field#: 10 Date: 4/16/82 (Julian: 106) Time: 14:35											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	6.48	4.76	5.70				5.64	0.86	1.53		
0-2 cm											
2-5 cm	6.48	4.76	5.70				5.64	0.86	1.53		
0-5 cm	6.48	4.76	5.70				5.64	0.86	1.53		
Field#: 10 Date: 4/26/82 (Julian: 116) Time: 14:20											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	7.86	8.51	5.46				7.28	1.61	2.21		
0-2 cm											
2-5 cm	7.86	8.51	5.46				7.28	1.61	2.21		
0-5 cm	7.86	8.51	5.46				7.28	1.61	2.21		
Field#: 10 Date: 4/30/82 (Julian: 120) Time: 15:45											
Wheat	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	11.62	12.26	14.16				12.68	1.32	1.04		
0-2 cm											
2-5 cm	11.62	12.26	14.16				12.68	1.32	1.04		
0-5 cm	11.62	12.26	14.16				12.68	1.32	1.04		



Wheat	Field#:10	Date: 5/10/82 (Julian: 130)	Time: 15:40	S D	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	9.97	0.80
0-2 cm	10.53	9.40		9.97	0.80
2-5 cm	10.53	9.40		9.97	0.80
0-5 cm	10.53	9.40		9.97	0.80
Wheat	Field#:10	Date: 5/14/82 (Julian: 134)	Time: 16:08	S D	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	17.80	0.55
0-2 cm	18.34	17.25 17.82		17.80	0.31
2-5 cm	18.34	17.25 17.82		17.80	0.55
0-5 cm	18.34	17.25 17.82		17.80	0.55
Wheat	Field#:10	Date: 5/26/82 (Julian: 146)	Time: 09:43	S D	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	19.84	0.64
0-2 cm	19.84	20.53 20.72 19.74 18.98 19.56 19.89		19.89	0.32
2-5 cm	20.33	21.12 20.20 19.45 19.08 18.66 19.81		19.81	0.46
0-5 cm	20.13	20.88 20.41 19.57 19.04 19.02 19.84		19.84	0.80
Wheat	Field#:10	Date: 6/1/82 (Julian: 152)	Time: 10:50	S D	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	18.79	1.06
0-2 cm	18.79	21.42 19.94 20.87 19.48 18.92 19.90		19.90	0.53
2-5 cm	18.68	20.69 18.90 18.16 19.86 18.26 19.09		19.09	0.99
0-5 cm	18.73	20.98 19.32 19.24 19.71 18.52 19.42		19.42	1.02
Wheat	Field#:10	Date: 6/4/82 (Julian: 155)	Time: 10:52	S D	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	17.76	0.85
0-2 cm	17.76	19.79 19.58 18.89 17.85 19.05 18.82		18.82	0.45
2-5 cm	20.24	19.88 19.66 17.75 17.20 17.12 18.64		18.64	0.77
0-5 cm	19.25	19.84 19.63 18.20 17.46 17.89 18.71		18.71	1.20
Wheat	Field#:10	Date: 6/7/82 (Julian: 158)	Time: 12:05	S D	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	18.90	0.70
0-2 cm	18.90	19.75 20.11 18.50 19.68 20.29 19.54		19.54	0.36
2-5 cm	18.37	19.18 19.98 18.76 18.92 19.66 19.15		19.15	0.59
0-5 cm	18.59	19.41 20.03 18.66 19.22 19.91 19.30		19.30	0.63
Wheat	Field#:10	Date: 6/9/82 (Julian: 160)	Time: 13:17	S D	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	20.17	0.99
0-2 cm	20.17	20.28 22.70 21.51 20.42 20.56 20.94		20.94	0.47
2-5 cm	19.82	20.07 22.76 21.16 20.41 20.04 20.71		20.71	1.11
0-5 cm	19.96	20.16 22.74 21.30 20.42 20.25 20.80		20.80	1.06
Wheat	Field#:10	Date: 6/14/82 (Julian: 165)	Time: 10:10	S D	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	15.75	1.41
0-2 cm	15.75	18.00 17.17 18.06 14.83 15.28 16.52		16.52	1.41
2-5 cm	14.95	16.53 16.64 16.05 14.38 14.45 15.50		15.50	1.03
0-5 cm	15.27	17.12 16.86 16.86 14.56 14.78 15.91		15.91	1.18

Wheat	Field#:10	Date: 6/16/82 (Julian: 167)	Time: 15:00	S D	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	18.44	1.25
0-2 cm	18.44	18.27 19.56 18.03 16.82 17.64 18.13		18.13	0.91
2-5 cm	18.55	18.37 19.14 17.82 17.29 17.47 18.11		18.11	0.71
0-5 cm	18.51	18.33 19.31 17.91 17.10 17.54 18.12		18.12	0.79
Wheat	Field#:10	Date: 6/18/82 (Julian: 169)	Time: 14:06	S D	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	17.88	1.25
0-2 cm	17.88	19.37 20.50 18.35 17.13 17.64 18.48		18.48	0.67
2-5 cm	18.05	19.03 19.63 18.43 17.23 17.29 18.28		18.28	0.95
0-5 cm	17.98	19.17 19.98 18.39 17.19 17.43 18.36		18.36	1.07
Wheat	Field#:10	Date: 6/21/82 (Julian: 172)	Time:	S D	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	16.26	1.26
0-2 cm	16.26	18.70 17.58 16.61 16.28 15.02 16.74		16.74	0.76
2-5 cm	15.13	18.18 17.24 15.87 15.41 14.68 16.08		16.08	1.35
0-5 cm	15.58	18.39 17.38 16.17 15.76 14.82 16.35		16.35	1.32
Wheat	Field#:10	Date: 6/25/82 (Julian: 176)	Time: 09:30	S D	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	16.84	1.09
0-2 cm	16.84	18.38 18.00 16.04 16.99 16.26 17.09		17.09	0.93
2-5 cm	16.36	18.01 17.90 16.16		15.92	1.01
0-5 cm	16.55	18.16 17.94 16.11		16.05	1.96
Wheat	Field#:10	Date: 6/28/82 (Julian: 179)	Time: 15:40	S D	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	15.59	1.70
0-2 cm	15.59	18.13 17.70 15.14 14.26 14.20 15.83		15.83	1.07
2-5 cm	15.84	18.02 17.10 15.42 14.22 14.24 15.81		15.81	1.53
0-5 cm	15.74	18.06 17.34 15.31 14.23 14.22 15.82		15.82	1.60
Wheat	Field#:10	Date: 7/2/82 (Julian: 183)	Time: 10:12	S D	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	15.05	1.17
0-2 cm	15.05	16.96 17.47 15.50 14.63 14.98 15.76		15.76	1.17
2-5 cm	15.09	16.60 16.49 15.03 14.70 14.41 15.39		15.39	0.93
0-5 cm	15.08	16.74 16.88 15.22 14.67 14.64 15.54		15.54	1.02
Wheat	Field#:10	Date: 7/7/82 (Julian: 188)	Time: 11:10	S D	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	6.01	7.90
0-2 cm	6.01	11.69 11.38 5.52 8.34 4.45 7.90		7.90	3.92
2-5 cm	8.74	12.16 10.93 7.06 8.36 7.34 9.10		9.10	2.03
0-5 cm	7.65	11.97 11.11 6.44 8.35 6.18 8.62		8.62	2.46
Wheat	Field#:10	Date: 7/9/82 (Julian: 190)	Time: 15:30	S D	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	3.75	4.62
0-2 cm	3.75	4.63 5.91 5.16 4.16 4.09 4.62		4.62	0.80
2-5 cm	7.65	8.71 8.70 7.82 4.70 5.74 7.22		7.22	1.64
0-5 cm	6.09	7.08 7.58 6.76 4.48 5.08 6.18		6.18	1.31

Wheat	Field#:	10	Date:	7/12/82	(Julian:	193)	Time:			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	13.63	13.63	15.15	13.76	14.20	11.24	13.60	1.29	0.95	
2-5 cm	13.99	13.87	16.30	13.83	12.30	12.54	13.81	1.42	1.03	
0-5 cm	13.85	13.78	15.84	13.80	13.06	12.02	13.72	1.37	1.00	

Wheat	Field#:	10	Date:	7/13/82	(Julian:	194)	Time:	15:10		
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	17.59		18.38	15.49	15.38	16.16	16.60	1.33	0.80	
2-5 cm	17.17	17.62	18.53	15.99	15.33	16.13	16.79	1.19	0.71	
0-5 cm	17.34		18.47	15.79	15.35	16.14	16.72	1.24	0.74	

APPENDIX III.b  
GROUND-TRUTH DATA - CORN

1. Corn Vegetation Data
2. Plant Density Data
3. Soil Moisture Data

Notes on Corn Vegetation Data:

1. Wet- and dry-biomass density values for cobs are in kg/m<sup>2</sup>. Other density values are in kg/m<sup>3</sup>.
2. Values for leaves for each plant part have been calculated using leaf-layer thickness. For determination of leaf-layer thickness, see Figure 8.
3. Values for stalks, each whole layer, and the whole plant have been calculated using the height of the plant part and the mean canopy height as explained in Section 6.1.3.
4. Abbreviations Used for Plant Parts:

L1L	- Layer 1 leaves	L3L	- Layer 3 leaves
L1S	- Layer 1 stalks	L3S	- Layer 3 stalks
Top $\frac{1}{3}$	- Layer 1 all parts	L3C	- Layer 3 cobs
L2L	- Layer 2 leaves	Low $\frac{1}{3}$	- Layer 3 all parts
L2S	- Layer 2 stalks	L123L	- All leaves
L2C	- Layer 2 cobs	L123S	- All stalks
Mid $\frac{1}{3}$	- Layer 2 all parts	Cobs	- All cobs
		L123C	- All stalks and cobs
		Whole	- Whole plant

Corn Field # 1 Date: 5/19/82 (Julian: 139) Time: 11:30 Mean Canopy Height: 21.67 cm  
 Top Leaf Height: 21.67 cm Top Cob Height: 0. cm Leaf Layer Depth: 21.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.09  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 1 Date: 5/21/82 (Julian: 141) Time: 14:18 Mean Canopy Height: 32.00 cm  
 Top Leaf Height: 32.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 32.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.13  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 1 Date: 5/24/82 (Julian: 144) Time: 12:00 Mean Canopy Height: 26.50 cm  
 Top Leaf Height: 26.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 26.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 1 Date: 5/26/82 (Julian: 146) Time: 14:00 Mean Canopy Height: 27.83 cm  
 Top Leaf Height: 27.83 cm Top Cob Height: 0. cm Leaf Layer Depth: 27.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.41  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 1 Date: 6/ 2/82 (Julian: 153) Time: 12:00 Mean Canopy Height: 41.50 cm  
 Top Leaf Height: 41.50 cm Top Cob Height: 0. cm Leaf Layer Depth: 41.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 1 Date: 6/ 4/82 (Julian: 155) Time: 11:46 Mean Canopy Height: 42.33 cm  
 Top Leaf Height: 42.33 cm Top Cob Height: 0. cm Leaf Layer Depth: 42.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 1 Date: 6/14/82 (Julian: 165) Time: 15:00 Mean Canopy Height: 55.33 cm  
 Top Leaf Height: 55.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 55.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 80.10 0. 80.10 83.75 88.86 0. 85.60 84.16 92.87 0. 90.98 83.47 91.97 0. 91.97 88.50  
 Wet Biomass Density: 0.14 0. 0.13 0.69 0.39 0. 1.08 0.38 1.35 0. 1.72 0.40 0.58 0. 0.58 0.98  
 Dry Biomass Density: 0.03 0. 0.03 0.11 0.04 0. 0.16 0.06 0.10 0. 0.16 0.07 0.05 0. 0.05 0.11  
 Plant Water Density: 0.11 0. 0.11 0.58 0.35 0.93 0.32 1.25 1.57 0.34 0.53 0.53 0.87

Corn Field # 1 Date: 7/12/82 (Julian: 193) Time: 10:12 Mean Canopy Height: 253.83 cm  
 Top Leaf Height: 215.83 cm Top Cob Height: 119.67 cm Bottom Green Leaf Height: 51.00 cm Leaf Layer Depth: 164.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 75.03 81.24 78.43 94.27 87.43 92.54 90.30 83.92 83.86 91.94 84.94 87.55 84.88 92.25 86.10 86.45  
 Wet Biomass Density: 0.56 0.37 0.68 0.77 1.35 0.32 2.50 0.91 2.05 0.31 2.78 0.74 1.26 0.63 1.51 1.99  
 Dry Biomass Density: 0.14 0.07 0.15 0.04 0.17 0.02 0.24 0.15 0.33 0.03 0.42 0.09 0.19 0.05 0.21 0.27  
 Plant Water Density: 0.42 0.30 0.53 0.72 1.18 2.26 0.77 1.72 2.36 0.65 1.07

Corn Field # 1 Date: 7/13/82 (Julian: 194) Time: : Mean Canopy Height: 251.00 cm  
 Top Leaf Height: 219.17 cm Top Cob Height: 126.00 cm Bottom Green Leaf Height: 26.33 cm Leaf Layer Depth: 192.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.41 0.30 0.56 0.51 1.35 0.40 2.33 0.96 2.32 0.36 3.41 0.62 1.32 0.76 1.63 2.10  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 1 Date: 7/15/82 (Julian: 196) Time: 12:30 Mean Canopy Height: 276.67 cm  
 Top Leaf Height: 242.50 cm Top Cob Height: 140.67 cm Bottom Green Leaf Height: 29.67 cm Leaf Layer Depth: 212.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 81.72 82.13 81.94 85.39 91.19 87.86 89.74 93.62 90.12 88.10 92.27 89.23  
 Wet Biomass Density: 0.31 0.22 0.41 0.56 1.06 0.73 2.41 0.82 2.57 0.59 3.77 0.57 1.28 1.32 1.76 2.20  
 Dry Biomass Density: 0.06 0.04 0.07 0.16 0.06 0.10 0.26 0.04 0.37 0.15 0.10 0.19  
 Plant Water Density: 0.25 0.18 0.34 0.91 0.72 2.31 1.13

Corn Field # 1 Date: 7/19/82 (Julian: 200) Time: 10:00 Mean Canopy Height: 268.67 cm  
 Top Leaf Height: 238.50 cm Top Cob Height: 141.83 cm Bottom Green Leaf Height: 27.50 cm Leaf Layer Depth: 211.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.19 0.15 0.27 0.50 0.82 0.82 2.23 0.52 1.52 0.46 2.40 0.42 0.83 1.28 1.30 1.63  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 1 Date: 7/23/82 (Julian: 204) Time: 13:30 Mean Canopy Height: 264.83 cm  
 Top Leaf Height: 232.33 cm Top Cob Height: 123.67 cm Bottom Green Leaf Height: 23.17 cm Leaf Layer Depth: 209.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.25 0.16 0.31 0.78 0.74 1.65 3.39 0.43 1.84 0.51 2.74 0.53 0.91 2.16 1.73 2.15  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 1 Date: 7/26/82 (Julian: 207) Time: 14:20 Mean Canopy Height: 262.83 cm  
 Top Leaf Height: 242.33 cm Top Cob Height: 142.50 cm Bottom Green Leaf Height: 37.00 cm Leaf Layer Depth: 205.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.19 0.15 0.30 0.55 0.86 1.92 3.60 0.92 2.11 0.33 3.02 0.53 1.04 2.25 1.90 2.31  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 1 Date: 7/28/82 (Julian: 209) Time: 14:14 Mean Canopy Height: 283.00 cm  
 Top Leaf Height: 244.17 cm Top Cob Height: 133.50 cm Bottom Green Leaf Height: 22.00 cm Leaf Layer Depth: 222.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.28 0.14 0.31 0.59 0.79 1.89 3.38 0.30 1.59 0.22 2.06 0.42 0.84 2.11 1.59 1.92  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 1 Date: 6/16/82 (Julian: 167) Time: 09:15 Mean Canopy Height: 59.33 cm  
 Top Leaf Height: 59.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 59.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.90 0. 0.88 0.58 0.41 0. 0.99 0. 1.37 0. 1.37 0.49 0.59 0. 0.59 1.08  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 1 Date: 6/21/82 (Julian: 172) Time: 09:40 Mean Canopy Height: 82.83 cm  
 Top Leaf Height: 82.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 82.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 80.70 0. 80.70 84.49 90.48 0. 87.27 84.47 0. 83.94 0.  
 Wet Biomass Density: 0.19 0. 0.18 0.70 0.60 0. 1.30 0.38 1.79 0. 0.42 0.80 0. 0.80 1.22  
 Dry Biomass Density: 0.04 0. 0.03 0.11 0.06 0. 0.17 0.06 0. 0.07 0.  
 Plant Water Density: 0.15 0. 0.15 0.59 0.55 1.14 0.32 0.36

Corn Field # 1 Date: 6/25/82 (Julian: 176) Time: 11:20 Mean Canopy Height: 98.50 cm  
 Top Leaf Height: 98.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 98.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.69 0. 0.68 0.58 0.91 0. 1.50 0.34 2.05 0. 2.39 0.54 0.99 0. 0.99 1.52  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 1 Date: 6/28/82 (Julian: 179) Time: 15:25 Mean Canopy Height: 130.50 cm  
 Top Leaf Height: 130.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 130.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.70 0. 0.69 0.43 1.38 0. 1.81 0.44 2.36 0. 2.80 0.52 1.25 0. 1.25 1.77  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 1 Date: 6/30/82 (Julian: 181) Time: : Mean Canopy Height: 141.17 cm  
 Top Leaf Height: 138.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 138.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 1 Date: 7/ 6/82 (Julian: 187) Time: 11:10 Mean Canopy Height: 177.17 cm  
 Top Leaf Height: 177.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 177.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 79.77 94.31 82.20 82.47 92.67 0. 89.04 82.72 91.57 0. 90.03 82.06-91.99 0. 91.99 89.15  
 Wet Biomass Density: 0.25 0.05 0.30 0.63 1.14 0. 1.77 0.45 2.13 0. 2.58 0.44 1.11 0. 1.11 1.55  
 Dry Biomass Density: 0.05 0.00 0.05 0.11 0.08 0. 0.19 0.08 0.18 0. 0.26 0.08 0.09 0. 0.09 0.17  
 Plant Water Density: 0.20 0.05 0.24 0.52 1.06 1.58 0.37 1.95 2.33 0.36 1.02 1.02 1.38

Corn Field # 1 Date: 7/ 7/82 (Julian: 188) Time: 14:00 Mean Canopy Height: 206.33 cm  
 Top Leaf Height: 175.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 175.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.44 0.24 0.48 0.71 1.67 0. 2.37 0.55 2.23 0. 2.77 0.59 1.38 0. 1.38 1.88  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 1 Date: 7/30/82 (Julian: 211) Time: 11:00 Mean Canopy Height: 265.33 cm  
 Top Leaf Height: 230.50 cm Top Cob Height: 138.50 cm Bottom Green Leaf Height: 39.83 cm Leaf Layer Depth: 190.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 62.24 64.69 63.39 74.68 77.64 80.61 86.02 77.95 78.42 78.17  
 % Plant Moisture: 0.20 0.11 0.23 0.54 0.73 1.58 3.05 0.53 1.43 0.16 1.90 0.44 0.75 1.75 1.41 1.73  
 Wet Biomass Density: 0.07 0.04 0.08 0.18 0.35 0.28 0.02 0.59 0.17 0.38 0.31  
 Dry Biomass Density: 0.12 0.07 0.14 0.54 1.15 0.59 1.10

Corn Field # 1 Date: 8/ 2/82 (Julian: 214) Time: 13:54 Mean Canopy Height: 282.17 cm  
 Top Leaf Height: 261.17 cm Top Cob Height: 150.50 cm Bottom Green Leaf Height: 20.50 cm Leaf Layer Depth: 240.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.28 0.13 0.34 0.59 0.90 1.97 3.58 0.25 1.34 0.18 1.73 0.39 0.79 2.15 1.55 1.89  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 1 Date: 8/ 6/82 (Julian: 218) Time: 10:40 Mean Canopy Height: 272.83 cm  
 Top Leaf Height: 241.50 cm Top Cob Height: 145.00 cm Bottom Green Leaf Height: 28.83 cm Leaf Layer Depth: 212.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 68.91 65.96 67.57 74.25 71.56 59.08 64.82 76.07 81.87 81.25 81.27 73.61 77.55 60.76 69.36 70.17  
 % Plant Moisture: 0.28 0.15 0.33 0.70 0.72 1.82 3.42 0.24 1.40 0.15 1.72 0.45 0.76 1.97 1.48 1.82  
 Wet Biomass Density: 0.09 0.05 0.11 0.18 0.21 0.74 1.20 0.06 0.25 0.03 0.32 0.12 0.17 0.77 0.45 0.54  
 Dry Biomass Density: 0.19 0.10 0.22 0.52 0.52 2.22 0.18 1.14 0.33 0.59 1.02 1.02 1.28

Corn Field # 1 Date: 8/ 9/82 (Julian: 221) Time: : Mean Canopy Height: 274.83 cm  
 Top Leaf Height: 250.67 cm Top Cob Height: 144.83 cm Bottom Green Leaf Height: 22.83 cm Leaf Layer Depth: 227.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.40 0.19 0.48 0.64 1.00 2.06 3.89 0.19 1.47 0.27 1.91 0.43 0.89 2.33 1.73 2.09  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 1 Date: 8/11/82 (Julian: 223) Time: 13:11 Mean Canopy Height: 279.83 cm  
 Top Leaf Height: 248.00 cm Top Cob Height: 142.00 cm Bottom Green Leaf Height: 21.17 cm Leaf Layer Depth: 226.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.25 0.11 0.28 0.56 0.70 1.84 3.23 0.28 1.38 0.07 1.67 0.39 0.73 1.91 1.41 1.73  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 1 Date: 8/16/82 (Julian: 228) Time: 16:00 Mean Canopy Height: 266.83 cm  
 Top Leaf Height: 246.17 cm Top Cob Height: 136.33 cm Bottom Green Leaf Height: 55.17 cm Leaf Layer Depth: 191.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 66.74 67.64 67.73 74.30 76.94 52.60 61.84 71.98 80.78 73.36 79.08 72.24 78.51 54.34 66.39 67.34  
 % Plant Moisture: 0.30 0.17 0.40 0.63 0.99 2.20 4.09 0.47 1.52 0.20 1.93 0.49 0.89 2.40 1.79 2.14  
 Wet Biomass Density: 0.10 0.06 0.13 0.16 0.23 1.04 1.56 0.13 0.29 0.05 0.40 0.13 0.19 1.09 0.60 0.70  
 Dry Biomass Density: 0.20 0.12 0.27 0.47 0.76 2.53 0.34 1.23 1.52 0.35 0.70 1.19 1.19 1.44

Corn Field # 1 Date: 8/18/82 (Julian: 230) Time: 12:20 Mean Canopy Height: 259.50 cm  
 Top Leaf Height: 234.17 cm Top Cob Height: 136.33 cm Bottom Green Leaf Height: 58.83 cm Leaf Layer Depth: 175.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.19 0.10 0.24 0.51 0.45 1.74 2.97 0.57 1.34 0.10 1.64 0.41 0.63 1.85 1.34 1.62  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 1 Date: 8/20/82 (Julian: 232) Time: 15:00 Mean Canopy Height: 270.50 cm  
 Top Leaf Height: 255.00 cm Top Cob Height: 139.33 cm Bottom Green Leaf Height: 61.17 cm Leaf Layer Depth: 193.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.16 0.12 0.25 0.63 0.86 2.18 3.91 0.50 1.62 0.09 1.88 0.43 0.87 2.27 1.70 2.01  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 1 Date: 8/31/82 (Julian: 243) Time: 11:30 Mean Canopy Height: 268.67 cm  
 Top Leaf Height: cm Top Cob Height: cm Bottom Green Leaf Height: cm Leaf Layer Depth: cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field-# 1 Date: 9/ 2/82 (Julian: 245) Time: : Mean Canopy Height: 257.50 cm  
 Top Leaf Height: 231.83 cm Top Cob Height: 138.00 cm Bottom Green Leaf Height: 102.50 cm Leaf Layer Depth: 129.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 55.94 53.30 55.15 59.55 71.60 20.96 78.89 53.19 77.56 58.02 75.99  
 Wet Biomass Density: 0.22 0.06 0.22 0.45 0.60 1.13 2.37 1.42 0.05 1.48 0.41 0.69 1.18 1.15 1.36  
 Dry Biomass Density: 0.10 0.03 0.10 0.18 0.17 0.30 0.02 0.33 0.17 0.17  
 Plant Water Density: 0.12 0.03 0.12 0.27 0.43 1.12 1.15 0.24 0.53

Corn Field # 1 Date: 9/ 9/82 (Julian: 252) Time: 09:47 Mean Canopy Height: 276.67 cm  
 Top Leaf Height: 242.00 cm Top Cob Height: 146.00 cm Bottom Green Leaf Height: 119.17 cm Leaf Layer Depth: 122.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 42.60 44.89 43.41 48.67 70.80 35.18 43.53 13.73 76.16 19.53 72.47 42.62 73.59 35.06 54.05 52.70  
 Wet Biomass Density: 0.18 0.06 0.18 0.32 0.51 1.73 2.70 1.26 0.01 1.34 0.37 0.61 1.74 1.24 1.41  
 Dry Biomass Density: 0.10 0.03 0.10 0.16 0.15 1.12 1.53 0.30 0.01 0.37 0.21 0.16 1.13 0.57 0.66  
 Plant Water Density: 0.08 0.03 0.08 0.15 0.36 1.18 0.97 0.16 0.45

Corn Field # 2 Date: 5/19/82 (Julian: 139) Time: 11:25 Mean Canopy Height: 13.33 cm  
 Top Leaf Height: 13.33 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 13.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 2 Date: 5/21/82 (Julian: 141) Time: 14:17 Mean Canopy Height: 17.33 cm  
 Top Leaf Height: 17.33 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 17.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.06

Corn Field # 2 Date: 5/24/82 (Julian: 144) Time: 12:05 Mean Canopy Height: 23.50 cm  
 Top Leaf Height: 22.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 22.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:



Corn field # 2 Date: 5/26/82 (Julian: 146) Time: 14:00 Mean Canopy Height: 23.83 cm  
 Top Leaf Height: 23.83 cm Top Cob Height: 0. cm Leaf Layer Depth: 23.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.16  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 2 Date: 6/ 2/82 (Julian: 153) Time: 12:10 Mean Canopy Height: 29.50 cm  
 Top Leaf Height: 29.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 29.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 2 Date: 6/ 4/82 (Julian: 155) Time: 11:51 Mean Canopy Height: 32.67 cm  
 Top Leaf Height: 32.67 cm Top Cob Height: 0. cm Leaf Layer Depth: 32.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.51  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 2 Date: 6/14/82 (Julian: 165) Time: 15:00 Mean Canopy Height: 47.17 cm  
 Top Leaf Height: 47.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 47.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 83.65 0. 83.65 82.87 91.59 0. 87.37 79.23 93.07 0. 91.37 82.67 92.57 0. 92.57 88.59  
 Dry Biomass Density: 0.53 0. 0.52 0.64 0.68 0. 1.31 0.18 1.32 0. 1.51 0.45 0.67 0. 0.67 1.11  
 Plant Water Density: 0.09 0. 0.09 0.11 0.06 0. 0.17 0.04 0.09 0. 0.13 0.08 0.05 0. 0.05 0.13  
 Plant Water Density: 0.44 0. 0.44 0.53 0.62 1.15 0.15 1.23 1.38 0.37 0.62

Corn field # 2 Date: 6/16/82 (Julian: 167) Time: 09:25 Mean Canopy Height: 51.67 cm  
 Top Leaf Height: 51.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 51.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.83 0. 0.79 0.68 0.79 0. 1.47 0.16 1.03 0. 1.19 0.55 0.61 0. 0.61 1.15  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 2 Date: 6/21/82 (Julian: 172) Time: 09:40 Mean Canopy Height: 78.67 cm  
 Top Leaf Height: 78.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 78.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 83.62 0. 83.62 84.19 92.31 0. 88.97 84.56 79.73 0. 80.43 84.09 83.90 0. 83.90 83.96  
 Dry Biomass Density: 0.55 0. 0.53 0.74 1.06 0. 1.80 0.37 2.13 0. 2.50 0.55 1.06 0. 1.06 1.61  
 Plant Water Density: 0.09 0. 0.09 0.12 0.08 0. 0.20 0.06 0.43 0. 0.49 0.09 0.17 0. 0.17 0.26  
 Plant Water Density: 0.46 0. 0.45 0.62 0.98 1.60 0.31 1.70 2.01 0.46 0.89

Corn field # 2 Date: 6/24/82 (Julian: 175) Time: 11:10 Mean Canopy Height: 93.17 cm  
 Top Leaf Height: 93.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 93.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 1.00 0. 0.99 0.79 0.79 0. 1.57 0.44 2.20 0. 2.64 0.74 1.00 0. 1.00 1.73  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 2 Date: 6/28/82 (Julian: 179) Time: 14:37 Mean Canopy Height: 125.67 cm  
 Top Leaf Height: 125.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 125.00 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.53 0.17 0.69 0.62 1.41 0. 2.03 0.33 2.34 0. 2.67 0.50 1.31 0. 1.31 1.80  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 2 Date: 6/30/82 (Julian: 181) Time: : Mean Canopy Height: 130.17 cm  
 Top Leaf Height: 130.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 130.00 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 2 Date: 7/ 6/82 (Julian: 187) Time: 11:23 Mean Canopy Height: 173.17 cm  
 Top Leaf Height: 173.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 173.00 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 78.56 85.82 81.86 82.48 90.43 0. 87.55 83.84 89.83 0. 89.03 82.28 89.92 0. 89.92 87.87  
 Wet Biomass Density: 0.18 0.15 0.33 0.87 1.53 0. 2.40 0.32 2.05 0. 2.37 0.46 1.24 0. 1.24 1.70  
 Dry Biomass Density: 0.04 0.02 0.06 0.15 0.15 0. 0.30 0.05 0.21 0. 0.26 0.08 0.13 0. 0.13 0.21  
 Plant Water Density: 0.14 0.13 0.27 0.72 1.38 2.10 0.27 1.84 2.11 0.37 1.12 1.12 1.64

Corn field # 2 Date: 7/ 7/82 (Julian: 188) Time: 13:40 Mean Canopy Height: 195.00 cm  
 Top Leaf Height: 171.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 171.00 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.35 0.99 1.21 0.59 0.72 0. 1.31 0.17 1.03 0. 1.20 0.37 0.92 0. 0.92 1.24  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 2 Date: 7/12/82 (Julian: 193) Time: : Mean Canopy Height: 204.67 cm  
 Top Leaf Height: 191.50 cm Top Cob Height: 123.75 cm Bottom Green Leaf Height: 22.17 cm Leaf Layer Depth: 169.33 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 76.52 82.44 80.28 80.64 87.45 92.54 86.43 79.91 86.48 79.45 86.37  
 Wet Biomass Density: 0.35 0.50 0.78 0.59 1.68 0.19 2.55 0.42 1.29 0.07 1.68 0.47 1.15 0.27 1.28 1.67  
 Dry Biomass Density: 0.08 0.09 0.15 0.11 0.21 0.01 0.35 0.08 0.17 0.10 0.16  
 Plant Water Density: 0.27 0.41 0.63 0.48 1.47 2.20 0.33 1.12

Corn field # 2 Date: 7/13/82 (Julian: 194) Time: 11:30 Mean Canopy Height: 227.83 cm  
 Top Leaf Height: 196.33 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 22.50 cm Leaf Layer Depth: 173.83 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.24 0.24 0.38 0.57 0.88 0.40 1.98 0.69 1.91 0.12 2.56 0.52 1.01 0.52 1.24 1.64  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 2 Date: 7/15/82 (Julian: 196) Time: 12:52 Mean Canopy Height: 232.83 cm  
 Top Leaf Height: 195.67 cm Top Cob Height: 128.25 cm Bottom Green Leaf Height: 21.17 cm Leaf Layer Depth: 174.50 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 77.59  
 Wet Biomass Density: 0.26 0.26 0.40 0.49 0.97 0.33 1.89 0.50 1.52 0.08 1.99 0.44 0.92 0.41 1.09 1.42  
 Dry Biomass Density: 0.11  
 Plant Water Density: 0.38

Corn Field # 2 Date: 7/19/82 (Julian: 200) Time: 10:00 Mean Canopy Height: 221.50 cm  
 Top Leaf Height: 182.00 cm Top Cob Height: 113.40 cm Bottom Green Leaf Height: 27.20 cm Leaf Layer Depth: 154.80 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 77.56 75.20 76.16 77.06 83.84 89.02 83.92 79.26 82.18 88.97 82.29 78.10 82.07 89.01 83.74 82.43  
 Wet Biomass Density: 0.26 0.18 0.30 0.35 0.60 0.35 1.42 0.58 1.31 0.14 1.87 0.40 0.70 0.49 0.92 1.19  
 Dry Biomass Density: 0.06 0.04 0.07 0.08 0.10 0.04 0.23 0.12 0.23 0.02 0.33 0.09 0.12 0.05 0.15 0.21  
 Plant Water Density: 0.20 0.13 0.23 0.27 0.50 1.19 0.46 1.08 1.54 0.31 0.57 0.31 0.57 0.77 0.98 1.35

Corn Field # 2 Date: 7/23/82 (Julian: 204) Time: 13:38 Mean Canopy Height: 240.67 cm  
 Top Leaf Height: 194.67 cm Top Cob Height: 121.50 cm Bottom Green Leaf Height: 24.83 cm Leaf Layer Depth: 169.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.23 0.16 0.26 0.43 0.77 0.89 2.30 0.55 1.69 0.27 2.41 0.43 0.87 1.16 1.35 1.66  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 2 Date: 7/26/82 (Julian: 207) Time: 14:20 Mean Canopy Height: 233.00 cm  
 Top Leaf Height: 195.50 cm Top Cob Height: 122.83 cm Bottom Green Leaf Height: 23.67 cm Leaf Layer Depth: 171.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.19 0.14 0.23 0.38 0.56 1.12 2.39 0.54 1.45 0.07 1.91 0.39 0.71 1.19 1.22 1.51  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 2 Date: 7/28/82 (Julian: 209) Time: 14:28 Mean Canopy Height: 226.83 cm  
 Top Leaf Height: 208.00 cm Top Cob Height: 113.33 cm Bottom Green Leaf Height: 22.17 cm Leaf Layer Depth: 185.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.15 0.17 0.28 0.36 0.63 1.27 2.68 0.66 1.79 0.13 2.43 0.38 0.86 1.41 1.48 1.80  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 2 Date: 7/30/82 (Julian: 211) Time: 11:20 Mean Canopy Height: 233.67 cm  
 Top Leaf Height: 198.17 cm Top Cob Height: 114.83 cm Bottom Green Leaf Height: 28.33 cm Leaf Layer Depth: 169.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 66.06 67.49 66.89 72.79 75.38 81.38 78.54 76.17 79.89 87.36 80.34 73.77 77.93 82.59 80.05 78.85  
 Wet Biomass Density: 0.21 0.16 0.27 0.48 0.71 1.38 2.96 0.89 1.78 0.35 2.79 0.53 0.88 1.73 1.62 2.01  
 Dry Biomass Density: 0.07 0.05 0.09 0.13 0.18 0.26 0.64 0.21 0.36 0.04 0.55 0.14 0.20 0.30 0.32 0.43  
 Plant Water Density: 0.14 0.11 0.18 0.35 0.54 2.33 0.67 1.42 2.24 0.39 0.69 1.30 1.30 1.58 1.80 2.26

Corn Field # 2 Date: 8/ 2/82 (Julian: 214) Time: 14:30 Mean Canopy Height: 232.83 cm  
 Top Leaf Height: 194.17 cm Top Cob Height: 116.67 cm Bottom Green Leaf Height: 24.83 cm Leaf Layer Depth: 169.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.20 0.13 0.23 0.60 0.67 1.35 3.00 0.43 1.47 0.28 2.12 0.46 0.75 1.63 1.45 1.79  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 2 Date: 8/ 6/82 (Julian: 218) Time: 10:39 Mean Canopy Height: 240.83 cm  
 Top Leaf Height: 209.50 cm Top Cob Height: 123.83 cm Bottom Green Leaf Height: 22.00 cm Leaf Layer Depth: 187.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 67.84 71.02 69.52 76.54 75.56 81.39 77.98 79.94 75.02 0.49 0.94 2.26 1.87 2.26  
 Wet Biomass Density: 0.27 0.19 0.35 0.68 0.99 1.86 3.98 0.43 1.62 0.41 2.44 0.49 0.94 2.26 1.87 2.26  
 Dry Biomass Density: 0.09 0.05 0.11 0.16 0.11 0.30 0.09 0.49 0.12 0.11 0.30 0.09 0.49 0.12 0.11 0.30  
 Plant Water Density: 0.19 0.13 0.25 0.52 0.32 1.32 1.95 0.32 1.32 1.95 0.37 1.95 0.37 1.95 0.37 1.95

Corn Field # 2 Date: 8/ 9/82 (Julian: 221) Time: 11:10 Mean Canopy Height: 238.67 cm  
Top Leaf Height: 203.67 cm Top Cob Height: 126.17 cm Bottom Green Leaf Height: 51.83 cm Leaf Layer Depth: 151.83 cm  
Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
% Plant Moisture: 0.22 0.13 0.26 0.47 0.64 1.51 3.00 0.53 1.19 0.06 1.44 0.41 0.65 1.56 1.31 1.57  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density:

Corn Field # 2 Date: 8/16/82 (Julian: 228) Time: 15:35 Mean Canopy Height: 231.33 cm  
Top Leaf Height: 212.67 cm Top Cob Height: 114.33 cm Bottom Green Leaf Height: 32.83 cm Leaf Layer Depth: 179.83 cm  
Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
% Plant Moisture: 66.11 7 .92 78.80 77.73 80.60 86.14 80.66 74.11  
Wet Biomass Density: 0.19 0.16 0.30 0.62 0.71 1.89 3.78 0.62 1.46 0.16 2.02 0.48 0.77 2.05 1.66 2.03  
Dry Biomass Density: 0.07 0.16 0.15 0.14 0.28 0.02 0.39 0.12  
Plant Water Density: 0.13 0.46 0.56 0.48 1.17 1.63 0.36

Corn Field # 2 Date: 8/18/82 (Julian: 230) Time: 13:05 Mean Canopy Height: 230.00 cm  
Top Leaf Height: 190.50 cm Top Cob Height: 110.67 cm Bottom Green Leaf Height: 57.50 cm Leaf Layer Depth: 133.00 cm  
Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
% Plant Moisture:  
Wet Biomass Density: 0.21 0.14 0.24 0.58 0.81 1.87 3.84 0.81 1.18 0.10 1.51 0.51 0.71 1.98 1.57 1.86  
Dry Biomass Density:  
Plant Water Density:

Corn Field # 2 Date: 8/31/82 (Julian: 243) Time: 11:05 Mean Canopy Height: 230.83 cm  
Top Leaf Height: cm Top Cob Height: cm Bottom Green Leaf Height: cm  
Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
% Plant Moisture:  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density:

Corn Field # 2 Date: 9/ 2/82 (Julian: 245) Time: 14:00 Mean Canopy Height: 244.67 cm  
Top Leaf Height: 210.00 cm Top Cob Height: 121.67 cm Bottom Green Leaf Height: 87.17 cm Leaf Layer Depth: 122.83 cm  
Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
% Plant Moisture: 58.36 58.48 58.40 56.71 74.09 37.39 46.50 47.92 77.90 56.67 75.80  
Wet Biomass Density: 0.21 0.08 0.20 0.30 0.60 1.77 3.08 1.17 0.30 0.62  
Dry Biomass Density: 0.09 0.03 0.09 0.13 0.16 1.11 1.65 0.26 0.13 0.15  
Plant Water Density: 0.12 0.05 0.12 0.17 0.45 0.91 1.43 0.17 0.47

Corn Field # 2 Date: 9/ 9/82 (Julian: 252) Time: 09:25 Mean Canopy Height: 243.50 cm  
Top Leaf Height: 199.50 cm Top Cob Height: 121.17 cm Bottom Green Leaf Height: 97.50 cm Leaf Layer Depth: 102.00 cm  
Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
% Plant Moisture: 35.16 37.05 36.05 48.29 73.55 36.40 45.15 21.82 78.16 58.82 74.29 40.64 75.55 36.75 56.47 54.85  
Wet Biomass Density: 0.16 0.07 0.14 0.29 0.56 1.57 2.78 1.40 0.03 1.52 0.36 0.68 1.59 1.33 1.48  
Dry Biomass Density: 0.11 0.04 0.09 0.15 0.15 1.00 1.53 0.31 0.01 0.39 0.21 0.17 1.01 0.58 0.67  
Plant Water Density: 0.06 0.02 0.05 0.14 0.41 1.09 1.26 1.09 0.15 0.51 0.15 0.15 0.75 0.81

Corn Field # 2 Date: 9/16/82 (Julian: 259) Time: 10:40 Mean Canopy Height: 250.33 cm  
Top Leaf Height: 209.50 cm Top Cob Height: 132.00 cm Bottom Green Leaf Height: 97.50 cm Leaf Layer Depth: 112.00 cm  
Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
% Plant Moisture: 6.64 14.56 10.89 6.02 58.47 28.93 33.12 6.96 74.70 29.44 63.64 6.37 68.91 29.01 47.87 45.09  
Wet Biomass Density: 0.08 0.04 0.08 0.13 0.39 1.22 1.99 1.11 0.21 1.43 0.17 0.52 1.44 1.09 1.17  
Dry Biomass Density: 0.07 0.04 0.07 0.13 0.16 0.87 1.33 0.28 0.15 0.52 0.16 0.16 1.02 0.57 0.64  
Plant Water Density: 0.01 0.01 0.01 0.01 0.23 0.66 0.83 0.83 0.91 0.91 0.01 0.35 0.52 0.52 0.53

Corn field # 2 Date: 9/23/82 (Julian: 266) Time: 13:00 Mean Canopy Height: 232.17 cm  
 Top Leaf Height: 174.00 cm Top Cob Height: cm Bottom Green Leaf Height: cm Leaf Layer Depth: cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 2 Date: 9/28/82 (Julian: 271) Time: 11:10 Mean Canopy Height: 250.00 cm  
 Top Leaf Height: cm Top Cob Height: cm Bottom Green Leaf Height: cm Leaf Layer Depth: cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 5.93 9.57 7.49 7.66 49.09 20.41 24.76 5.30 68.85 27.57 63.23 6.73 60.62 20.55 38.26 35.51  
 Wet Biomass Density: 0.04 0.10 0.13 0.34 1.16 1.87 0.74 0.02 0.82 0.38 1.19 0.85 0.93  
 Dry Biomass Density: 0.04 0.09 0.12 0.17 0.92 1.41 0.23 0.02 0.30 0.15 0.94 0.52 0.69  
 Plant Water Density: 0.00 0.01 0.01 0.17 0.46 0.51 0.51 0.52 0.23 0.23 0.32 0.33

Corn field # 2 Date: 9/30/82 (Julian: 273) Time: 12:10 Mean Canopy Height: 209.17 cm  
 Top Leaf Height: cm Top Cob Height: 97.33 cm Bottom Green Leaf Height: cm Leaf Layer Depth: cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.06 0.09 0.06 0.19 0.92 1.56 0.66 0.09 0.89 0.30 1.01 0.78 0.85  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 2 Date: 10/ 5/82 (Julian: 278) Time: 15:45 Mean Canopy Height: 229.33 cm  
 Top Leaf Height: cm Top Cob Height: 111.83 cm Bottom Green Leaf Height: cm Leaf Layer Depth: cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 1.29 5.39 3.29 0.39 34.84 15.79 18.71 59.80 7.21 45.10 15.68 25.85  
 Wet Biomass Density: 0.05 0.10 0.08 0.36 1.14 1.93 0.38 0.01 0.41 0.26 1.15 0.77 0.81  
 Dry Biomass Density: 0.05 0.09 0.08 0.24 0.96 1.57 0.15 0.01 0.12 0.15 0.97 0.57  
 Plant Water Density: 0.00 0.00 0.00 0.13 0.36 0.23 0.23 0.23 0.12 0.12 0.20

Corn field # 3 Date: 5/19/82 (Julian: 139) Time: : Mean Canopy Height: 22.83 cm  
 Top Leaf Height: 22.83 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 22.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.24

Corn field # 3 Date: 5/21/82 (Julian: 141) Time: 14:38 Mean Canopy Height: 27.67 cm  
 Top Leaf Height: 27.67 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 27.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.30

Corn field # 3 Date: 5/24/82 (Julian: 144) Time: : Mean Canopy Height: 32.00 cm  
 Top Leaf Height: 32.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 32.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 3 Date: 5/26/82 (Julian: 146) Time: 14:20 Mean Canopy Height: 34.67 cm  
 Top Leaf Height: 34.67 cm Top Cob Height: 0. cm Leaf Layer Depth: 34.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C L0W1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.47  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 3 Date: 6/ 1/82 (Julian: 152) Time: 13:02 Mean Canopy Height: 51.50 cm  
 Top Leaf Height: 51.50 cm Top Cob Height: 0. cm Leaf Layer Depth: 51.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C L0W1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.79  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 3 Date: 6/ 2/82 (Julian: 153) Time: 12:26 Mean Canopy Height: 49.67 cm  
 Top Leaf Height: 49.67 cm Top Cob Height: 0. cm Leaf Layer Depth: 49.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C L0W1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.87  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 3 Date: 6/ 4/82 (Julian: 155) Time: 14:12 Mean Canopy Height: 54.50 cm  
 Top Leaf Height: 54.50 cm Top Cob Height: 0. cm Leaf Layer Depth: 54.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C L0W1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 1.21  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 3 Date: 6/ 7/82 (Julian: 158) Time: 10:00 Mean Canopy Height: 63.00 cm  
 Top Leaf Height: 63.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 63.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C L0W1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 1.66  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 3 Date: 6/ 9/82 (Julian: 160) Time: 13:57 Mean Canopy Height: 72.17 cm  
 Top Leaf Height: 72.17 cm Top Cob Height: 0. cm Leaf Layer Depth: 72.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C L0W1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 1.66  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 3 Date: 6/14/82 (Julian: 165) Time: 15:20 Mean Canopy Height: 77.83 cm  
 Top Leaf Height: 77.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 77.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C L0W1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 81.13 0. 81.13 82.81 90.05 0. 86.90 83.47 94.00 0. 91.85 82.58 92.91 0. 92.91 89.25  
 Wet Biomass Density: 0.41 0. 0.39 0.57 0.73 0. 1.30 0.49 1.91 0. 2.41 0.49 0.88 0. 0.88 1.37  
 Dry Biomass Density: 0.08 0. 0.07 0.10 0.07 0. 0.17 0.08 0.11 0. 0.20 0.09 0.06 0. 0.06 0.15  
 Plant Water Density: 0.33 0. 0.32 0.47 0.66 0. 1.13 0.41 1.80 2.21 0.40 0.82 1.22

Corn field # 3 Date: 6/16/82 (Julian: 167) Time: 10:30 Mean Canopy Height: 84.50 cm  
 Top Leaf Height: 84.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 84.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.93 0. 0.91 0.55 0.92 0. 1.47 0.20 1.75 0. 1.95 0.56 0.89 0. 0.89 1.44  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 3 Date: 6/18/82 (Julian: 169) Time: 13:40 Mean Canopy Height: 113.00 cm  
 Top Leaf Height: 113.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 113.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.42 0. 0.42 0.81 1.13 0. 1.93 0.41 2.64 0. 3.05 0.55 1.25 0. 1.25 1.80  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 3 Date: 6/21/82 (Julian: 172) Time: 10:14 Mean Canopy Height: 120.83 cm  
 Top Leaf Height: 120.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 120.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 83.54 88.23 84.36 84.26 93.91 0. 90.28 84.70 94.42 0. 93.11 84.16 94.09 0. 94.09 91.11  
 Wet Biomass Density: 0.67 0.14 0.79 1.19 1.98 0. 3.17 0.54 3.46 0. 3.99 0.80 1.86 0. 1.86 2.65  
 Dry Biomass Density: 0.11 0.02 0.12 0.19 0.12 0. 0.31 0.08 0.19 0. 0.27 0.13 0.11 0. 0.11 0.24  
 Plant Water Density: 0.56 0.12 0.67 1.01 1.86 2.86 0.45 3.26 3.72 0.67 1.75 1.75 2.42

Corn field # 3 Date: 6/23/82 (Julian: 174) Time: Mean Canopy Height: 128.33 cm  
 Top Leaf Height: 128.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 128.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 1.13 0. 1.13 0.88 2.07 0. 2.95 0.41 3.25 0. 3.65 0.81 1.77 0. 1.77 2.58  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 3 Date: 6/25/82 (Julian: 176) Time: 12:55 Mean Canopy Height: 155.67 cm  
 Top Leaf Height: 155.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 155.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 8.36 0. 8.25 0.89 2.10 0. 2.98 0.42 3.03 0. 3.45 3.20 1.71 0. 1.71 4.89  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 3 Date: 6/28/82 (Julian: 179) Time: 14:20 Mean Canopy Height: 197.33 cm  
 Top Leaf Height: 197.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 197.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.52 0.44 0.96 0.49 1.87 0. 2.37 0.53 2.53 0. 3.05 0.51 1.61 0. 1.61 2.13  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 3 Date: 6/30/82 (Julian: 181) Time: Mean Canopy Height: 212.00 cm  
 Top Leaf Height: 212.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 212.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 3 Date: 7/ 6/82 (Julian: 187) Time: : Mean Canopy Height: 253.00 cm  
 Top Leaf Height: 224.83 cm Top Cob Height: 141.33 cm Bottom Green Leaf Height: 21.17 cm Leaf Layer Depth: 203.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 79.13 85.73 82.40 82.58 91.53 91.80 89.22 83.48 87.24 0. 86.64 81.85 28.37 91.80 88.89 87.11  
 Wet Biomass Density: 0.68 0.45 0.90 0.70 1.22 0.60 2.63 0.60 2.34 0. 2.79 0.66 1.34 0.60 1.57 2.11  
 Dry Biomass Density: 0.14 0.06 0.16 0.12 0.10 0.05 0.28 0.10 0.30 0. 0.37 0.12 0.16 0.05 0.17 0.27  
 Plant Water Density: 0.54 0.38 0.74 0.58 1.11 2.34 0.50 2.04 2.42 0.54 1.18 1.40 1.83

Corn Field # 3 Date: 7/ 7/82 (Julian: 188) Time: 14:20 Mean Canopy Height: 270.83 cm  
 Top Leaf Height: 255.67 cm Top Cob Height: 151.17 cm Bottom Green Leaf Height: 29.00 cm Leaf Layer Depth: 226.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 3 Date: 7/12/82 (Julian: 193) Time: 09:30 Mean Canopy Height: 282.50 cm  
 Top Leaf Height: 251.50 cm Top Cob Height: 159.50 cm Bottom Green Leaf Height: 29.67 cm Leaf Layer Depth: 221.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 75.61 80.07 77.99 86.53 84.36 93.13 88.12 81.38 85.61 91.70 85.62 83.38 84.86 92.80 87.07 86.23  
 Wet Biomass Density: 0.32 0.25 0.46 0.82 1.10 1.02 3.00 0.66 2.29 0.30 3.06 0.63 1.21 1.32 1.68 2.17  
 Dry Biomass Density: 0.08 0.05 0.10 0.11 0.17 0.07 0.36 0.12 0.33 0.02 0.44 0.10 0.18 0.10 0.22 0.33  
 Plant Water Density: 0.24 0.20 0.36 0.71 0.93 2.65 0.53 1.96 2.62 0.53 1.03 1.46 1.88

Corn Field # 3 Date: 7/15/82 (Julian: 196) Time: 12:32 Mean Canopy Height: 292.67 cm  
 Top Leaf Height: 262.50 cm Top Cob Height: 165.83 cm Bottom Green Leaf Height: 35.33 cm Leaf Layer Depth: 227.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.19 0.18 0.31 0.62 1.07 0.74 2.45 0.71 2.01 0.21 2.68 0.52 1.09 0.95 1.41 1.81  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 3 Date: 7/19/82 (Julian: 200) Time: 10:50 Mean Canopy Height: 282.17 cm  
 Top Leaf Height: 259.00 cm Top Cob Height: 154.83 cm Bottom Green Leaf Height: 33.50 cm Leaf Layer Depth: 225.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 70.92 74.92 72.82 76.20 79.57 87.68 82.98 80.26 81.18 91.71 83.08 76.70 80.33 88.73 83.86 82.44  
 Wet Biomass Density: 0.28 0.19 0.40 0.72 0.94 1.61 3.38 0.69 2.06 0.57 3.11 0.57 1.07 2.18 1.84 2.29  
 Dry Biomass Density: 0.08 0.05 0.11 0.17 0.19 0.20 0.57 0.14 0.39 0.05 0.53 0.13 0.21 0.25 0.30 0.40  
 Plant Water Density: 0.20 0.14 0.29 0.55 0.75 2.80 0.55 1.67 2.58 0.44 0.86 1.54 1.89

Corn Field # 3 Date: 7/23/82 (Julian: 204) Time: 13:25 Mean Canopy Height: 281.00 cm  
 Top Leaf Height: 252.50 cm Top Cob Height: 151.50 cm Bottom Green Leaf Height: 38.67 cm Leaf Layer Depth: 213.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.30 0.16 0.38 0.63 0.84 1.69 3.28 0.65 1.97 0.51 2.90 0.54 0.99 2.20 1.78 2.18  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 3 Date: 7/26/82 (Julian: 207) Time: 13:50 Mean Canopy Height: 284.17 cm  
 Top Leaf Height: 250.33 cm Top Cob Height: 158.83 cm Bottom Green Leaf Height: 32.83 cm Leaf Layer Depth: 217.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.26 0.16 0.33 0.67 0.78 1.84 3.40 0.51 1.75 0.37 2.47 0.51 0.90 2.22 1.68 2.07  
 Dry Biomass Density:  
 Plant Water Density:



Corn field # 3 Date: 7/28/82 (Julian: 209) Time: 15:31 Mean Canopy Height: 291.17 cm  
 Top Leaf Height: 251.17 cm Top Cob Height: 155.00 cm Bottom Green Leaf Height: 44.83 cm Leaf Layer Depth: 206.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.36 0.17 0.38 0.54 0.89 1.99 3.48 0.54 1.62 0.09 2.00 0.49 0.89 2.08 1.61 1.95  
 Wet Biomass Density: 0.36 0.17 0.38 0.54 0.89 1.99 3.48 0.54 1.62 0.09 2.00 0.49 0.89 2.08 1.61 1.95  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 3 Date: 7/30/82 (Julian: 211) Time: 13:15 Mean Canopy Height: 272.33 cm  
 Top Leaf Height: 241.83 cm Top Cob Height: 140.50 cm Bottom Green Leaf Height: 57.00 cm Leaf Layer Depth: 184.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 67.26 68.41 67.86 71.74 75.28 65.59 68.86 67.55 81.43 88.47 79.77 69.54 78.61 67.47 73.55 72.84  
 Wet Biomass Density: 0.31 0.22 0.43 0.58 0.93 2.13 3.86 1.10 1.91 2.53 0.59 1.02 2.32 1.83 2.27  
 Dry Biomass Density: 0.10 0.07 0.14 0.16 0.23 0.73 1.20 0.36 0.36 0.02 0.51 0.18 0.22 0.75 0.50 0.62  
 Plant Water Density: 0.21 0.15 0.29 0.42 0.70 2.66 0.74 1.56 0.41 0.80

Corn field # 3 Date: 8/ 2/82 (Julian: 214) Time: : Mean Canopy Height: 266.83 cm  
 Top Leaf Height: 245.17 cm Top Cob Height: 145.67 cm Bottom Green Leaf Height: 57.00 cm Leaf Layer Depth: 188.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.28 0.24 0.45 0.69 1.24 2.45 4.68 1.00 2.77 0.28 3.44 0.60 1.42 2.73 2.44 2.86  
 Wet Biomass Density: 0.28 0.24 0.45 0.69 1.24 2.45 4.68 1.00 2.77 0.28 3.44 0.60 1.42 2.73 2.44 2.86  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 3 Date: 8/ 6/82 (Julian: 218) Time: 11:38 Mean Canopy Height: 274.33 cm  
 Top Leaf Height: 252.83 cm Top Cob Height: 150.67 cm Bottom Green Leaf Height: 57.00 cm Leaf Layer Depth: 195.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 68.71 67.78 68.35 75.99 57.17 72.33 78.72 80.94 78.72 77.15 58.72 68.46  
 Wet Biomass Density: 0.34 0.17 0.43 0.55 0.80 1.95 3.49 0.14 1.59 0.14 1.79 0.40 0.85 2.09 1.62 1.90  
 Dry Biomass Density: 0.11 0.05 0.14 0.19 0.84 0.04 0.34 0.03 0.38 0.20 0.86 0.51  
 Plant Water Density: 0.23 0.11 0.29 0.61 0.10 1.25 0.66

Corn field # 3 Date: 8/ 9/82 (Julian: 221) Time: 13:10 Mean Canopy Height: 276.00 cm  
 Top Leaf Height: 251.17 cm Top Cob Height: 147.17 cm Bottom Green Leaf Height: 57.00 cm Leaf Layer Depth: 194.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.37 0.17 0.44 0.46 0.83 2.05 3.51 0.20 1.45 0.13 1.67 0.38 0.82 2.18 1.61 1.87  
 Wet Biomass Density: 0.37 0.17 0.44 0.46 0.83 2.05 3.51 0.20 1.45 0.13 1.67 0.38 0.82 2.18 1.61 1.87  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 3 Date: 8/16/82 (Julian: 228) Time: 10:41 Mean Canopy Height: 267.17 cm  
 Top Leaf Height: 256.17 cm Top Cob Height: 150.33 cm Bottom Green Leaf Height: 57.00 cm Leaf Layer Depth: 199.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 70.02 66.55 68.66 76.77 44.79 72.23 79.00 66.45 77.29 77.81 46.75 62.71  
 Wet Biomass Density: 0.24 0.13 0.34 0.67 0.81 2.24 3.99 0.36 1.97 0.22 2.35 0.45 0.97 2.46 1.90 2.23  
 Dry Biomass Density: 0.07 0.04 0.11 0.19 1.24 0.10 0.41 0.07 0.53 0.22 1.31 0.71  
 Plant Water Density: 0.17 0.09 0.23 0.62 0.26 1.56 1.82

Corn field # 3 Date: 8/18/82 (Julian: 230) Time: : Mean Canopy Height: 269.00 cm  
 Top Leaf Height: 224.17 cm Top Cob Height: 155.17 cm Bottom Green Leaf Height: 113.80 cm Leaf Layer Depth: 110.37 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.57 0.12 0.41 0.42 0.75 1.75 3.13 1.66 0.19 1.90 0.59 0.84 1.95 1.57 1.81  
 Wet Biomass Density: 0.57 0.12 0.41 0.42 0.75 1.75 3.13 1.66 0.19 1.90 0.59 0.84 1.95 1.57 1.81  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 4 Date: 5/21/82 (Julian: 141) Time: 11:41 Mean Canopy Height: 28.33 cm  
 Top Leaf Height: 28.33 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 28.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.26  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 4 Date: 5/24/82 (Julian: 144) Time: 13:40 Mean Canopy Height: 42.17 cm  
 Top Leaf Height: 42.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 42.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 4 Date: 6/ 1/82 (Julian: 152) Time: 13:40 Mean Canopy Height: 57.33 cm  
 Top Leaf Height: 57.33 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 57.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 1.01  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 4 Date: 6/ 2/82 (Julian: 153) Time: 13:13 Mean Canopy Height: 58.00 cm  
 Top Leaf Height: 58.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 58.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 1.46

Corn Field # 4 Date: 6/ 7/82 (Julian: 158) Time: 15:39 Mean Canopy Height: 63.17 cm  
 Top Leaf Height: 63.17 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 63.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 1.97

Corn Field # 4 Date: 6/16/82 (Julian: 167) Time: 14:10 Mean Canopy Height: 102.33 cm  
 Top Leaf Height: 102.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 102.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 86.22 0. 86.22 85.92 94.18 0. 91.74 0. 95.89 0. 95.89 86.14 95.31 0. 95.31 92.21  
 Wet Biomass Density: 1.67 0. 1.66 0.64 1.52 0. 2.15 0. 2.98 0. 2.98 0.77 1.50 0. 1.50 2.26  
 Dry Biomass Density: 0.23 0. 0.23 0.09 0.09 0. 0.18 0. 0.12 0. 0.12 0.11 0.07 0. 0.07 0.18  
 Plant Water Density: 1.44 0. 1.43 0.55 1.43 0. 1.97 0. 2.85 0.66 2.85 0.66 1.43 0. 1.43 2.09

Corn Field # 4 Date: 6/18/82 (Julian: 169) Time: 09:20 Mean Canopy Height: 120.33 cm  
 Top Leaf Height: 120.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 120.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.42 0. 0.41 1.03 1.50 0. 2.53 0.57 3.35 0. 3.93 0.67 1.62 0. 1.62 2.29  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 4 Date: 6/21/82 (Julian: 177) Time: 14:08 Mean Canopy Height: 137.17 cm  
 Top Leaf Height: 137.00 cm Top Cob Height: L25 L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COUS L123SC WHOLE  
 Plant Parts: L1L L1S TOP1/3 L2L 81.03 0. 81.03 84.59 92.99 0. 89.56 86.17 96.70 0. 95.09 84.22 95.54 0. 95.54 92.09  
 % Plant Moisture: 0.52 0. 0.51 1.10 1.59 0. 2.69 0.64 3.53 0. 4.16 0.75 1.71 0. 1.71 2.46  
 Wet Biomass Density: 0.10 0. 0.10 0.17 0.11 0. 0.28 0.09 0.12 0. 0.20 0.12 0.08 0. 0.08 0.19  
 Dry Biomass Density: 0.42 0. 0.42 0.93 1.48 0. 2.41 0.55 3.41 0. 3.96 0.63 1.63 0. 1.63 2.26  
 Plant Water Density: 0.41 0. 0.41 1.01 1.79 0. 2.80 0.46 3.21 0. 3.68 0.63 1.67 0. 1.67 2.30  
 Plant Biomass Density: 0.41 0. 0.41 1.01 1.79 0. 2.80 0.46 3.21 0. 3.68 0.63 1.67 0. 1.67 2.30  
 Plant Water Density: 0.41 0. 0.41 1.01 1.79 0. 2.80 0.46 3.21 0. 3.68 0.63 1.67 0. 1.67 2.30

Corn Field # 4 Date: 6/25/82 (Julian: 176) Time: 14:10 Mean Canopy Height: 178.50 cm  
 Top Leaf Height: 178.00 cm Top Cob Height: L25 L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COUS L123SC WHOLE  
 Plant Parts: L1L L1S TOP1/3 L2L 0.41 0. 0.41 1.01 1.79 0. 2.80 0.46 3.21 0. 3.68 0.63 1.67 0. 1.67 2.30  
 % Plant Moisture: 0.41 0. 0.41 1.01 1.79 0. 2.80 0.46 3.21 0. 3.68 0.63 1.67 0. 1.67 2.30  
 Wet Biomass Density: 0.41 0. 0.41 1.01 1.79 0. 2.80 0.46 3.21 0. 3.68 0.63 1.67 0. 1.67 2.30  
 Dry Biomass Density: 0.41 0. 0.41 1.01 1.79 0. 2.80 0.46 3.21 0. 3.68 0.63 1.67 0. 1.67 2.30  
 Plant Water Density: 0.41 0. 0.41 1.01 1.79 0. 2.80 0.46 3.21 0. 3.68 0.63 1.67 0. 1.67 2.30

Corn Field # 4 Date: 6/28/82 (Julian: 179) Time: 11:17 Mean Canopy Height: 213.33 cm  
 Top Leaf Height: 213.00 cm Top Cob Height: L25 L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COUS L123SC WHOLE  
 Plant Parts: L1L L1S TOP1/3 L2L 79.11 0. 79.11 82.74 95.13 0. 91.46 86.45 93.08 0. 92.14 83.38 93.98 0. 93.98 91.43  
 % Plant Moisture: 0.18 0. 0.18 0.84 1.99 0. 2.83 0.43 2.55 0. 2.98 0.48 1.52 0. 1.52 2.00  
 Wet Biomass Density: 0.04 0. 0.04 0.14 0.10 0. 0.24 0.06 0.18 0. 0.23 0.08 0.09 0. 0.09 0.17  
 Dry Biomass Density: 0.14 0. 0.14 0.69 1.90 0. 2.59 0.37 2.38 0. 2.74 0.40 1.42 0. 1.42 1.82  
 Plant Water Density: 0.14 0. 0.14 0.69 1.90 0. 2.59 0.37 2.38 0. 2.74 0.40 1.42 0. 1.42 1.82

Corn Field # 4 Date: 6/30/82 (Julian: 181) Time: : Mean Canopy Height: 232.33 cm  
 Top Leaf Height: 232.00 cm Top Cob Height: L25 L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COUS L123SC WHOLE  
 Plant Parts: L1L L1S TOP1/3 L2L 0.41 0. 0.41 1.01 1.79 0. 2.80 0.46 3.21 0. 3.68 0.63 1.67 0. 1.67 2.30  
 % Plant Moisture: 0.41 0. 0.41 1.01 1.79 0. 2.80 0.46 3.21 0. 3.68 0.63 1.67 0. 1.67 2.30  
 Wet Biomass Density: 0.41 0. 0.41 1.01 1.79 0. 2.80 0.46 3.21 0. 3.68 0.63 1.67 0. 1.67 2.30  
 Dry Biomass Density: 0.41 0. 0.41 1.01 1.79 0. 2.80 0.46 3.21 0. 3.68 0.63 1.67 0. 1.67 2.30  
 Plant Water Density: 0.41 0. 0.41 1.01 1.79 0. 2.80 0.46 3.21 0. 3.68 0.63 1.67 0. 1.67 2.30

Corn Field # 4 Date: 7/ 6/82 (Julian: 187) Time: : Mean Canopy Height: 263.33 cm  
 Top Leaf Height: 245.83 cm Top Cob Height: 112.83 cm Bottom Green Leaf Height: 20.50 cm Leaf Layer Depth: 225.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L 75.28 79.88 77.60 80.99 79.62 91.19 82.58 87.45 91.48 0. 90.79 81.78 86.76 91.19 87.29 85.91  
 % Plant Moisture: 0.43 0.35 0.69 0.62 1.18 0.46 2.32 0.62 2.29 0. 2.77 0.56 1.27 0.46 1.45 1.93  
 Wet Biomass Density: 0.11 0.07 0.15 0.12 0.24 0.04 0.40 0.08 0.19 0. 0.25 0.10 0.17 0.04 0.18 0.27  
 Dry Biomass Density: 0.32 0.28 0.54 0.50 0.94 1.92 0.55 2.09 2.51 0.46 1.10 0.46 1.10 0.46 1.26 1.65  
 Plant Water Density: 0.32 0.28 0.54 0.50 0.94 1.92 0.55 2.09 2.51 0.46 1.10 0.46 1.10 0.46 1.26 1.65

Corn Field # 4 Date: 7/ 9/82 (Julian: 190) Time: 09:55 Mean Canopy Height: 287.00 cm  
 Top Leaf Height: 266.67 cm Top Cob Height: 149.83 cm Bottom Green Leaf Height: 35.33 cm Leaf Layer Depth: 231.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L 0.32 0.28 0.53 0.64 1.08 0.19 1.91 0.95 2.44 0.60 3.67 0.62 1.27 0.79 1.54 2.04  
 % Plant Moisture: 0.32 0.28 0.53 0.64 1.08 0.19 1.91 0.95 2.44 0.60 3.67 0.62 1.27 0.79 1.54 2.04  
 Wet Biomass Density: 0.32 0.28 0.53 0.64 1.08 0.19 1.91 0.95 2.44 0.60 3.67 0.62 1.27 0.79 1.54 2.04  
 Dry Biomass Density: 0.32 0.28 0.53 0.64 1.08 0.19 1.91 0.95 2.44 0.60 3.67 0.62 1.27 0.79 1.54 2.04  
 Plant Water Density: 0.32 0.28 0.53 0.64 1.08 0.19 1.91 0.95 2.44 0.60 3.67 0.62 1.27 0.79 1.54 2.04

Corn Field # 4 Date: 7/12/82 (Julian: 193) Time: : Mean Canopy Height: 305.00 cm  
 Top Leaf Height: 273.00 cm Top Cob Height: 160.00 cm Bottom Green Leaf Height: 33.50 cm Leaf Layer Depth: 239.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L 0.21 0.15 0.29 0.52 0.99 1.11 2.61 1.03 2.51 0.03 3.23 0.58 1.21 1.14 1.59 2.04  
 % Plant Moisture: 0.21 0.15 0.29 0.52 0.99 1.11 2.61 1.03 2.51 0.03 3.23 0.58 1.21 1.14 1.59 2.04  
 Wet Biomass Density: 0.21 0.15 0.29 0.52 0.99 1.11 2.61 1.03 2.51 0.03 3.23 0.58 1.21 1.14 1.59 2.04  
 Dry Biomass Density: 0.21 0.15 0.29 0.52 0.99 1.11 2.61 1.03 2.51 0.03 3.23 0.58 1.21 1.14 1.59 2.04  
 Plant Water Density: 0.21 0.15 0.29 0.52 0.99 1.11 2.61 1.03 2.51 0.03 3.23 0.58 1.21 1.14 1.59 2.04

Corn field # 4 Date: 7/13/82 (Julian: 194) Time: : Mean Canopy Height: cm  
 Top Leaf Height: cm Top Cob Height: cm Bottom Green Leaf Height: cm Leaf Layer Depth: cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 73.80 75.50 74.49 83.74 82.66 92.63 86.25 81.53 85.43 95.73 86.52 81.31 83.99 93.77 86.95 85.57  
 Wet Biomass Density: 0.64 0.37 0.01  
 Dry Biomass Density: 0.05 0.02 0.06  
 Plant Water Density:

Corn field # 4 Date: 7/15/82 (Julian: 196) Time: 13:10 Mean Canopy Height: 297.67 cm  
 Top Leaf Height: 277.17 cm Top Cob Height: 172.67 cm Bottom Green Leaf Height: 36.33 cm Leaf Layer Depth: 240.83 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.25 0.17 0.38 0.62 0.87 1.31 2.82 0.72 0.23 2.22 2.92 0.53 0.43 3.53 1.61 2.04  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 4 Date: 7/19/82 (Julian: 200) Time: 13:55 Mean Canopy Height: 288.33 cm  
 Top Leaf Height: 257.50 cm Top Cob Height: 156.67 cm Bottom Green Leaf Height: 41.00 cm Leaf Layer Depth: 216.50 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.35 0.16 0.40 0.74 1.03 1.24 3.06 0.55 2.03 0.31 2.66 0.57 1.07 1.55 1.61 2.04  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 4 Date: 7/23/82 (Julian: 204) Time: 14:20 Mean Canopy Height: 289.17 cm  
 Top Leaf Height: 276.67 cm Top Cob Height: 133.67 cm Bottom Green Leaf Height: 25.67 cm Leaf Layer Depth: 251.00 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.24 0.19 0.40 0.55 1.15 0.74 2.47 0.41 1.33 0.15 1.79 0.41 0.89 0.89 1.20 1.56  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 4 Date: 7/26/82 (Julian: 207) Time: 15:00 Mean Canopy Height: 285.00 cm  
 Top Leaf Height: 267.00 cm Top Cob Height: 133.67 cm Bottom Green Leaf Height: 65.33 cm Leaf Layer Depth: 201.67 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.11 0.15 0.24 0.74 1.24 1.44 3.49 1.08 1.65 0.09 2.09 0.55 1.02 1.53 1.55 1.94  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 4 Date: 7/28/82 (Julian: 209) Time: : Mean Canopy Height: 292.00 cm  
 Top Leaf Height: 271.50 cm Top Cob Height: 164.50 cm Bottom Green Leaf Height: 65.33 cm Leaf Layer Depth: 206.17 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 68.42 66.86 67.76 74.89 75.97 72.90 74.20 77.82 83.74 86.00 83.20 74.44 80.67 73.69 78.18 77.45  
 Wet Biomass Density: 0.23 0.13 0.31 0.64 0.83 1.44 2.95 0.71 1.87 0.09 2.20 0.50 0.94 1.54 1.47 1.82  
 Dry Biomass Density: 0.07 0.04 0.10 0.16 0.20 0.39 0.76 0.16 0.30 0.01 0.37 0.13 0.18 0.40 0.32 0.41  
 Plant Water Density: 0.16 0.09 0.21 0.48 0.63 2.19 0.56 1.57 1.83 0.37 0.76 1.15 1.41

Corn field # 4 Date: 8/ 2/82 (Julian: 214) Time: 10:00 Mean Canopy Height: 302.17 cm  
 Top Leaf Height: 277.00 cm Top Cob Height: 165.83 cm Bottom Green Leaf Height: 30.50 cm Leaf Layer Depth: 246.50 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.29 0.14 0.36 0.60 1.09 1.51 3.20 0.44 1.73 0.38 2.41 0.46 0.99 1.90 1.61 1.99  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 4 Date: 8/ 4/82 (Julian: 216) Time: 11:25 Mean Canopy Height: 299.17 cm  
 Top Leaf Height: 284.83 cm Top Cob Height: 146.67 cm Bottom Green Leaf Height: 46.17 cm Leaf Layer Depth: 238.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 63.41 61.98 62.75 65.26 73.20 59.68 64.57 65.41 81.91 70.93 79.37 65.01 78.25 60.29 71.46 70.27  
 Wet Biomass Density: 0.17 0.12 0.27 0.54 0.80 1.49 2.84 0.47 1.67 0.09 2.00 0.39 0.87 1.58 1.39 1.71  
 Dry Biomass Density: 0.06 0.05 0.10 0.19 0.22 0.60 1.01 0.16 0.30 0.02 0.41 0.14 0.19 0.63 0.40 0.51  
 Plant Water Density: 0.11 0.08 0.17 0.35 0.59 1.83 0.31 1.37 1.59 0.26 0.68

Corn Field # 4 Date: 8/ 6/82 (Julian: 218) Time: 14:50 Mean Canopy Height: 294.33 cm  
 Top Leaf Height: 262.50 cm Top Cob Height: 157.00 cm Bottom Green Leaf Height: 46.17 cm Leaf Layer Depth: 216.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.32 0.15 0.37 0.71 0.94 1.92 3.60 0.47 2.25 0.14 2.63 0.53 1.12 2.05 1.81 2.20  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 4 Date: 8/ 9/82 (Julian: 221) Time: 15:10 Mean Canopy Height: 290.33 cm  
 Top Leaf Height: 264.67 cm Top Cob Height: 153.33 cm Bottom Green Leaf Height: 100.67 cm Leaf Layer Depth: 164.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.32 0.13 0.36 0.56 0.79 1.60 3.01 1.82 0.03 1.89 0.49 0.91 1.63 1.48 1.75  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 4 Date: 8/16/82 (Julian: 228) Time: 13:30 Mean Canopy Height: 292.33 cm  
 Top Leaf Height: 272.00 cm Top Cob Height: 153.50 cm Bottom Green Leaf Height: 117.00 cm Leaf Layer Depth: 155.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.31 0.12 0.36 0.46 0.75 1.48 2.73 0.01 0.45 1.49  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 5 Date: 5/21/82 (Julian: 141) Time: 11:51 Mean Canopy Height: 27.83 cm  
 Top Leaf Height: 27.83 cm Top Cob Height:  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.25

Corn Field # 5 Date: 5/24/82 (Julian: 144) Time: 13:40 Mean Canopy Height: 37.50 cm  
 Top Leaf Height: 37.00 cm Top Cob Height:  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 5 Date: 6/ 1/82 (Julian: 152) Time: 13:41 Mean Canopy Height: 47.67 cm  
 Top Leaf Height: 47.67 cm Top Cob Height:  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.68

Corn Field # 5 Date: 6/ 2/82 (Julian: 153) Time: 13:14 Mean Canopy Height: 52.17 cm  
 Top Leaf Height: 52.17 cm Top Cob Height: L1L L15 TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 Plant Parts: L1L L15 TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.50  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 5 Date: 6/ 7/82 (Julian: 158) Time: 15:41 Mean Canopy Height: 59.00 cm  
 Top Leaf Height: 59.00 cm Top Cob Height: L1L L15 TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 Plant Parts: L1L L15 TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 1.25  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 5 Date: 6/16/82 (Julian: 167) Time: 14:10 Mean Canopy Height: 68.83 cm  
 Top Leaf Height: 68.00 cm Top Cob Height: L1L L15 TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 Plant Parts: L1L L15 TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 79.05 0. 79.05 86.04 90.02 0. 86.78 86.48 94.01 0. 93.42 83.70 93.60 0. 93.60 89.23  
 Wet Biomass Density: 0.96 0. 0.93 1.53 0.35 0. 1.88 0.26 3.09 0. 3.35 0.92 1.15 0. 1.15 2.06  
 Dry Biomass Density: 0.20 0. 0.19 0.21 0.04 0. 0.25 0.04 0.19 0. 0.22 0.15 0.07 0. 0.07 0.22  
 Plant Water Density: 0.76 0. 0.73 1.32 0.32 0. 1.64 0.22 2.91 0. 3.13 0.77 1.07 0. 1.07 1.83

Corn Field # 5 Date: 6/18/82 (Julian: 169) Time: 09:25 Mean Canopy Height: 79.83 cm  
 Top Leaf Height: 79.00 cm Top Cob Height: L1L L15 TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 Plant Parts: L1L L15 TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.27 0. 0.26 0.75 0.74 0. 1.49 0.58 2.13 0. 2.71 0.54 0.96 0. 0.96 1.49  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 5 Date: 6/21/82 (Julian: 172) Time: 14:24 Mean Canopy Height: 96.50 cm  
 Top Leaf Height: 96.00 cm Top Cob Height: L1L L15 TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 Plant Parts: L1L L15 TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 79.07 0. 79.07 78.96 91.62 0. 86.16 78.73 0. 1.89 0.61 0.80 0. 0.80 1.42  
 Wet Biomass Density: 0.43 0. 0.43 0.83 1.10 0. 1.93 0.57 1.32 0. 1.89 0.61 0.80 0. 0.80 1.42  
 Dry Biomass Density: 0.09 0. 0.09 0.17 0.09 0. 0.27 0.12 0. 0.13 0.13 0.13 0. 0.13 0.13  
 Plant Water Density: 0.34 0. 0.34 0.66 1.00 0. 1.66 0.45 0.48 0. 0.48 0.48 0. 0.48 0.48

Corn Field # 5 Date: 6/25/82 (Julian: 176) Time: 14:12 Mean Canopy Height: 114.50 cm  
 Top Leaf Height: 114.00 cm Top Cob Height: L1L L15 TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 Plant Parts: L1L L15 TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.65 0.60 1.24 0.51 1.34 0. 1.84 0.56 2.44 0. 2.99 0.57 1.46 0. 1.46 2.02  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 5 Date: 6/28/82 (Julian: 179) Time: 11:20 Mean Canopy Height: 127.50 cm  
 Top Leaf Height: 127.00 cm Top Cob Height: L1L L15 TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 Plant Parts: L1L L15 TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 84.90 76.32 93.07 0. 87.89 81.10 0. 3.74 0.57 1.51 0. 1.51 2.08  
 Wet Biomass Density: 0.25 0.13 0.38 0.66 1.47 0. 2.12 0.81 2.94 0. 3.74 0.57 1.51 0. 1.51 2.08  
 Dry Biomass Density: 0.02 0.16 0.10 0. 0.26 0.15 0. 0.26 0.15 0. 0.26 0.15 0. 0.26 0.15  
 Plant Water Density: 0.11 0.50 1.36 1.87 0.66 1.87 0.66 1.87 0.66 1.87 0.66 1.87 0.66 1.87 0.66

Corn field # 5 Date: 6/30/82 (Julian: 181) Time: ; Mean Canopy Height: 167.33 cm  
 Top Leaf Height: 167.00 cm Top Cob Height: ; Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 167.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 5 Date: 7/ 6/82 (Julian: 187) Time: ; Mean Canopy Height: 227.67 cm  
 Top Leaf Height: 212.33 cm Top Cob Height: 129.80 cm Bottom Green Leaf Height: 24.00 cm Leaf Layer Depth: 188.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 72.84 83.57 80.27 76.05 86.52 0. 83.08 79.09 88.12 0. 86.17 77.09 87.21 0. 87.21 84.56  
 Wet Biomass Density: 0.17 0.30 0.43 0.48 0.99 0. 1.47 0.78 1.96 0. 2.49 0.46 1.08 0. 1.08 1.47  
 Dry Biomass Density: 0.05 0.05 0.09 0.12 0.13 0. 0.25 0.16 0.23 0. 0.34 0.11 0.14 0. 0.14 0.23  
 Plant Water Density: 0.12 0.25 0.35 0.37 0.85 1.22 0.62 1.72 2.15 0.36 0.94 0.94 0.94 1.24

Corn field # 5 Date: 7/ 9/82 (Julian: 190) Time: 09:50 Mean Canopy Height: 234.17 cm  
 Top Leaf Height: 216.67 cm Top Cob Height: 149.67 cm Bottom Green Leaf Height: 26.00 cm Leaf Layer Depth: 190.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.30 0.32 0.55 0.39 1.48 0.15 2.06 0.67 1.65 0.15 2.29 0.44 1.15 0.31 1.28 1.63  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 5 Date: 7/12/82 (Julian: 193) Time: ; Mean Canopy Height: 255.00 cm  
 Top Leaf Height: 229.50 cm Top Cob Height: 141.17 cm Bottom Green Leaf Height: 24.00 cm Leaf Layer Depth: 205.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.28 0.23 0.43 0.45 0.91 0.53 1.98 0.59 1.78 0.05 2.26 0.44 0.97 0.57 1.20 1.55  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 5 Date: 7/13/82 (Julian: 194) Time: 11:30 Mean Canopy Height: 241.33 cm  
 Top Leaf Height: 222.83 cm Top Cob Height: 126.67 cm Bottom Green Leaf Height: 25.00 cm Leaf Layer Depth: 197.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 70.36 76.81 74.27 78.23 81.89 95.15 86.78 82.20 86.26 90.90 86.32 79.09 84.39 93.76 87.56 85.78  
 Wet Biomass Density: 0.17 0.20 0.33 0.52 0.79 0.80 2.30 0.74 1.88 0.39 2.87 0.47 0.96 1.18 1.45 1.83  
 Dry Biomass Density: 0.05 0.05 0.09 0.11 0.14 0.04 0.30 0.13 0.26 0.04 0.39 0.10 0.15 0.07 0.18 0.26  
 Plant Water Density: 0.12 0.16 0.25 0.40 0.65 1.99 0.61 1.62 2.48 0.37 0.81

Corn field # 5 Date: 7/15/82 (Julian: 196) Time: 13:25 Mean Canopy Height: 226.83 cm  
 Top Leaf Height: 221.00 cm Top Cob Height: 130.60 cm Bottom Green Leaf Height: 27.50 cm Leaf Layer Depth: 193.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.16 0.18 0.32 0.35 0.68 0.32 1.45 0.51 1.25 0.27 1.93 0.32 0.70 0.59 0.96 1.23  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 5 Date: 7/19/82 (Julian: 200) Time: ; Mean Canopy Height: 246.83 cm  
 Top Leaf Height: 225.50 cm Top Cob Height: 134.67 cm Bottom Green Leaf Height: 32.50 cm Leaf Layer Depth: 193.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.18 0.15 0.29 0.47 0.67 1.18 2.58 0.77 1.77 0.26 2.55 0.46 0.87 1.43 1.45 1.80  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 5 Date: 7/23/82 (Julian: 204) Time: 14:20 Mean Canopy Height: 237.67 cm  
 Top Leaf Height: 216.67 cm Top Cob Height: 129.17 cm Bottom Green Leaf Height: 32.83 cm Leaf Layer Depth: 183.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.17 0.13 0.26 0.35 0.63 1.13 2.40 0.66 1.42 0.08 1.91 0.37 0.73 1.21 1.24 1.52  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 5 Date: 7/26/82 (Julian: 207) Time: 15:11 Mean Canopy Height: 248.83 cm  
 Top Leaf Height: 234.83 cm Top Cob Height: 103.67 cm Bottom Green Leaf Height: 17.67 cm Leaf Layer Depth: 217.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.16 0.14 0.28 0.36 0.70 1.84 3.28 0.64 1.83 0.26 2.64 0.38 0.89 2.10 1.74 2.07  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 5 Date: 7/28/82 (Julian: 209) Time: 11:40 Mean Canopy Height: 247.50 cm  
 Top Leaf Height: 203.00 cm Top Cob Height: 133.33 cm Bottom Green Leaf Height: 35.83 cm Leaf Layer Depth: 167.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 66.67 69.30 68.15 71.52 75.73 77.28 76.06 71.23 80.93 88.28 79.83 70.67 78.45 77.87 78.19 76.94  
 Wet Biomass Density: 0.23 0.14 0.24 0.35 0.60 1.22 2.43 0.41 1.15 0.07 1.47 0.34 0.63 1.29 1.15 1.38  
 Dry Biomass Density: 0.08 0.04 0.08 0.10 0.14 0.28 0.58 0.12 0.22 0.01 0.30 0.10 0.14 0.29 0.25 0.32  
 Plant Water Density: 0.15 0.09 0.16 0.25 0.45 1.85 0.29 0.93 1.17 0.24 0.49 0.24 0.49 0.90 1.06

Corn field # 5 Date: 8/ 2/82 (Julian: 214) Time: 10:00 Mean Canopy Height: 261.17 cm  
 Top Leaf Height: 226.67 cm Top Cob Height: 118.33 cm Bottom Green Leaf Height: 36.17 cm Leaf Layer Depth: 190.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.20 0.12 0.23 0.44 0.78 1.57 3.03 0.52 1.40 0.09 1.80 0.39 0.77 1.66 1.40 1.69  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 5 Date: 8/ 4/82 (Julian: 216) Time: 11:41 Mean Canopy Height: 261.50 cm  
 Top Leaf Height: 240.00 cm Top Cob Height: 127.50 cm Bottom Green Leaf Height: 18.83 cm Leaf Layer Depth: 221.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 61.58 60.89 61.28 43.90 72.17 59.10 59.77 59.26 78.34 75.99 75.00 51.81 75.45 60.57 67.79 65.09  
 Wet Biomass Density: 0.18 0.10 0.23 0.42 0.65 1.67 2.99 0.35 1.24 0.16 1.69 0.33 0.66 1.83 1.36 1.64  
 Dry Biomass Density: 0.07 0.04 0.09 0.24 0.18 0.68 1.20 0.14 0.27 0.04 0.42 0.16 0.16 0.72 0.44 0.57  
 Plant Water Density: 0.11 0.06 0.14 0.19 0.47 1.79 0.21 0.97 1.27 0.17 0.50 0.17 0.17 0.50 0.92 1.07

Corn field # 5 Date: 8/ 6/82 (Julian: 218) Time: 15:00 Mean Canopy Height: 246.50 cm  
 Top Leaf Height: 218.50 cm Top Cob Height: 130.00 cm Bottom Green Leaf Height: 34.17 cm Leaf Layer Depth: 184.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.19 0.11 0.24 0.44 0.68 1.77 3.27 0.73 1.68 0.26 2.42 0.44 0.82 2.02 1.64 1.97  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 5 Date: 8/ 9/82 (Julian: 221) Time: 15:20 Mean Canopy Height: 238.83 cm  
 Top Leaf Height: 209.50 cm Top Cob Height: 125.33 cm Bottom Green Leaf Height: 79.67 cm Leaf Layer Depth: 129.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.18 0.08 0.19 0.28 0.41 1.02 1.98 0.97 0.01 1.12 0.32 0.49 1.04 0.92 1.10  
 Dry Biomass Density:  
 Plant Water Density:



Corn Field # 5 Date: 8/16/82 (Julian: 228) Time: 13:45 Mean Canopy Height: 242.00 cm  
 Top Leaf Height: 217.17 cm Top Cob Height: 127.33 cm Bottom Green Leaf Height: 52.33 cm Leaf Layer Depth: 164.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.20 0.10 0.24 0.47 0.64 1.62 3.12 0.68 1.46 0.10 1.82 0.41 0.73 1.72 1.44 1.73  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 6 Date: 5/21/82 (Julian: 141) Time: 10:50 Mean Canopy Height: 16.17 cm  
 Top Leaf Height: 16.17 cm Top Cob Height: L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.06

Corn Field # 6 Date: 5/24/82 (Julian: 144) Time: 10:31 Mean Canopy Height: 24.00 cm  
 Top Leaf Height: 24.00 cm Top Cob Height: L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.10

Corn Field # 6 Date: 6/ 1/82 (Julian: 152) Time: 13:24 Mean Canopy Height: 33.33 cm  
 Top Leaf Height: 33.33 cm Top Cob Height: L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.34

Corn Field # 6 Date: 6/ 2/82 (Julian: 153) Time: 12:52 Mean Canopy Height: 36.33 cm  
 Top Leaf Height: 36.33 cm Top Cob Height: L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.24

Corn Field # 6 Date: 6/ 7/82 (Julian: 158) Time: 10:26 Mean Canopy Height: 41.00 cm  
 Top Leaf Height: 41.00 cm Top Cob Height: L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.80

Corn Field # 6 Date: 6/ 9/82 (Julian: 160) Time: 14:24 Mean Canopy Height: 42.83 cm  
 Top Leaf Height: 42.83 cm Top Cob Height: L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 88.30  
 0.62  
 0.07  
 0.55

Corn Field # 6 Date: 6/14/82 (Julian: 165) Time: 16:15 Mean Canopy Height: 54.00 cm  
 Top Leaf Height: 54.00 cm Top Cob Height: 54.00 cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 54.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 80.82 0. 80.82 82.11 87.94 0. 84.76 82.17 91.69 0. 89.85 81.91 90.68 0. 90.68 87.40  
 Wet Biomass Density: 0.21 0. 0.21 0.68 0.57 0. 1.25 0.37 1.55 0. 1.92 0.42 0.71 0. 0.71 1.13  
 Dry Biomass Density: 0.04 0. 0.04 0.12 0.07 0. 0.19 0.07 0.13 0. 0.20 0.08 0.07 0. 0.07 0.14  
 Plant Water Density: 0.17 0. 0.17 0.56 0.50 0. 1.06 0.31 1.42 0. 1.73 0.35 0.64 0. 0.64 0.99

Corr. Field # 6 Date: 6/16/82 (Julian: 167) Time: : Mean Canopy Height: 58.33 cm  
 Top Leaf Height: 58.00 cm Top Cob Height: 58.00 cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 58.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.54 0. 0.53 0.77 0.14 0. 0.91 0.20 1.47 0. 1.66 0.50 0.54 0. 0.54 1.04  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 6 Date: 6/18/82 (Julian: 169) Time: : Mean Canopy Height: 60.83 cm  
 Top Leaf Height: 60.00 cm Top Cob Height: 60.00 cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 60.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.18 0.36 0.29 0. 0.66 0.58 1.34 0. 1.93 0.38 0.  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 6 Date: 6/21/82 (Julian: 172) Time: 14:00 Mean Canopy Height: 86.67 cm  
 Top Leaf Height: 86.00 cm Top Cob Height: 86.00 cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 86.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 76.84 0. 76.84 80.62 88.40 0. 84.27 79.73 92.89 0. 90.65 79.64 91.92 0. 91.92 87.83  
 Wet Biomass Density: 0.20 0. 0.20 0.54 0.48 0. 1.01 0.35 1.71 0. 2.06 0.37 0.73 0. 0.73 1.09  
 Dry Biomass Density: 0.05 0. 0.05 0.10 0.06 0. 0.16 0.07 0.12 0. 0.19 0.07 0.06 0. 0.06 0.13  
 Plant Water Density: 0.16 0. 0.15 0.43 0.42 0.85 0.28 1.59 1.87 0.29 0.67 0.67 0.67 0.67 0.67 0.96

Corn Field # 6 Date: 6/25/82 (Julian: 176) Time: 15:15 Mean Canopy Height: 101.83 cm  
 Top Leaf Height: 101.00 cm Top Cob Height: 101.00 cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 101.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.27 0. 0.26 0.45 0.69 0. 1.14 0.29 1.75 0. 2.04 0.34 0.81 0. 0.81 1.15  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 6 Date: 6/28/82 (Julian: 179) Time: 11:10 Mean Canopy Height: 160.83 cm  
 Top Leaf Height: 159.00 cm Top Cob Height: 160.83 cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 159.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 78.61 84.64 79.38 82.73 91.73 0. 88.66 93.34 0. 92.69 0. 92.69  
 Wet Biomass Density: 0.52 0.07 0.58 0.65 1.26 0. 1.91 0.33 2.75 0. 3.08 0.50 1.36 0. 1.36 1.86  
 Dry Biomass Density: 0.11 0.01 0.12 0.11 0.10 0. 0.22 0.18 0. 0.10 0. 0.10 0. 0.10 0.10  
 Plant Water Density: 0.41 0.06 0.46 0.54 1.15 1.69 2.57 1.26

Corn Field # 6 Date: 6/30/82 (Julian: 181) Time: : Mean Canopy Height: 158.00 cm  
 Top Leaf Height: 150.00 cm Top Cob Height: 158.00 cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 150.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 6 Date: 7/ 6/82 (Julian: 187) Time: 14:01 Mean Canopy Height: 196.17 cm  
 Top Leaf Height: 196.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 196.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 75.45 81.50 79.04 69.09 90.62 89.10 87.17 78.29 90.82 0. 89.09 74.10 90.11 89.10 90.01 87.39  
 Wet Biomass Density: 0.19 0.27 0.46 0.34 1.54 0.30 2.34 0.35 2.19 0. 2.54 0.29 1.33 0.30 1.48 1.78  
 Dry Biomass Density: 0.05 0.05 0.10 0.11 0.14 0.03 0.30 0.08 0.20 0. 0.28 0.08 0.13 0.03 0.16 0.22  
 Plant Water Density: 0.14 0.22 0.36 0.24 1.39 2.04 0.27 1.99 2.26 0.22 1.20

Corn Field # 6 Date: 7/ 7/82 (Julian: 188) Time: 15:10 Mean Canopy Height: 193.33 cm  
 Top Leaf Height: 183.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 193.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.40 0.21 0.54 0.38 1.25 0.27 1.59 0.35 1.02  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 6 Date: 7/12/82 (Julian: 193) Time: 11:18 Mean Canopy Height: 258.33 cm  
 Top Leaf Height: 234.50 cm Top Cob Height: 137.67 cm Bottom Green Leaf Height: 22.17 cm Leaf Layer Depth: 212.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.30 0.27 0.49 0.60 1.18 0.70 2.59 0.38 1.72 0.33 2.38 0.44 1.06 1.02 1.45 1.82  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 6 Date: 7/13/82 (Julian: 194) Time: 10:50 Mean Canopy Height: 251.83 cm  
 Top Leaf Height: 213.17 cm Top Cob Height: 142.75 cm Bottom Green Leaf Height: 23.50 cm Leaf Layer Depth: 189.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 73.49 81.45 78.42 63.87 88.04 81.08 86.17 90.03 85.90 71.36 86.45  
 Wet Biomass Density: 0.26 0.23 0.37 0.47 1.03 0.38 1.94 0.46 1.76 0.23 2.35 0.41 1.00 0.60 1.24 1.55  
 Dry Biomass Density: 0.07 0.04 0.08 0.17 0.12 0.09 0.24 0.02 0.33 0.12 0.14  
 Plant Water Density: 0.19 0.18 0.29 0.30 0.90 0.37 1.51 0.30 0.87

Corn Field # 6 Date: 7/15/82 (Julian: 196) Time: 14:25 Mean Canopy Height: 258.00 cm  
 Top Leaf Height: 241.50 cm Top Cob Height: 146.83 cm Bottom Green Leaf Height: 18.83 cm Leaf Layer Depth: 222.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.14 0.25 0.36 0.48 1.21 0.68 2.48 0.41 0.93 0.30 1.59 0.35 0.79 0.98 1.17 1.48  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 6 Date: 7/19/82 (Julian: 200) Time: 14:10 Mean Canopy Height: 269.67 cm  
 Top Leaf Height: 236.00 cm Top Cob Height: 146.50 cm Bottom Green Leaf Height: 25.50 cm Leaf Layer Depth: 210.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.20 0.16 0.28 0.55 0.98 1.22 2.88 0.30 1.73 0.31 2.29 0.38 0.96 1.53 1.82  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 6 Date: 7/23/82 (Julian: 204) Time: 14:20 Mean Canopy Height: 259.17 cm  
 Top Leaf Height: 229.50 cm Top Cob Height: 141.33 cm Bottom Green Leaf Height: 25.50 cm Leaf Layer Depth: 206.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.15 0.13 0.24 0.32 0.76 1.32 2.61 0.37 1.61 0.22 2.13 0.29 0.84 1.54 1.43 1.66  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 6 Date: 7/26/82 (Julian: 207) Time: 15:10 Mean Canopy Height: 280.67 cm  
 Top Leaf Height: 249.00 cm Top Cob Height: 153.67 cm Bottom Green Leaf Height: 23.00 cm Leaf Layer Depth: 226.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.20 0.08 0.22 0.53 0.25 0.83 1.67 0.30 1.47 0.42 2.14 0.37 0.60 1.24 1.04 1.34  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 6 Date: 7/28/82 (Julian: 209) Time: 10:40 Mean Canopy Height: 253.83 cm  
 Top Leaf Height: 211.00 cm Top Cob Height: 124.67 cm Bottom Green Leaf Height: 21.00 cm Leaf Layer Depth: 190.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 70.89 71.17 71.06 71.97 76.11 77.51 79.53 87.13 79.78 74.77 78.11  
 Wet Biomass Density: 0.16 0.12 0.19 0.27 0.56 1.51 2.62 0.51 1.38 0.14 1.93 0.33 0.68 1.65 1.33 1.58  
 Dry Biomass Density: 0.05 0.03 0.06 0.08 0.13 0.12 0.28 0.02 0.39 0.08 0.15 0.24 0.53  
 Plant Water Density: 0.11 0.08 0.14 0.20 0.43 0.40 1.09 1.54 0.24 0.53

Corn field # 6 Date: 7/30/82 (Julian: 211) Time: 14:37 Mean Canopy Height: 266.33 cm  
 Top Leaf Height: 245.50 cm Top Cob Height: 128.00 cm Bottom Green Leaf Height: 22.00 cm Leaf Layer Depth: 223.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.11 0.14 0.23 0.41 0.79 1.84 3.28 0.37 1.31 0.27 1.89 0.30 0.75 2.11 1.54 1.80  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 6 Date: 8/ 4/82 (Julian: 216) Time: 10:38 Mean Canopy Height: 261.33 cm  
 Top Leaf Height: 235.17 cm Top Cob Height: 139.50 cm Bottom Green Leaf Height: 21.33 cm Leaf Layer Depth: 213.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 62.80 65.86 64.50 70.66 75.88 65.78 68.70 71.55 79.77 81.43 78.48 70.01 77.75 66.80 72.44 72.06  
 Wet Biomass Density: 0.16 0.14 0.26 0.42 0.76 1.87 3.33 0.46 1.54 0.13 2.04 0.36 0.81 2.00 1.58 1.87  
 Dry Biomass Density: 0.06 0.05 0.09 0.12 0.18 0.64 1.04 0.13 0.31 0.02 0.44 0.11 0.18 0.66 0.44 0.52  
 Plant Water Density: 0.10 0.09 0.17 0.30 0.57 2.29 0.33 1.23 1.60 0.25 0.63 0.25 0.63 1.14 1.14 1.35

Corn field # 6 Date: 8/ 6/82 (Julian: 218) Time: 14:15 Mean Canopy Height: 245.50 cm  
 Top Leaf Height: 222.00 cm Top Cob Height: 129.00 cm Bottom Green Leaf Height: 26.67 cm Leaf Layer Depth: 195.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 62.15  
 Wet Biomass Density: 0.15 0.10 0.21 0.41 0.62 1.85 3.29 0.37 1.25 0.14 1.67 0.32 0.66 1.99 1.47 1.72  
 Dry Biomass Density: 0.16  
 Plant Water Density: 0.26

Corn field # 6 Date: 8/ 9/82 (Julian: 221) Time: 14:30 Mean Canopy Height: 251.67 cm  
 Top Leaf Height: 230.67 cm Top Cob Height: 126.33 cm Bottom Green Leaf Height: 25.67 cm Leaf Layer Depth: 205.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.14 0.11 0.21 0.40 0.64 1.85 3.24 0.29 1.28 0.09 1.59 0.29 0.68 1.94 1.45 1.68  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 6 Date: 8/16/82 (Julian: 228) Time: 15:00 Mean Canopy Height: 249.17 cm  
 Top Leaf Height: 226.80 cm Top Cob Height: 141.50 cm Bottom Green Leaf Height: 64.20 cm Leaf Layer Depth: 162.60 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.13 0.08 0.17 0.37 0.49 1.56 2.74 1.29 1.44 0.06 1.80 0.38 0.67 1.63 1.32 1.57  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 6 Date: 9/ 9/82 (Julian: 252) Time: 11:50 Mean Canopy Height: 245.83 cm  
 Top Leaf Height: 212.50 cm Top Cob Height: 135.83 cm Bottom Green Leaf Height: 245.83 cm Leaf Layer Depth: cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 17.82 37.02 25.33 31.34 68.50 33.94 39.40 7.18 74.71 36.77 70.47 23.38 72.42 33.98 52.08 49.78  
 Wet Biomass Density: 0.11 0.04 0.11 0.21 0.47 1.78 2.85 1.45 0.02 1.56 0.65 1.80 1.38 1.50  
 Dry Biomass Density: 0.09 0.03 0.08 0.15 0.15 1.17 1.73 0.37 0.01 0.46 0.18 1.19 0.66 0.76  
 Plant Water Density: 0.02 0.02 0.03 0.07 0.32 1.12 1.08 0.37 0.01 0.46 0.47 0.72 0.75

Corn Field # 6 Date: 9/16/82 (Julian: 259) Time: 13:52 Mean Canopy Height: 220.83 cm  
 Top Leaf Height: cm Top Cob Height: 125.67 cm Bottom Green Leaf Height: cm Leaf Layer Depth: cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 2.15 5.48 3.22 4.50 34.84 19.86 19.98 6.54 65.43 16.14 58.03 5.17 61.76 19.73 36.92 34.57  
 Wet Biomass Density: 0.01 0.04 0.10 0.12 1.23 1.89 1.06 0.04 1.23 0.40 1.27 0.97 1.05  
 Dry Biomass Density: 0.01 0.04 0.10 0.10 0.08 0.98 1.51 0.37 0.04 0.51 0.15 1.02 0.61 0.69  
 Plant Water Density: 0.00 0.00 0.00 0.04 0.38 0.69 0.71 0.69 0.36 0.36 0.25 0.36 0.36

Corn Field # 7 Date: 5/19/82 (Julian: 139) Time: 15:12 Mean Canopy Height: 23.67 cm  
 Top Leaf Height: 23.67 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 23.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.14

Corn field # 7 Date: 5/21/82 (Julian: 141) Time: 15:46 Mean Canopy Height: 24.50 cm  
 Top Leaf Height: 24.50 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 24.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.20

Corn Field # 7 Date: 5/24/82 (Julian: 144) Time: 14:05 Mean Canopy Height: 30.50 cm  
 Top Leaf Height: 30.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 30.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 7 Date: 5/26/82 (Julian: 146) Time: 10:38 Mean Canopy Height: 42.17 cm  
 Top Leaf Height: 42.17 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 42.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.23

Corn Field # 7 Date: 6/ 1/82 (Julian: 152) Time: 09:55 Mean Canopy Height: 47.17 cm  
 Top Leaf Height: 47.17 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 47.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOM1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.61



Corn field # 7 Date: 6/30/82 (Julian: 181) Time: : Mean Canopy Height: 183.50 cm  
 Top Leaf Height: 183.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 183.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 7 Date: 7/ 7/82 (Julian: 188) Time: 10:00 Mean Canopy Height: 198.33 cm  
 Top Leaf Height: 184.50 cm Top Cob Height: 118.00 cm Bottom Green Leaf Height: 22.50 cm Leaf Layer Depth: 162.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 74.73 82.35 79.01 82.31 86.92 92.78 88.00 80.45 90.16 0. 88.44 79.75 88.33 92.78 89.16 87.05  
 Wet Biomass Density: 0.29 0.29 0.52 0.36 0.75 0.39 1.70 0.50 1.54 0. 1.87 0.37 0.86 0.39 1.06 1.36  
 Dry Biomass Density: 0.07 0.05 0.11 0.06 0.10 0.03 0.20 0.10 0.15 0. 0.22 0.08 0.10 0.03 0.11 0.18  
 Plant Water Density: 0.22 0.24 0.41 0.29 0.65 1.50 0.40 1.39 1.65 0.30 0.76 0.50 0.76 0.94 1.19

Corn field # 7 Date: 7/ 9/82 (Julian: 190) Time: 11:40 Mean Canopy Height: 210.50 cm  
 Top Leaf Height: 193.20 cm Top Cob Height: 132.80 cm Bottom Green Leaf Height: 26.00 cm Leaf Layer Depth: 167.20 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.21 0.18 0.34 0.37 0.93 0.39 1.85 0.55 1.55 0.20 2.18 0.36 0.89 0.59 1.17 1.46  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 7 Date: 7/12/82 (Julian: 193) Time: 14:37 Mean Canopy Height: 232.33 cm  
 Top Leaf Height: 199.83 cm Top Cob Height: 135.17 cm Bottom Green Leaf Height: 32.00 cm Leaf Layer Depth: 167.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 71.16 80.34 76.14 81.87 80.23 91.94 86.09 84.46 82.96  
 Wet Biomass Density: 0.24 0.17 0.30 0.56 0.70 0.86 2.37 0.48 1.56 0.45 2.43 0.46 0.81 1.31 1.38 1.70  
 Dry Biomass Density: 0.07 0.03 0.07 0.10 0.14 0.07 0.33 0.24 0.14  
 Plant Water Density: 0.17 0.13 0.23 0.46 0.56 2.04

Corn field # 7 Date: 7/13/82 (Julian: 194) Time: 14:22 Mean Canopy Height: 231.17 cm  
 Top Leaf Height: 192.17 cm Top Cob Height: 130.33 cm Bottom Green Leaf Height: 27.00 cm Leaf Layer Depth: 165.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.29 0.14 0.28 0.40 0.82 1.01 2.54 0.58 1.62 0.27 2.34 0.43 0.86 1.28 1.41 1.72  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 7 Date: 7/15/82 (Julian: 196) Time: 09:42 Mean Canopy Height: 221.00 cm  
 Top Leaf Height: 193.33 cm Top Cob Height: 127.50 cm Bottom Green Leaf Height: 24.83 cm Leaf Layer Depth: 168.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.28 0.08 0.25 0.46 0.99 0.88 2.63 0.37 1.11 0.42 1.93 0.39 0.72 1.29 1.31 1.60  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 7 Date: 7/23/82 (Julian: 204) Time: 09:45 Mean Canopy Height: 234.67 cm  
 Top Leaf Height: 180.33 cm Top Cob Height: 132.17 cm Bottom Green Leaf Height: 27.17 cm Leaf Layer Depth: 153.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 70.68 74.12 72.43 75.90 78.80 81.05 79.78 78.11 83.85 90.47 83.43 76.06 81.91 81.90 81.91 80.88  
 Wet Biomass Density: 0.38 0.12 0.24 0.40 0.60 1.30 2.66 0.51 1.44 0.13 1.94 0.43 0.72 1.43 1.33 1.61  
 Dry Biomass Density: 0.11 0.03 0.07 0.10 0.13 0.25 0.54 0.11 0.23 0.01 0.32 0.10 0.13 0.26 0.24 0.31  
 Plant Water Density: 0.27 0.09 0.17 0.30 0.47 2.12 0.40 1.21 1.62 0.33 0.59 0.33 0.59 1.09 1.31 1.31

Corn Field # 7 Date: 7/26/82 (Julian: 207) Time: 11:05 Mean Canopy Height: 232.33 cm  
 Top Leaf Height: 197.83 cm Top Cob Height: 124.00 cm Bottom Green Leaf Height: 28.67 cm Leaf Layer Depth: 169.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 70.41 73.30 71.95 79.79 79.90 77.00 82.43 95.53 82.22 0.34 0.71 1.41 1.32 1.57  
 Wet Biomass Density: 0.18 0.11 0.21 0.36 0.64 1.34 2.73 0.46 1.39 0.07 1.77 0.13 0.27 0.25  
 Dry Biomass Density: 0.05 0.03 0.06 0.13 0.27 0.10 0.24 0.00 0.31 0.13 0.27 0.25 0.58  
 Plant Water Density: 0.12 0.08 0.15 0.51 1.14 0.35 1.14 1.45 1.07

Corn Field # 7 Date: 7/28/82 (Julian: 209) Time: 14:15 Mean Canopy Height: 226.33 cm  
 Top Leaf Height: 187.17 cm Top Cob Height: 131.67 cm Bottom Green Leaf Height: 31.00 cm Leaf Layer Depth: 156.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.23 0.12 0.23 0.32 0.67 1.46 2.93 0.64 1.43 0.23 2.10 0.39 0.74 1.68 1.48 1.75  
 Wet Biomass Density: 0.23 0.12 0.23 0.32 0.67 1.46 2.93 0.64 1.43 0.23 2.10 0.39 0.74 1.68 1.48 1.75  
 Dry Biomass Density: 0.23 0.12 0.23 0.32 0.67 1.46 2.93 0.64 1.43 0.23 2.10 0.39 0.74 1.68 1.48 1.75  
 Plant Water Density: 0.23 0.12 0.23 0.32 0.67 1.46 2.93 0.64 1.43 0.23 2.10 0.39 0.74 1.68 1.48 1.75

Corn Field # 7 Date: 7/30/82 (Julian: 211) Time: 09:50 Mean Canopy Height: 231.17 cm  
 Top Leaf Height: 196.50 cm Top Cob Height: 131.83 cm Bottom Green Leaf Height: 32.83 cm Leaf Layer Depth: 163.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.18 0.10 0.20 0.50 0.63 1.57 3.16 0.90 1.50 0.53 2.71 0.52 0.75 2.10 1.65 2.03  
 Wet Biomass Density: 0.18 0.10 0.20 0.50 0.63 1.57 3.16 0.90 1.50 0.53 2.71 0.52 0.75 2.10 1.65 2.03  
 Dry Biomass Density: 0.18 0.10 0.20 0.50 0.63 1.57 3.16 0.90 1.50 0.53 2.71 0.52 0.75 2.10 1.65 2.03  
 Plant Water Density: 0.18 0.10 0.20 0.50 0.63 1.57 3.16 0.90 1.50 0.53 2.71 0.52 0.75 2.10 1.65 2.03

Corn Field # 7 Date: 8/ 2/82 (Julian: 214) Time: 10:53 Mean Canopy Height: 242.33 cm  
 Top Leaf Height: 205.67 cm Top Cob Height: 140.17 cm Bottom Green Leaf Height: 31.83 cm Leaf Layer Depth: 173.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 66.07 69.68 67.62 71.58 75.43 68.25 70.42 77.28 79.16 81.51 79.21 72.91 77.48 70.16 73.83 73.68  
 Wet Biomass Density: 0.31 0.13 0.29 0.47 0.85 1.78 3.53 0.67 1.62 0.30 2.40 0.48 0.87 2.08 1.73 2.07  
 Dry Biomass Density: 0.10 0.04 0.09 0.13 0.21 0.57 1.04 0.15 0.34 0.06 0.50 0.13 0.20 0.62 0.45 0.55  
 Plant Water Density: 0.20 0.09 0.20 0.34 0.64 2.49 0.52 1.28 1.90 0.35 0.67 1.27 1.53

Corn Field # 7 Date: 8/ 4/82 (Julian: 216) Time: 14:48 Mean Canopy Height: 243.17 cm  
 Top Leaf Height: 217.00 cm Top Cob Height: 124.00 cm Bottom Green Leaf Height: 22.00 cm Leaf Layer Depth: 195.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.20 0.14 0.27 0.56 0.71 1.70 3.37 0.37 1.24 0.68 2.35 0.40 0.70 2.39 1.68 2.00  
 Wet Biomass Density: 0.20 0.14 0.27 0.56 0.71 1.70 3.37 0.37 1.24 0.68 2.35 0.40 0.70 2.39 1.68 2.00  
 Dry Biomass Density: 0.20 0.14 0.27 0.56 0.71 1.70 3.37 0.37 1.24 0.68 2.35 0.40 0.70 2.39 1.68 2.00  
 Plant Water Density: 0.20 0.14 0.27 0.56 0.71 1.70 3.37 0.37 1.24 0.68 2.35 0.40 0.70 2.39 1.68 2.00

Corn Field # 7 Date: 8/ 9/82 (Julian: 221) Time: 10:00 Mean Canopy Height: 230.33 cm  
 Top Leaf Height: 183.33 cm Top Cob Height: 138.50 cm Bottom Green Leaf Height: 32.50 cm Leaf Layer Depth: 150.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 63.87 71.97 67.98 71.82 78.76 55.98 62.62 75.06 81.53 84.89 81.21 71.32 79.91 59.70 68.94 69.29  
 Wet Biomass Density: 0.41 0.17 0.33 0.39 0.70 1.72 3.34 0.46 1.31 0.25 1.90 0.42 0.72 1.98 1.58 1.86  
 Dry Biomass Density: 0.15 0.05 0.10 0.11 0.15 0.76 1.25 0.11 0.24 0.04 0.36 0.12 0.15 0.80 0.49 0.57  
 Plant Water Density: 0.26 0.12 0.22 0.28 0.55 2.09 0.35 1.07 1.55 0.30 0.58 1.09 1.09 1.29

Corn Field # 7 Date: 8/18/82 (Julian: 230) Time: 12:48 Mean Canopy Height: 222.67 cm  
 Top Leaf Height: 194.17 cm Top Cob Height: 129.00 cm Bottom Green Leaf Height: 42.33 cm Leaf Layer Depth: 151.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 64.79 70.25 66.81 72.68 76.87 45.81 55.33 69.89 79.76 81.68 78.42 70.34 78.46 48.33 62.36 63.72  
 Wet Biomass Density: 0.28 0.10 0.27 0.46 0.60 1.63 3.26 0.64 1.36 0.12 1.81 0.45 0.69 1.76 1.48 1.78  
 Dry Biomass Density: 0.10 0.03 0.09 0.13 0.14 0.88 1.46 0.19 0.28 0.02 0.39 0.13 0.15 0.91 0.56 0.65  
 Plant Water Density: 0.18 0.07 0.18 0.34 0.46 1.80 0.45 1.09 1.42 0.31 0.54 0.92 0.92 1.13

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Corn Field # 7 Date: 9/ 2/82 (Julian: 245) Time: : Mean Canopy Height: 225.17 cm  
Top Leaf Height: 201.33 cm Top Cob Height: 129.17 cm Bottom Green Leaf Height: 85.50 cm Leaf Layer Death: 115.83 cm  
Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
% Plant Moisture: 50.43 58.39 53.14 56.13 74.68 36.71 45.27 46.70 78.06 43.13 71.27 54.06 76.46 37.45 54.14 54.13  
Wet Biomass Density: 0.16 0.06 0.17 0.27 0.51 1.57 2.86 1.20 0.20 1.49 0.26 0.59 1.77 1.37 1.51  
Dry Biomass Density: 0.08 0.02 0.08 0.12 0.13 0.99 1.57 0.26 0.12 0.43 0.12 0.14 1.11 0.63 0.69  
Plant Water Density: 0.08 0.03 0.09 0.15 0.38 1.30 0.94 0.94 1.06 0.14 0.45 0.14 0.74 0.82

Corn Field # 8 Date: 5/19/82 (Julian: 139) Time: 15:10 Mean Canopy Height: 21.50 cm  
Top Leaf Height: 21.50 cm Top Cob Height: : cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 21.50 cm  
Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
% Plant Moisture:  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density: 0.13

Corn Field # 8 Date: 5/21/82 (Julian: 141) Time: 15:50 Mean Canopy Height: 40.33 cm  
Top Leaf Height: 40.33 cm Top Cob Height: : cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 40.33 cm  
Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
% Plant Moisture:  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density: 0.04

Corn Field # 8 Date: 5/24/82 (Julian: 144) Time: 14:07 Mean Canopy Height: 31.00 cm  
Top Leaf Height: 31.00 cm Top Cob Height: : cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 31.00 cm  
Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
% Plant Moisture:  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density:

Corn Field # 8 Date: 5/26/82 (Julian: 146) Time: 10:37 Mean Canopy Height: 32.33 cm  
Top Leaf Height: 32.33 cm Top Cob Height: : cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 32.33 cm  
Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
% Plant Moisture:  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density: 0.47

Corn Field # 8 Date: 6/ 1/82 (Julian: 152) Time: 09:55 Mean Canopy Height: 43.00 cm  
Top Leaf Height: 43.00 cm Top Cob Height: : cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 43.00 cm  
Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
% Plant Moisture:  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density: 0.35

Corn field # 8 Date: 6/ 2/82 (Julian: 153) Time: 15:01 Mean Canopy Height: 46.17 cm  
Top Leaf Height: 46.17 cm Top Cob Height: : cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 46.17 cm  
Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
% Plant Moisture:  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density: 0.26

Corn Field # 8 Date: 6/ 4/82 (Julian: 155) Time: 09:40 Mean Canopy Height: 57.33 cm  
 Top Leaf Height: 57.33 cm Top Cob Height: 0. cm Leaf Layer Depth: 57.33 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.71  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 8 Date: 6/ 7/82 (Julian: 158) Time: 14:02 Mean Canopy Height: 57.00 cm  
 Top Leaf Height: 57.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 57.00 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 1.13  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 8 Date: 6/16/82 (Julian: 167) Time: 15:30 Mean Canopy Height: 85.17 cm  
 Top Leaf Height: 85.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 85.00 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 79.13 0. 79.13 86.00 91.47 0. 87.16 86.73 94.71 0. 93.89 83.83 94.30 0. 94.30 89.47  
 Wet Biomass Density: 0.64 0. 0.63 1.07 0.29 0. 1.36 0.22 1.97 0. 2.20 0.65 0.75 0. 0.75 1.40  
 Dry Biomass Density: 0.13 0. 0.13 0.15 0.02 0. 0.17 0.03 0.10 0. 0.13 0.10 0.04 0. 0.04 0.15  
 Plant Water Density: 0.50 0. 0.50 0.92 0.26 0. 1.19 0.19 1.87 0. 2.06 0.54 0.71 0. 0.71 1.25

Corn Field # 8 Date: 6/21/82 (Julian: 172) Time: 11:00 Mean Canopy Height: 111.00 cm  
 Top Leaf Height: 108.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 108.00 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 83.20 90.03 84.38 83.42 94.69 0. 90.09 84.41 94.04 0. 92.65 83.58 94.16 0. 94.16 90.74  
 Wet Biomass Density: 0.54 0.10 0.60 0.94 1.36 0. 2.30 0.40 2.38 0. 2.79 0.63 1.28 0. 1.28 1.89  
 Dry Biomass Density: 0.09 0.01 0.09 0.16 0.07 0. 0.23 0.06 0.14 0. 0.20 0.10 0.07 0. 0.07 0.18  
 Plant Water Density: 0.45 0.09 0.51 0.78 1.29 0. 2.07 0.34 2.24 0. 2.58 0.53 1.21 0. 1.21 1.72

Corn Field # 8 Date: 6/25/82 (Julian: 176) Time: 10:30 Mean Canopy Height: 131.33 cm  
 Top Leaf Height: 130.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 130.00 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.52 0.30 0.81 0.83 1.58 0. 2.41 0.54 2.60 0. 3.14 0.63 1.49 0. 1.49 2.12  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 8 Date: 6/28/82 (Julian: 179) Time: 14:45 Mean Canopy Height: 168.17 cm  
 Top Leaf Height: 168.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 168.00 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.94 0.53 1.61 0. 2.14 0.44 2.28 0. 2.72 0.64 0.  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 8 Date: 6/30/82 (Julian: 181) Time: : Mean Canopy Height: 185.33 cm  
 Top Leaf Height: 179.00 cm Top Cob Height: 0. cm Leaf Layer Depth: 179.00 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 8 Date: 7/ 7/82 (Julian: 188) Time: 10:00 Mean Canopy Height: 232.83 cm  
 Top Leaf Height: 214.17 cm Top Cob Height: 126.50 cm Bottom Green Leaf Height: 25.00 cm Leaf Layer Depth: 189.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 76.79 78.74 77.79 81.29 87.33 92.73 87.23 80.64 87.26 89.12 86.11 80.23 86.64 91.90 87.64 85.82  
 Wet Biomass Density: 0.50 0.24 0.46 0.54 0.98 0.44 2.10 0.74 1.95 0.13 2.63 0.52 1.06 0.58 1.30 1.73  
 Dry Biomass Density: 0.07 0.05 0.10 0.10 0.12 0.03 0.27 0.14 0.25 0.01 0.36 0.10 0.14 0.05 0.16 0.25  
 Plant Water Density: 0.23 0.19 0.36 0.44 0.86 1.83 0.60 1.70 2.26 0.42 0.92 1.14 1.48

Corn Field # 8 Date: 7/ 9/82 (Julian: 190) Time: 11:20 Mean Canopy Height: 240.50 cm  
 Top Leaf Height: 218.00 cm Top Cob Height: 136.00 cm Bottom Green Leaf Height: 30.50 cm Leaf Layer Depth: 187.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.34 0.22 0.46 0.61 1.04 0.51 2.29 0.97 1.95 0.29 2.91 0.62 1.07 0.80 1.40 1.89  
 Wet Biomass Density: 0.34 0.22 0.46 0.61 1.04 0.51 2.29 0.97 1.95 0.29 2.91 0.62 1.07 0.80 1.40 1.89  
 Dry Biomass Density: 0.07 0.05 0.10 0.10 0.12 0.03 0.27 0.14 0.25 0.01 0.36 0.10 0.14 0.05 0.16 0.25  
 Plant Water Density: 0.23 0.19 0.36 0.44 0.86 1.83 0.60 1.70 2.26 0.42 0.92 1.14 1.48

Corn Field # 8 Date: 7/12/82 (Julian: 193) Time: 14:25 Mean Canopy Height: 239.67 cm  
 Top Leaf Height: 214.33 cm Top Cob Height: 136.50 cm Bottom Green Leaf Height: 28.17 cm Leaf Layer Depth: 186.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.28 0.15 0.34 0.60 0.84 0.94 2.61 0.65 1.77 0.56 2.89 0.52 0.92 1.50 1.54 1.95  
 Wet Biomass Density: 0.28 0.15 0.34 0.60 0.84 0.94 2.61 0.65 1.77 0.56 2.89 0.52 0.92 1.50 1.54 1.95  
 Dry Biomass Density: 0.07 0.05 0.10 0.10 0.12 0.03 0.27 0.14 0.25 0.01 0.36 0.10 0.14 0.05 0.16 0.25  
 Plant Water Density: 0.23 0.19 0.36 0.44 0.86 1.83 0.60 1.70 2.26 0.42 0.92 1.14 1.48

Corn Field # 8 Date: 7/13/82 (Julian: 194) Time: 14:36 Mean Canopy Height: 229.67 cm  
 Top Leaf Height: 197.33 cm Top Cob Height: 132.00 cm Bottom Green Leaf Height: 28.50 cm Leaf Layer Depth: 168.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.26 0.14 0.28 0.53 0.65 0.81 2.23 0.95 1.77 0.35 2.83 0.58 0.85 1.16 1.36 1.78  
 Wet Biomass Density: 0.26 0.14 0.28 0.53 0.65 0.81 2.23 0.95 1.77 0.35 2.83 0.58 0.85 1.16 1.36 1.78  
 Dry Biomass Density: 0.07 0.05 0.10 0.10 0.12 0.03 0.27 0.14 0.25 0.01 0.36 0.10 0.14 0.05 0.16 0.25  
 Plant Water Density: 0.23 0.19 0.36 0.44 0.86 1.83 0.60 1.70 2.26 0.42 0.92 1.14 1.48

Corn Field # 8 Date: 7/15/82 (Julian: 196) Time: 09:43 Mean Canopy Height: 249.67 cm  
 Top Leaf Height: 210.83 cm Top Cob Height: 134.33 cm Bottom Green Leaf Height: 28.67 cm Leaf Layer Depth: 182.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.25 0.15 0.28 0.67 0.82 1.38 3.14 0.73 2.04 0.34 2.94 0.58 1.00 1.73 1.70 2.12  
 Wet Biomass Density: 0.25 0.15 0.28 0.67 0.82 1.38 3.14 0.73 2.04 0.34 2.94 0.58 1.00 1.73 1.70 2.12  
 Dry Biomass Density: 0.07 0.05 0.10 0.10 0.12 0.03 0.27 0.14 0.25 0.01 0.36 0.10 0.14 0.05 0.16 0.25  
 Plant Water Density: 0.23 0.19 0.36 0.44 0.86 1.83 0.60 1.70 2.26 0.42 0.92 1.14 1.48

Corn Field # 8 Date: 7/23/82 (Julian: 204) Time: 09:45 Mean Canopy Height: 258.67 cm  
 Top Leaf Height: 220.83 cm Top Cob Height: 142.00 cm Bottom Green Leaf Height: 27.83 cm Leaf Layer Depth: 193.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 72.47 71.07 71.78 75.38 84.06 78.91 80.12 89.37 82.18 76.36 85.46  
 Wet Biomass Density: 0.24 0.13 0.27 0.56 0.79 1.72 3.35 0.63 1.83 0.62 2.97 0.50 0.92 1.82 2.20  
 Dry Biomass Density: 0.07 0.04 0.08 0.14 0.28 0.13 0.36 0.07 0.53 0.12 0.34  
 Plant Water Density: 0.18 0.09 0.19 0.42 0.49 1.46 2.44 0.38

Corn Field # 8 Date: 7/26/82 (Julian: 207) Time: 11:05 Mean Canopy Height: 260.33 cm  
 Top Leaf Height: 222.83 cm Top Cob Height: 139.33 cm Bottom Green Leaf Height: 30.17 cm Leaf Layer Depth: 192.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 69.09 69.58 69.30 73.33 70.44 78.70 80.77 88.04 81.67 74.35 77.13  
 Wet Biomass Density: 0.30 0.13 0.30 0.66 0.70 1.96 3.62 0.55 1.56 0.34 2.31 0.53 0.80 2.30 1.68 2.08  
 Dry Biomass Density: 0.09 0.04 0.09 0.18 0.21 0.12 0.30 0.04 0.42 0.14 0.18  
 Plant Water Density: 0.21 0.09 0.21 0.48 0.50 0.43 1.26 0.40 0.62

Corn field # 8 Date: 7/28/82 (Julian: 209) Time: 14:15 Mean Canopy Height: 246.17 cm  
 Top Leaf Height: 213.17 cm Top Cob Height: 130.00 cm Bottom Green Leaf Height: 30.00 cm Leaf Layer Depth: 183.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.25 0.15 0.30 0.55 0.95 1.82 3.72 0.54 1.52 0.69 2.70 0.47 0.88 2.51 1.89 2.24  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 8 Date: 7/30/82 (Julian: 211) Time: 09:50 Mean Canopy Height: 244.17 cm  
 Top Leaf Height: 209.33 cm Top Cob Height: 131.00 cm Bottom Green Leaf Height: 29.83 cm Leaf Layer Depth: 179.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.26 0.15 0.30 0.48 0.76 2.03 3.73 0.53 1.37 0.30 2.07 0.44 0.76 2.33 1.71 2.04  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 8 Date: 8/ 2/82 (Julian: 214) Time: : Mean Canopy Height: 243.00 cm  
 Top Leaf Height: 230.17 cm Top Cob Height: 134.83 cm Bottom Green Leaf Height: 28.50 cm Leaf Layer Depth: 201.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 66.31 69.78 68.01 72.78 78.28 54.12 63.23 74.94 77.92 76.66 77.07 72.77 77.40 58.52 68.91 69.77  
 Wet Biomass Density: 0.20 0.16 0.33 0.45 0.56 1.13 2.41 0.77 1.40 0.27 2.24 0.45 0.71 1.41 1.29 1.66  
 Dry Biomass Density: 0.07 0.05 0.11 0.12 0.12 0.52 0.89 0.19 0.31 0.06 0.51 0.12 0.16 0.58 0.40 0.50  
 Plant Water Density: 0.13 0.11 0.22 0.32 0.44 1.52 0.57 1.09 0.32 0.55

Corn field # 8 Date: 8/ 4/82 (Julian: 216) Time: 15:06 Mean Canopy Height: 243.67 cm  
 Top Leaf Height: 214.67 cm Top Cob Height: 137.17 cm Bottom Green Leaf Height: 28.00 cm Leaf Layer Depth: 186.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.28 0.13 0.31 0.59 0.73 1.98 3.75 0.62 1.46 1.53 3.75 0.51 0.77 3.51 2.21 2.61  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 8 Date: 8/ 9/82 (Julian: 221) Time: 10:20 Mean Canopy Height: 244.50 cm  
 Top Leaf Height: 212.50 cm Top Cob Height: 141.67 cm Bottom Green Leaf Height: 31.83 cm Leaf Layer Depth: 180.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 66.88 67.34 67.05 73.61 76.51 60.94 65.95 77.24 79.49 80.24 79.25 73.12 77.74 62.67 69.23 69.95  
 Wet Biomass Density: 0.42 0.14 0.39 0.71 0.83 2.30 4.35 0.49 1.42 0.23 2.00 0.57 0.80 2.53 1.83 2.25  
 Dry Biomass Density: 0.14 0.05 0.13 0.19 0.19 0.90 1.48 0.11 0.29 0.04 0.41 0.15 0.18 0.94 0.56 0.68  
 Plant Water Density: 0.28 0.10 0.26 0.52 0.63 2.87 0.38 1.13 1.58 0.42 0.62

Corn field # 8 Date: 8/18/82 (Julian: 230) Time: 13:08 Mean Canopy Height: 245.33 cm  
 Top Leaf Height: 220.67 cm Top Cob Height: 144.00 cm Bottom Green Leaf Height: 38.17 cm Leaf Layer Depth: 182.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 65.40 67.59 66.34 72.17 80.21 41.51 58.87 73.67 81.23 57.24 73.31 71.27 80.05 46.49 63.98 65.32  
 Wet Biomass Density: 0.31 0.16 0.37 0.67 0.95 1.38 3.31 0.51 1.57 0.64 2.63 0.52 0.90 2.02 1.72 2.10  
 Dry Biomass Density: 0.11 0.05 0.13 0.19 0.19 0.81 1.36 0.13 0.30 0.27 0.70 0.15 0.18 1.08 0.62 0.73  
 Plant Water Density: 0.20 0.11 0.25 0.49 0.76 1.95 0.38 1.28 1.73 0.37 0.72

Corn field # 8 Date: 8/31/82 (Julian: 243) Time: 10:45 Mean Canopy Height: 250.67 cm  
 Top Leaf Height: cm Top Cob Height: cm Bottom Green Leaf Height: 250.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 8 Dates: 9/ 2/82 (Julian: 245) Time: 16:00 Mean Canopy Height: 234.83 cm  
 Top Leaf Height: 207.50 cm Top Cob Height: 123.83 cm Bottom Green Leaf Height: 82.83 cm Leaf Layer Depth: 124.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L1235C WHOLE  
 % Plant Moisture: 36.05 45.95 39.79 55.22 72.09 34.84 43.21 47.00 76.23 57.24 68.28 50.69 74.16 40.65 53.22 52.99  
 Wet Biomass Density: 0.14 0.06 0.15 0.35 0.53 1.82 3.21 1.30 0.64 2.18 0.32 0.63 2.46 1.68 1.85  
 Dry Biomass Density: 0.09 0.03 0.09 0.16 0.15 1.19 1.82 0.31 0.27 0.69 0.16 0.16 1.46 0.79 0.87  
 Plant Water Density: 0.05 0.03 0.06 0.19 0.38 1.39 0.99 0.99 0.27 1.49 0.16 0.16 0.47 0.89 0.98

Corn field # 9 Dates: 5/19/82 (Julian: 139) Time: 15:35 Mean Canopy Height: 28.67 cm  
 Top Leaf Height: 28.67 cm Top Cob Height: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L1235C WHOLE  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L1235C WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.06

Corn Field # 9 Date: 5/21/82 (Julian: 141) Time: 15:49 Mean Canopy Height: 24.83 cm  
 Top Leaf Height: 24.83 cm Top Cob Height: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L1235C WHOLE  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L1235C WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.06

Corn Field # 9 Dates: 5/24/82 (Julian: 144) Time: 14:14 Mean Canopy Height: 32.00 cm  
 Top Leaf Height: 32.00 cm Top Cob Height: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L1235C WHOLE  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L1235C WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 9 Date: 5/26/82 (Julian: 146) Time: 10:58 Mean Canopy Height: 32.67 cm  
 Top Leaf Height: 32.67 cm Top Cob Height: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L1235C WHOLE  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L1235C WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.28

Corn Field # 9 Date: 6/ 1/82 (Julian: 152) Time: 10:16 Mean Canopy Height: 48.50 cm  
 Top Leaf Height: 48.50 cm Top Cob Height: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L1235C WHOLE  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L1235C WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.62

Corn field # 9 Date: 6/ 2/82 (Julian: 153) Time: 15:19 Mean Canopy Height: 50.67 cm  
 Top Leaf Height: 50.67 cm Top Cob Height: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L1235C WHOLE  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L1235C WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.33

Corn Field # 9 Date: 6/ 4/82 (Julian: 155) Time: 10:04 Mean Canopy Height: 47.17 cm  
 Top Leaf Height: 47.17 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 47.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE

% Plant Moisture: 0.46  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 9 Date: 6/ 7/82 (Julian: 158) Time: 14:21 Mean Canopy Height: 55.00 cm  
 Top Leaf Height: 55.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 55.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE

% Plant Moisture: 1.06  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 9 Date: 6/14/82 (Julian: 165) Time: 10:40 Mean Canopy Height: 80.17 cm  
 Top Leaf Height: 80.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 80.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 X Plant Moisture: 83.86 0. 83.86 93.46 85.22 0. 89.25 95.06 84.83 0. 93.87 92.52 85.13 0. 85.13 90.06  
 Wet Biomass Density: 0.76 0. 0.75 1.00 1.04 0. 2.04 2.20 0.29 0. 2.49 1.32 0.44 0. 0.44 1.76  
 Dry Biomass Density: 0.12 0. 0.12 0.07 0.15 0. 0.22 0.11 0.04 0. 0.15 0.10 0.07 0. 0.07 0.16  
 Plant Water Density: 0.63 0. 0.63 0.93 0.89 1.82 2.09 0.24 2.33 1.22 0.38

Corn Field # 9 Date: 6/16/82 (Julian: 167) Time: 14:52 Mean Canopy Height: 85.83 cm  
 Top Leaf Height: 81.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 81.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE

% Plant Moisture: 0.29 0. 0.24 0.29 0.40 0. 0.69 0.50 1.38 0. 1.88 0.36 0.59 0. 0.59 0.93  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 9 Date: 6/21/82 (Julian: 172) Time: 11:16 Mean Canopy Height: 103.33 cm  
 Top Leaf Height: 102.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 102.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 X Plant Moisture: 81.55 92.34 84.14 82.50 93.37 0. 89.18 80.31 93.88 0. 91.93 81.68 93.64 0. 93.64 89.90  
 Wet Biomass Density: 0.52 0.16 0.66 0.67 1.06 0. 1.73 0.36 2.12 0. 2.48 0.51 1.11 0. 1.11 1.62  
 Dry Biomass Density: 0.10 0.01 0.10 0.12 0.07 0. 0.19 0.07 0.13 0. 0.20 0.09 0.07 0. 0.07 0.16  
 Plant Water Density: 0.42 0.14 0.55 0.55 0.99 1.54 0.29 1.99 2.28 0.42 1.04

Corn Field # 9 Date: 6/25/82 (Julian: 176) Time: 10:10 Mean Canopy Height: 129.00 cm  
 Top Leaf Height: 129.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 129.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE

% Plant Moisture: 0.51  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 9 Date: 6/28/82 (Julian: 179) Time: 13:00 Mean Canopy Height: 148.33 cm  
 Top Leaf Height: 129.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 129.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 X Plant Moisture:  
 Wet Biomass Density: 0.52 0.24 0.56 0.34 0.82 0. 1.16 0.47 1.72 0. 2.20 0.43 0.93 0. 0.93 1.30  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 9 Date: 6/30/82 (Julian: 181) Time: : Mean Canopy Height: 180.67 cm  
 Top Leaf Height: 171.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 171.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 9 Date: 7/ 2/82 (Julian: 183) Time: 10:33 Mean Canopy Height: 197.33 cm  
 Top Leaf Height: 181.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 181.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.50 0.25 0.62 0.32 1.07 0. 1.40 0.34 1.63 0. 1.97 0.38 0.98 0. 0.98 1.33  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 9 Date: 7/ 7/82 (Julian: 188) Time: 11:35 Mean Canopy Height: 227.50 cm  
 Top Leaf Height: 215.25 cm Top Cob Height: 142.00 cm Bottom Green Leaf Height: 25.00 cm Leaf Layer Depth: 190.25 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 72.62 81.13 77.16 76.62 77.40 91.86 80.83 71.38 0. 1.91 0.40 0.88 0.34 1.03 1.36  
 Wet Biomass Density: 0.23 0.22 0.41 0.51 0.82 0.34 1.77 0.45 1.61 0. 0.10 0.88 0.34 1.03 1.36  
 Dry Biomass Density: 0.06 0.04 0.09 0.12 0.18 0.03 0.34 0.13 0. 0.30  
 Plant Water Density: 0.17 0.18 0.32 0.39 0.63 1.43 0.32

Corn field # 9 Date: 7/ 9/82 (Julian: 190) Time: 15:21 Mean Canopy Height: 237.00 cm  
 Top Leaf Height: 215.17 cm Top Cob Height: 150.83 cm Bottom Green Leaf Height: 19.00 cm Leaf Layer Depth: 196.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.35 0.21 0.47 0.59 1.28 0.43 2.41 0.47 1.81 0.34 2.60 0.48 1.10 0.76 1.43 1.83  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 9 Date: 7/12/82 (Julian: 193) Time: 15:14 Mean Canopy Height: 221.33 cm  
 Top Leaf Height: 196.33 cm Top Cob Height: 130.67 cm Bottom Green Leaf Height: 28.00 cm Leaf Layer Depth: 168.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.16 0.13 0.24 0.42 0.74 0.33 1.61 0.42 1.28 0.17 1.77 0.35 0.72 0.50 0.94 1.21  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 9 Date: 7/13/82 (Julian: 194) Time: 15:30 Mean Canopy Height: 231.17 cm  
 Top Leaf Height: 216.50 cm Top Cob Height: 140.75 cm Bottom Green Leaf Height: 30.75 cm Leaf Layer Depth: 185.75 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.26 0.19 0.40 0.62 0.87 0.68 2.37 0.55 1.60 0.32 2.35 0.48 0.89 1.00 1.32 1.70  
 Dry Biomass Density:  
 Plant Water Density:

Corn field # 9 Date: 7/15/82 (Julian: 196) Time: 10:19 Mean Canopy Height: 228.83 cm  
 Top Leaf Height: 203.00 cm Top Cob Height: 125.33 cm Bottom Green Leaf Height: 23.17 cm Leaf Layer Depth: 179.83 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.20 0.14 0.27 0.48 0.78 0.79 2.29 0.67 1.64 0.38 2.61 0.45 0.86 1.17 1.37 1.72  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 9 Date: 7/23/82 (Julian: 204) Time: 10:10 Mean Canopy Height: 232.67 cm  
 Top Leaf Height: 190.17 cm Top Cob Height: 133.67 cm Bottom Green Leaf Height: 28.83 cm Leaf Layer Depth: 161.33 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 X Plant Moisture: 68.98 71.81 70.37 77.71 78.05 75.05 76.95 74.52 81.08 95.46 87.71 75.40 79.54 89.82 84.63 83.13  
 Wet Biomass Density: 0.33 0.14 0.29 0.50 0.75 0.49 1.89 0.40 1.44 1.29 3.35 0.43 0.78 1.78 1.54 1.84  
 Dry Biomass Density: 0.10 0.04 0.09 0.11 0.17 0.12 0.44 0.10 0.27 0.06 0.41 0.11 0.16 0.18 0.24 0.31  
 Plant Water Density: 0.22 0.10 0.20 0.39 0.59 1.45 0.30 1.17 2.94 0.33 0.62 1.31 1.53

Corn Field # 9 Date: 7/26/82 (Julian: 207) Time: 11:30 Mean Canopy Height: 251.50 cm  
 Top Leaf Height: 217.00 cm Top Cob Height: 138.17 cm Bottom Green Leaf Height: 24.83 cm Leaf Layer Depth: 192.17 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 X Plant Moisture: 67.68 70.99 69.35 77.94 76.32 76.52 82.16 86.93 82.65 80.25 79.13 79.65  
 Wet Biomass Density: 0.25 0.15 0.29 0.54 0.75 1.77 3.39 0.56 1.62 0.64 2.77 0.47 0.84 2.40 1.79 2.15  
 Dry Biomass Density: 0.08 0.04 0.09 0.17 0.42 0.13 0.29 0.08 0.48 0.17 0.50 0.36  
 Plant Water Density: 0.17 0.10 0.20 0.59 0.59 0.43 1.33 2.29 0.67 1.43

Corn Field # 9 Date: 7/28/82 (Julian: 209) Time: 14:35 Mean Canopy Height: 246.33 cm  
 Top Leaf Height: 210.67 cm Top Cob Height: 125.33 cm Bottom Green Leaf Height: 28.83 cm Leaf Layer Depth: 181.83 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 X Plant Moisture:  
 Wet Biomass Density: 0.24 0.13 0.27 0.44 0.71 1.60 3.10 0.58 1.51 0.17 2.10 0.43 0.78 1.77 1.50 1.82  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 9 Date: 7/30/82 (Julian: 211) Time: 09:35 Mean Canopy Height: 242.50 cm  
 Top Leaf Height: 208.50 cm Top Cob Height: 125.33 cm Bottom Green Leaf Height: 31.17 cm Leaf Layer Depth: 177.33 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 X Plant Moisture:  
 Wet Biomass Density: 0.22 0.12 0.24 0.47 0.70 1.66 3.22 0.80 1.42 0.36 2.35 0.49 0.75 2.01 1.58 1.94  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 9 Date: 8/ 2/82 (Julian: 214) Time: 10:35 Mean Canopy Height: 240.00 cm  
 Top Leaf Height: 208.00 cm Top Cob Height: 131.33 cm Bottom Green Leaf Height: 26.50 cm Leaf Layer Depth: 181.50 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 X Plant Moisture: 62.49 70.13 66.35 71.78 76.33 73.54 73.95 77.02 75.88 88.28 77.96 71.62 75.60 74.96 75.26 74.64  
 Wet Biomass Density: 0.23 0.14 0.28 0.42 0.72 1.51 3.02 0.33 0.90 0.16 1.32 0.34 0.58 1.67 1.28 1.54  
 Dry Biomass Density: 0.09 0.04 0.09 0.12 0.17 0.40 0.79 0.08 0.22 0.02 0.29 0.10 0.14 0.42 0.32 0.39  
 Plant Water Density: 0.14 0.10 0.18 0.30 0.55 2.23 0.25 0.68 1.03 0.25 0.44 0.96 1.15

Corn Field # 9 Date: 8/ 4/82 (Julian: 216) Time: 14:47 Mean Canopy Height: 240.17 cm  
 Top Leaf Height: 212.00 cm Top Cob Height: 128.50 cm Bottom Green Leaf Height: 32.33 cm Leaf Layer Depth: 179.67 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 X Plant Moisture:  
 Wet Biomass Density: 0.29 0.12 0.31 0.42 0.64 1.69 3.17 0.60 1.17 0.22 1.80 0.43 0.64 1.90 1.43 1.76  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field # 9 Date: 8/ 9/82 (Julian: 221) Time: 10:04 Mean Canopy Height: 238.67 cm  
 Top Leaf Height: 215.83 cm Top Cob Height: 127.17 cm Bottom Green Leaf Height: 27.00 cm Leaf Layer Depth: 188.83 cm  
 Plant Parts: L1L LIS TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 X Plant Moisture: 64.59 67.16 65.77 76.75 61.11 73.10 80.12 73.45 77.52 78.11 63.27 69.84  
 Wet Biomass Density: 0.22 0.13 0.29 0.55 0.78 1.80 3.60 0.45 1.26 0.38 2.04 0.43 0.72 2.18 1.64 1.98  
 Dry Biomass Density: 0.08 0.04 0.10 0.18 0.70 0.12 0.25 0.10 0.46 0.16 0.80 0.49  
 Plant Water Density: 0.14 0.09 0.19 0.60 0.33 1.01 1.58 0.57 0.57 1.14



Corn Field # 9 Date: 8/18/82 (Julian: 230) Time: : Mean Canopy Height: 244.17 cm  
 Top Leaf Height: 216.00 cm Top Cob Height: 129.67 cm Bottom Green Leaf Height: 39.67 cm Leaf Layer Depth: 176.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 64.53 63.23 64.05 71.31 75.92 55.69 62.19 73.93 77.43 70.48 75.83 70.97 76.21 57.21 65.77 66.71  
 Wet Biomass Density: 0.30 0.11 0.31 0.58 0.80 2.05 3.90 0.69 1.38 0.23 2.02 0.52 0.77 2.28 1.70 2.08  
 Dry Biomass Density: 0.10 0.04 0.11 0.17 0.19 0.91 1.47 0.18 0.31 0.07 0.49 0.15 0.18 0.98 0.58 0.69  
 Plant Water Density: 0.19 0.07 0.20 0.42 0.61 2.43 0.51 1.07 1.53 0.37 0.58 1.12 1.39

Corn Field # 9 Date: 8/31/82 (Julian: 243) Time: 11:10 Mean Canopy Height: 235.50 cm  
 Top Leaf Height: cm Top Cob Height: cm Bottom Green Leaf Height: cm Leaf Layer Depth: cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field #10 Date: 5/19/82 (Julian: 139) Time: 16:30 Mean Canopy Height: 26.33 cm  
 Top Leaf Height: 26.33 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 26.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.17

Corn Field #10 Date: 5/24/82 (Julian: 144) Time: 14:33 Mean Canopy Height: 33.17 cm  
 Top Leaf Height: 32.00 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 32.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field #10 Date: 5/26/82 (Julian: 146) Time: 09:48 Mean Canopy Height: 35.17 cm  
 Top Leaf Height: 35.17 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 35.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.25

Corn Field #10 Date: 6/ 1/82 (Julian: 152) Time: 10:55 Mean Canopy Height: 43.67 cm  
 Top Leaf Height: 43.67 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 43.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.68

Corn Field #10 Date: 6/ 4/82 (Julian: 155) Time: 10:56 Mean Canopy Height: 44.17 cm  
 Top Leaf Height: 44.17 cm Top Cob Height: cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 44.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 0.81

Corn Field #10 Date: 6/ 7/82 (Julian: 158) Time: 12:00 Mean Canopy Height: 57.50 cm  
 Top Leaf Height: 57.50 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 57.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 1.44  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field #10 Date: 6/ 9/82 (Julian: 160) Time: 13:20 Mean Canopy Height: 57.17 cm  
 Top Leaf Height: 57.17 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 57.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 1.12  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field #10 Date: 6/14/82 (Julian: 165) Time: 10:13 Mean Canopy Height: 72.50 cm  
 Top Leaf Height: 72.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 72.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 82.52 0. 82.52 86.32 98.06 0. 92.12 94.52 0. 2.11 0.56 0.88 0. 0.88 1.44  
 Wet Biomass Density: 0.90 0. 0.88 0.67 0.66 0. 1.33 0.12 1.99 0. 0.11 0.04 0. 0.04 0.84  
 Dry Biomass Density: 0.16 0. 0.15 0.09 0.01 0. 0.11 0.11 0. 1.88  
 Plant Water Density: 0.74 0. 0.73 0.58 0.65

Corn Field #10 Date: 6/16/82 (Julian: 167) Time: : Mean Canopy Height: 82.83 cm  
 Top Leaf Height: 82.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 82.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.90 0. 0.87 0.87 1.33 0. 2.20 0.33 2.28 0. 2.61 0.70 1.20 0. 1.20 1.89  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field #10 Date: 6/18/82 (Julian: 169) Time: 14:24 Mean Canopy Height: 92.17 cm  
 Top Leaf Height: 92.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 92.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.90 0. 0.90 0.82 0.89 0. 1.72 0.18 2.48 0. 2.66 0.63 1.12 0. 1.12 1.76  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field #10 Date: 6/21/82 (Julian: 172) Time: 11:50 Mean Canopy Height: 130.83 cm  
 Top Leaf Height: 130.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 130.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 79.84 0. 79.84 80.85 0. 83.43 94.17 0. 92.89 81.05 0. 1.92 2.58  
 Wet Biomass Density: 0.84 0. 0.83 0.66 2.23 0. 2.90 0.48 3.54 0. 4.01 0.66 1.92 0. 1.92 2.58  
 Dry Biomass Density: 0.17 0. 0.17 0.13 0. 0.08 0.21 0. 0.29 0.13 0. 0.13 0.13 0. 0.13 0.13  
 Plant Water Density: 0.67 0. 0.66 0.54 0.40 3.33 3.73 0.54

Corn Field #10 Date: 6/25/82 (Julian: 176) Time: 09:32 Mean Canopy Height: 159.83 cm  
 Top Leaf Height: 159.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 159.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density: 0.50 0.26 0.76 0.93 2.36 0. 3.30 0.56 3.47 0. 4.03 0.67 2.03 0. 2.03 2.70  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field #10 Date: 6/28/82 (Julian: 179) Time: 15:35 Mean Canopy Height: 195.67 cm  
 Top Leaf Height: 195.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 195.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.13 0.26 0.40 0.35 2.45 0. 2.80 0.67 1.67 0. 2.34 0.39 1.46 0. 1.46 1.85  
 Wet Biomass Density: 0.13 0.26 0.40 0.35 2.45 0. 2.80 0.67 1.67 0. 2.34 0.39 1.46 0. 1.46 1.85  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field #10 Date: 6/30/82 (Julian: 181) Time: : Mean Canopy Height: 218.00 cm  
 Top Leaf Height: 208.00 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 208.00 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field #10 Date: 7/ 2/82 (Julian: 183) Time: 10:13 Mean Canopy Height: 242.33 cm  
 Top Leaf Height: 230.83 cm Top Cob Height: 0. cm Bottom Green Leaf Height: 0. cm Leaf Layer Depth: 242.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.23 0.35 0.55 0.62 1.74 0. 2.36 2.60 0. 3.03 1.56 0. 1.56 0. 1.56 1.98  
 Wet Biomass Density: 0.23 0.35 0.55 0.62 1.74 0. 2.36 2.60 0. 3.03 1.56 0. 1.56 0. 1.56 1.98  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field #10 Date: 7/ 7/82 (Julian: 188) Time: 11:10 Mean Canopy Height: 265.00 cm  
 Top Leaf Height: 225.33 cm Top Cob Height: 154.67 cm Bottom Green Leaf Height: 23.00 cm Leaf Layer Depth: 202.33 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 73.59 77.41 75.73 77.71 84.28 92.58 85.51 0. 3.04 0.66 1.31 0.89 1.65 2.15  
 Wet Biomass Density: 0.49 0.34 0.61 0.75 1.05 0.89 2.80 0.66 1.31 0.89 1.65 2.15  
 Dry Biomass Density: 0.13 0.08 0.15 0.17 0.17 0.07 0.41 0. 0.07 0.07 0.07 0.07 0.07 0.07 0.07  
 Plant Water Density: 0.36 0.26 0.46 0.58 0.89 2.40

Corn Field #10 Date: 7/ 9/82 (Julian: 190) Time: 15:31 Mean Canopy Height: 262.00 cm  
 Top Leaf Height: 236.17 cm Top Cob Height: 155.50 cm Bottom Green Leaf Height: 25.67 cm Leaf Layer Depth: 210.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.28 0.26 0.46 0.59 1.11 0.36 2.12 0.61 2.00 0.19 2.64 0.50 1.12 0.55 1.33 1.74  
 Wet Biomass Density: 0.28 0.26 0.46 0.59 1.11 0.36 2.12 0.61 2.00 0.19 2.64 0.50 1.12 0.55 1.33 1.74  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field #10 Date: 7/12/82 (Julian: 193) Time: 14:45 Mean Canopy Height: 270.50 cm  
 Top Leaf Height: 231.67 cm Top Cob Height: 154.00 cm Bottom Green Leaf Height: 29.17 cm Leaf Layer Depth: 202.50 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.45 0.24 0.49 0.72 0.91 1.30 3.07 0.84 2.87 0.63 4.13 0.69 1.34 1.93 2.05 2.57  
 Wet Biomass Density: 0.45 0.24 0.49 0.72 0.91 1.30 3.07 0.84 2.87 0.63 4.13 0.69 1.34 1.93 2.05 2.57  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field #10 Date: 7/13/82 (Julian: 194) Time: 15:10 Mean Canopy Height: 256.33 cm  
 Top Leaf Height: 237.50 cm Top Cob Height: 130.67 cm Bottom Green Leaf Height: 24.33 cm Leaf Layer Depth: 213.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.22 0.34 0.51 0.59 1.06 1.12 2.96 0.67 2.50 0.10 3.09 0.50 1.30 1.22 1.78 2.19  
 Wet Biomass Density: 0.22 0.34 0.51 0.59 1.06 1.12 2.96 0.67 2.50 0.10 3.09 0.50 1.30 1.22 1.78 2.19  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field #10 Date: 7/15/82 (Julian: 196) Time: 10:51 Mean Canopy Height: 270.83 cm  
 Top Leaf Height: 229.00 cm Top Cob Height: 155.50 cm Bottom Green Leaf Height: 30.83 cm Leaf Layer Depth: 198.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 0.52 0.24 0.52 0.66 1.05 1.07 2.89 0.59 2.10 0.41 2.94 0.60 1.13 1.48 1.67 2.11  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Corn Field #10 Date: 7/23/82 (Julian: 204) Time: 10:40 Mean Canopy Height: 267.00 cm  
 Top Leaf Height: 231.50 cm Top Cob Height: 154.50 cm Bottom Green Leaf Height: 38.33 cm Leaf Layer Depth: 193.17 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 70.10 70.70 70.38 78.74 78.29 84.49 81.87 79.88 87.16 89.24 86.06 77.73 83.72 84.94 84.20 82.96  
 Wet Biomass Density: 0.38 0.20 0.43 0.61 0.97 1.83 3.63 0.91 2.29 0.19 3.02 0.62 1.15 2.02 1.91 2.36  
 Dry Biomass Density: 0.11 0.06 0.13 0.13 0.21 0.28 0.66 0.18 0.29 0.02 0.42 0.14 0.19 0.30 0.30 0.40  
 Plant Water Density: 0.26 0.14 0.30 0.48 0.76 2.97 0.73 2.00 2.60 0.48 0.97 1.61 1.96

Corn Field #10 Date: 7/26/82 (Julian: 207) Time: 12:00 Mean Canopy Height: 269.00 cm  
 Top Leaf Height: 234.83 cm Top Cob Height: 150.17 cm Bottom Green Leaf Height: 37.17 cm Leaf Layer Depth: 197.67 cm  
 Plant Parts: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 % Plant Moisture: 69.98 69.06 69.53 75.66 77.61 88.27 83.35 79.79 84.34 86.85 83.86 75.68 81.16 88.18 84.13 82.56  
 Wet Biomass Density: 0.41 0.24 0.50 0.70 1.01 2.04 3.99 0.61 2.06 0.14 2.57 0.59 1.10 2.18 1.91 2.35  
 Dry Biomass Density: 0.12 0.08 0.15 0.17 0.23 0.24 0.66 0.12 0.32 0.02 0.41 0.14 0.21 0.26 0.30 0.41  
 Plant Water Density: 0.29 0.17 0.35 0.53 0.78 3.32 0.49 1.74 2.15 0.45 0.90 1.61 1.96

Appendix III.b.2  
Plant Density--Corn Fields

Field	Row Separation (cm)			Number of Plants per 5 m of Row			Number of Plants per m <sup>2</sup>	Number of Mature Cobs		
	Mean	S.D.	N	Mean	S.D.	N		Mean	S.D.	N
C 1	75.3	1.5	18	20.4	1.8	18	5.4	20.3	1.8	6
C 2	73.9	1.9	18	18.2	2.4	12	5.0	15.8	2.3	6
C 3	75.9	3.0	18	20.4	2.5	18	5.4	20.2	1.7	6
C 4	79.2	6.1	18	19.3	2.1	18	4.9	16.5	1.9	6
C 5	77.2	6.2	18	20.6	2.8	18	5.3	20.3	1.6	6
C 6	75.2	2.9	18	18.5	3.1	18	4.9	16.5	3.9	6
C 7	77.6	3.0	12	15.6	2.0	12	4.0	16.0	2.6	6
C 8	73.2	3.3	18	17.0	2.0	18	4.6	17.3	1.5	6
C 9	77.2	2.9	18	14.9	2.3	18	3.9	17.8	5.2	6
C10	75.7	1.9	12	20.4	3.3	12	5.4	--	--	--
C21	76.3	2.6	6	18.8	2.6	18	4.9	18.8	2.2	12

Appendix III.b.3  
Corn Field Soil Moisture Data

Field#: 1 Date: 5/19/82 (Julian: 139) Time: 11:20												
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
Depth	19.82	22.85	22.87	29.31	24.40	24.98	24.04	3.14	1.31			
0-2 cm	22.10	21.43	23.41	22.48	25.00	22.30	22.79	1.26	0.55			
2-5 cm	21.19	22.00	23.20	25.21	24.76	23.37	23.29	2.01	0.85			
0-5 cm												
Field#: 1 Date: 6/25/82 (Julian: 176) Time: 11:20												
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
Depth	19.82	22.85	22.87	29.31	24.40	24.98	24.04	3.14	1.31			
0-2 cm	22.10	21.43	23.41	22.48	25.00	22.30	22.79	1.26	0.55			
2-5 cm	21.19	22.00	23.20	25.21	24.76	23.37	23.29	2.01	0.85			
0-5 cm												
Field#: 1 Date: 6/28/82 (Julian: 179) Time: 14:25												
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
Depth	26.63	23.00	26.02	23.02	27.46	22.96	24.85	2.08	0.84			
0-2 cm	22.92	23.29	22.48	23.32	22.15	23.27	22.90	0.49	0.21			
2-5 cm	24.40	23.17	23.90	23.20	24.27	23.14	23.68	1.13	0.46			
0-5 cm												
Field#: 1 Date: 7/6/82 (Julian: 187) Time: 11:10												
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
Depth	14.75	17.26	16.33	13.84	17.64	16.64	16.08	1.48	0.92			
0-2 cm	22.14	20.35	20.75	18.11	20.59	21.92	20.64	1.44	0.70			
2-5 cm	19.18	19.12	18.98	16.40	19.41	19.80	18.82	1.46	0.79			
0-5 cm												
Field#: 1 Date: 7/7/82 (Julian: 188) Time: 13:40												
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
Depth	7.20	6.39	7.49	9.28	12.55	10.53	8.91	2.34	2.62			
0-2 cm	16.16	14.70	15.77	17.74	16.29	16.13	1.10	0.68				
2-5 cm	12.58	11.38	13.17	15.67	13.99	13.24	1.59	1.46				
0-5 cm												
Field#: 1 Date: 7/12/82 (Julian: 193) Time: 10:12												
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
Depth	19.41	16.38	19.76	18.70	19.24	17.60	18.52	1.29	0.70			
0-2 cm	20.42	17.57	20.74	19.93	20.10	18.51	19.54	1.23	0.63			
2-5 cm	20.01	17.10	20.35	19.44	19.76	18.15	19.13	1.26	0.66			
0-5 cm												
Field#: 1 Date: 7/13/82 (Julian: 194) Time: 10:00												
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
Depth	24.60	24.98	24.08	26.97	23.24	30.34	25.70	2.59	1.01			
0-2 cm	23.80	23.99	23.49	24.07	25.44	25.55	24.39	0.88	0.36			
2-5 cm	24.12	24.39	23.73	25.23	24.56	27.47	24.92	1.56	0.62			
0-5 cm												
Field#: 1 Date: 7/15/82 (Julian: 196) Time: 12:30												
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
Depth	19.94	19.02	19.80	22.15	22.42	20.41	20.62	1.36	0.66			
0-2 cm	20.94	19.48	19.86	14.91	23.18	19.21	19.60	2.71	1.39			
2-5 cm	20.54	19.30	19.84	17.80	22.88	19.69	20.01	2.17	1.10			
0-5 cm												
Field#: 1 Date: 7/19/82 (Julian: 200) Time: 10:00												
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
Depth	6.76	5.37	8.13	7.79	9.21	8.98	7.70	1.44	1.87			
0-2 cm	13.34	10.44	14.99	14.58	14.81	14.17	13.72	1.71	1.25			
2-5 cm	10.71	8.41	12.25	11.86	12.57	12.09	11.32	1.60	1.50			
0-5 cm												

Field#: 1 Date: 7/23/82 (Julian: 204) Time: 13:20										Field#: 1 Date: 8/20/82 (Julian: 232) Time: 15:00									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean
Depth	10.49	15.11	8.45	15.97	10.87	18.33	13.20	3.82	2.89	Depth	16.72	14.52	18.10	17.95	18.97	17.31	17.26	1.54	0.89
0-2 cm	17.96	18.43	14.28	17.45	11.70	17.75	16.26	2.68	1.65	0-2 cm	18.56	18.90	18.68	18.73	18.75	19.03	18.77	0.17	0.09
0-5 cm	14.97	17.10	11.95	16.86	11.37	17.98	15.04	3.14	2.15	0-5 cm	17.82	17.15	18.45	18.42	18.84	18.34	18.17	0.72	0.41
Field#: 1 Date: 7/26/82 (Julian: 207) Time: 13:20										Field#: 1 Date: 9/9/82 (Julian: 252) Time: 15:00									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean
Depth	6.47	6.79	3.80	2.98	5.09	5.03	5.03	1.65	3.28	Depth	21.68	21.60	22.48	21.48	20.08	21.61	21.49	0.78	0.36
0-2 cm	11.33	10.43	8.22	7.63	10.38	9.60	9.60	1.59	1.65	0-2 cm	21.20	20.83	22.61	21.62	20.26	20.95	21.25	0.81	0.38
0-5 cm	9.39	8.97	6.45	5.77	8.26	7.77	7.77	1.61	2.30	0-5 cm	21.39	21.14	22.56	21.56	20.19	21.21	21.34	0.79	0.37
Field#: 1 Date: 7/28/82 (Julian: 209) Time: 14:14										Field#: 1 Date: 9/16/82 (Julian: 259) Time: 10:30									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean
Depth	2.23	3.51	2.21	3.77	3.20	2.92	2.97	0.65	2.18	Depth	21.09	19.34	21.23	17.07	17.91	16.65	18.88	1.99	1.05
0-2 cm	6.04	6.05	5.19	8.31	5.59	6.15	6.22	1.09	1.75	0-2 cm	20.15	17.55	19.30	10.51	17.16	18.41	17.18	3.45	2.01
0-5 cm	4.52	5.03	4.00	6.50	4.63	4.86	4.92	0.91	1.92	0-5 cm	20.53	18.27	20.07	13.13	17.46	17.71	17.86	2.87	1.63
Field#: 1 Date: 7/30/82 (Julian: 211) Time: 11:00										Field#: 2 Date: 5/19/82 (Julian: 139) Time: 14:17									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean
Depth	1.29	0.93	7.66	7.63	7.53	0.88	4.32	3.60	8.34	Depth	26.28	30.45	24.24	26.43	22.61	23.68	25.61	2.80	1.09
0-2 cm	2.70	3.06	12.72	12.98	12.19	2.78	7.74	5.36	6.93	0-2 cm	31.00	26.74	26.61	19.22	27.90	25.92	26.23	3.88	1.48
0-5 cm	2.14	2.21	10.69	10.84	10.33	2.02	6.37	4.66	7.50	0-5 cm	29.11	28.22	25.66	22.10	25.78	25.02	25.98	3.45	1.32
Field#: 1 Date: 8/2/82 (Julian: 214) Time: 13:54										Field#: 2 Date: 5/21/82 (Julian: 141) Time: 14:17									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean
Depth	1.77	3.11	2.12	2.27	2.45	2.00	2.29	0.47	2.04	Depth	24.14	26.62	24.56	25.54	25.21	25.21	25.21	1.11	0.44
0-2 cm	3.43	3.17	2.79	3.33	2.61	3.92	3.21	0.47	1.47	0-2 cm	25.96	28.00	29.26	30.05	27.29	29.73	28.38	1.59	0.56
0-5 cm	2.76	3.15	2.52	2.90	2.54	3.15	2.84	0.47	1.69	0-5 cm	25.23	27.45	27.38	26.59	26.59	27.12	27.12	1.39	0.51
Field#: 1 Date: 8/11/82 (Julian: 223) Time: 13:11										Field#: 2 Date: 5/26/82 (Julian: 146) Time: 14:00									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean
Depth	19.64	19.08	22.69	17.17	15.94	17.88	18.73	2.35	1.25	Depth	35.31	40.30	33.70	31.47	31.53	39.56	35.31	3.86	1.09
0-2 cm	18.38	18.35	17.20	16.15	13.69	17.11	16.81	1.75	1.04	0-2 cm	30.83	39.00	34.19	33.37	34.52	38.01	34.99	3.03	0.87
0-5 cm	18.88	18.64	19.39	16.56	14.59	17.42	17.58	1.99	1.12	0-5 cm	32.63	39.52	33.99	32.61	33.32	38.63	35.12	3.36	0.96
Field#: 1 Date: 8/16/82 (Julian: 228) Time: 16:00										Field#: 2 Date: 6/4/82 (Julian: 155) Time: 11:51									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean
Depth	20.78	19.71	18.75	19.08	19.12	20.25	19.61	0.78	0.40	Depth	32.65	34.60	28.30	30.10	37.58	40.18	33.90	4.49	1.32
0-2 cm	22.80	16.68	17.80	16.66	17.14	23.11	19.03	3.07	1.61	0-2 cm	35.45	31.11	29.94	31.67	32.68	33.55	32.40	1.95	0.60
0-5 cm	21.99	17.89	18.18	17.62	17.93	21.97	19.26	2.15	1.13	0-5 cm	34.33	32.50	29.28	31.04	34.64	36.20	33.00	2.96	0.89
Field#: 1 Date: 8/18/82 (Julian: 230) Time: 12:20										Field#: 2 Date: 6/14/82 (Julian: 165) Time: 15:00									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean
Depth	23.10	24.97	19.96	22.82	19.80	19.59	21.70	2.24	1.03	Depth	35.27	30.75	27.20	31.09	33.62	31.39	31.55	2.76	0.87
0-2 cm	21.09	20.84	19.89	18.70	18.91	19.29	19.79	1.00	0.51	0-2 cm	30.94	32.59	26.60	30.98	32.62	32.59	31.05	2.32	0.75
0-5 cm	21.89	22.49	19.92	20.34	19.27	19.41	20.55	1.50	0.72	0-5 cm	32.67	31.85	26.84	31.03	33.02	32.11	31.25	2.50	0.80

Corn	Field#	2	Date:	6/16/82	(Julian: 167)	Time:	09:25			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	28.33	30.88	29.62	28.75	28.03	38.24	30.64	3.86	1.26	
2-5 cm	29.63	31.99	31.78	27.36	29.28	33.11	30.52	2.13	0.70	
0-5 cm	29.11	31.54	30.92	27.92	28.78	35.16	30.57	2.83	0.92	
Corn	Field#	2	Date:	6/21/82	(Julian: 172)	Time:	09:40			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	19.64	21.88	20.36	17.64	21.59	18.81	19.99	1.63	0.82	
2-5 cm	24.28	23.58	23.70	23.77	22.95	24.08	23.73	0.46	0.19	
0-5 cm	22.42	22.90	22.36	21.32	22.40	21.97	22.23	0.93	0.44	
Corn	Field#	2	Date:	6/25/82	(Julian: 176)	Time:	11:10			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	21.13	19.89	27.58	23.91	21.94	25.59	23.34	2.90	1.24	
2-5 cm	24.65	22.70	24.45	26.11	24.48	26.24	24.77	1.30	0.53	
0-5 cm	23.24	21.57	25.70	25.23	23.46	25.98	24.20	1.94	0.81	
Corn	Field#	2	Date:	6/28/82	(Julian: 179)	Time:	14:39			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	28.01	26.23	25.37	29.77	27.56	25.79	27.12	1.65	0.61	
2-5 cm	26.11	25.81	25.09	28.07	27.02	26.60	26.45	1.04	0.39	
0-5 cm	26.87	25.98	25.20	28.75	27.23	26.28	26.72	1.28	0.48	
Corn	Field#	2	Date:	7/6/82	(Julian: 187)	Time:	11:23			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	13.02	7.97	10.60	14.77	19.13	16.16	13.61	3.99	2.93	
2-5 cm	18.46	15.92	16.82	19.38	20.79	20.53	18.65	1.97	1.06	
0-5 cm	16.28	12.74	14.33	17.53	20.12	18.78	16.63	2.78	1.81	
Corn	Field#	2	Date:	7/7/82	(Julian: 188)	Time:	13:50			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	8.48	4.73	8.98	10.86	6.09	7.83	2.43	3.10		
2-5 cm	15.58	13.86	14.82	19.05	21.82	17.69	17.14	2.98	1.74	
0-5 cm	12.74	10.21	15.02	17.44	13.05	13.41	2.76	2.28		
Corn	Field#	2	Date:	7/12/82	(Julian: 193)	Time:	10:18			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	23.92	21.48	24.14	28.22	27.51	27.31	25.43	2.65	1.04	
2-5 cm	22.82	22.62	23.75	25.07	22.68	24.58	23.59	1.05	0.45	
0-5 cm	23.26	22.16	23.91	26.33	24.61	25.67	24.32	1.69	0.69	
Corn	Field#	2	Date:	7/15/82	(Julian: 196)	Time:	12:52			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	20.12	16.16	16.62	25.36	22.14	25.68	21.02	4.14	1.97	
2-5 cm	21.38	18.89	22.34	23.36	22.74	24.60	22.22	1.95	0.88	
0-5 cm	20.87	17.80	20.05	24.16	22.50	25.04	21.74	2.83	1.31	

Corn	Field#	2	Date:	7/19/82	(Julian: 200)	Time:	10:00			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	5.80	7.61	5.70	6.68	12.87	8.06	7.79	2.67	3.43	
2-5 cm	11.35	10.77	11.04	13.48	17.27	9.92	12.31	2.71	2.20	
0-5 cm	9.13	9.51	8.90	10.76	15.51	9.18	10.50	2.69	2.69	
Corn	Field#	2	Date:	7/23/82	(Julian: 204)	Time:	13:38			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	10.61	5.45	6.96	4.45	3.80	11.33	7.10	3.19	4.49	
2-5 cm	14.44	13.63	13.00	14.10	14.00	16.26	14.24	1.10	0.77	
0-5 cm	12.91	10.36	10.59	10.24	9.92	14.29	11.38	1.94	2.26	
Corn	Field#	2	Date:	7/26/82	(Julian: 207)	Time:				
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	5.34	4.19	5.37	6.88	7.62	4.49	5.65	1.35	2.38	
2-5 cm	9.66	10.91	13.46	12.65	13.57	13.86	12.35	1.70	1.37	
0-5 cm	7.93	8.22	10.22	10.34	11.19	10.11	9.67	1.56	1.78	
Corn	Field#	2	Date:	7/28/82	(Julian: 209)	Time:	14:28			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	11.93	8.45	16.13	9.37	15.12	7.46	11.41	3.60	3.16	
2-5 cm	17.50	22.09	19.47	13.02	19.06	14.84	17.66	3.30	1.87	
0-5 cm	15.27	16.63	18.13	11.56	17.48	11.89	15.16	3.42	2.38	
Corn	Field#	2	Date:	7/30/82	(Julian: 211)	Time:	11:20			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	4.95	7.17	6.93	5.28	7.61	8.60	6.76	1.40	2.07	
2-5 cm	10.80	15.39	17.06	9.54	12.17	13.97	13.16	2.84	2.16	
0-5 cm	8.46	12.10	13.01	7.84	10.35	11.83	10.60	2.27	2.13	
Corn	Field#	2	Date:	8/2/82	(Julian: 214)	Time:	14:30			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	5.62	8.61	3.95	6.20	8.22	10.62	7.20	2.40	3.33	
2-5 cm	11.12	15.12	10.35	11.04	15.09	19.05	13.63	3.39	2.49	
0-5 cm	8.92	12.52	7.79	9.11	12.35	15.68	11.06	2.99	2.83	
Corn	Field#	2	Date:	8/9/82	(Julian: 221)	Time:	11:10			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	21.96	22.70	22.43	22.34	24.22	20.52	22.36	1.19	0.53	
2-5 cm	22.45	22.04	22.08	20.85	21.04	21.35	21.63	0.64	0.30	
0-5 cm	22.25	22.30	22.22	21.45	22.31	21.02	21.93	0.86	0.39	
Corn	Field#	2	Date:	8/16/82	(Julian: 228)	Time:	15:35			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	27.89	28.64	27.21	11.96	11.10	32.51	23.22	9.24	3.98	
2-5 cm	31.50	23.06	22.77	11.27	36.63	26.56	25.30	8.68	3.43	
0-5 cm	30.06	25.29	24.54	11.55	26.42	28.94	24.47	8.90	3.65	



Field#: 2		Date: 8/18/82 (Julian: 230)						Time: 13:05	
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	25.93	23.60	24.50	37.95	25.92	27.03	27.49	5.27	1.92
0-2 cm	14.94	23.85	23.90	31.21	26.78	24.93	24.27	5.33	2.20
2-5 cm	19.34	23.75	24.14	33.91	26.43	25.77	25.56	5.31	2.08
0-5 cm									
Field#: 2		Date: 9/9/82 (Julian: 252)						Time: 10:40	
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	26.15	26.47	26.42	25.72	27.13	30.56	27.08	1.77	0.65
0-2 cm	27.01	27.93	25.60	25.31	25.61	26.70	26.36	1.02	0.39
2-5 cm	26.67	27.35	25.93	25.47	26.22	28.24	26.65	1.32	0.49
0-5 cm									
Field#: 2		Date: 9/16/82 (Julian: 259)						Time: 10:40	
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	25.29	22.71	22.99	19.90	23.80	23.26	22.99	1.77	0.77
0-2 cm	26.20	21.51	22.00	23.99	23.23	23.32	23.38	1.66	0.71
2-5 cm	25.84	21.99	22.40	22.36	23.46	23.30	23.22	1.70	0.73
0-5 cm									
Field#: 2		Date: 9/23/82 (Julian: 266)						Time: 13:00	
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	14.80	17.11	15.24	17.88	19.97	17.44	17.07	1.88	1.10
0-2 cm	20.81	20.48	20.82	20.71	19.55	19.50	20.31	0.62	0.31
2-5 cm	18.41	19.13	18.59	19.58	19.72	18.68	19.02	1.13	0.62
0-5 cm									
Field#: 2		Date: 9/28/82 (Julian: 271)						Time: 12:26	
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	11.69	11.45	9.99	13.61	12.95	9.89	11.60	1.51	1.30
0-2 cm	23.74	23.74	18.97	18.98	19.48	15.65	20.09	3.14	1.56
2-5 cm	18.92	18.82	15.38	16.84	16.87	13.35	16.70	2.49	1.46
0-5 cm									
Field#: 2		Date: 9/30/82 (Julian: 273)						Time: 15:11	
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	9.27	11.45	11.64	10.46	8.73	19.53	11.85	3.94	3.33
0-2 cm	18.88	16.69	19.72	20.19	19.48	13.24	18.03	2.65	1.47
2-5 cm	15.03	14.59	16.49	16.30	15.18	15.76	15.56	3.16	2.21
0-5 cm									
Field#: 2		Date: 10/5/82 (Julian: 278)						Time: 10:00	
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	11.12	8.50	9.72	13.01	12.29	10.55	10.87	1.65	1.52
0-2 cm	16.10	15.06	14.25	17.34	18.54	17.09	16.40	1.58	0.96
2-5 cm	14.11	12.44	12.44	15.60	16.04	14.47	14.18	1.61	1.19
0-5 cm									
Field#: 2		Date: 10/12/82 (Julian: 285)						Time: 13:57	
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	23.62	20.33	24.22	19.22	22.14	29.06	23.10	3.48	1.51
0-2 cm	23.56	22.49	24.19	23.94	22.23	26.08	23.75	1.38	0.58
2-5 cm	23.58	21.62	24.20	22.05	22.19	27.27	23.49	2.22	0.95
0-5 cm									

Field#: 3		Date: 5/19/82 (Julian: 139)						Time: 14:38	
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	18.54	16.84	15.38	22.37	22.49	26.90	20.42	4.28	2.10
0-2 cm	25.05	19.34	21.84	22.93	23.63	26.31	23.18	2.45	1.06
2-5 cm	22.45	18.34	19.25	22.71	23.17	26.54	22.08	3.19	1.47
0-5 cm									
Field#: 3		Date: 5/21/82 (Julian: 141)						Time: 14:38	
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	14.00	16.75	15.06	13.85	10.24		13.98	2.39	1.71
0-2 cm	17.92	23.38	19.06	16.33	16.22		18.67	18.59	2.62
2-5 cm	16.35	20.73	17.46	15.34	13.83		16.75	2.53	1.53
0-5 cm									
Field#: 3		Date: 5/26/82 (Julian: 146)						Time: 14:20	
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	28.45	27.98	28.15	32.51	36.02	26.43	29.92	3.61	1.21
0-2 cm	27.57	27.73	28.35	30.41	31.14	25.94	28.52	1.93	0.68
2-5 cm	27.92	27.83	28.27	31.25	33.09	26.13	29.08	2.60	0.89
0-5 cm									
Field#: 3		Date: 6/1/82 (Julian: 152)						Time: 13:02	
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	18.17	14.78		33.59	25.57	27.53	23.93	7.51	3.14
0-2 cm	21.82	23.16	28.29	28.16	27.01	27.19	25.94	2.75	1.06
2-5 cm	20.36	19.81		30.33	26.44	27.33	25.13	4.66	1.89
0-5 cm									
Field#: 3		Date: 6/2/82 (Julian: 153)						Time: 12:26	
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	27.88	22.96	27.88	24.65	25.45	24.88	25.62	1.94	0.76
0-2 cm	26.06	27.99	26.69	20.99	23.78	25.00	25.09	2.47	0.98
2-5 cm	26.79	25.98	27.17	22.45	24.45	24.95	25.30	2.26	0.89
0-5 cm									
Field#: 3		Date: 6/4/82 (Julian: 155)						Time: 15:11	
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	27.70	33.09	29.46	32.72	26.06	30.62	29.94	2.77	0.93
0-2 cm	27.08	30.20	29.33	31.69	26.78	27.80	28.81	1.93	0.67
2-5 cm	27.33	31.36	29.38	32.11	26.49	28.93	29.26	2.27	0.77
0-5 cm									
Field#: 3		Date: 6/7/82 (Julian: 158)						Time: 10:00	
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	26.74	33.63	28.60	32.79	36.63	28.39	31.13	3.81	1.22
0-2 cm	26.63	28.84	28.86	31.57	33.69	28.30	29.65	2.54	0.86
2-5 cm	26.67	30.76	28.75	32.06	34.87	28.34	30.24	3.05	1.00
0-5 cm									
Field#: 3		Date: 6/9/82 (Julian: 160)						Time: 13:57	
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	25.43	32.06	27.54	28.29	21.66	28.76	27.29	3.50	1.28
0-2 cm	25.70	27.52	27.75	27.19	24.14	26.30	26.43	1.36	0.52
2-5 cm	25.59	29.34	27.67	27.63	23.15	27.28	26.78	2.22	0.82
0-5 cm									

Field#: 3 Date: 6/14/82 (Julian: 165) Time: 15:20										Field#: 3 Date: 7/7/82 (Julian: 188) Time: 14:20									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	28.41	29.28	26.02	32.58	25.27	28.31	28.31	2.90	1.02	Depth	8.13	6.60	4.61	4.33	6.03	6.03	5.86	1.40	2.39
0-2 cm	26.18	26.22	26.58	24.98	23.56	23.54	25.17	1.37	0.55	0-2 cm	15.38	14.44	15.87	14.00	9.85	13.51	13.84	2.14	1.55
2-5 cm	27.07	27.44	26.36	28.92	24.23	26.43	26.43	1.98	0.74	0-5 cm	12.48	11.30	11.37	10.59	7.64	10.52	10.65	1.84	1.88
Field#: 3 Date: 6/16/82 (Julian: 167) Time: 10:30										Field#: 3 Date: 7/12/82 (Julian: 193) Time: 09:30									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	19.61	26.13	25.53	37.43	30.97	26.66	27.72	5.98	2.16	Depth	20.80	17.78	18.52	19.90	16.67	20.36	19.00	1.62	0.85
0-2 cm	26.97	24.02	25.57	29.81	28.54	27.81	27.12	2.09	0.77	0-2 cm	21.01	17.50	18.65	26.51	16.96	18.75	19.90	3.53	1.77
2-5 cm	24.02	24.86	25.55	32.86	29.51	27.35	27.36	3.65	1.33	0-5 cm	20.93	17.61	18.59	23.87	16.85	19.39	19.54	2.76	1.40
Field#: 3 Date: 6/18/82 (Julian: 169) Time: 13:40										Field#: 3 Date: 7/15/82 (Julian: 196) Time: 12:32									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	12.73	10.59	25.84	18.45	23.09	18.14	18.14	6.52	3.59	Depth	18.16	18.55	17.50	21.53	17.98	16.75	18.41	1.65	0.90
0-2 cm	15.10	15.86	24.82	23.75	20.96	21.91	20.40	4.05	1.99	0-2 cm	18.65	18.78	17.92	20.59	19.56	17.78	18.88	1.06	0.56
2-5 cm	14.15	13.75	25.23	19.96	22.38	19.50	19.50	5.04	2.63	0-5 cm	18.45	18.69	17.75	20.97	18.92	17.37	18.69	1.29	0.69
Field#: 3 Date: 6/21/82 (Julian: 172) Time: 10:14										Field#: 3 Date: 7/19/82 (Julian: 200) Time: 10:50									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	12.73	10.59	25.84	18.45	23.09	18.14	18.14	6.52	3.59	Depth	7.44	5.42	8.03	5.15	5.82	4.49	6.06	1.38	2.28
0-2 cm	15.10	15.86	24.82	23.75	20.96	21.91	20.40	4.05	1.99	0-2 cm	17.52	11.14	13.45	9.02	12.36	10.40	12.32	2.98	2.42
2-5 cm	14.15	13.75	25.23	19.96	22.38	19.50	19.50	5.04	2.63	0-5 cm	13.49	8.85	11.28	7.47	9.75	8.04	9.81	2.34	2.36
Field#: 3 Date: 6/23/82 (Julian: 174) Time: 15:00										Field#: 3 Date: 7/23/82 (Julian: 204) Time: 13:25									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	21.22	24.51	23.96	26.60	23.83	24.62	24.12	1.73	0.72	Depth	10.78	11.84	8.00	10.47	8.74	13.89	10.62	2.13	2.00
0-2 cm	19.82	23.79	24.69	27.97	24.54	25.81	24.44	2.69	1.10	0-2 cm	14.55	8.19	12.78	12.94	14.84	17.70	13.50	3.15	2.33
2-5 cm	20.38	24.08	24.40	27.42	24.26	25.33	24.31	2.31	0.95	0-5 cm	13.04	9.65	10.87	11.95	12.40	16.18	12.35	2.74	2.20
Field#: 3 Date: 6/25/82 (Julian: 176) Time: 12:55										Field#: 3 Date: 7/26/82 (Julian: 207) Time: 13:50									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	14.98	14.92	16.42	18.00	16.62	19.62	16.76	1.81	1.08	Depth	4.77	3.12	3.56	6.90	3.59	6.67	4.77	1.66	3.47
0-2 cm	18.57	17.33	17.94	17.49	17.71	20.23	18.21	1.08	0.59	0-2 cm	11.29	9.03	10.57	10.68	13.13	12.83	11.26	1.53	1.36
2-5 cm	17.14	16.37	17.33	17.69	17.27	19.99	17.63	1.37	0.79	0-5 cm	8.69	6.66	7.77	9.17	9.32	10.37	8.66	1.58	2.21
Field#: 3 Date: 6/28/82 (Julian: 179) Time: 14:20										Field#: 3 Date: 7/28/82 (Julian: 209) Time: 15:31									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	23.86	22.02	23.56	25.68	21.98	20.42	22.92	1.84	0.80	Depth	3.22	1.65	12.07	7.66	4.55	4.09	5.54	3.76	6.79
0-2 cm	22.26	22.26	23.10	22.57	20.81	21.81	22.13	0.78	0.35	0-2 cm	7.67	5.84	12.57	12.22	9.62	11.55	9.91	2.71	2.74
2-5 cm	22.90	22.16	23.29	23.82	21.28	21.25	22.45	1.20	0.53	0-5 cm	5.89	4.17	12.37	10.40	7.59	8.56	8.16	3.13	4.36
Field#: 3 Date: 7/6/82 (Julian: 187) Time: 10:51										Field#: 3 Date: 7/30/82 (Julian: 211) Time: 13:15									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	17.18	8.63	14.00	7.17	8.55	11.07	11.10	3.83	3.45	Depth	1.72	1.42	2.21	4.26	2.22	2.77	2.43	1.01	4.13
0-2 cm	19.51	16.35	19.39	10.70	14.55	9.59	15.01	4.23	2.82	0-2 cm	3.90	3.94	3.97	8.55	4.30	4.93	4.93	1.82	3.68
2-5 cm	18.58	13.26	17.23	9.29	12.15	10.18	13.45	4.07	3.07	0-5 cm	3.03	2.93	3.27	6.84	3.47	4.07	3.93	1.49	3.86

Field#: 3 Date: 8/ 2/82 (Julian: 214) Time: 15:52									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
Depth	2.47	3.02	3.02	3.69	3.31	2.82	3.06	0.47	1.52
0-2 cm	4.61	4.24	4.96	6.13	5.03	4.45	4.90	0.67	1.37
2-5 cm	3.75	3.75	3.75	5.15	4.34	3.80	4.17	0.59	1.43
0-5 cm									
Field#: 4 Date: 5/28/82 (Julian: 148) Time: 15:52									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	24.55	21.13	23.04	15.68	25.16	21.86	21.90	3.41	1.56
0-2 cm	26.33	23.65	21.88	22.49	25.70	24.07	24.02	1.74	0.73
2-5 cm	25.62	22.64	22.34	19.76	25.48	23.18	23.17	2.41	1.06
0-5 cm									
Field#: 4 Date: 6/ 1/82 (Julian: 152) Time: 13:40									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	24.74	27.12	20.29	32.69	27.13	31.14	27.19	4.46	1.64
0-2 cm	25.41	22.70	22.53	27.55	28.96	27.23	25.73	2.66	1.04
2-5 cm	25.14	24.47	21.64	29.60	28.23	28.79	26.31	3.38	1.28
0-5 cm									
Field#: 4 Date: 6/ 2/82 (Julian: 153) Time: 15:39									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	35.72	25.81	33.22	25.59	32.93	33.32	31.10	4.30	1.38
0-2 cm	27.05	26.46	25.41	25.41	28.70	28.63	26.94	1.48	0.55
2-5 cm	30.52	26.20	28.53	25.48	30.39	30.50	28.60	2.61	0.88
0-5 cm									
Field#: 4 Date: 6/ 2/82 (Julian: 158) Time: 15:39									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	21.46	28.45	24.51	30.96	25.84	29.43	26.77	3.51	1.31
0-2 cm	26.32	25.54	26.30	23.73	26.54	28.06	26.08	1.42	0.54
2-5 cm	24.38	26.70	25.58	26.62	26.26	28.61	26.36	2.25	0.85
0-5 cm									
Field#: 4 Date: 6/16/82 (Julian: 167) Time: 14:10									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	22.62	24.77	22.49	21.74	28.30	26.89	24.47	2.66	1.09
0-2 cm	23.44	22.85	23.45	22.47	23.67	24.68	23.43	0.76	0.32
2-5 cm	23.11	23.62	23.06	22.18	25.52	25.57	23.84	1.52	0.63
0-5 cm									
Field#: 4 Date: 6/18/82 (Julian: 169) Time: 09:20									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	25.86	26.57	22.51	23.16	22.60	28.05	24.79	2.35	0.95
0-2 cm	24.93	23.67	23.91	23.51	22.51	24.30	23.80	0.81	0.34
2-5 cm	25.30	24.83	23.35	23.37	22.55	25.80	24.20	1.43	0.58
0-5 cm									
Field#: 4 Date: 6/21/82 (Julian: 172) Time: 14:08									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	20.80	22.17	21.16	21.25	20.52	23.24	21.52	1.01	0.47
0-2 cm	12.08	24.24	15.79	21.33	15.23	24.45	18.85	5.19	2.75
2-5 cm	15.57	23.41	17.94	21.30	17.34	23.96	19.92	3.52	1.84
0-5 cm									
Field#: 4 Date: 6/25/82 (Julian: 176) Time: 14:10									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	20.09	21.10	20.54	24.62	26.19	30.69	23.87	4.14	1.73
0-2 cm	22.69	21.12	20.32	22.93	22.63	24.29	22.33	1.41	0.63
2-5 cm	21.65	21.11	20.41	23.60	24.05	26.85	22.95	2.50	1.07
0-5 cm									
Field#: 3 Date: 8/ 9/82 (Julian: 221) Time: 13:10									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	14.66	13.60	14.78	17.31	16.72	14.65	15.29	1.42	0.93
0-2 cm	16.78	17.64	16.96	17.22	17.22	17.04	17.14	0.29	0.17
2-5 cm	15.94	16.02	16.09	17.26	17.02	16.08	16.40	0.74	0.47
0-5 cm									
Field#: 3 Date: 8/16/82 (Julian: 228) Time: 10:41									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	22.84	21.82	23.52	23.24	23.58	25.52	23.47	1.21	0.52
0-2 cm	21.81	22.04	23.31	22.23	21.72	23.72	22.42	0.84	0.37
2-5 cm	22.22	21.95	23.39	22.63	22.47	24.44	22.85	0.99	0.43
0-5 cm									
Field#: 3 Date: 8/18/82 (Julian: 230) Time: 14:00									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	19.58	19.44	20.08	25.87	22.34	21.46	21.46	2.73	1.27
0-2 cm	18.81	20.34	19.28	21.22	21.78	19.88	20.22	1.13	0.56
2-5 cm	19.12	19.98	19.60	23.08	22.00	20.72	20.72	1.77	0.85
0-5 cm									
Field#: 3 Date: 9/ 9/82 (Julian: 252) Time: 10:00									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	19.80	20.19	19.52	23.13	22.94	20.57	21.02	1.60	0.76
0-2 cm	19.61	19.47	19.55	22.13	21.30	20.10	20.36	1.10	0.54
2-5 cm	19.68	19.76	19.54	22.53	21.95	20.29	20.63	1.30	0.63
0-5 cm									
Field#: 3 Date: 9/16/82 (Julian: 259) Time: 11:41									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	22.00	25.35	23.17	26.86	23.07	22.08	23.75	1.94	0.82
0-2 cm	21.22	23.94	22.26	26.59	24.11	21.75	23.31	1.98	0.85
2-5 cm	21.53	24.50	22.63	26.70	23.69	21.88	23.49	1.97	0.84
0-5 cm									
Field#: 4 Date: 5/21/82 (Julian: 141) Time: 11:41									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
Depth	32.62	29.71	29.98	35.81	33.06	15.35	29.42	7.25	2.46
0-2 cm	30.34	27.50	28.64	37.66	32.91	34.36	31.90	3.81	1.20
2-5 cm	31.26	28.38	29.18	36.92	32.97	26.76	30.91	5.19	1.70
0-5 cm									

Corn	Field#:	4	Date:	6/28/82	(Julian:	179)	Time:	11:17	S D	S D	S D	/Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S D	S D	/Mean	
0-2 cm	25.69	26.62	20.16	27.96	26.62	25.39	25.41	2.72	1.07			
2-5 cm	23.33	23.08	20.01	25.66	26.51	24.32	23.82	2.29	0.96			
0-5 cm	24.27	24.50	20.07	26.58	26.55	24.75	24.45	2.46	1.01			
Corn	Field#:	4	Date:	7/6/82	(Julian:	187)	Time:	14:37	S D	S D	S D	/Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S D	S D	/Mean	
0-2 cm	13.46	16.68	10.68	9.12	9.76		11.94	3.12	2.62			
2-5 cm	17.76	8.37	17.40	17.19	16.78		15.50	4.00	2.58			
0-5 cm	16.04	11.69	14.71	13.96	13.97		14.08	3.65	2.60			
Corn	Field#:	4	Date:	7/9/82	(Julian:	190)	Time:	09:55	S D	S D	S D	/Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S D	S D	/Mean	
0-2 cm	-6.06	8.14	3.21	4.15	5.01	5.94	5.42	1.72	3.17			
2-5 cm	11.57	4.60	9.90	10.18	10.79	11.89	9.82	2.67	2.72			
0-5 cm	9.37	6.02	7.22	7.77	8.47	9.51	8.06	2.29	2.90			
Corn	Field#:	4	Date:	7/12/82	(Julian:	193)	Time:	13:17	S D	S D	S D	/Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S D	S D	/Mean	
0-2 cm	16.98	16.66	19.33	19.07	25.28	24.88	20.37	3.81	1.87			
2-5 cm	19.37	20.39	22.40	19.81	24.55	26.96	22.25	3.01	1.35			
0-5 cm	18.41	18.90	21.17	19.51	24.85	26.13	21.50	3.33	1.56			
Corn	Field#:	4	Date:	7/13/82	(Julian:	194)	Time:	11:30	S D	S D	S D	/Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S D	S D	/Mean	
0-2 cm	22.55	27.14	17.59	24.95	11.47		20.74	6.28	3.03			
2-5 cm	22.78	22.82	18.57	23.54	18.85	22.74	21.55	2.22	1.03			
0-5 cm	22.69	24.55	18.18	24.11	15.90		21.23	3.85	1.83			
Corn	Field#:	4	Date:	7/15/82	(Julian:	196)	Time:	13 10	S D	S D	S D	/Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S D	S D	/Mean	
0-2 cm	11.91	15.22	15.18	19.64	28.50	21.46	18.65	5.92	3.17			
2-5 cm	13.49	17.42	17.17	20.18	22.40	22.30	18.82	3.46	1.84			
0-5 cm	12.85	16.54	16.37	19.96	24.84	21.97	18.76	4.44	2.37			
Corn	Field#:	4	Date:	7/19/82	(Julian:	200)	Time:		S D	S D	S D	/Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S D	S D	/Mean	
0-2 cm	3.58	3.18	3.93	4.70	8.95	6.94	5.21	2.27	4.35			
2-5 cm	6.99	9.44	8.48	7.96	13.11	12.30	9.71	2.46	2.54			
0-5 cm	5.62	6.94	6.66	6.66	11.45	10.16	7.91	2.38	3.26			
Corn	Field#:	4	Date:	7/19/82	(Julian:	200)	Time:	14:00	S D	S D	S D	/Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S D	S D	/Mean	
0-2 cm	8.51	5.29	7.16	5.50	10.40	10.40	7.37	2.14	2.91			
2-5 cm	13.92	11.01		11.33	13.26		12.38	1.43	1.15			
0-5 cm	11.76	8.72		9.00			10.38	1.71	1.86			

Corn	Field#:	4	Date:	7/23/82	(Julian:	204)	Time:	14:20	S D	S D	S D	/Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S D	S D	/Mean	
0-2 cm	7.82	5.97	5.95	6.00	12.11	9.13	7.83	2.46	3.14			
2-5 cm	13.14	12.50	9.16	10.25	13.13	14.15	12.05	1.93	1.60			
0-5 cm	11.01	9.89	7.87	8.55	12.72	12.14	10.37	2.14	2.22			
Corn	Field#:	4	Date:	7/26/82	(Julian:	207)	Time:	15:00	S D	S D	S D	/Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S D	S D	/Mean	
0-2 cm	2.97	3.48	4.33	2.97	3.19	3.78	3.45	0.53	1.53			
2-5 cm	7.12	6.98	7.81	6.47	8.30	7.00	7.28	0.66	0.90			
0-5 cm	5.46	5.58	6.42	5.07	6.25	5.71	5.75	0.61	1.15			
Corn	Field#:	4	Date:	7/28/82	(Julian:	209)	Time:	11:30	S D	S D	S D	/Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S D	S D	/Mean	
0-2 cm	9.54	7.94	7.37	14.00	8.49	3.78	8.52	3.32	3.90			
2-5 cm	8.04	7.00	6.91	9.56	8.43	7.00	7.82	1.06	1.36			
0-5 cm	8.64	7.38	7.09	11.34	8.45	5.71	8.10	1.97	2.37			
Corn	Field#:	4	Date:	8/4/82	(Julian:	216)	Time:	11:25	S D	S D	S D	/Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S D	S D	/Mean	
0-2 cm	2.83	2.27	1.84	1.98	2.42	1.80	2.19	0.40	1.81			
2-5 cm	4.85	4.63	4.66	4.33	3.57	3.07	4.18	0.71	1.69			
0-5 cm	4.04	3.69	3.53	3.39	3.11	2.56	3.39	0.58	1.74			
Corn	Field#:	4	Date:	8/9/82	(Julian:	221)	Time:	15:10	S D	S D	S D	/Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S D	S D	/Mean	
0-2 cm	11.83	9.21	12.95	15.21	15.74	15.52	13.41	2.59	1.93			
2-5 cm	15.20	14.70	14.59	17.22	16.35	16.55	15.77	1.08	0.69			
0-5 cm	13.85	12.51	13.94	16.42	16.11	16.13	14.82	1.69	1.18			
Corn	Field#:	4	Date:	8/16/82	(Julian:	228)	Time:	14:00	S D	S D	S D	/Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S D	S D	/Mean	
0-2 cm	22.55	12.58	19.64	21.89	21.93	23.13	20.29	3.96	1.95			
2-5 cm	20.73	25.28	19.52	19.55	20.36	23.37	21.47	2.34	1.09			
0-5 cm	21.46	20.20	19.57	20.49	20.99	23.27	21.00	2.99	1.43			
Corn	Field#:	5	Date:	5/21/82	(Julian:	141)	Time:		S D	S D	S D	/Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S D	S D	/Mean	
0-2 cm	30.45	26.47	30.74	36.52	39.55	39.25	33.83	5.37	1.59			
2-5 cm	32.48	27.09	30.88	34.99	37.05	38.23	33.45	4.15	1.24			
0-5 cm	31.67	26.85	30.82	35.60	38.05	38.64	33.60	4.64	1.38			
Corn	Field#:	5	Date:	5/28/82	(Julian:	148)	Time:	15:50	S D	S D	S D	/Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S D	S D	/Mean	
0-2 cm	18.43	23.08	17.13	32.16	23.52	26.35	23.45	5.47	2.33			
2-5 cm	23.35	22.44	22.12	26.73	23.77	22.80	23.53	1.68	0.71			
0-5 cm	21.38	22.69	20.12	28.91	23.67	24.22	23.50	3.20	1.36			

Corn Field#: 5 Date: 6/ 1/82 (Julian: 152) Time: 13:41												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	21.79	24.86	23.79				23.48	1.55	0.66			
2-5 cm	18.67	23.03	29.84				23.84	5.63	2.36			
0-5 cm	19.92	23.07	27.42				23.70	4.00	1.68			
Corn Field#: 5 Date: 6/ 2/82 (Julian: 153) Time: 13:14												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	30.40	25.28	35.64	42.43	38.29	19.23	31.88	8.63	2.71			
2-5 cm	27.89	26.70	30.58	39.62	39.60	37.09	33.58	5.90	1.76			
0-5 cm	28.90	26.13	32.60	40.74	39.08	29.94	32.90	6.99	2.14			
Corn Field#: 5 Date: 6/ 7/82 (Julian: 158) Time: 15:41												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	28.43	29.94	29.46	25.02	42.07	19.92	29.14	7.35	2.52			
2-5 cm	29.53	28.92	29.40	26.44	40.77	22.09	29.52	6.19	2.10			
0-5 cm	29.09	29.33	29.42	25.87	41.29	21.22	29.37	6.65	2.27			
Corn Field#: 5 Date: 6/16/82 (Julian: 167) Time: 14:10												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	27.69	28.10	31.14	35.70	30.52	25.58	29.79	3.53	1.19			
2-5 cm	29.61	29.26	30.65	31.70	41.21	24.63	31.18	5.48	1.76			
0-5 cm	28.84	28.79	30.84	33.30	36.93	25.01	30.62	4.70	1.53			
Corn Field#: 5 Date: 6/18/82 (Julian: 169) Time: 09:25												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	24.93	28.60	25.87	37.46	30.14	32.19	29.86	4.58	1.54			
2-5 cm	25.61	26.58	27.14	33.43	26.43	26.88	27.68	2.87	1.04			
0-5 cm	25.34	27.39	26.63	35.04	27.91	29.01	28.55	3.55	1.24			
Corn Field#: 5 Date: 6/21/82 (Julian: 172) Time: 14:25												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	11.47	17.90	15.89	31.74	19.55	20.63	19.53	6.80	3.48			
2-5 cm	20.40	23.46	23.54	25.02	22.43	46.50	26.89	9.73	3.62			
0-5 cm	16.82	21.24	20.48	27.71	21.28	36.16	23.95	8.56	3.56			
Corn Field#: 5 Date: 6/25/82 (Julian: 176) Time: 14:12												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	22.70	21.42	18.24	26.99	18.11	19.23	21.12	3.40	1.61			
2-5 cm	24.12	23.94	20.19	28.79	24.52	21.75	23.88	2.92	1.22			
0-5 cm	23.55	22.93	19.41	28.07	21.95	20.74	22.78	3.12	1.38			
Corn Field#: 5 Date: 6/28/82 (Julian: 179) Time: 11:20												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	31.46	28.40	25.15	30.59	18.83	21.52	25.99	5.08	1.95			
2-5 cm	26.73	28.96	24.11	26.89	21.44	20.87	24.84	3.24	1.31			
0-5 cm	28.62	28.73	24.53	28.37	20.40	21.13	25.30	3.98	1.56			
Corn Field#: 5 Date: 7/ 6/82 (Julian: 187) Time: 09:50												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	13.34	11.29	11.99	9.55	12.17	8.73	11.18	1.73	1.55			
2-5 cm	22.87	21.40	23.90	19.53			13.20	20.18	4.23			
0-5 cm	19.06	17.36	19.14	15.54			11.41	16.58	3.23			
Corn Field#: 5 Date: 7/ 9/82 (Julian: 190) Time: 09:50												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	6.44	4.55	5.82	4.60	2.21	3.11	4.45	1.59	3.57			
2-5 cm	11.11	10.88	11.99	11.98	5.86	7.17	9.83	2.64	2.69			
0-5 cm	9.24	8.35	9.52	9.02	4.40	5.55	7.68	2.22	3.04			
Corn Field#: 5 Date: 7/12/82 (Julian: 193) Time: 13:17												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	16.48	13.77	15.73	12.08	16.42	14.88	14.89	1.72	1.15			
2-5 cm	19.77	17.70	17.05	16.85	19.87	18.26	18.25	1.32	0.72			
0-5 cm	18.46	16.12	16.52	14.94	18.49	16.91	16.91	1.48	0.89			
Corn Field#: 5 Date: 7/13/82 (Julian: 194) Time: 11:30												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	20.62	17.68	23.02	20.26	23.86	18.16	20.60	2.49	1.21			
2-5 cm	22.28	18.40	23.22	20.79	20.42	21.89	21.17	1.69	0.80			
0-5 cm	21.61	18.11	23.14	20.58	21.79	20.39	20.94	2.01	0.96			
Corn Field#: 5 Date: 7/15/82 (Julian: 196) Time: 13:25												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	11.99	15.47	16.87	8.74	14.88	11.95	13.32	2.98	2.23			
2-5 cm	18.80	19.56	20.63	15.28	14.65	16.24	17.53	2.47	1.41			
0-5 cm	16.07	17.92	19.13	12.66	14.74	14.53	15.84	2.67	1.74			
Corn Field#: 5 Date: 7/19/82 (Julian: 200) Time: 09:50												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	7.47	4.95	5.67	3.98	4.82	3.02	4.98	1.52	3.05			
2-5 cm	15.95	14.34	11.58	8.07	8.81	4.81	10.59	4.16	3.93			
0-5 cm	12.56	10.58	9.22	6.43	7.22	4.09	8.35	3.11	3.58			
Corn Field#: 5 Date: 7/23/82 (Julian: 204) Time: 14:20												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	12.01	9.46	12.93	8.45	9.45	11.78	10.68	1.79	1.68			
2-5 cm	17.53	14.28	18.66	13.32	14.77	17.43	16.00	2.15	1.35			
0-5 cm	15.33	12.35	16.37	11.37	12.64	15.17	13.87	2.01	1.48			
Corn Field#: 5 Date: 7/26/82 (Julian: 207) Time: 15:11												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	4.05	4.57	5.94	3.52	2.07	2.78	3.82	1.37	3.57			
2-5 cm	6.84	9.00	9.32	7.33	5.05	9.98	7.92	1.85	2.34			
0-5 cm	5.73	7.23	7.97	5.81	3.86	7.10	6.28	1.66	2.83			

Field#: 5 Date: 7/28/82 (Julian: 209) Time: 11:40										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	
Depth	10.93	11.36	14.73	8.11	5.29	9.32	9.96	3.20	3.22	
0-2 cm	28.52	19.82	22.59	20.91	22.25	37.62	25.28	6.75	2.67	
2-5 cm	16.68	19.90	21.34	17.80	24.36	18.96	19.84	2.74	1.38	
0-5 cm	21.41	19.87	21.84	19.05	23.52	26.42	22.02	4.35	1.90	
Field#: 6 Date: 6/2/82 (Julian: 153) Time: 12:52										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	
Depth	28.52	19.82	22.59	20.91	22.25	37.62	25.28	6.75	2.67	
0-2 cm	16.68	19.90	21.34	17.80	24.36	18.96	19.84	2.74	1.38	
2-5 cm	21.41	19.87	21.84	19.05	23.52	26.42	22.02	4.35	1.90	
Field#: 6 Date: 6/7/82 (Julian: 158) Time: 10:26										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	
Depth	21.78	25.84	26.97	28.53	29.18	26.21	26.42	2.62	0.99	
0-2 cm	21.01	23.43	28.14	29.27	30.21	25.39	26.24	3.59	1.37	
2-5 cm	21.32	24.39	27.67	28.97	29.80	25.71	26.31	3.20	1.22	
Field#: 6 Date: 6/9/82 (Julian: 160) Time: 14:24										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	
Depth	22.03	25.87	26.75	28.85	27.94	24.57	26.00	2.46	0.95	
0-2 cm	22.87	24.41	25.61	28.58	27.31	23.73	25.42	2.19	0.86	
2-5 cm	22.53	25.00	26.06	28.69	27.56	24.06	25.65	2.30	0.90	
Field#: 6 Date: 6/14/82 (Julian: 165) Time: 16:15										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	
Depth	26.34	23.19	26.50	21.64	26.05	23.99	24.62	1.99	0.81	
0-2 cm	23.42	19.83	23.21	22.27	21.48	21.38	21.93	1.33	0.61	
2-5 cm	24.59	21.17	24.53	22.02	23.31	22.42	23.01	1.60	0.69	
Field#: 6 Date: 6/16/82 (Julian: 167) Time: 10:10										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	
Depth	31.26	22.60	24.62	23.65	26.51	20.30	24.82	3.77	1.52	
0-2 cm	24.94	21.85	22.23	21.14	27.35	20.57	23.01	2.61	1.13	
2-5 cm	27.47	22.15	23.19	22.14	27.02	20.46	23.74	3.07	1.29	
Field#: 6 Date: 6/18/82 (Julian: 169) Time: 10:10										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	
Depth	30.04	18.64	24.49	20.36	20.49	21.78	22.63	4.12	1.82	
0-2 cm	25.19	18.74	23.40	21.13	20.83	21.54	21.80	2.23	1.02	
2-5 cm	27.13	18.70	23.84	20.82	20.70	21.63	22.14	2.99	1.34	
Field#: 6 Date: 6/21/82 (Julian: 172) Time: 14:00										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	
Depth	7.86	11.10	10.58	6.29	10.92	11.49	9.71	2.12	2.18	
0-2 cm	11.40	12.13	14.16	17.25	16.24	15.53	14.45	2.32	1.61	
2-5 cm	9.99	11.71	12.73	12.87	14.11	13.92	12.55	2.24	1.84	
Field#: 6 Date: 6/25/82 (Julian: 176) Time: 15:15										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	
Depth	14.50	19.16	15.58	18.76	18.11	14.51	16.77	2.15	1.28	
0-2 cm	16.57	19.35	16.15	18.70	20.22	17.68	18.11	1.60	0.88	
2-5 cm	15.74	19.27	15.92	18.72	19.38	16.42	17.57	1.82	1.04	
Field#: 5 Date: 8/4/82 (Julian: 216) Time: 11:41										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	
Depth	3.00	3.66	5.03	1.74	4.45	3.77	3.61	1.15	3.18	
0-2 cm	4.15	3.42	2.97	4.16	2.45	1.31	3.08	1.09	3.55	
2-5 cm	3.69	3.52	3.79	3.19	3.25	2.30	3.29	1.11	3.40	
Field#: 5 Date: 8/9/82 (Julian: 221) Time: 15:20										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	
Depth	11.14	11.09	10.28	12.91	11.13	13.18	11.62	1.15	0.99	
0-2 cm	14.64	17.32	14.01	15.76	14.90	15.72	15.39	1.15	0.75	
2-5 cm	13.24	14.83	12.52	14.62	13.39	14.70	13.88	1.15	0.85	
Field#: 5 Date: 8/16/82 (Julian: 228) Time: 13:45										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	
Depth	18.69	20.29	23.69	22.50	20.88	21.76	21.30	1.75	0.82	
0-2 cm	19.28	18.65	20.36	22.01	20.08	21.43	20.30	1.27	0.62	
2-5 cm	19.04	19.30	21.69	22.21	20.40	21.56	20.70	1.46	0.70	
Field#: 6 Date: 5/21/82 (Julian: 141) Time: 10:50										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	
Depth	18.01	17.26	20.18	22.19	18.03	16.88	18.76	2.03	1.08	
0-2 cm	18.22	19.07	15.66	20.35	19.71	18.25	18.55	1.64	0.88	
2-5 cm	18.14	18.35	17.47	21.09	19.04	17.70	18.63	1.80	0.96	
Field#: 6 Date: 5/24/82 (Julian: 144) Time: 10:10										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	
Depth	7.79	9.58	7.21	15.45	13.40	14.56	11.33	3.59	3.17	
0-2 cm	14.58	14.66	14.62	16.48	15.96	16.90	15.53	1.04	0.67	
2-5 cm	11.86	12.63	11.65	16.07	14.94	15.96	13.85	2.06	1.67	
Field#: 6 Date: 5/28/82 (Julian: 148) Time: 13:24										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	
Depth	18.57	17.26	25.75	17.25	20.39	19.85	3.55	1.79		
0-2 cm	15.20	16.23	17.94	16.81	23.45	11.04	16.78	4.04	2.41	
2-5 cm	16.55	17.67	20.39	20.97	14.78	18.00	3.84	2.16		
Field#: 6 Date: 6/1/82 (Julian: 152) Time: 13:24										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	
Depth	25.21	18.83	16.12	22.46	19.15	19.31	20.18	3.18	1.58	
0-2 cm	22.54	18.40	15.03	21.21	19.60	19.04	19.30	2.58	1.34	
2-5 cm	23.61	18.57	15.47	21.71	19.42	19.15	19.65	2.82	1.43	

Field#: 6 Date: 6/28/82 (Julian: 179) Time: 11:05											Field#: 6 Date: 7/26/82 (Julian: 207) Time: 15:10										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	19.14	22.85	24.20	27.36	24.28	24.94	23.79	2.72	1.14		2.98	2.06	2.32	2.72	2.51	3.73	2.72	0.59	2.17		
0-2 cm	18.67	21.45	24.34	26.70	25.62	25.50	23.71	3.06	1.29		5.33	3.90	4.73	10.18	7.87	8.64	6.78	2.48	3.66		
2-5 cm	18.86	22.01	24.28	26.96	25.09	25.28	23.75	2.92	1.23		4.39	3.16	3.77	7.20	5.73	6.68	5.15	1.72	3.06		
0-5 cm																					
Field#: 6 Date: 7/6/82 (Julian: 187) Time: 14:00											Field#: 6 Date: 7/28/82 (Julian: 209) Time: 10:40										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	4.92	4.90	4.48	5.67	7.34	5.46	1.13	2.08		8.59	13.74	10.66	8.81	11.15	11.03	10.66	1.87	1.76			
0-2 cm	4.42	7.23	9.58	12.07	9.81	14.26	10.39	2.44	2.34		9.03	13.84	10.21	11.37	11.15	12.88	11.41	1.75	1.53		
2-5 cm	7.62	7.71	9.03	8.16	11.49	8.42	1.91	2.24		8.86	13.80	10.39	10.35	11.15	12.14	11.11	1.80	1.62			
0-5 cm																					
Field#: 6 Date: 7/7/82 (Julian: 188) Time: 15:10											Field#: 6 Date: 7/30/82 (Julian: 211) Time: 14:37										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	6.63	5.50	2.15	7.25	3.52	9.58	5.77	2.67	4.63		6.11	6.57	5.22	7.05	8.78	5.34	6.51	1.32	2.02		
0-2 cm	13.67	4.51	12.17	12.14	14.58	11.41	4.00	3.50		14.02	13.81	11.62	10.16	14.45	10.29	12.39	1.94	1.57			
2-5 cm	10.40	3.57	10.20	8.69	12.58	9.16	3.47	3.95		10.86	10.92	9.06	8.92	12.18	8.31	10.04	1.69	1.75			
0-5 cm																					
Field#: 6 Date: 7/12/82 (Julian: 193) Time: 11:18											Field#: 6 Date: 8/4/82 (Julian: 216) Time: 10:38										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	9.17	12.38	12.98	16.29	15.19	14.51	13.42	2.53	1.88		1.73	1.68	1.32	2.20	2.11	2.22	1.88	0.36	1.92		
0-2 cm	10.34	20.50	13.13	14.36	20.73	14.68	15.62	4.16	2.66		2.57	2.33	2.66	3.80	5.85	3.13	3.39	1.31	3.87		
2-5 cm	9.87	17.25	13.07	15.13	18.52	14.61	14.74	3.51	2.35		2.24	2.07	2.13	3.16	4.35	2.77	2.79	0.93	3.09		
0-5 cm																					
Field#: 6 Date: 7/13/82 (Julian: 194) Time: 10:50											Field#: 6 Date: 8/9/82 (Julian: 221) Time: 14:30										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	20.44	24.82	19.62	20.20	15.92	19.38	20.06	2.85	1.42		10.41	9.57	5.50	3.32	9.77	7.52	2.84	3.77			
0-2 cm	19.55	21.52	18.44	19.05	16.65	19.34	19.09	1.58	0.83		10.86	10.94	10.14	9.56	12.58	10.21	10.72	1.05	0.98		
2-5 cm	19.91	22.84	18.91	19.51	16.36	19.36	19.48	2.09	1.07		10.68	10.39	8.28	8.36	8.88	10.04	9.44	1.76	2.10		
0-5 cm																					
Field#: 6 Date: 7/15/82 (Julian: 196) Time: 13:24											Field#: 6 Date: 8/16/82 (Julian: 228) Time: 15:00										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	12.59	11.82	12.17	14.34	11.38	9.67	12.00	1.53	1.27		15.02	15.30	15.74	14.51	14.84	15.67	15.18	0.48	0.32		
0-2 cm	13.86	14.36	13.61	16.05	14.36	9.09	13.56	2.35	1.73		13.98	14.10	14.85	14.28	13.96	14.36	14.25	0.33	0.23		
2-5 cm	13.35	13.35	13.03	15.37	13.17	9.33	12.93	2.02	1.55		14.40	14.58	15.20	14.37	14.31	14.88	14.62	0.39	0.27		
0-5 cm																					
Field#: 6 Date: 7/19/82 (Julian: 200) Time: 14:10											Field#: 6 Date: 9/9/82 (Julian: 252) Time: 11:50										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	1.43	4.95	1.98	6.74	2.48	1.84	3.24	2.12	6.56		13.77	12.29	13.81	13.33	11.59	10.25	12.51	1.41	1.13		
0-2 cm	5.01	7.43	6.39	7.71	9.75	5.81	7.02	1.67	2.39		13.70	13.33	14.17	14.98	9.97	12.24	13.06	1.77	1.35		
2-5 cm	3.58	6.44	4.63	7.32	6.84	4.22	5.51	1.85	4.05		13.73	12.91	14.03	14.32	10.62	11.44	12.84	1.62	1.26		
0-5 cm																					
Field#: 6 Date: 7/23/82 (Julian: 204) Time: 14:00											Field#: 6 Date: 9/16/82 (Julian: 259) Time: 13:50										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
Depth	7.70	8.81	6.72	8.65	6.49	7.53	7.65	0.96	1.25		14.17	15.93	11.67	10.64	13.64	13.36	13.24	1.87	1.42		
0-2 cm	12.69	15.36	10.80	11.94	11.95	10.81	12.26	1.69	1.37		14.36	15.12	13.36	13.52	13.99	14.51	14.14	0.66	0.47		
2-5 cm	10.69	12.74	9.17	10.62	9.77	9.50	10.42	1.39	1.33		14.29	15.45	12.68	12.37	13.85	14.05	13.78	1.15	0.85		
0-5 cm																					

Field#: 7 Date: 5/19/82 (Julian: 139) Time: 09:55										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	18.44	25.93	27.60	25.41	22.35	24.05	3.25	1.35		
0-2 cm	37.23	38.78	34.65	41.35	41.77	38.76	2.96	0.76		
2-5 cm	32.16	30.64	31.16	34.97	34.00	32.87	3.07	1.00		
0-5 cm										
Field#: 7 Date: 6/1/82 (Julian: 141) Time: 09:55										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	32.88	29.78	31.24	39.91	29.91	34.22	32.99	3.80	1.15	
0-2 cm	35.25	36.48	37.59	42.96	36.20	36.78	37.54	2.76	0.74	
2-5 cm	34.31	33.80	35.05	41.74	33.69	35.75	35.72	3.18	0.90	
0-5 cm										
Field#: 7 Date: 6/1/82 (Julian: 152) Time: 09:55										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	37.13	36.34	37.40	44.47	37.38	44.86	39.60	3.95	1.00	
0-2 cm	37.03	42.50	38.01	41.68	37.21	40.76	39.53	2.40	0.61	
2-5 cm	37.07	40.04	37.77	42.79	37.28	42.40	39.56	3.02	0.76	
0-5 cm										
Field#: 7 Date: 6/2/82 (Julian: 153) Time: 15:00										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	35.48	40.84	40.37	53.75	45.60	45.12	43.53	6.22	1.43	
0-2 cm	35.20	35.36	43.00	56.48	44.89	50.05	44.16	8.32	1.88	
2-5 cm	35.31	37.55	41.95	55.39	45.17	48.08	43.91	7.48	1.70	
0-5 cm										
Field#: 7 Date: 6/4/82 (Julian: 155) Time: 09:38										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	38.22	36.53	39.62	47.03	39.47	41.17	40.34	3.63	0.90	
0-2 cm	40.92	38.69	43.78	45.42	41.42	42.28	42.08	2.34	0.56	
2-5 cm	39.84	37.82	42.12	46.06	40.64	41.83	41.39	2.85	0.69	
0-5 cm										
Field#: 7 Date: 6/7/82 (Julian: 158) Time: 14:04										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	32.97	36.62	21.56	37.77	23.87	30.56	30.56	7.42	2.43	
0-2 cm	36.27	40.27	33.37	40.50	38.78	40.59	38.30	2.92	0.76	
2-5 cm	34.95	34.67	32.92	38.38	33.90	35.20	4.72	1.43		
0-5 cm										
Field#: 7 Date: 6/16/82 (Julian: 167) Time: 15:34										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	27.25	31.15	29.87	35.38	25.71	27.54	29.48	3.48	1.18	
0-2 cm	33.35	33.25	35.77	38.62	35.25	40.96	36.20	3.05	0.84	
2-5 cm	30.91	32.41	33.41	37.32	31.43	35.60	33.51	3.22	0.98	
0-5 cm										
Field#: 7 Date: 6/21/82 (Julian: 172) Time: 10:50										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	22.07	17.26	22.71	21.51	22.96	22.75	21.55	2.17	1.01	
0-2 cm	30.76	27.54	31.99	36.61	33.15	32.96	32.17	2.99	0.93	
2-5 cm	27.29	23.43	28.28	30.57	29.08	28.88	27.92	2.66	0.96	
0-5 cm										
Field#: 7 Date: 6/25/82 (Julian: 176) Time: 09:55										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	17.13	21.02	22.68	23.01	22.15	24.39	21.73	2.51	1.15	
0-2 cm	27.18	29.55	30.95	30.90	30.05	32.62	30.21	1.81	0.60	
2-5 cm	23.16	26.14	27.64	27.74	26.89	29.32	26.82	2.09	0.82	
0-5 cm										
Field#: 7 Date: 6/28/82 (Julian: 179) Time: 14:50										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	25.32	27.77	30.11	29.23	33.35	28.73	29.09	2.66	0.91	
0-2 cm	30.04	31.15	35.30	33.43	35.22	41.89	34.51	4.19	1.22	
2-5 cm	28.15	29.80	33.23	31.75	34.47	36.63	32.34	3.58	1.09	
0-5 cm										
Field#: 7 Date: 7/7/82 (Julian: 188) Time: 10:00										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	5.61	4.01	5.91	5.48	6.67	5.00	5.45	0.89	1.64	
0-2 cm	13.10	9.93	10.00	10.11	6.44	10.22	9.97	2.12	2.12	
2-5 cm	10.10	7.57	8.36	8.26	6.53	8.13	8.16	1.63	1.93	
0-5 cm										
Field#: 7 Date: 7/9/82 (Julian: 190) Time: 11:40										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	5.75	6.07	9.01	6.18	7.78	6.96	6.96	1.39	2.00	
0-2 cm	7.75	13.87	10.44	12.81	11.72	15.42	12.00	2.70	2.25	
2-5 cm	6.95	10.75	11.29	9.50	12.37	9.98	2.18	2.15		
0-5 cm										
Field#: 7 Date: 7/12/82 (Julian: 193) Time: 14:37										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	9.11	18.12	13.11	13.43	19.01	16.64	14.90	3.72	2.50	
0-2 cm	24.35	24.02	25.08	29.81	29.85	30.71	27.30	3.12	1.14	
2-5 cm	18.25	21.66	20.29	23.26	25.52	25.08	22.34	3.36	1.69	
0-5 cm										
Field#: 7 Date: 7/13/82 (Julian: 194) Time: 14:22										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	30.48	29.00	30.45	37.76	35.63	37.73	33.51	3.98	1.19	
0-2 cm	30.16	29.72	30.66	36.76	36.98	37.00	33.55	3.70	1.10	
2-5 cm	30.29	29.43	30.57	37.16	36.44	37.29	33.53	3.81	1.14	
0-5 cm										
Field#: 7 Date: 7/15/82 (Julian: 196) Time: 09:42										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	21.27	23.90	23.00	27.89	26.87	23.87	24.47	2.47	1.01	
0-2 cm	25.92	26.84	27.09	30.39	29.12	28.46	27.97	1.65	0.59	
2-5 cm	24.06	25.66	25.45	29.39	28.22	26.62	26.57	1.98	0.76	
0-5 cm										
Field#: 7 Date: 7/23/82 (Julian: 204) Time: 09:45										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	17.32	11.72	14.11	14.72	20.05	19.80	16.29	3.33	2.05	
0-2 cm	20.89	15.61	20.11	22.28	23.34	25.17	21.23	3.29	1.55	
2-5 cm	19.46	14.06	17.71	19.26	22.02	23.02	19.26	3.31	1.75	
0-5 cm										



Corn	Field#: 7	Date: 7/26/82 (Julian: 207)	Time: 11:05	S D.	S.D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	S D.	S.D./Mean
0-2 cm	8 63	7 12 8 68 11 35 10 74	4 00	8 42	2 66 3 15
2-5 cm	11 56	11 24 14 77 15 89 13 01	16 93	13 90	2 33 1 68
0-5 cm	10 39	9 59 12 33 14 07 12 10	11 76	11 71	2 46 2 27
Corn	Field#: 7	Date: 7/28/82 (Julian: 209)	Time: 14:15	S D.	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	S D.	S D./Mean
0-2 cm	5 90	5 18 7 35 7 45 6 88	7 65	6 73	0 99 1 46
2-5 cm	15 05	10 26 10 47 13 99 13 55	17 91	13 54	2 89 2 14
0-5 cm	11 39	8 23 9 22 11 37 10 88	13 81	10 81	2 13 1 87
Corn	Field#: 7	Date: 7/30/82 (Julian: 211)	Time: 09:50	S D.	S.D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	S D.	S.D./Mean
0-2 cm	6 79	6 99 7 10 7 01 7 69	8 28	7 31	0 56 0 77
2-5 cm	11 23	12 73 12 39 14 87 14 11	18 25	13 93	2 48 1 78
0-5 cm	9 45	10 44 10 27 11 73 11 54	14 26	11 28	1 71 1 38
Corn	Field#: 7	Date: 8/ 2/82 (Julian: 214)	Time: 10:52	S D.	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	S D.	S D./Mean
0-2 cm	14 88	13 17 14 24 14 75 16 21	13 94	14 53	1 03 0 71
2-5 cm	13 23	17 53 17 54 14 90 21 41	24 81	18 24	4 25 2 33
0-5 cm	13 89	15 79 16 22 14 84 19 33	20 46	16 76	2 96 1 68
Corn	Field#: 7	Date: 8/ 3/82 (Julian: 215)	Time: 11:55	S D.	S.D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	S D.	S D./Mean
0-2 cm	6 28	5 61 7 16 7 70 8 72	7 76	7 20	1 12 1 55
2-5 cm					
0-5 cm					
Corn	Field#: 7	Date: 8/ 4/82 (Julian: 216)	Time: 14 48	S D.	S.D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	S D.	S.D./Mean
0-2 cm	3 30	4 24 4 44 7 91 9 00	7 14	6 01	2 31 3 85
2-5 cm	9 94	10 10 10 33 15 06 13 39	14 84	12 27	2 43 1 98
0-5 cm	7 28	7 76 7 97 12 20 11 63	11 76	9 77	2 38 2 73
Corn	Field#: 7	Date: 8/ 9/82 (Julian: 221)	Time: 10:00	S D.	S.D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	S D.	S D./Mean
0-2 cm	25 00	23 52 24 83 28 08 29 23	33 02	27 28	3 54 1 30
2-5 cm	23 83	25 23 25 86 30 05 27 77	32 55	27 55	3 27 1 19
0-5 cm	24 30	24 55 25 45 29 26 28 35	32 74	27 44	3 38 1 23
Corn	Field#: 7	Date: 8/18/82 (Julian: 230)	Time: 12:48	S D.	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	S D.	S D./Mean
0-2 cm	20 32	21 24 28 65 29 84 16 27	23 35	23 28	5 18 2 22
2-5 cm	24 97	26 42 29 74 28 11 26 31	26 99	27 09	1 65 0 61
0-5 cm	23 11	24 35 29 31 28 80 22 30	25 53	25 56	3 06 1 26

III.b 3-23

Corn	Field#: 7	Date: 9/ 2/82 (Julian: 245)	Time: 15:55	S D.	S.D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	S D.	S.D./Mean
0-2 cm	29 39	31 60 29 52 31 69 32 49	28 84	30 59	1 51 0 49
2-5 cm	29 83	32 24 32 24 36 15 33 95	33 05	32 91	2 10 0 64
0-5 cm	29 65	31 99 31 15 34 36 33 37	31 37	31 98	1 86 0 58
Corn	Field#: 7	Date: 9/ 9/82 (Julian: 252)	Time: 13:20	S D.	S.D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	S D.	S.D./Mean
0-2 cm	19 83	26 18 26 09 31 15 25 89	26 53	25 94	3 60 1 39
2-5 cm	24 31	30 33 32 60 34 67 33 39	30 87	31 03	3 66 1 18
0-5 cm	22 52	28 67 29 99 33 26 30 39	29 14	28 99	3 64 1 26
Corn	Field#: 7	Date: 9/16/82 (Julian: 259)	Time:	S D.	S.D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	S D.	S.D./Mean
0-2 cm	22 78	21 62 25 48 31 58 14 30	25 59	23 56	5 69 2 42
2-5 cm	29 20	28 26 20 09 35 44 34 34	35 05	30 39	5 91 1 95
0-5 cm	26 63	25 60 22 24 33 89 26 32	31 26	27 66	5 83 2 13
Corn	Field#: 8	Date: 5/19/82 (Julian: 139)	Time: 15:10	S D.	S.D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	S D.	S.D./Mean
0-2 cm	21 65	22 14 23 68 21 52 17 84	21 37	2 15	1 01
2-5 cm	32 84	31 04 34 24 33 91 30 71	30 95	32 28	1 59 0 49
0-5 cm	28 37	27 48 30 02 28 96 25 56	27 92	27 92	1 81 0 70
Corn	Field#: 8	Date: 5/21/82 (Julian: 141)	Time:	S D.	S.D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	S D.	S.D./Mean
0-2 cm	23 56	27 25 25 39 28 88 20 30	26 13	25 25	3 01 1 19
2-5 cm	35 14	31 10 32 08 31 58 30 94	28 82	31 61	2 06 0 65
0-5 cm	30 51	29 56 29 40 30 50 26 69	27 74	29 07	2 44 0 87
Corn	Field#: 8	Date: 5/26/82 (Julian: 146)	Time: 10:37	S D.	S.D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	S D.	S.D./Mean
0-2 cm	38 11	43 97 36 44 36 88 35 47	38 59	38 24	3 03 0 79
2-5 cm	36 42	38 53 34 36 34 16 22 67	37 84	33 99	5 83 1 71
0-5 cm	37 10	40 71 35 19 35 25 27 79	38 14	35 69	4 71 1 34
Corn	Field#: 8	Date: 6/ 1/82 (Julian: 152)	Time: 09:55	S D.	S D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	S D.	S D./Mean
0-2 cm	35 99	34 86 50 00 39 75 44 25	40 97	6 24	1 52
2-5 cm	32 65	35 10 32 44 39 05 32 97	35 53	34 62	2 53 0 73
0-5 cm	33 99	35 00 39 46 39 33 37 48	37 16	4 02	1 05
Corn	Field#: 8	Date: 6/ 2/82 (Julian: 153)	Time: 15:01	S D.	S.D./Mean
Depth	LOC 1	LOC 2 LOC 3 LOC 4 LOC 5 LOC 6	Mean	S D.	S.D./Mean
0-2 cm	30 33	29 81 33 08 29 29 30 71	30 64	1 46	0 48
2-5 cm	31 22	30 78 29 63 34 28 30 53	32 02	31 41	1 61 0 51
0-5 cm	30 87	29 70 33 80 30 03 31 50	31 50	31 10	1 55 0 50

III.b.3-24

Corn Field#: 8 Date: 6/ 4/82 (Julian: 155) Time: 09:41  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 34.47 38.51 36.53 34.87 41.80 36.24 37.07 2 72 0.73  
 2-5 cm 36.94 39.42 37.09 32.94 37.39 35.99 36.63 2 13 0.58  
 0-5 cm 35.95 39.06 36.86 33.71 39.15 36.09 36.80 2 37 0.64

Corn Field#: 8 Date: 6/ 7/82 (Julian: 158) Time: 14:00  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 33.45 35.22 25.11 35.82 39.23 34.74 33.93 4.73 1.40  
 2-5 cm 35.35 35.34 34.49 36.22 35.00 36.20 35.43 0.68 0.19  
 0-5 cm 34.59 35.29 30.74 36.06 36.69 35.62 34.83 2.30 0.67

Corn Field#: 8 Date: 6/16/82 (Julian: 167) Time: 15:30  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 19.89 29.21 17.65 33.21 26.96 33.03 26.66 6.59 2.47  
 2-5 cm 31.75 31.69 33.18 34.38 33.80 34.52 33.22 1.26 0.38  
 0-5 cm 27.01 30.70 26.97 33.91 31.07 33.92 30.60 3.39 1.22

Corn Field#: 8 Date: 6/21/82 (Julian: 172) Time: 11:00  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 24.63 19.65 13.07 16.46 20.44 23.72 19.66 4.37 2.22  
 2-5 cm 25.35 28.03 26.21 25.74 31.42 30.22 27.83 2.52 0.91  
 0-5 cm 25.07 24.67 20.96 22.03 27.03 27.62 24.56 3.26 1.43

Corn Field#: 8 Date: 6/25/82 (Julian: 176) Time: 10:30  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 17.03 22.78 25.00 22.49 19.99 19.81 21.19 2.81 1.32  
 2-5 cm 24.33 29.09 30.76 29.48 29.90 27.78 28.56 2.29 0.80  
 0-5 cm 21.41 26.57 28.46 26.68 25.94 24.59 25.61 2.50 1.01

Corn Field#: 8 Date: 6/28/82 (Julian: 179) Time: 14:45  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 23.34 28.02 26.22 22.79 26.20 21.30 24.64 2.55 1.04  
 2-5 cm 24.30 29.08 30.68 27.15 28.62 23.65 27.25 2.78 1.02  
 0-5 cm 23.91 28.65 28.90 25.41 27.65 22.71 26.21 2.69 1.03

Corn Field#: 8 Date: 7/ 7/82 (Julian: 188) Time: 10:00  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 5.99 5.15 7.33 7.06 8.97 6.01 6.75 1.35 1.99  
 2-5 cm 13.88 19.51 18.99 13.24 17.50 8.57 15.28 4.19 2.74  
 0-5 cm 10.73 13.77 14.33 10.77 14.09 7.55 11.87 3.05 2.44

Corn Field#: 8 Date: 7/13/82 (Julian: 194) Time: 14:36  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 27.28 26.88 28.91 31.84 27.18 29.23 28.55 1.88 0.66  
 2-5 cm 26.95 27.44 28.56 29.89 25.99 28.43 27.88 1.37 0.49  
 0-5 cm 27.08 27.22 28.70 30.67 26.47 28.75 28.15 1.58 0.56

Corn Field#: 8 Date: 7/15/82 (Julian: 196) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 16.71 13.34 12.74 23.32 22.61 23.58 18.72 5.07 2.71  
 2-5 cm 23.92 25.44 22.82 26.38 24.46 26.47 24.91 1.44 0.58  
 0-5 cm 21.03 20.60 18.79 25.15 23.72 25.31 22.43 2.89 1.43

Corn Field#: 8 Date: 7/23/82 (Julian: 204) Time: 09:45  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 10.66 14.53 14.13 22.22 18.60 14.85 15.83 4.02 2.54  
 2-5 cm 18.32 22.56 19.56 24.33 19.50 17.58 20.31 2.60 1.28  
 0-5 cm 15.26 19.35 17.39 23.48 19.14 16.49 18.52 3.17 1.78

Corn Field#: 8 Date: 7/26/82 (Julian: 207) Time: 11:05  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 11.06 10.68 12.21 12.15 12.46 17.53 12.68 2.48 1.95  
 2-5 cm 14.19 15.42 15.45 15.89 11.44 13.20 14.26 1.70 1.19  
 0-5 cm 12.94 13.52 14.15 14.39 11.85 14.93 13.63 2.01 1.50

Corn Field#: 8 Date: 7/28/82 (Julian: 209) Time: 14:15  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 5.18 2.97 3.92 6.91 5.25 4.50 4.79 1.34 2.80  
 2-5 cm 15.98 14.38 8.34 12.71 10.38 12.22 12.34 2.73 2.22  
 0-5 cm 11.66 9.82 6.57 10.39 8.33 9.13 9.32 2.18 2.45

Corn Field#: 8 Date: 7/30/82 (Julian: 211) Time: 09:50  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 3.30 3.53 12.39 14.87 12.26 4.01 8.39 5.32 6.34  
 2-5 cm 8.50 6.35 15.95 19.99 15.93 7.22 12.32 5.68 4.61  
 0-5 cm 6.42 5.22 14.53 17.94 14.46 5.93 10.75 5.54 5.30

Corn Field#: 8 Date: 8/ 2/82 (Julian: 214) Time: 10:47  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 15.43 17.33 15.29 12.84 14.28 14.60 14.96 1.48 0.99  
 2-5 cm 15.72 13.94 20.45 17.14 16.10 15.61 16.49 2.19 1.33  
 0-5 cm 15.60 15.30 18.38 15.42 15.37 15.21 15.88 1.91 1.19

Corn Field#: 8 Date: 8/ 3/82 (Julian: 215) Time: 12:00  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 10.99 7.49 8.84 2.83 7.37 7.60 7.52 2.68 3.56  
 2-5 cm 5.78 12.70 12.96 10.03 14.70 9.27 10.91 3.21 2.94  
 0-5 cm 7.87 10.62 11.31 7.15 11.77 8.60 9.55 3.00 3.19

Corn Field#: 8 Date: 8/ 4/82 (Julian: 216) Time: 15 06  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 5.11 6.70 6.64 5.56 4.18 5.79 5.66 0.95 1.68  
 2-5 cm 7.80 11.44 14.36 9.19 8.19 9.16 10.03 2.47 2.46  
 0-5 cm 6.73 9.54 11.27 7.74 6.59 7.81 8.28 1.86 2.15

Field#: 8 Date: 8/9/82 (Julian: 221) Time: 10:20										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	20	13	25.83	18.92	29.78	28.26	28.05	25.16	4.56	1.81
0-2 cm	19.49	27.82	23.30	27.36	27.57	28.37	25.65	3.53	1.37	
2-5 cm	19.75	27.02	21.55	28.33	27.85	28.24	25.46	3.94	1.55	
0-5 cm										
Field#: 8 Date: 8/18/82 (Julian: 230) Time: 14:52										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	21.02	23.23	25.35	24.40	24.95	23.79	1.74	0.73		
0-2 cm	25.05	26.54	26.00	25.12	25.74	23.84	25.38	0.94	0.37	
2-5 cm	23.44	25.22	25.74	24.83	24.28	24.74	1.26	0.51		
0-5 cm										
Field#: 9 Date: 5/19/82 (Julian: 139) Time: 10:58										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	15.93	13.15	10.08	16.51	14.58	18.33	14.76	2.89	1.96	
0-2 cm	22.92	20.73	23.42	22.73	22.18	24.93	22.82	1.39	0.61	
2-5 cm	20.12	17.69	18.08	20.24	19.14	22.29	19.60	1.99	1.15	
0-5 cm										
Field#: 9 Date: 5/26/82 (Julian: 146) Time: 10:58										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	36.07	37.54	39.27	29.05	27.61	32.16	33.62	4.74	1.41	
0-2 cm	32.09	34.07	36.84	28.48	27.69	25.85	30.84	4.20	1.36	
2-5 cm	33.68	35.46	37.81	28.71	27.66	28.37	31.95	4.42	1.38	
0-5 cm										
Field#: 9 Date: 6/1/82 (Julian: 152) Time: 10:16										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	31.74	31.33	35.02	30.69	26.50	29.48	30.79	2.80	0.91	
0-2 cm	29.88	33.15	36.07	28.72	25.72	27.86	30.23	3.77	1.25	
2-5 cm	30.62	32.43	35.65	29.50	26.04	28.51	30.46	3.38	1.11	
0-5 cm										
Field#: 9 Date: 6/2/82 (Julian: 153) Time: 15:19										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	26.30	30.51	32.55	29.22	23.61	23.41	27.60	3.76	1.36	
0-2 cm	25.48	30.68	28.71	26.28	24.93	24.61	26.78	2.41	0.90	
2-5 cm	25.81	30.61	30.25	27.46	24.41	24.13	27.11	2.95	1.08	
0-5 cm										
Field#: 9 Date: 6/4/82 (Julian: 155) Time: 10:04										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	36.08	32.99	33.66	28.84	30.97	30.56	32.18	2.58	0.80	
0-2 cm	33.64	36.43	36.65	28.10	21.75	29.85	31.07	5.72	1.84	
2-5 cm	34.62	35.05	35.45	28.40	25.44	30.14	31.52	4.46	1.43	
0-5 cm										
Field#: 9 Date: 6/7/82 (Julian: 158) Time: 14:21										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	27.38	32.01	32.33	25.50	22.48	23.25	27.16	4.25	1.56	
0-2 cm	27.55	31.49	25.78	25.66	23.26	26.15	26.65	2.75	1.03	
2-5 cm	27.48	31.70	28.40	25.59	22.95	24.99	26.85	3.35	1.24	
0-5 cm										
Field#: 9 Date: 6/14/82 (Julian: 165) Time: 10:40										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	24.86	17.88	25.22	20.70	20.59	16.36	20.94	3.58	1.71	
0-2 cm	26.54	21.94	26.97	20.98	23.44	19.54	23.23	3.01	1.30	
2-5 cm	25.87	20.32	26.27	20.87	22.30	18.27	22.32	3.24	1.46	
0-5 cm										
Field#: 9 Date: 6/16/82 (Julian: 167) Time: 14:52										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	27.10	30.93	29.53	29.63	22.46	24.93	27.43	3.24	1.18	
0-2 cm	27.72	29.16	28.65	28.23	23.95	24.61	27.05	2.21	0.82	
2-5 cm	27.47	29.87	29.00	28.79	23.36	24.74	27.21	2.62	0.96	
0-5 cm										
Field#: 9 Date: 6/21/82 (Julian: 172) Time: 11:16										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	12.83	18.25	13.58	22.63	18.91	21.24	17.91	3.98	2.22	
0-2 cm	20.57	28.09	19.40	26.06	23.53	26.76	24.07	3.51	1.46	
2-5 cm	17.47	24.16	17.07	24.69	21.68	24.55	21.60	3.70	1.76	
0-5 cm										
Field#: 9 Date: 6/25/82 (Julian: 176) Time: 10:10										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	15.54	18.69	19.77	21.22	16.67	21.34	18.87	2.38	1.26	
0-2 cm	21.07	25.25	22.74	23.38	22.01	23.10	22.93	1.41	0.62	
2-5 cm	18.86	22.63	21.55	22.52	19.88	22.40	21.30	1.80	0.87	
0-5 cm										
Field#: 9 Date: 6/28/82 (Julian: 179) Time: 13:00										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	18.49	25.40	20.61	29.35	25.44	26.78	24.34	4.04	1.66	
0-2 cm	25.99	28.29	25.55	27.70	27.06	25.65	26.71	1.15	0.43	
2-5 cm	22.99	27.14	23.58	28.36	26.41	26.10	25.76	2.30	0.92	
0-5 cm										
Field#: 9 Date: 7/2/82 (Julian: 183) Time: 10:35										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	13.88	14.53	11.59	12.18	14.24	15.89	13.72	1.59	1.16	
0-2 cm	19.40	21.89	20.89	19.76	15.41	18.78	19.35	2.23	1.15	
2-5 cm	17.19	18.95	17.17	16.73	14.94	17.63	17.10	1.97	1.15	
0-5 cm										
Field#: 9 Date: 7/7/82 (Julian: 188) Time: 11:35										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	2.53	1.96	2.49	4.23	3.00	3.43	2.94	0.81	2.74	
0-2 cm	13.51	8.82	13.66	13.90	7.88	12.19	11.66	2.65	2.27	
2-5 cm	9.12	6.08	9.19	10.03	5.93	8.69	8.17	1.91	2.46	
0-5 cm										
Field#: 9 Date: 7/9/82 (Julian: 190) Time: 15:21										
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
Depth	4.05	6.67	7.12	8.15	6.95	6.36	6.55	1.37	2.09	
0-2 cm	6.47	15.17	12.17	14.13	14.78	10.74	12.24	3.29	2.69	
2-5 cm	5.50	11.77	10.15	11.74	11.65	8.99	9.97	2.52	2.45	
0-5 cm										

Corn										Field#: 9	Date: 8/4/82	(Julian: 216)	Time: 14:47
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	1.39	1.80	1.39	0.31	0.39	1.06	0.66	6.29					
2-5 cm	2.46	3.21	1.95	2.17	0.86	2.13	0.86	4.02					
0-5 cm	2.03	2.64	1.72	1.43	0.67	1.70	0.78	4.93					
Corn										Field#: 9	Date: 8/9/82	(Julian: 221)	Time: 10:05
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	18.00	15.27	22.12	16.38	21.88	21.86	19.25	3.09	1.60				
2-5 cm	19.93	14.78	22.80	15.41	21.32	19.65	18.98	3.22	1.70				
0-5 cm	19.16	14.97	22.53	15.80	21.55	20.53	19.09	3.17	1.66				
Corn										Field#: 9	Date: 8/18/82	(Julian: 230)	Time: 12:42
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	16.31	18.82	20.67	24.28	24.12	27.50	21.95	4.10	1.87				
2-5 cm	18.55	19.93	22.47	23.89	26.11	22.52	22.25	2.71	1.22				
0-5 cm	17.66	19.49	21.75	24.05	25.31	24.51	22.13	3.27	1.48				
Corn										Field#: 9	Date: 9/2/82	(Julian: 245)	Time:
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	23.11	21.61	25.57	27.30	28.08	26.65	25.39	2.53	1.00				
2-5 cm	24.20	23.79	27.01	25.32	25.62	25.54	25.25	1.15	0.45				
0-5 cm	23.76	22.91	26.44	26.11	26.60	25.98	25.30	1.70	0.67				
Corn										Field#: 10	Date: 5/19/82	(Julian: 139)	Time: 16:31
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	24.19	28.33	25.54	29.00	23.43	31.30	26.97	3.07	1.14				
2-5 cm	25.64	20.65	26.55	26.24	24.89	27.31	25.21	2.38	0.94				
0-5 cm	25.06	23.72	26.15	27.35	24.30	28.90	25.91	2.65	1.02				
Corn										Field#: 10	Date: 5/26/82	(Julian: 146)	Time: 09:48
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	30.33	32.54	31.81	31.37	31.65	32.43	31.69	0.80	0.25				
2-5 cm	34.12	33.12	30.84	33.17	32.80	34.33	33.06	1.24	0.38				
0-5 cm	32.61	32.89	31.23	32.45	32.34	33.57	32.51	1.07	0.33				
Corn										Field#: 10	Date: 6/1/82	(Julian: 152)	Time: 10:55
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	29.48	37.36	28.49	28.81	31.00	32.23	31.23	3.32	1.06				
2-5 cm	28.54	33.60	28.44	28.81	29.84	31.61	30.14	2.07	0.69				
0-5 cm	28.92	35.11	28.46	28.81	30.30	31.85	30.58	2.57	0.84				
Corn										Field#: 10	Date: 6/4/82	(Julian: 155)	Time: 10:56
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	29.78	28.06	28.86	25.78	27.88	27.95	28.05	1.33	0.47				
2-5 cm	32.27	28.60	28.71	29.78	28.95	29.13	29.57	1.38	0.47				
0-5 cm	31.27	28.38	28.77	28.18	28.52	28.66	28.96	1.36	0.47				

Field#:10 Date: 6/ 7/82 (Julian: 158) Time: 12:00										Field#:10 Date: 7/ 2/82 (Julian: 183) Time: 10:13									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
Depth	28.91	32.44	23.16	38.15	28.70	33.02	30.73	5.06	1.65	Depth	25.49	22.22	24.69	22.24	21.40	22.67	23.12	1.60	0.69
0-2 cm	33.58	28.61	31.24	29.18	31.14	30.75	1.97	0.64		0-2 cm	24.29	21.82	23.91	21.89	20.81	22.96	22.61	1.34	0.59
2-5 cm	33.13	26.43	34.00	28.99	31.89	30.74	3.20	1.04		0-5 cm	24.77	21.98	24.22	22.03	21.05	22.84	22.81	1.45	0.63
0-5 cm																			
Field#:10 Date: 6/ 9/82 (Julian: 160) Time: 13:20										Field#:10 Date: 7/ 7/82 (Julian: 188) Time: 11:00									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
Depth	28.12	31.83	28.27	31.63	30.80	30.98	30.27	1.66	0.55	Depth	8.58	5.50	6.61	5.11	4.96	6.15	6.15	1.50	2.45
0-2 cm	30.02	33.02	29.59	33.05	29.29	32.08	31.17	1.74	0.56	0-2 cm	12.67	9.84	14.65	11.96	10.35	15.21	12.45	2.19	1.76
2-5 cm	29.26	32.54	29.06	32.48	29.89	31.64	30.81	1.71	0.55	2-5 cm	11.03	8.11	11.44	9.22	8.19	9.93	9.93	1.92	2.03
0-5 cm										0-5 cm									
Field#:10 Date: 6/14/82 (Julian: 165) Time: 10:13										Field#:10 Date: 7/ 9/82 (Julian: 190) Time: 15:31									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
Depth	20.23	22.07	20.07	25.95	25.54	31.28	24.19	4.30	1.78	Depth	7.23	5.62	6.48	9.50	7.05	8.88	7.46	1.47	1.97
0-2 cm	25.40	22.33	23.98	24.73	25.90	26.74	24.85	1.56	0.63	0-2 cm	8.34	10.61	10.36	13.71	5.49	12.88	10.23	3.01	2.94
2-5 cm	23.33	22.23	22.42	25.22	25.76	28.56	24.58	2.65	1.09	2-5 cm	7.90	8.61	8.81	12.03	6.11	11.28	9.12	2.39	2.55
0-5 cm										0-5 cm									
Field#:10 Date: 6/16/82 (Julian: 167) Time: 15:30										Field#:10 Date: 7/12/82 (Julian: 193) Time: 15:12									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
Depth	25.63	29.06	26.08	32.82	29.12	25.81	28.09	2.82	1.00	Depth	17.43	17.01	18.58	24.00	19.37	27.79	20.70	4.28	2.07
0-2 cm	29.83	28.01	26.07	30.49	27.92	26.44	28.13	1.77	0.63	0-2 cm	19.00	18.78	20.49	23.31	20.07	23.85	20.91	2.17	1.04
2-5 cm	28.15	28.43	26.07	31.42	28.40	26.19	28.11	2.19	0.78	2-5 cm	18.37	18.07	19.73	23.59	19.79	25.42	20.83	3.01	1.45
0-5 cm										0-5 cm									
Field#:10 Date: 6/18/82 (Julian: 169) Time: 14:10										Field#:10 Date: 7/13/82 (Julian: 194) Time: 15:12									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
Depth	28.06	25.88	27.99	37.02	28.89	31.51	29.89	3.94	1.32	Depth	26.14	22.59	23.57	29.60	26.39	23.42	25.29	2.62	1.04
0-2 cm	20.81	25.96	26.67	29.71	28.51	29.75	26.90	3.36	1.25	0-2 cm	25.60	22.98	24.91	27.73	25.27	24.03	25.09	1.60	0.64
2-5 cm	23.71	25.93	27.20	32.63	28.66	30.45	28.10	3.59	1.28	2-5 cm	25.82	22.83	24.37	28.48	25.72	23.79	25.17	2.01	0.80
0-5 cm										0-5 cm									
Field#:10 Date: 6/21/82 (Julian: 172) Time: 11:50										Field#:10 Date: 7/15/82 (Julian: 196) Time: 10:51									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
Depth	23.79	23.61	24.57	29.55	26.98	24.00	25.42	2.37	0.93	Depth	19.76	18.87	27.02	29.88	27.90	19.90	23.89	4.90	2.05
0-2 cm	19.70	22.62	25.69	26.61	19.10	23.21	22.82	3.04	1.33	0-2 cm	20.52	21.59	25.24	24.81	26.98	20.60	23.29	2.74	1.18
2-5 cm	21.33	23.02	25.24	27.78	22.25	23.53	23.86	2.78	1.17	2-5 cm	20.22	20.50	25.95	26.84	27.35	20.32	23.53	3.60	1.53
0-5 cm										0-5 cm									
Field#:10 Date: 6/25/82 (Julian: 176) Time: 09:32										Field#:10 Date: 7/23/82 (Julian: 204) Time: 10:40									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
Depth	22.65	23.84	30.54	25.59	30.02	27.58	26.70	3.24	1.21	Depth	8.63	14.27	21.45	17.01	14.29	15.73	15.23	4.18	2.75
0-2 cm	26.32	22.87	27.66	26.86	16.03	27.46	24.53	4.52	1.84	0-2 cm	14.16	15.26	18.02	9.59	13.92	17.02	14.66	2.96	2.02
2-5 cm	24.85	23.26	28.81	26.35	21.63	27.51	25.40	4.00	1.59	2-5 cm	11.95	14.86	19.39	12.56	14.07	16.51	14.89	3.45	2.31
0-5 cm										0-5 cm									
Field#:10 Date: 6/28/82 (Julian: 179) Time: 15:35										Field#:10 Date: 7/26/82 (Julian: 207) Time: 12:00									
Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean	Corn	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
Depth	21.44	23.06	20.98	25.11	27.44	27.53	24.26	2.89	1.19	Depth	6.78	7.33	8.63	7.17	6.68	7.32	6.68	0.78	1.07
0-2 cm	21.11	20.29	23.44	25.04	25.79	26.42	23.68	2.53	1.07	0-2 cm	14.58	11.17	11.24	13.67	10.50	11.20	12.06	1.65	1.37
2-5 cm	21.24	21.40	22.45	25.07	26.45	26.87	23.91	2.67	1.12	2-5 cm	9.42	9.67	11.66	9.17	9.39	10.16	1.30	1.25	
0-5 cm										0-5 cm									

APPENDIX III.c

GROUND-TRUTH DATA - SOYBEANS

1. Soybean Vegetation Data
2. Plant Density Data
3. Soil Moisture Data

III.c

Appendix III.c.1

Soybean Vegetation Data

Soybean Field # 1	Date: 7/12/82(Julian: 193)	Soybean Field # 1	Date: 7/30/82(Julian: 211)
Time: 10:10	Mean Canopy Height: 9.7 cm	Time: 10:50	Mean Canopy Height: 26.2 cm
Plant Parts:	Top1/3 Midl/3 Lowl/3 Whole Plant	Plant Parts:	Top1/3 Midl/3 Lowl/3 Whole Plant
% Plant Moisture:		% Plant Moisture:	
Wet Biomass Density:		Wet Biomass Density:	0.83
Dry Biomass Density:		Dry Biomass Density:	1.37
Plant Water Density:		Plant Water Density:	1.14
			1.11
-----			
Soybean Field # 1	Date: 7/13/82(Julian: 194)	Soybean Field # 1	Date: 8/ 2/82(Julian: 214)
Time:	Mean Canopy Height: 11.0 cm	Time: 13:50	Mean Canopy Height: 24.8 cm
Plant Parts:	Top1/3 Midl/3 Lowl/3 Whole Plant	Plant Parts:	Top1/3 Midl/3 Lowl/3 Whole Plant
% Plant Moisture:		% Plant Moisture:	80.26
Wet Biomass Density:		Wet Biomass Density:	0.60
Dry Biomass Density:		Dry Biomass Density:	0.12
Plant Water Density:		Plant Water Density:	0.48
-----			
Soybean Field # 1	Date: 7/15/82(Julian: 196)	Soybean Field # 1	Date: 8/ 6/82(Julian: 218)
Time: 10:42	Mean Canopy Height: 14.5 cm	Time: 10:35	Mean Canopy Height: 34.5 cm
Plant Parts:	Top1/3 Midl/3 Lowl/3 Whole Plant	Plant Parts:	Top1/3 Midl/3 Lowl/3 Whole Plant
% Plant Moisture:		% Plant Moisture:	
Wet Biomass Density:	0.31	Wet Biomass Density:	1.52
Dry Biomass Density:		Dry Biomass Density:	2.94
Plant Water Density:		Plant Water Density:	2.33
-----			
Soybean Field # 1	Date: 7/23/82(Julian: 204)	Soybean Field # 1	Date: 8/ 9/82(Julian: 221)
Time: 13:25	Mean Canopy Height: 17.7 cm	Time: 09:55	Mean Canopy Height: 43.0 cm
Plant Parts:	Top1/3 Midl/3 Lowl/3 Whole Plant	Plant Parts:	Top1/3 Midl/3 Lowl/3 Whole Plant
% Plant Moisture:		% Plant Moisture:	77.55
Wet Biomass Density:	0.81	Wet Biomass Density:	81.71
Dry Biomass Density:	1.37	Dry Biomass Density:	81.24
Plant Water Density:	1.03	Plant Water Density:	80.88
-----			
Soybean Field # 1	Date: 7/27/82(Julian: 208)	Soybean Field # 1	Date: 8/13/82(Julian: 225)
Time: 14:00	Mean Canopy Height: 22.0 cm	Time: 14:50	Mean Canopy Height: 50.0 cm
Plant Parts:	Top1/3 Midl/3 Lowl/3 Whole Plant	Plant Parts:	Top1/3 Midl/3 Lowl/3 Whole Plant
% Plant Moisture:		% Plant Moisture:	
Wet Biomass Density:		Wet Biomass Density:	
Dry Biomass Density:		Dry Biomass Density:	
Plant Water Density:		Plant Water Density:	
			1.91
-----			
Soybean Field # 1	Date: 7/28/82(Julian: 209)	Soybean Field # 1	Date: 8/16/82(Julian: 228)
Time: 10:15	Mean Canopy Height: 20.4 cm	Time: 13:48	Mean Canopy Height: 57.8 cm
Plant Parts:	Top1/3 Midl/3 Lowl/3 Whole Plant	Plant Parts:	Top1/3 Midl/3 Lowl/3 Whole Plant
% Plant Moisture:		% Plant Moisture:	81.57
Wet Biomass Density:	1.07	Wet Biomass Density:	84.49
Dry Biomass Density:	1.76	Dry Biomass Density:	82.65
Plant Water Density:	1.46	Plant Water Density:	83.08
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Soybean Field # 1 Date: 8/18/82(Julian: 230)  
 Time: 12:15 Mean Canopy Height: 64.3 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture: 1.45 2.31 2.07 1.94  
 Wet Biomass Density: 1.15 2.53 2.77 2.15  
 Dry Biomass Density: 0.35 0.71 0.79 0.62  
 Plant Water Density: 0.80 1.82 1.98 1.53

Soybean Field # 1 Date: 8/31/82(Julian: 243)  
 Time: 13:45 Mean Canopy Height: 80.7 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 1 Date: 9/ 2/82(Julian: 245)  
 Time: 14:40 Mean Canopy Height: 88.3 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture: 74.35 80.04 79.87 78.76  
 Wet Biomass Density: 1.42 2.33 2.97 2.24  
 Dry Biomass Density: 0.36 0.46 0.60 0.48  
 Plant Water Density: 1.06 1.86 2.37 1.76

Soybean Field # 1 Date: 9/ 9/82(Julian: 252)  
 Time: 09:25 Mean Canopy Height: 81.0 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture: 78.38 80.89 79.28 79.71  
 Wet Biomass Density: 1.86 3.75 4.66 3.42  
 Dry Biomass Density: 0.40 0.72 0.97 0.69  
 Plant Water Density: 1.46 3.04 3.70 2.73

Soybean Field # 1 Date: 9/16/82(Julian: 259)  
 Time: 10:40 Mean Canopy Height: 91.5 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture: 74.63 78.27 75.81 76.59  
 Wet Biomass Density: 2.36 5.24 5.42 4.34  
 Dry Biomass Density: 0.60 1.14 1.31 1.02  
 Plant Water Density: 1.76 4.10 4.11 3.33

Soybean Field # 1 Date: 9/23/82(Julian: 266)  
 Time: 13:30 Mean Canopy Height: 92.3 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture: 71.88 74.90 72.93 73.55  
 Wet Biomass Density: 3.86 7.13 5.12 5.37  
 Dry Biomass Density: 1.09 1.79 1.39 1.42  
 Plant Water Density: 2.78 5.34 3.73 3.95

Soybean Field # 1 Date: 9/28/82(Julian: 271)  
 Time: 10:45 Mean Canopy Height: 83.8 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture: 69.74 71.95 71.41 71.32  
 Wet Biomass Density: 1.15 2.53 2.77 2.15  
 Dry Biomass Density: 0.35 0.71 0.79 0.62  
 Plant Water Density: 0.80 1.82 1.98 1.53

Soybean Field # 1 Date: 9/30/82(Julian: 273)  
 Time: 11:15 Mean Canopy Height: 83.0 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 1.56 3.06 4.28 2.97  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 1 Date: 10/ 5/82(Julian: 278)  
 Time: 15:00 Mean Canopy Height: 84.7 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture: 55.72 57.44 57.67 57.08  
 Wet Biomass Density: 1.33 2.25 1.74 1.77  
 Dry Biomass Density: 0.59 0.96 0.74 0.76  
 Plant Water Density: 0.74 1.29 1.00 1.01

Soybean Field # 1 Date: 10/ 7/82(Julian: 280)  
 Time: 10:00 Mean Canopy Height: 81.2 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 1.86 2.24 1.86 1.99  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 1 Date: 10/12/82(Julian: 285)  
 Time: Mean Canopy Height: 81.0 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture: 39.07 41.92 46.86 42.30  
 Wet Biomass Density: 0.65 1.09 0.56 0.76  
 Dry Biomass Density: 0.40 0.63 0.29 0.44  
 Plant Water Density: 0.25 0.46 0.26 0.32

Soybean Field # 1 Date: 10/14/82(Julian: 287)  
 Time: Mean Canopy Height: 80.2 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 0.61 0.89 0.64 0.72  
 Dry Biomass Density:  
 Plant Water Density:



Soybean Field # 1 Date: 10/19/82(Julian: 292)  
Time: 10:40 Mean Canopy Height: 83.3 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 0.55 0.97 0.90 0.81  
Dry Biomass Density:  
Plant Water Density:

Soybean Field # 1 Date: 10/21/82(Julian: 294)  
Time: 10:45 Mean Canopy Height: 78.8 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 0.51 0.79 0.86 0.72  
Dry Biomass Density:  
Plant Water Density:

Soybean Field # 2 Date: 7/26/82(Julian: 207)  
Time: 14:05 Mean Canopy Height: 20.3 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 0.80  
Dry Biomass Density:  
Plant Water Density:

Soybean Field # 2 Date: 7/28/82(Julian: 209)  
Time: 15:45 Mean Canopy Height: 22.0 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 0.92 1.06 1.17 1.05  
Dry Biomass Density: 0.36  
Plant Water Density: 0.56

Soybean Field # 2 Date: 7/30/82(Julian: 211)  
Time: 13:30 Mean Canopy Height: 22.5 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 0.21 0.86 1.01 0.70  
Dry Biomass Density:  
Plant Water Density:

Soybean Field # 2 Date: 8/2/82(Julian: 214)  
Time: 14:37 Mean Canopy Height: 30.3 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 1.98 2.06 1.42 1.82  
Dry Biomass Density: 0.41 0.31 0.25 0.32  
Plant Water Density: 1.57 1.76 1.17 1.50

Soybean Field # 2 Date: 8/6/82(Julian: 218)  
Time: 11:57 Mean Canopy Height: 39.5 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 1.26 1.87 1.53 1.55  
Dry Biomass Density:  
Plant Water Density:

Soybean Field # 2 Date: 8/9/82(Julian: 221)  
Time: 13:24 Mean Canopy Height: 45.7 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 1.06 2.21 2.13 1.80  
Dry Biomass Density: 0.22 0.35 0.33 0.30  
Plant Water Density: 0.84 1.86 1.81 1.50

Soybean Field # 2 Date: 8/11/82(Julian: 223)  
Time: 14:00 Mean Canopy Height: 43.5 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture:  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density:

Soybean Field # 2 Date: 8/13/82(Julian: 225)  
Time: 14:35 Mean Canopy Height: 51.5 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture:  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density:

Soybean Field # 2 Date: 8/16/82(Julian: 228)  
Time: 10:54 Mean Canopy Height: 59.5 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 80.76 87.58 89.03 87.02  
Dry Biomass Density: 1.12 2.93 2.64 2.23  
Plant Water Density: 0.21 0.36 0.29 0.29

Soybean Field # 2 Date: 8/18/82(Julian: 230)  
Time: 14:20 Mean Canopy Height: 67.7 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 1.43 2.23 2.30 1.99  
Dry Biomass Density:  
Plant Water Density:

Soybean Field # 2 Date: 9/ 2/82(Julian: 245)  
 Time: Mean Canopy Height: 100.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 78.99 85.57  
 Wet Biomass Density: 1.84 3.31 3.21 2.79  
 Dry Biomass Density: 0.39 0.48  
 Plant Water Density: 1.45 2.84

Soybean Field # 2 Date: 9/ 9/82(Julian. 252)  
 Time: 10.10 Mean Canopy Height: 100.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 78.61 82.42 79.27 80.44  
 Wet Biomass Density: 2.33 4.10 3.30 3.24  
 Dry Biomass Density: 0.50 0.72 0.68 0.63  
 Plant Water Density: 1.83 3.38 2.61 2.61

Soybean Field # 2 Date: 9/16/82(Julian: 259)  
 Time: 12:40 Mean Canopy Height: 97.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 76.61 79.88 77.44 78.23  
 Wet Biomass Density: 2.04 3.58 3.26 2.96  
 Dry Biomass Density: 0.48 0.72 0.74 0.64  
 Plant Water Density: 1.56 2.86 2.52 2.31

Soybean Field # 2 Date: 9/23/82(Julian: 266)  
 Time: 14:35 Mean Canopy Height: 94.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 71.95 76.60 74.94 74.90  
 Wet Biomass Density: 2.48 4.22 4.13 3.61  
 Dry Biomass Density: 0.70 0.99 1.04 0.91  
 Plant Water Density: 1.78 3.23 3.10 2.70

Soybean Field # 2 Date: 9/28/82(Julian: 271)  
 Time: 10.00 Mean Canopy Height: 94.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 71.74 75.05 74.53 74.21  
 Wet Biomass Density: 1.63 2.97 4.75 3.11  
 Dry Biomass Density: 0.46 0.74 1.21 0.80  
 Plant Water Density: 1.17 2.23 3.54 2.31

Soybean Field # 2 Date: 9/30/82(Julian. 273)  
 Time: Mean Canopy Height: 93.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 3.25 2.42 3.69 3.12  
 Wet Biomass Density: 0.77 1.01 0.85 0.88  
 Dry Biomass Density: 0.13 0.25 0.47 0.28

Soybean Field # 2 Date: 10/ 5/82(Julian: 278)  
 Time: 14:00 Mean Canopy Height: 92.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 70.17 70.55 68.98 69.76  
 Wet Biomass Density: 2.00 3.15 4.23 3.13  
 Dry Biomass Density: 0.60 0.93 1.31 0.95  
 Plant Water Density: 1.40 2.22 2.92 2.18

Soybean Field # 2 Date: 10/ 7/82(Julian: 280)  
 Time: 10:26 Mean Canopy Height: 95.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 1.91 4.50 4.22 3.54  
 Wet Biomass Density: 1.91 4.50 4.22 3.54  
 Dry Biomass Density: 1.91 4.50 4.22 3.54  
 Plant Water Density: 1.91 4.50 4.22 3.54

Soybean Field # 2 Date: 10/12/82(Julian: 285)  
 Time: 12:35 Mean Canopy Height: 92.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 55.14 57.90 56.05 56.53  
 Wet Biomass Density: 1.19 1.59 1.04 1.27  
 Dry Biomass Density: 0.53 0.67 0.46 0.55  
 Plant Water Density: 0.65 0.92 0.58 0.72

Soybean Field # 2 Date: 10/14/82(Julian: 287)  
 Time: 10:45 Mean Canopy Height: 93.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 1.33 2.12 1.47 1.64  
 Wet Biomass Density: 1.33 2.12 1.47 1.64  
 Dry Biomass Density: 1.33 2.12 1.47 1.64  
 Plant Water Density: 1.33 2.12 1.47 1.64

Soybean Field # 2 Date: 10/19/82(Julian: 292)  
 Time: 11:25 Mean Canopy Height: 89.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 19.00 19.80 39.34 28.17  
 Wet Biomass Density: 0.65 1.02 1.30 0.99  
 Dry Biomass Density: 0.52 0.82 0.79 0.71  
 Plant Water Density: 0.12 0.20 0.51 0.28

Soybean Field # 2 Date: 10/21/82(Julian: 294)  
 Time: 11:40 Mean Canopy Height: 88.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 14.10 19.84 35.42 24.30  
 Wet Biomass Density: 0.89 1.25 1.32 1.16  
 Dry Biomass Density: 0.77 1.01 0.85 0.88  
 Plant Water Density: 0.13 0.25 0.47 0.28

Soybean Field # 2 Date: 10/26/82(Julian: 299)  
 Time: 11:00 Mean Canopy Height: 91.0 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture: 9.07 18.24 26.29 17.44  
 Wet Biomass Density: 0.73 0.92 0.60 0.75  
 Dry Biomass Density: 0.66 0.75 0.45 0.62  
 Plant Water Density: 0.07 0.17 0.16 0.13

Soybean Field # 3 Date: 6/18/82(Julian: 169)  
 Time: 13:40 Mean Canopy Height: 14.3 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture  
 Wet Biomass Density  
 Dry Biomass Density  
 Plant Water Density:

Soybean Field # 3 Date: 6/21/82(Julian: 172)  
 Time: 10:10 Mean Canopy Height: 16.5 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture  
 Wet Biomass Density  
 Dry Biomass Density  
 Plant Water Density:

Soybean Field # 3 Date: 6/23/82(Julian: 174)  
 Time: 15:00 Mean Canopy Height: 14.5 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture  
 Wet Biomass Density  
 Dry Biomass Density  
 Plant Water Density:

Soybean Field # 3 Date: 6/25/82(Julian: 176)  
 Time: 13:10 Mean Canopy Height: 20.3 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture  
 Wet Biomass Density  
 Dry Biomass Density  
 Plant Water Density:

Soybean Field # 3 Date: 6/28/82(Julian: 179)  
 Time: 14:10 Mean Canopy Height: 25.3 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture: 80 74  
 Wet Biomass Density: 1.24  
 Dry Biomass Density: 0.24  
 Plant Water Density: 1.00

Soybean Field # 3 Date: 6/30/82(Julian: 181)  
 Time: Mean Canopy Height: 27.5 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture  
 Wet Biomass Density  
 Dry Biomass Density  
 Plant Water Density:

Soybean Field # 3 Date: 7/ 6/82(Julian: 187)  
 Time: 10:41 Mean Canopy Height: 31.3 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture: 85.45  
 Wet Biomass Density: 1.34  
 Dry Biomass Density: 0.19  
 Plant Water Density: 1.14

Soybean Field # 3 Date: 7/ 7/82(Julian: 188)  
 Time: 14:42 Mean Canopy Height: 35.4 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture: 1.78  
 Wet Biomass Density  
 Dry Biomass Density  
 Plant Water Density:

Soybean Field # 3 Date: 7/12/82(Julian: 193)  
 Time: 09:45 Mean Canopy Height: 41.7 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture: 87.03  
 Wet Biomass Density: 3.09  
 Dry Biomass Density: 0.40  
 Plant Water Density: 2.69

Soybean Field # 3 Date: 7/13/82(Julian: 194)  
 Time: 14:10 Mean Canopy Height: 49.7 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture  
 Wet Biomass Density  
 Dry Biomass Density  
 Plant Water Density: 1.14

Soybean Field # 3 Date: 7/15/82(Julian: 196)  
 Time: 14:45 Mean Canopy Height: 53.3 cm  
 Plant Parts: Top1/3 Midl/3 Lowl/3 Whole Plant  
 % Plant Moisture  
 Wet Biomass Density  
 Dry Biomass Density  
 Plant Water Density:

Soybean Field # 3 Date: 8/ 6/82(Julian: 218)  
 Time: 11:47 Mean Canopy Height: 89.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 2.04 3.06 2.81 2.64  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 3 Date: 8/ 9/82(Julian: 221)  
 Time: 13:20 Mean Canopy Height: 91.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 77.86 79.78 77.21 78.43  
 Wet Biomass Density: 2.59 3.50 2.63 2.91  
 Dry Biomass Density: 0.57 0.71 0.60 0.63  
 Plant Water Density: 2.02 2.80 2.03 2.28

Soybean Field # 3 Date: 8/11/82(Julian: 223)  
 Time: 13:10 Mean Canopy Height: 98.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 3 Date: 8/13/82(Julian: 225)  
 Time: 14:35 Mean Canopy Height: 96.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 3 Date: 8/16/82(Julian: 228)  
 Time: 11:00 Mean Canopy Height: 98.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 77.45 80.25 78.47 79.00  
 Wet Biomass Density: 2.20 4.37 3.85 3.47  
 Dry Biomass Density: 0.50 0.86 0.83 0.73  
 Plant Water Density: 1.71 3.50 3.02 2.74

Soybean Field # 3 Date: 8/18/82(Julian: 230)  
 Time: 14:40 Mean Canopy Height: 98.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 1.79 3.49 4.95 3.41  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 3 Date: 7/19/82(Julian: 200)  
 Time: 11:30 Mean Canopy Height: 63.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 80.73 84.57 83.26 83.11  
 Wet Biomass Density: 1.55 2.34 1.67 1.85  
 Dry Biomass Density: 0.30 0.36 0.28 0.31  
 Plant Water Density: 1.25 1.98 1.39 1.54

Soybean Field # 3 Date: 7/23/82(Julian: 204)  
 Time: 14:20 Mean Canopy Height: 69.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 3 Date: 7/26/82(Julian: 207)  
 Time: 14:00 Mean Canopy Height: 76.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 78.42 79.75 78.56 78.97  
 Wet Biomass Density: 1.72 2.29 1.96 1.99  
 Dry Biomass Density: 0.37 0.46 0.42 0.42  
 Plant Water Density: 1.35 1.83 1.54 1.57

Soybean Field # 3 Date: 7/28/82(Julian: 209)  
 Time: 15:43 Mean Canopy Height: 78.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 75.11  
 Wet Biomass Density: 2.26 4.39 5.90 4.18  
 Dry Biomass Density: 1.47  
 Plant Water Density: 4.43

Soybean Field # 3 Date: 7/30/82(Julian: 211)  
 Time: 13:30 Mean Canopy Height: 85.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 1.58 2.78 2.18 2.18  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 3 Date: 8/ 2/82(Julian: 214)  
 Time: 14:50 Mean Canopy Height: 85.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 75.22 78.20 75.64 76.52  
 Wet Biomass Density: 2.76 2.78 1.19 2.24  
 Dry Biomass Density: 0.68 0.61 0.29 0.53  
 Plant Water Density: 2.08 2.17 0.90 1.72

Soybean Field # 3	Date: 9/ 2/82(Julian: 245)	Soybean Field # 3	Date: 10/ 5/82(Julian: 278)
Time: 14:20	Mean Canopy Height: 98.7 cm	Time: 14:00	Mean Canopy Height: 99.2 cm
Plant Parts:	Top1/3 Mid1/3 Low1/3 Whole Plant	Plant Parts:	Top1/3 Mid1/3 Low1/3 Whole Plant
% Plant Moisture:	70.93 75.52 72.46 73.22	% Plant Moisture:	10.24 12.04 10.95 11.19
Wet Biomass Density:	2.05 3.35 4.00 3.13	Wet Biomass Density:	0.88 1.36 1.40 1.21
Dry Biomass Density:	0.60 0.82 1.10 0.84	Dry Biomass Density:	0.79 1.19 1.25 1.07
Plant Water Density:	1.45 2.53 2.90 2.29	Plant Water Density:	0.09 0.16 0.15 0.14
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Soybean Field # 3	Date: 9/ 9/82(Julian: 252)	Soybean Field # 3	Date: 10/12/82(Julian: 285)
Time: 09:45	Mean Canopy Height: 105.8 cm	Time: 12:33	Mean Canopy Height: 93.5 cm
Plant Parts:	Top1/3 Mid1/3 Low1/3 Whole Plant	Plant Parts:	Top1/3 Mid1/3 Low1/3 Whole Plant
% Plant Moisture:	70.76 71.65 70.32 70.91	% Plant Moisture:	8.34 11.37 12.43 10.87
Wet Biomass Density:	4.04 4.58 4.70 4.44	Wet Biomass Density:	1.05 1.55 1.19 1.26
Dry Biomass Density:	1.18 1.30 1.39 1.29	Dry Biomass Density:	0.96 1.38 1.05 1.13
Plant Water Density:	2.86 3.28 3.30 3.15	Plant Water Density:	0.09 0.18 0.15 0.14
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Soybean Field # 3	Date: 9/16/82(Julian: 259)	Soybean Field # 4	Date: 6/21/82(Julian: 172)
Time: 12:17	Mean Canopy Height: 99.7 cm	Time:	Mean Canopy Height: 6.0 cm
Plant Parts:	Top1/3 Mid1/3 Low1/3 Whole Plant	Plant Parts:	Top1/3 Mid1/3 Low1/3 Whole Plant
% Plant Moisture:	64.13 65.59 65.28 65.14	% Plant Moisture:	
Wet Biomass Density:	2.29 3.81 3.94 3.35	Wet Biomass Density:	
Dry Biomass Density:	0.82 1.31 1.37 1.17	Dry Biomass Density:	
Plant Water Density:	1.47 2.50 2.57 2.18	Plant Water Density:	
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Soybean Field # 3	Date: 9/23/82(Julian: 266)	Soybean Field # 4	Date: 6/25/82(Julian: 176)
Time: 14:25	Mean Canopy Height: 104.0 cm	Time: 13:25	Mean Canopy Height: 9.5 cm
Plant Parts:	Top1/3 Mid1/3 Low1/3 Whole Plant	Plant Parts:	Top1/3 Mid1/3 Low1/3 Whole Plant
% Plant Moisture:	31.28 33.77 39.21 35.25	% Plant Moisture:	
Wet Biomass Density:	0.92 2.01 1.68 1.54	Wet Biomass Density:	
Dry Biomass Density:	0.63 1.33 1.02 1.00	Dry Biomass Density:	
Plant Water Density:	0.29 0.68 0.66 0.54	Plant Water Density:	
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Soybean Field # 3	Date: 9/28/82(Julian: 271)	Soybean Field # 4	Date: 6/28/82(Julian: 179)
Time: 10:15	Mean Canopy Height: 100.0 cm	Time: 14:00	Mean Canopy Height: 14.0 cm
Plant Parts:	Top1/3 Mid1/3 Low1/3 Whole Plant	Plant Parts:	Top1/3 Mid1/3 Low1/3 Whole Plant
% Plant Moisture:	18.19 22.60	% Plant Moisture:	
Wet Biomass Density:	1.30 2.14 1.64 1.69	Wet Biomass Density:	
Dry Biomass Density:	1.06 1.66	Dry Biomass Density:	
Plant Water Density:	0.24 0.48	Plant Water Density:	
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Soybean Field # 3	Date: 9/30/82(Julian: 273)	Soybean Field # 4	Date: 6/30/82(Julian: 181)
Time:	Mean Canopy Height: 98.5 cm	Time:	Mean Canopy Height: 16.2 cm
Plant Parts:	Top1/3 Mid1/3 Low1/3 Whole Plant	Plant Parts:	Top1/3 Mid1/3 Low1/3 Whole Plant
% Plant Moisture:		% Plant Moisture:	
Wet Biomass Density:	0.64 1.00 0.58 0.74	Wet Biomass Density:	
Dry Biomass Density:		Dry Biomass Density:	
Plant Water Density:		Plant Water Density:	
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Soybean Field # 4 Date: 7/ 6/82(Julian: 187)  
Time: 11:10 Mean Canopy Height: 25.7 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
84 55  
% Plant Moisture: 1 29  
Wet Biomass Density: 0.20  
Dry Biomass Density: 1.09  
Plant Water Density: -----

Soybean Field # 4 Date: 7/ 7/82(Julian: 188)  
Time: 14:10 Mean Canopy Height: 29 0 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture: 1 29  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density: -----

Soybean Field # 4 Date: 7/12/82(Julian: 193)  
Time: 09:30 Mean Canopy Height: 32.2 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
87.61  
% Plant Moisture: 2 99  
Wet Biomass Density: 0 37  
Dry Biomass Density: 2.62  
Plant Water Density: -----

Soybean Field # 4 Date: 7/13/82(Julian: 194)  
Time: 14:10 Mean Canopy Height: 35 5 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
83.41  
% Plant Moisture: 2.50  
Wet Biomass Density: 0 42  
Dry Biomass Density: 2.09  
Plant Water Density: -----

Soybean Field # 4 Date: 7/15/82(Julian: 196)  
Time: 14:30 Mean Canopy Height: 44.3 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture:  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density: -----

Soybean Field # 4 Date: 7/19/82(Julian: 200)  
Time 11:15 Mean Canopy Height: 51.0 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture: 80.03 83.79 83 22 82.45  
Wet Biomass Density: 1.77 1 99 2 13 1 96  
Dry Biomass Density: 0.35 0.32 0 36 0 34  
Plant Water Density: 1.42 1.66 1 77 1.62  
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Soybean Field # 4 Date: 7/23/82(Julian: 204)  
Time: 14:20 Mean Canopy Height: 55.8 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture: 2.19 2.30 1.79 2.09  
Wet Biomass Density:  
Dry Biomass Density:  
Plant Water Density: -----

Soybean Field # 4 Date: 7/26/82(Julian: 207)  
Time: 13:54 Mean Canopy Height: 57 0 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture: 77.76 82.94 79 67 80.32  
Wet Biomass Density: 1.88 2 38 2 18 2 15  
Dry Biomass Density: 0.42 0.41 0.44 0.42  
Plant Water Density: 1 46 1 98 1.74 1.72  
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Soybean Field # 4 Date: 7/28/82(Julian: 209)  
Time: 15:35 Mean Canopy Height: 62.2 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 2 22 3.04 2.81 2.69  
Dry Biomass Density:  
Plant Water Density: -----

Soybean Field # 4 Date: 7/30/82(Julian: 211)  
Time: 13:15 Mean Canopy Height: 66.7 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 1.73 2.31 1.35 1.80  
Dry Biomass Density:  
Plant Water Density: -----

Soybean Field # 4 Date: 8/ 6/82(Julian: 218)  
Time: 11:36 Mean Canopy Height: 85 8 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture:  
Wet Biomass Density: 2.16 2 25 1.47 1.96  
Dry Biomass Density:  
Plant Water Density: -----

Soybean Field # 4 Date: 8/ 9/82(Julian: 221)  
Time: 13.10 Mean Canopy Height: 87.7 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
% Plant Moisture: 77 21 73 37 85.41 79.33  
Wet Biomass Density: 2 13 2 41 3.11 2.55  
Dry Biomass Density: 0 49 0 64 0 45 0 53  
Plant Water Density: 1.65 1.77 2 65 2 02  
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Soybean Field # 4 Date: 8/11/82(Julian: 223)  
 Time: 13:18 Mean Canopy Height: 90.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 4 Date: 8/13/82(Julian: 225)  
 Time: 14:20 Mean Canopy Height: 97.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 4 Date: 8/16/82(Julian: 228)  
 Time: 10:40 Mean Canopy Height: 98.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 4 Date: 8/19/82(Julian: 231)  
 Time: Mean Canopy Height: 97.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 4 Date: 9/2/82(Julian: 245)  
 Time: 14:15 Mean Canopy Height: 101.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 4 Date: 9/9/82(Julian: 252)  
 Time: 09:30 Mean Canopy Height: 112.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 4 Date: 9/16/82(Julian: 259)  
 Time: 12:00 Mean Canopy Height: 110.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 4 Date: 9/23/82(Julian: 266)  
 Time: 14:25 Mean Canopy Height: 100.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 4 Date: 9/28/82(Julian: 271)  
 Time: 09:50 Mean Canopy Height: 102.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 4 Date: 9/30/82(Julian: 273)  
 Time: Mean Canopy Height: 106.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 4 Date: 10/5/82(Julian: 278)  
 Time: 13:40 Mean Canopy Height: 100.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 4 Date: 10/12/82(Julian: 285)  
 Time: 12:35 Mean Canopy Height: 97.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 4 Date: 10/14/82(Julian: 287)  
 Time: 10:40 Mean Canopy Height: 98.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 0.78 1.10 0.63 0.84  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 5 Date: 6/16/82(Julian: 167)  
 Time: 11:40 Mean Canopy Height 10.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 5 Date: 6/18/82(Julian 169)  
 Time: 10:00 Mean Canopy Height: 11.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 5 Date: 6/21/82(Julian: 172)  
 Time: 13:50 Mean Canopy Height 16.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 5 Date: 6/25/82(Julian: 176)  
 Time: 13:35 Mean Canopy Height: 19.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture  
 Wet Biomass Density,  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 5 Date: 6/28/82(Julian: 179)  
 Time: 10:42 Mean Canopy Height: 26.0 cm  
 Plant Parts Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 79 04  
 Dry Biomass Density: 1 33  
 Plant Water Density: 0 28  
 Plant Water Density: 1 05

Soybean Field # 5 Date: 6/30/82(Julian: 181)  
 Time: Mean Canopy Height: 23.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 5 Date: 7/ 6/82(Julian: 187)  
 Time: 14:00 Mean Canopy Height. 29.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 80.29  
 Dry Biomass Density: 1.40  
 Plant Water Density: 0.28  
 Plant Water Density: 1 12

Soybean Field # 5 Date: 7/ 7/82(Julian: 188)  
 Time: 15:09 Mean Canopy Height. 35.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: 1.24

Soybean Field # 5 Date: 7/12/82(Julian: 193)  
 Time 11:30 Mean Canopy Height: 40.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density 84.96  
 Dry Biomass Density: 2.17  
 Plant Water Density: 0.33  
 Plant Water Density: 1.84

Soybean Field # 5 Date: 7/16/82(Julian: 197)  
 Time: 13:13 Mean Canopy Height: 51.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 2.03  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 5 Date: 7/19/82(Julian: 200)  
 Time: 13:53 Mean Canopy Height: 53.2 cm  
 Plant Parts Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 79.26 80.89 74.87 79.02  
 Dry Biomass Density: 2.18 2.65 1.32 2.05  
 Plant Water Density: 0.45 0.51 0.33 0.43  
 Plant Water Density: 1.73 2.14 0.99 1.62



Soybean Field # 5 Date: 7/23/82(Julian: 204)  
 Time: 14:20 Mean Canopy Height: 58.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture 76.50 79.59 76.47 77.63  
 Wet Biomass Density: 1.93 2.69 2.63 2.42  
 Dry Biomass Density: 0.45 0.55 0.62 0.54  
 Plant Water Density: 1.48 2.14 2.01 1.88

Soybean Field # 5 Date: 7/26/82(Julian: 207)  
 Time: 15:00 Mean Canopy Height 62.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture. 2.33 2.71 2.24 2.43  
 Wet Biomass Density 2.33 2.71 2.24 2.43  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 5 Date: 7/28/82(Julian: 209)  
 Time: 10:30 Mean Canopy Height: 67.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture 2.79 3.44 3.25 3.16  
 Wet Biomass Density. 2.79 3.44 3.25 3.16  
 Dry Biomass Density.  
 Plant Water Density:

Soybean Field # 5 Date: 7/30/82(Julian: 211)  
 Time: 14:25 Mean Canopy Height. 65.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture. 1.49 1.89 2.16 1.85  
 Wet Biomass Density. 1.49 1.89 2.16 1.85  
 Dry Biomass Density  
 Plant Water Density:

Soybean Field # 5 Date: 8/ 4/82(Julian: 216)  
 Time: 10:24 Mean Canopy Height: 75.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture 75.32 78.87 74.77 76.57  
 Wet Biomass Density. 1.58 2.22 1.74 1.85  
 Dry Biomass Density: 0.39 0.47 0.44 0.43  
 Plant Water Density 1.19 1.75 1.30 1.42

Soybean Field # 5 Date: 8/ 6/82(Julian: 218)  
 Time: 14:00 Mean Canopy Height. 78.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 3.04 3.29 1.59 2.64  
 Wet Biomass Density: 3.04 3.29 1.59 2.64  
 Dry Biomass Density.  
 Plant Water Density.

Soybean Field # 5 Date: 8/ 9/82(Julian: 221)  
 Time: 14:18 Mean Canopy Height: 87.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 72.16 76.66 74.66 74.65  
 Wet Biomass Density: 2.27 2.81 1.95 2.34  
 Dry Biomass Density: 0.63 0.66 0.50 0.59  
 Plant Water Density: 1.64 2.16 1.46 1.75

Soybean Field # 5 Date: 8/11/82(Julian: 223)  
 Time: Mean Canopy Height: 86.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 5 Date: 8/13/82(Julian: 225)  
 Time: 14:20 Mean Canopy Height: 97.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density.  
 Dry Biomass Density.  
 Plant Water Density:

Soybean Field # 5 Date: 8/16/82(Julian: 228)  
 Time: 15:30 Mean Canopy Height: 96.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 75.36 76.06 76.41 76.04  
 Wet Biomass Density: 1.96 4.10 3.23 3.10  
 Dry Biomass Density: 0.48 0.98 0.76 0.74  
 Plant Water Density: 1.48 3.12 2.47 2.35

Soybean Field # 5 Date: 9/ 9/82(Julian: 252)  
 Time: 11:45 Mean Canopy Height: 101.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture. 69.73  
 Wet Biomass Density. 2.32 8.31 4.99 5.21  
 Dry Biomass Density:  
 Plant Water Density: 3.48

Soybean Field # 5 Date: 9/16/82(Julian: 259)  
 Time: 14:05 Mean Canopy Height: 90.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 67.02 65.67 68.66 67.09  
 Wet Biomass Density. 2.44 3.83 3.57 3.28  
 Dry Biomass Density: 0.81 1.31 1.12 1.08  
 Plant Water Density: 1.64 2.51 2.45 2.20

Soybean Field # 5 Date: 9/28/82(Julian: 271)  
 Time: 12:35 Mean Canopy Height: 94.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 42.02 49 38 52 57 48 51  
 Wet Biomass Density: 0.88 1.57 1.07 1.17  
 Dry Biomass Density: 0.51 0.79 0.51 0.60  
 Plant Water Density: 0.37 0.78 0.56 0.57

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 Soybean Field # 5 Date: 9/30/82(Julian: 273)  
 Time: Mean Canopy Height: 86.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 1.18 1.72 1.21 1.37  
 Dry Biomass Density:  
 Plant Water Density:

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 Soybean Field # 5 Date: 10/ 5/82(Julian: 278)  
 Time: 13:40 Mean Canopy Height: 92.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 10.96 12 43 14 44 12.58  
 Wet Biomass Density: 1.13 1.51 1.10 1.25  
 Dry Biomass Density: 1.01 1.32 0.94 1.09  
 Plant Water Density: 0.12 0.19 0.16 0.16

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 Soybean Field # 5 Date: 10/12/82(Julian: 285)  
 Time: 14:00 Mean Canopy Height: 86.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 7.01 10 56 8 12 8.79  
 Wet Biomass Density: 1.17 1.59 1.06 1.28  
 Dry Biomass Density: 1.09 1.42 0.98 1.16  
 Plant Water Density: 0.08 0.17 0.09 0.11

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 Soybean Field # 5 Date: 10/14/82(Julian: 287)  
 Time 11:40 Mean Canopy Height: 90.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 0.99 1.29 0.66 0.98  
 Dry Biomass Density:  
 Plant Water Density:

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 Soybean Field # 6 Date: 6/ 9/82(Julian: 160)  
 Time: 14:43 Mean Canopy Height: 7.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 6 Date: 6/14/82(Julian: 165)  
 Time: 16:40 Mean Canopy Height: 7.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

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 Soybean Field # 6 Date: 6/18/82(Julian: 169)  
 Time: Mean Canopy Height: 12.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

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 Soybean Field # 6 Date: 6/21/82(Julian: 172)  
 Time: 14:05 Mean Canopy Height: 14.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

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 Soybean Field # 6 Date: 6/28/82(Julian: 179)  
 Time: 10:42 Mean Canopy Height: 20.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 75 24  
 Wet Biomass Density: 0.44  
 Dry Biomass Density: 0.11  
 Plant Water Density: 0.33

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 Soybean Field # 6 Date: 6/30/82(Julian: 181)  
 Time: Mean Canopy Height: 28.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

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 Soybean Field # 6 Date: 7/ 6/82(Julian: 187)  
 Time: 14:19 Mean Canopy Height: 38.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 82 62  
 Wet Biomass Density: 1.62  
 Dry Biomass Density: 0.28  
 Plant Water Density: 1.34

Soybean Field # 6 Date: 7/9/82(Julian: 190)  
 Time: 09:15 Mean Canopy Height: 38.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 2.23  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 6 Date: 7/12/82(Julian: 193)  
 Time: 13:50 Mean Canopy Height: 44.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 86.45  
 Wet Biomass Density: 2.89  
 Dry Biomass Density: 0.39  
 Plant Water Density: 2.50

Soybean Field # 6 Date: 7/13/82(Julian: 194)  
 Time: 10:51 Mean Canopy Height: 53.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 88.04  
 Wet Biomass Density: 2.77  
 Dry Biomass Density: 0.33  
 Plant Water Density: 2.44

Soybean Field # 6 Date: 7/15/82(Julian: 196)  
 Time: 13:40 Mean Canopy Height: 58.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 3.27  
 Wet Biomass Density  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 6 Date: 7/19/82(Julian: 200)  
 Time: 14:30 Mean Canopy Height: 55.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 80.77 86.00 85.53 84.77  
 Wet Biomass Density: 1.81 2.99 4.68 3.16  
 Dry Biomass Density: 0.35 0.42 0.68 0.48  
 Plant Water Density: 1.46 2.57 4.00 2.68

Soybean Field # 6 Date: 7/22/82(Julian: 203)  
 Time: 10:45 Mean Canopy Height: 64.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 79.94 84.99  
 Wet Biomass Density: 2.28 3.89 3.13 3.10  
 Dry Biomass Density: 0.46 0.58  
 Plant Water Density: 1.82 3.30

Soybean Field # 6 Date: 7/23/82(Julian: 204)  
 Time: 14:40 Mean Canopy Height: 65.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 78.56 80.60 80.51 79.98  
 Wet Biomass Density: 3.13 4.11 3.57 3.60  
 Dry Biomass Density: 0.67 0.80 0.70 0.72  
 Plant Water Density: 2.46 3.31 2.87 2.88

Soybean Field # 6 Date: 7/26/82(Julian: 207)  
 Time: 15:30 Mean Canopy Height: 61.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 77.19 81.33 79.28 79.39  
 Wet Biomass Density: 2.84 3.42 3.47 3.24  
 Dry Biomass Density: 0.65 0.64 0.72 0.67  
 Plant Water Density: 2.19 2.78 2.75 2.57

Soybean Field # 6 Date: 7/28/82(Julian: 209)  
 Time: 10:35 Mean Canopy Height: 63.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture  
 Wet Biomass Density: 1.02 2.80 6.43 3.42  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 6 Date: 7/29/82(Julian: 210)  
 Time: 12:55 Mean Canopy Height: 68.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 72.94 78.40 77.38 76.61  
 Wet Biomass Density: 3.11 4.61 4.10 3.94  
 Dry Biomass Density: 0.84 1.00 0.93 0.92  
 Plant Water Density: 2.27 3.61 3.17 3.02

Soybean Field # 6 Date: 7/30/82(Julian: 211)  
 Time: 14:40 Mean Canopy Height: 67.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 2.04 2.68 2.52 2.41  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 6 Date: 8/2/82(Julian: 214)  
 Time: 14:40 Mean Canopy Height: 71.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 0.96 3.28 2.45 2.23  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 6 Date: 8/ 4/82(Julian. 216)  
 Time: 10:40 Mean Canopy Height: 73.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture 78.12  
 Wet Biomass Density: 2.75 4.03 2.88 3.22  
 Dry Biomass Density: 0.88  
 Plant Water Density: 3.15

Soybean Field # 6 Date: 8/ 6/82(Julian: 218)  
 Time: 14:10 Mean Canopy Height: 78.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 2.12 2.71 1.93 2.25  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 6 Date: 8/ 9/82(Julian: 221)  
 Time: 14:30 Mean Canopy Height: 79.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture. 72.28 76.86 77.73 76.25  
 Wet Biomass Density. 1.77 2.43 3.72 2.64  
 Dry Biomass Density: 0.49 0.56 0.83 0.63  
 Plant Water Density. 1.28 1.86 2.89 2.01

Soybean Field # 6 Date: 8/11/82(Julian: 223)  
 Time: 13:30 Mean Canopy Height: 79.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture.  
 Wet Biomass Density.  
 Dry Biomass Density  
 Plant Water Density:

Soybean Field # 6 Date. 8/13/82(Julian. 225)  
 Time: 14:20 Mean Canopy Height: 81.3 cm  
 Plant Parts Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density.  
 Plant Water Density

Soybean Field # 6 Date: 8/16/82(Julian: 228)  
 Time: 14.45 Mean Canopy Height: 84.7 cm  
 Plant Parts. Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture 78.24 76.48 78.30 77.54  
 Wet Biomass Density. 2.92 5.23 4.58 4.24  
 Dry Biomass Density: 0.64 1.23 0.99 0.95  
 Plant Water Density. 2.29 4.00 3.59 3.29

Soybean Field # 6 Date: 8/19/82(Julian: 231)  
 Time: 11:50 Mean Canopy Height 90.5 cm  
 Plant Parts. Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture. 76.50 78.43 77.62 77.66  
 Wet Biomass Density: 3.07 4.77 3.38 3.74  
 Dry Biomass Density: 0.72 1.03 0.76 0.84  
 Plant Water Density: 2.35 3.74 2.62 2.90

Soybean Field # 6 Date: 8/20/82(Julian: 232)  
 Time: 16.45 Mean Canopy Height 91.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture. 76.70 79.70 78.97 78.54  
 Wet Biomass Density: 3.58 4.53 3.15 3.76  
 Dry Biomass Density. 0.83 0.92 0.66 0.81  
 Plant Water Density: 2.75 3.61 2.49 2.95

Soybean Field # 6 Date: 8/31/82(Julian. 243)  
 Time: 13:45 Mean Canopy Height. 89.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture. 76.67 77.79 76.30 77.03  
 Wet Biomass Density: 4.38 6.76 4.75 5.30  
 Dry Biomass Density: 1.02 1.50 1.13 1.22  
 Plant Water Density. 3.36 5.26 3.62 4.08

Soybean Field # 6 Date. 9/ 9/82(Julian: 252)  
 Time: 11:20 Mean Canopy Height. 89.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 72.26 72.45 67.02 71.21  
 Wet Biomass Density: 4.09 5.24 2.57 3.96  
 Dry Biomass Density: 1.13 1.44 0.85 1.14  
 Plant Water Density: 2.95 3.80 1.72 2.82

Soybean Field # 6 Date: 9/16/82(Julian. 259)  
 Time: 13:40 Mean Canopy Height: 82.5 cm  
 Plant Parts. Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 49.14 70.82 69.22 64.93  
 Wet Biomass Density: 2.64 4.59 3.40 3.54  
 Dry Biomass Density: 1.34 1.34 1.05 1.24  
 Plant Water Density: 1.30 3.25 2.35 2.30

Soybean Field # 6 Date: 9/28/82(Julian: 271)  
 Time: 12:40 Mean Canopy Height: 82.5 cm  
 Plant Parts. Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture. 25.18 33.63 49.15 35.66  
 Wet Biomass Density. 1.28 2.29 1.34 1.63  
 Dry Biomass Density: 0.95 1.52 0.68 1.05  
 Plant Water Density: 0.32 0.77 0.66 0.58

Soybean Field # 6 Date: 9/30/82(Julian. 273)  
 Time: 10:25 Mean Canopy Height: 83.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 15.53 25.16 36.46 26.08  
 Wet Biomass Density: 0.96 1.70 1.13 1.27  
 Dry Biomass Density: 0.81 1.27 0.72 0.94  
 Plant Water Density: 0.15 0.43 0.41 0.33

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Soybean Field # 6 Date: 10/ 5/82(Julian: 278)  
 Time: 10:45 Mean Canopy Height: 81.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 8.91 10.15 15.89 11.49  
 Wet Biomass Density: 1.51 2.27 1.58 1.79  
 Dry Biomass Density: 1.38 2.04 1.33 1.58  
 Plant Water Density: 0.13 0.23 0.25 0.21

Soybean Field # 7 Date: 7/19/82(Julian. 200)  
 Time: 15:20 Mean Canopy Height: 16.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 7 Date: 7/26/82(Julian. 207)  
 Time: 10:30 Mean Canopy Height: 24.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 7 Date: 7/28/82(Julian: 209)  
 Time: 10:25 Mean Canopy Height: 27.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 81.34 82.51 84.38 83.73  
 Wet Biomass Density: 0.20 0.81 2.26 1.09  
 Dry Biomass Density: 0.04 0.14 0.35 0.18  
 Plant Water Density: 0.16 0.67 1.91 0.91

Soybean Field # 7 Date: 7/30/82(Julian. 211)  
 Time: 14:30 Mean Canopy Height: 26.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 0.54 0.46 0.71 0.57  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 7 Date: 8/ 4/82(Julian: 216)  
 Time: 10:25 Mean Canopy Height: 37.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 80.60 85.77 83.40 83.97  
 Wet Biomass Density: 1.19 2.76 1.74 1.90  
 Dry Biomass Density: 0.23 0.39 0.29 0.30  
 Plant Water Density: 0.96 2.37 1.45 1.59

Soybean Field # 7 Date: 8/ 6/82(Julian: 218)  
 Time: 14:00 Mean Canopy Height: 37.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 1.51 1.34 1.09 1.31  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 7 Date: 8/ 9/82(Julian: 221)  
 Time: 14:20 Mean Canopy Height: 48.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 79.48 84.67 82.93 82.82  
 Wet Biomass Density: 1.11 1.90 1.80 1.61  
 Dry Biomass Density: 0.23 0.29 0.31 0.28  
 Plant Water Density: 0.88 1.61 1.50 1.33

Soybean Field # 7 Date: 8/11/82(Julian: 223)  
 Time: 13:36 Mean Canopy Height: 50.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 7 Date: 8/13/82(Julian. 225)  
 Time: 14:10 Mean Canopy Height: 46.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 7 Date: 8/16/82(Julian: 228)  
 Time: 14:00 Mean Canopy Height: 55.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 80.54 83.82 82.33 82.42  
 Wet Biomass Density: 1.44 2.06 2.19 1.90  
 Dry Biomass Density: 0.28 0.33 0.39 0.33  
 Plant Water Density: 1.16 1.73 1.81 1.56

Soybean Field # 7 Date: 8/31/82(Julian. 243)  
 Time: 15:40 Mean Canopy Height: 77.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 7 Date: 10/7/82(Julian. 280)  
 Time: 11:20 Mean Canopy Height: 83.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 0.85 0.46 1.90 1.07  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 7 Date: 9/9/82(Julian: 252)  
 Time: 11:20 Mean Canopy Height: 89.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 1.51 2.41 3.19 2.37  
 Dry Biomass Density: 0.39 0.52 0.72 0.55  
 Plant Water Density: 1.12 1.88 2.47 1.82

Soybean Field # 7 Date: 10/12/82(Julian. 285)  
 Time: 13:30 Mean Canopy Height: 82.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 0.47 0.65 0.47 0.53  
 Dry Biomass Density: 0.34 0.43 0.27 0.34  
 Plant Water Density: 0.13 0.22 0.20 0.19

Soybean Field # 7 Date: 9/16/82(Julian: 259)  
 Time: 13:25 Mean Canopy Height: 93.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 1.48 2.45 2.00 1.98  
 Dry Biomass Density: 0.41 0.65 0.53 0.53  
 Plant Water Density: 1.07 1.80 1.47 1.45

Soybean Field # 7 Date: 10/14/82(Julian 287)  
 Time: 11:30 Mean Canopy Height 80.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 0.60 1.02 0.72 0.78  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 7 Date: 9/28/82(Julian 271)  
 Time: 11:08 Mean Canopy Height: 84.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 68.18 69.43 68.31 68.70  
 Dry Biomass Density: 2.22 2.90 2.51 2.54  
 Plant Water Density: 0.71 0.89 0.79 0.80  
 Plant Water Density: 1.51 2.02 1.71 1.75

Soybean Field # 7 Date: 10/19/82(Julian: 292)  
 Time: 13:20 Mean Canopy Height: 81.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 19.64 24.39 35.22 27.83  
 Dry Biomass Density: 0.46 0.82 0.89 0.72  
 Plant Water Density: 0.37 0.62 0.58 0.52  
 Plant Water Density: 0.09 0.20 0.31 0.20

Soybean Field # 7 Date: 9/30/82(Julian: 273)  
 Time: 09:50 Mean Canopy Height: 87.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 1.43 2.40 2.37 2.07  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 7 Date: 10/21/82(Julian: 294)  
 Time: 10:40 Mean Canopy Height: 78.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 0.44 0.83 0.68 0.65  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 7 Date: 10/5/82(Julian: 278)  
 Time: 11:30 Mean Canopy Height: 80.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 56.57 58.69 61.16 58.97  
 Dry Biomass Density: 0.54 0.77 0.70 0.67  
 Plant Water Density: 0.24 0.32 0.27 0.27  
 Plant Water Density: 0.31 0.45 0.43 0.39

Soybean Field # 7 Date: 10/26/82(Julian: 299)  
 Time: 10:30 Mean Canopy Height: 78.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 4.93 5.64 23.43 9.62  
 Dry Biomass Density: 0.63 0.76 0.43 0.61  
 Plant Water Density: 0.60 0.72 0.33 0.55  
 Plant Water Density: 0.03 0.04 0.10 0.06

Soybean Field # 8 Date: 7/ 9/82(Julian: 190)  
Time: 10:40 Mean Canopy Height: 8.3 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant

% Plant Moisture: 84.23  
Wet Biomass Density: 0.75  
Dry Biomass Density: 0.12  
Plant Water Density: 0.63

Soybean Field # 8 Date: 7/12/82(Julian: 193)  
Time: 13:39 Mean Canopy Height: 15.8 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant

% Plant Moisture: 84.23  
Wet Biomass Density: 0.75  
Dry Biomass Density: 0.12  
Plant Water Density: 0.63

Soybean Field # 8 Date: 7/13/82(Julian: 194)  
Time: 11 40 Mean Canopy Height: 13.3 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant

% Plant Moisture: 84.23  
Wet Biomass Density: 0.75  
Dry Biomass Density: 0.12  
Plant Water Density: 0.63

Soybean Field # 8 Date: 7/19/82(Julian: 200)  
Time: 15:18 Mean Canopy Height: 19.8 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant

% Plant Moisture: 84.23  
Wet Biomass Density: 0.75  
Dry Biomass Density: 0.12  
Plant Water Density: 0.63

Soybean Field # 8 Date: 7/26/82(Julian: 207)  
Time: 10:30 Mean Canopy Height: 31.5 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant

% Plant Moisture: 86.87 85.75  
Wet Biomass Density: 1.95 1.81 2.05 1.93  
Dry Biomass Density: 0.24 0.29  
Plant Water Density: 1.57 1.75

Soybean Field # 8 Date: 7/28/82(Julian: 209)  
Time: Mean Canopy Height: 35.8 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant

% Plant Moisture: 79.23 82.69 85.94 83.26  
Wet Biomass Density: 1.33 2.13 2.44 1.96  
Dry Biomass Density: 0.28 0.37 0.34 0.33  
Plant Water Density: 1.05 1.76 2.09 1.64

Soybean Field # 8 Date: 8/ 2/82(Julian: 214)  
Time: 10:00 Mean Canopy Height: 48.7 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant

% Plant Moisture: 80.08 81.57  
Wet Biomass Density: 1.81 2.39 1.69 1.96  
Dry Biomass Density: 0.36 0.31  
Plant Water Density: 1.45 1.38

Soybean Field # 8 Date: 8/ 6/82(Julian: 218)  
Time: 15:05 Mean Canopy Height: 60.3 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant

% Plant Moisture: 1.70 2.14 1.65 1.83  
Wet Biomass Density: 1.70 2.14 1.65 1.83  
Dry Biomass Density: 1.70 2.14 1.65 1.83  
Plant Water Density: 1.70 2.14 1.65 1.83

Soybean Field # 8 Date: 8/ 9/82(Julian: 221)  
Time: 15:12 Mean Canopy Height: 68.0 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant

% Plant Moisture: 78.08 82.12 78.61 79.81  
Wet Biomass Density: 2.13 2.47 1.69 2.09  
Dry Biomass Density: 0.47 0.44 0.36 0.42  
Plant Water Density: 1.66 2.02 1.33 1.67

Soybean Field # 8 Date: 8/11/82(Julian: 223)  
Time: 13:40 Mean Canopy Height: 74.2 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant

% Plant Moisture: 78.08 82.12 78.61 79.81  
Wet Biomass Density: 2.13 2.47 1.69 2.09  
Dry Biomass Density: 0.47 0.44 0.36 0.42  
Plant Water Density: 1.66 2.02 1.33 1.67

Soybean Field # 8 Date: 8/13/82(Julian: 225)  
Time: 14:10 Mean Canopy Height: 73.3 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant

% Plant Moisture: 81.61 74.34 79.87 77.95  
Wet Biomass Density: 2.12 3.22 1.99 2.44  
Dry Biomass Density: 0.39 0.83 0.40 0.54  
Plant Water Density: 1.73 2.39 1.59 1.91

Soybean Field # 8 Date: 8/16/82(Julian: 228)  
Time: 13:50 Mean Canopy Height: 87.3 cm  
Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant

% Plant Moisture: 81.61 74.34 79.87 77.95  
Wet Biomass Density: 2.12 3.22 1.99 2.44  
Dry Biomass Density: 0.39 0.83 0.40 0.54  
Plant Water Density: 1.73 2.39 1.59 1.91

Soybean Field # 8 Date: 8/31/82(Julian: 243)  
 Time: 15:45 Mean Canopy Height: 100.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 8 Date: 9/9/82(Julian: 252)  
 Time: 11:00 Mean Canopy Height: 105.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 75.33 77.34 73.54 75.79  
 Wet Biomass Density: 3.57 3.90 1.98 3.15  
 Dry Biomass Density: 0.88 0.88 0.52 0.76  
 Plant Water Density: 2.69 3.02 1.45 2.39

Soybean Field # 8 Date: 9/16/82(Julian: 259)  
 Time: Mean Canopy Height: 103.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 70.03 65.61 72.99 69.34  
 Wet Biomass Density: 2.18 3.66 3.32 3.05  
 Dry Biomass Density: 0.65 1.26 0.90 0.94  
 Plant Water Density: 1.52 2.40 2.42 2.12

Soybean Field # 8 Date: 9/28/82(Julian: 271)  
 Time: 11:05 Mean Canopy Height: 102.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 65.42 70.62 66.92 68.17  
 Wet Biomass Density: 2.60 4.29 2.65 3.18  
 Dry Biomass Density: 0.90 1.26 0.88 1.01  
 Plant Water Density: 1.70 3.03 1.78 2.17

Soybean Field # 8 Date: 9/30/82(Julian: 273)  
 Time: Mean Canopy Height: 98.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 0.78 1.53 1.34 1.22  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 8 Date: 10/5/82(Julian: 278)  
 Time: 11:30 Mean Canopy Height: 98.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 33.36 36.96 46.49 39.55  
 Wet Biomass Density: 0.84 1.38 1.27 1.16  
 Dry Biomass Density: 0.56 0.87 0.68 0.70  
 Plant Water Density: 0.28 0.51 0.59 0.46

Soybean Field # 8 Date: 10/7/82(Julian: 280)  
 Time: Mean Canopy Height: 98.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 0.97 1.41 1.00 1.13  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 8 Date: 10/12/82(Julian: 285)  
 Time: 13:40 Mean Canopy Height: 97.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 14.41 22.70 23.39 20.75  
 Wet Biomass Density: 0.67 1.11 0.80 0.86  
 Dry Biomass Density: 0.58 0.86 0.61 0.68  
 Plant Water Density: 0.10 0.25 0.19 0.18

Soybean Field # 8 Date: 10/14/82(Julian: 287)  
 Time: 11:55 Mean Canopy Height: 97.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 0.47 0.70 0.59 0.58  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 8 Date: 10/19/82(Julian: 292)  
 Time: 13:00 Mean Canopy Height: 96.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 6.79 10.13 15.35 10.96  
 Wet Biomass Density: 0.53 0.76 0.65 0.65  
 Dry Biomass Density: 0.50 0.68 0.55 0.58  
 Plant Water Density: 0.04 0.08 0.10 0.07

Soybean Field # 8 Date: 10/21/82(Julian: 294)  
 Time: 10:40 Mean Canopy Height: 97.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 0.69 0.58 0.55 0.61  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 9 Date: 7/19/82(Julian: 200)  
 Time: 15:04 Mean Canopy Height: 15.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:



Soybean Field # 9 Date: 8/13/82(Julian: 225)  
 Time: 14:10 Mean Canopy Height: 32.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 9 Date: 8/16/82(Julian: 228)  
 Time: 13:40 Mean Canopy Height: 43.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 81.89 84.38 80.27 82.21  
 Wet Biomass Density: 1.12 1.75 1.76 1.54  
 Dry Biomass Density: 0.20 0.27 0.35 0.27  
 Plant Water Density: 0.92 1.48 1.42 1.27

Soybean Field # 9 Date: 8/31/82(Julian: 243)  
 Time: 15:45 Mean Canopy Height: 82.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 9 Date: 9/9/82(Julian: 252)  
 Time: 11:00 Mean Canopy Height: 85.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 76.29 79.53 74.27 77.04  
 Wet Biomass Density: 2.53 4.54 3.42 3.50  
 Dry Biomass Density: 0.60 0.93 0.88 0.80  
 Plant Water Density: 1.93 3.61 2.54 2.69

Soybean Field # 9 Date: 9/16/82(Julian: 259)  
 Time: 11:00 Mean Canopy Height: 90.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 72.41 72.96 70.47 72.19  
 Wet Biomass Density: 1.85 2.03 1.15 1.67  
 Dry Biomass Density: 0.51 0.55 0.34 0.47  
 Plant Water Density: 1.34 1.48 0.81 1.21

Soybean Field # 9 Date: 9/28/82(Julian: 271)  
 Time: 11:05 Mean Canopy Height: 83.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 68.08 68.33 65.64 67.18  
 Wet Biomass Density: 1.99 3.90 4.04 3.31  
 Dry Biomass Density: 0.64 1.24 1.39 1.09  
 Plant Water Density: 1.36 2.67 2.65 2.23

Soybean Field # 9 Date: 7/26/82(Julian: 207)  
 Time: Mean Canopy Height: 16.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 9 Date: 7/28/82(Julian: 209)  
 Time: 11:45 Mean Canopy Height: 20.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 0.14 0.89 1.21 0.75  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 9 Date: 8/2/82(Julian: 214)  
 Time: 10:00 Mean Canopy Height: 19.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 79.43 80.20  
 Wet Biomass Density: 1.39 1.78 2.52 1.89  
 Dry Biomass Density: 0.37 0.50  
 Plant Water Density: 1.41 2.02

Soybean Field # 9 Date: 8/6/82(Julian: 218)  
 Time: 15:00 Mean Canopy Height: 26.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 0.67 0.80 0.59 0.69  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 9 Date: 8/9/82(Julian: 221)  
 Time: 15:22 Mean Canopy Height: 32.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 76.47 79.83 75.14 77.46  
 Wet Biomass Density: 1.34 1.45 0.91 1.23  
 Dry Biomass Density: 0.31 0.29 0.23 0.28  
 Plant Water Density: 1.02 1.16 0.68 0.95

Soybean Field # 9 Date: 8/11/82(Julian: 223)  
 Time: 13:45 Mean Canopy Height: 33.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field # 9 Date: 9/30/82(Julian: 273)  
 Time: 09:55 Mean Canopy Height: 84.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 1.25 2.42 2.51 2.06  
 Wet Biomass Density: 0.81 1.31 0.73 0.95  
 Dry Biomass Density: 0.85  
 Plant Water Density: -----

Soybean Field # 9 Date: 10/ 5/82(Julian: 278)  
 Time: 11 30 Mean Canopy Height: 87 0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 51.21 53.08  
 Wet Biomass Density: 1.66 1.56  
 Dry Biomass Density: 0.81 1.31 0.73 0.95  
 Plant Water Density: 0.85 -----

Soybean Field # 9 Date: 10/ 7/82(Julian: 280)  
 Time Mean Canopy Height: 81.3 cm  
 Plant Parts Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 1.45 2.10 1.47 1.67  
 Dry Biomass Density:  
 Plant Water Density: -----

Soybean Field # 9 Date: 10/12/82(Julian: 285)  
 Time: 13.38 Mean Canopy Height: 80 3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 27.77 38.36 30 09 32.95  
 Wet Biomass Density: 0.76 1.33 1.14 1.08  
 Dry Biomass Density: 0.55 0.82 0.80 0.72  
 Plant Water Density: 0.21 0.51 0.34 0.36 -----

Soybean Field # 9 Date: 10/14/82(Julian: 287)  
 Time: 11:55 Mean Canopy Height: 77.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 0.44 0.68 0.42 0.52  
 Dry Biomass Density:  
 Plant Water Density: -----

Soybean Field # 9 Date: 10/19/82(Julian: 292)  
 Time 12 50 Mean Canopy Height: 84.0 cm  
 Plant Parts Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture 20.10 27.84 21.88 24 12  
 Wet Biomass Density: 0.47 0.75 0.40 0.54  
 Dry Biomass Density: 0.38 0.54 0.31 0.41  
 Plant Water Density: 0.10 0.21 0.09 0 13 -----

Soybean Field # 9 Date: 10/21/82(Julian: 294)  
 Time: 10:40 Mean Canopy Height: 84.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 0.77 0.99 0.58 0.78  
 Dry Biomass Density:  
 Plant Water Density: -----

Soybean Field # 9 Date: 10/26/82(Julian: 299)  
 Time: 10:30 Mean Canopy Height: 79 2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 12 66 25.14 14.79 18.09  
 Wet Biomass Density: 0.67 0.80 0.61 0.69  
 Dry Biomass Density: 0.58 0.60 0.52 0 57  
 Plant Water Density: 0.08 0.20 0.09 0 12 -----

Soybean Field #10 Date: 6/14/82(Julian: 165)  
 Time: 10:13 Mean Canopy Height: 16.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: -----

Soybean Field #10 Date: 6/16/82(Julian: 167)  
 Time: 15 35 Mean Canopy Height: 19 8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: -----

Soybean Field #10 Date: 6/21/82(Julian: 172)  
 Time: 10:50 Mean Canopy Height: 21 2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: -----

Soybean Field #10 Date: 6/25/82(Julian: 176)  
 Time: 10:25 Mean Canopy Height: 26 5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density: -----

Soybean Field #10 Date: 6/28/82(Julian: 179)  
 Time: 14:50 Mean Canopy Height: 27.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field #10 Date: 6/30/82(Julian: 181)  
 Time: Mean Canopy Height: 28.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field #10 Date: 7/7/82(Julian: 188)  
 Time: 10:05 Mean Canopy Height: 40.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 1.13  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field #10 Date: 7/9/82(Julian: 190)  
 Time: 11:38 Mean Canopy Height: 43.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 1.10  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field #10 Date: 7/12/82(Julian: 193)  
 Time: 15:15 Mean Canopy Height: 41.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 82.00  
 Wet Biomass Density: 2.23  
 Dry Biomass Density: 0.40  
 Plant Water Density: 1.83

Soybean Field #10 Date: 7/13/82(Julian: 194)  
 Time: 14:25 Mean Canopy Height: 47.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 82.92  
 Wet Biomass Density: 1.47  
 Dry Biomass Density: 0.25  
 Plant Water Density: 1.22

Soybean Field #10 Date: 7/15/82(Julian: 196)  
 Time: 09:52 Mean Canopy Height: 49.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 1.85  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field #10 Date: 7/23/82(Julian: 204)  
 Time: 10:00 Mean Canopy Height: 56.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 77.27 81.59 78.79 79.54  
 Wet Biomass Density: 1.52 2.65 2.59 2.25  
 Dry Biomass Density: 0.35 0.49 0.55 0.46  
 Plant Water Density: 1.17 2.16 2.04 1.79

Soybean Field #10 Date: 7/26/82(Julian: 207)  
 Time: 11:12 Mean Canopy Height: 56.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 75.41 78.97 77.81 77.97  
 Wet Biomass Density: 1.02 3.19 3.94 2.72  
 Dry Biomass Density: 0.25 0.67 0.87 0.60  
 Plant Water Density: 0.77 2.52 3.06 2.12

Soybean Field #10 Date: 7/28/82(Julian: 209)  
 Time: 14:30 Mean Canopy Height: 61.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 2.39 4.13 4.09 3.54  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field #10 Date: 7/30/82(Julian: 211)  
 Time: 09:30 Mean Canopy Height: 72.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 3.06 2.05 3.00 2.70  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field #10 Date: 8/2/82(Julian: 214)  
 Time: 11:00 Mean Canopy Height: 72.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 75.84 80.42 77.40 77.55  
 Wet Biomass Density: 4.22 2.75 4.88 3.95  
 Dry Biomass Density: 1.02 0.54 1.10 0.89  
 Plant Water Density: 3.20 2.21 3.78 3.06

Soybean Field #10 Date: 8/ 4/82(Julian. 216)  
 Time: 15:13 Mean Canopy Height: 80.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 1.34 2.07 2.36 1.92  
 Wet Biomass Density: 1.99 4.16 5.02 3.73  
 Dry Biomass Density: 0.88 1.24 1.51 1.21  
 Plant Water Density: 1.12 2.93 3.51 2.52

Soybean Field #10 Date: 8/ 9/82(Julian: 221)  
 Time: 10:17 Mean Canopy Height: 77.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 74.66 78.44 77.60 77.35  
 Wet Biomass Density: 1.57 2.82 4.41 2.93  
 Dry Biomass Density: 0.40 0.61 0.99 0.66  
 Plant Water Density: 1.17 2.22 3.42 2.27

Soybean Field #10 Date: 8/11/82(Julian: 223)  
 Time: 14:00 Mean Canopy Height: 92.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field #10 Date: 8/13/82(Julian: 225)  
 Time: 14:50 Mean Canopy Height: 92.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field #10 Date: 8/18/82(Julian: 230)  
 Time: Mean Canopy Height: 89.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 72.36 69.50 73.17 71.25  
 Wet Biomass Density: 2.47 5.17 3.31 3.65  
 Dry Biomass Density: 0.68 1.58 0.89 1.05  
 Plant Water Density: 1.79 3.60 2.42 2.60

Soybean Field #10 Date: 9/ 2/82(Julian: 245)  
 Time: 15:45 Mean Canopy Height: 87.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 70.38 71.58 70.54 71.01  
 Wet Biomass Density: 2.16 6.75 5.12 4.68  
 Dry Biomass Density: 0.64 1.92 1.51 1.36  
 Plant Water Density: 1.52 4.83 3.61 3.32

Soybean Field #10 Date: 9/ 9/82(Julian: 252)  
 Time: 13:15 Mean Canopy Height: 85.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 56.12 70.32 69.95 67.62  
 Wet Biomass Density: 1.99 4.16 5.02 3.73  
 Dry Biomass Density: 0.88 1.24 1.51 1.21  
 Plant Water Density: 1.12 2.93 3.51 2.52

Soybean Field #10 Date: 9/16/82(Julian: 259)  
 Time: 10:45 Mean Canopy Height: 74.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 43.95 64.54 66.35 60.89  
 Wet Biomass Density: 2.92 5.82 5.16 4.63  
 Dry Biomass Density: 1.64 2.06 1.74 1.81  
 Plant Water Density: 1.28 3.76 3.43 2.82

Soybean Field #10 Date: 9/23/82(Julian: 266)  
 Time: 13:00 Mean Canopy Height: 71.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 36.74 43.61 51.18 44.06  
 Wet Biomass Density: 1.67 3.59 1.95 2.40  
 Dry Biomass Density: 1.06 2.03 0.95 1.34  
 Plant Water Density: 0.61 1.57 1.00 1.06

Appendix III.c.2  
Plant Density--Soybean Fields

Field	Row Separation (cm)			Number of Plants/m			Number of Plants per m <sup>2</sup>	Number of Beans (per Plant)
	Mean	S.D.	N	Mean	S.D.	N		Mean
S 1	77.2	2.1	6	11.7	2.1	6	15.2	
S 2	74.5	11.5	6	12.8	3.4	12	17.2	99.3
S 3	76.8	2.4	6	16.7	4.6	12	21.7	148.5
S 4	75.0	2.4	6	25.0	2.8	6	33.3	
S 5	76.8	2.1	6	25.7	1.5	6	33.5	
S 6	73.6	2.6	12	18.3	3.0	18	24.9	128.3
S 7	75.8	3.2	6	13.3	4.4	12	17.5	64.7
S 8	74.2	2.5	6	20.3	4.5	6	27.4	82.2
S 9	78.4	1.1	5	17.9	6.9	12	22.8	
S10	73.9	2.5	12	17.8	8.0	12	24.1	109.3

Appendix III.c.3

Soybean Field Soil Moisture Data

Soybean Field# 1 Date: 7/19/82 (Julian: 200) Time: 13:48												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	25.24	25.87	30.14	27.82	28.71	33.18	28.50	2.92	1.02			
2-5 cm	23.63	24.98	27.97	27.89	27.03	25.86	26.23	1.73	0.66			
0-5 cm	24.27	25.34	28.84	27.86	27.70	28.79	27.13	2.20	0.80			
Soybean Field# 1 Date: 7/23/82 (Julian: 204) Time: 13:25												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	28.79	26.89	23.39	19.38	26.27	99.99	24.94	3.66	1.47			
2-5 cm	27.87	24.25	25.52	18.28	24.93	17.65	23.08	4.15	1.80			
0-5 cm	28.24	25.31	24.67	18.72	25.47	99.99	23.83	3.96	1.67			
Soybean Field# 1 Date: 7/26/82 (Julian: 207) Time: 10:15												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	18.44	24.27	22.79	9.61	8.67	11.49	15.88	6.86	4.32			
2-5 cm	18.51	23.07	24.92	22.09	17.06	18.70	20.72	3.08	1.49			
0-5 cm	18.48	23.55	24.07	17.10	13.70	15.81	18.79	4.59	2.62			
Soybean Field# 1 Date: 7/28/82 (Julian: 209) Time: 10:15												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	27.37	27.09	32.86	26.22	25.00	20.24	26.46	4.07	1.54			
2-5 cm	29.84	23.36	31.16	27.80	28.53	21.77	27.08	3.71	1.37			
0-5 cm	28.85	24.85	31.84	27.17	27.12	21.16	26.83	3.86	1.44			
Soybean Field# 1 Date: 7/30/82 (Julian: 211) Time: 10:50												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	28.11	17.95	17.80	16.15	17.56	14.36	18.66	4.83	2.59			
2-5 cm	26.38	15.75	99.99	13.10	18.03	15.10	17.67	5.17	2.93			
0-5 cm	27.07	16.63	99.99	14.32	17.84	14.81	18.07	5.04	2.79			
Soybean Field# 1 Date: 8/2/82 (Julian: 214) Time: 13:50												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	17.83	19.92	16.85	20.70	12.92	10.31	16.42	4.06	2.47			
2-5 cm	18.52	11.28	20.15	25.73	16.85	12.35	17.48	5.32	3.04			
0-5 cm	18.24	14.73	18.83	23.71	15.28	11.54	17.05	4.81	2.81			
Soybean Field# 1 Date: 8/6/82 (Julian: 218) Time: 10:35												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	31.13	29.43	29.44	31.39	28.59	30.52	30.09	1.10	0.37			
2-5 cm	26.87	28.76	25.73	27.90	26.69	27.17	1.04	0.38	0.38			
0-5 cm	28.58	29.03	27.22	29.30	27.69	28.22	28.34	1.07	0.38			
Soybean Field# 1 Date: 8/9/82 (Julian: 221) Time: 09:59												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	27.31	28.20	27.58	23.66	24.94	26.48	26.36	1.74	0.66			
2-5 cm	25.87	29.42	28.29	23.61	24.17	23.61	25.83	2.51	0.97			
0-5 cm	26.45	28.93	28.01	23.63	24.48	24.76	26.04	2.20	0.85			
Soybean Field# 1 Date: 8/16/82 (Julian: 228) Time: 13:48												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	30.84	32.14	30.00	31.45	30.39	99.99	30.96	0.85	0.27			
2-5 cm	31.11	28.02	27.93	28.12	27.17	27.54	28.31	1.41	0.50			
0-5 cm	31.00	29.67	28.76	29.45	28.46	99.99	29.37	1.19	0.41			
Soybean Field# 1 Date: 8/18/82 (Julian: 230) Time: 12:15												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	26.24	27.91	24.45	26.18	29.23	28.53	27.09	1.78	0.66			
2-5 cm	26.89	27.66	24.48	24.24	19.32	25.35	24.66	2.94	1.19			
0-5 cm	26.63	27.76	24.47	25.02	23.28	26.62	25.63	2.48	0.98			
Soybean Field# 1 Date: 9/9/82 (Julian: 252) Time: 10:45												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	23.41	22.19	22.61	28.10	27.55	25.98	24.97	2.58	1.03			
2-5 cm	24.54	22.19	23.10	25.21	27.61	26.74	24.90	2.07	0.83			
0-5 cm	24.09	22.19	22.90	26.37	27.58	26.43	24.93	2.27	0.91			
Soybean Field# 1 Date: 9/16/82 (Julian: 259) Time: 10:45												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	17.11	20.84	21.53	20.13	26.29	23.19	21.51	3.08	1.43			
2-5 cm	17.91	21.12	12.53	20.72	25.02	23.25	20.09	4.42	2.20			
0-5 cm	17.59	21.01	16.13	20.48	25.53	23.23	20.66	3.88	1.89			
Soybean Field# 1 Date: 9/23/82 (Julian: 266) Time: 13:00												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	11.79	18.89	14.37	19.71	13.56	21.80	16.69	3.98	2.39			
2-5 cm	13.57	20.09	15.13	20.42	16.17	21.74	17.85	3.33	1.86			
0-5 cm	12.86	19.61	14.82	20.14	15.13	21.76	17.39	3.59	2.07			
Soybean Field# 1 Date: 9/28/82 (Julian: 271) Time: 11:15												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	10.53	10.18	8.39	10.22	12.15	12.09	10.60	1.40	1.32			
2-5 cm	12.87	12.38	11.40	14.15	15.13	13.70	13.27	1.33	1.00			
0-5 cm	11.94	11.50	10.20	12.58	13.94	13.06	12.20	1.36	1.13			
Soybean Field# 1 Date: 9/30/82 (Julian: 273) Time: 11:15												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	12.61	16.48	20.07	12.10	6.14	14.43	13.64	4.68	3.44			
2-5 cm	14.25	17.53	22.19	14.95	9.64	15.93	15.75	4.12	2.62			
0-5 cm	13.60	17.11	21.34	13.81	8.24	15.33	14.90	4.35	2.94			
Soybean Field# 1 Date: 10/5/82 (Julian: 278) Time: 11:35												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	13.52	8.42	4.74	7.94	8.63	13.39	9.44	3.42	3.62			
2-5 cm	12.84	12.02	8.54	13.37	14.77	14.19	12.62	2.22	1.76			
0-5 cm	13.12	10.58	7.02	11.20	12.31	13.87	11.35	2.70	2.50			

Soybean Field#: 1 Date: 10/7/82 (Julian: 280) Time: 10:00										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	14.11	6.04	4.75	8.27	5.04	9.29	7.92	3.53	4.45	
2-5 cm	15.98	9.73	7.50	12.00	9.86	9.97	10.84	2.89	2.67	
0-5 cm	15.23	8.25	6.40	10.51	7.94	9.70	9.67	3.15	3.38	
Soybean Field#: 1 Date: 10/12/82 (Julian: 285) Time:										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	99.99	20.57	16.88	99.99	20.45	24.09	20.50	2.94	1.44	
2-5 cm	24.24	21.98	20.44	26.07	21.04	24.06	22.97	2.17	0.94	
0-5 cm	99.99	21.42	19.02	99.99	20.81	24.07	21.98	2.48	1.14	
Soybean Field#: 1 Date: 10/14/82 (Julian: 287) Time:										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	21.42	23.12	17.37	18.84	22.60	20.01	20.56	2.23	1.09	
2-5 cm	21.88	22.54	19.92	19.99	25.08	21.42	21.81	1.91	0.88	
0-5 cm	21.70	22.77	18.90	19.53	24.09	20.85	21.31	2.04	0.96	
Soybean Field#: 1 Date: 10/19/82 (Julian: 292) Time: 10:40										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	10.60	13.83	14.69	14.19	17.16	11.28	13.63	2.39	1.76	
2-5 cm	16.73	17.17	19.70	19.64	20.47	19.10	18.80	1.51	0.80	
0-5 cm	14.28	15.84	17.70	17.46	19.15	15.97	16.73	1.86	1.18	
Soybean Field#: 2 Date: 7/12/82 (Julian: 193) Time: 09:28										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	25.58	25.51	24.60	23.85	25.78	29.02	25.72	1.77	0.69	
2-5 cm	29.50	23.15	23.31	23.67	24.12	25.92	24.94	2.45	0.98	
0-5 cm	27.93	24.09	23.82	23.74	24.79	27.16	25.26	2.18	0.86	
Soybean Field#: 2 Date: 7/13/82 (Julian: 194) Time: 14:27										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	22.23	21.83	16.06	25.91	31.41	26.51	23.99	5.21	2.17	
2-5 cm	18.47	26.62	25.09	22.49	26.35	23.83	23.81	3.04	1.28	
0-5 cm	19.97	24.71	21.48	23.86	28.37	24.90	23.88	3.91	1.64	
Soybean Field#: 2 Date: 7/19/82 (Julian: 200) Time: 10:50										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	99.99	31.10	20.36	21.08	24.69	22.86	24.02	4.30	1.79	
2-5 cm	24.36	24.36	20.74	20.88	25.21	22.69	23.04	1.91	0.83	
0-5 cm	99.99	27.06	20.59	20.96	25.00	22.76	23.43	2.87	1.21	
Soybean Field#: 2 Date: 7/23/82 (Julian: 204) Time: 13:38										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	27.54	28.65	22.99	26.15	29.04	24.80	26.53	2.34	0.88	
2-5 cm	25.85	26.19	22.48	25.69	27.27	26.73	25.70	1.68	0.65	
0-5 cm	26.52	27.17	22.68	25.88	27.98	25.96	26.03	1.95	0.75	

Soybean Field#: 2 Date: 7/26/82 (Julian: 207) Time: 14:05										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	20.07	20.46	12.58	18.81	23.98	21.57	19.58	3.85	1.96	
2-5 cm	19.22	22.07	16.14	19.53	21.40	21.23	19.93	2.17	1.09	
0-5 cm	19.56	21.43	14.72	19.24	22.44	21.36	19.79	2.84	1.44	
Soybean Field#: 2 Date: 7/28/82 (Julian: 209) Time: 15:45										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	19.68	20.38	21.41	17.25	23.09	20.75	20.43	1.94	0.95	
2-5 cm	19.72	19.82	20.63	18.02	23.39	28.39	21.66	3.74	1.72	
0-5 cm	19.70	20.04	20.94	17.71	23.27	25.34	21.17	3.02	1.41	
Soybean Field#: 2 Date: 7/30/82 (Julian: 211) Time: 13:30										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	16.62	19.00	23.22	6.32	20.45	18.87	17.41	5.86	3.36	
2-5 cm	16.04	18.39	21.32	11.47	19.97	19.19	17.73	3.53	1.99	
0-5 cm	16.27	18.63	22.08	9.41	20.16	19.06	17.60	4.46	2.54	
Soybean Field#: 2 Date: 8/2/82 (Julian: 214) Time: 14:37										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	2.72	8.31	8.43	3.77	8.93	16.22	8.06	4.79	5.93	
2-5 cm	10.42	14.53	14.09	11.89	12.57	12.50	12.67	1.50	1.18	
0-5 cm	7.34	12.04	11.83	8.64	11.12	13.99	10.83	2.81	3.08	
Soybean Field#: 2 Date: 8/6/82 (Julian: 218) Time: 11:57										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	28.41	19.24	26.00	25.20	23.57	23.76	24.36	3.07	1.26	
2-5 cm	26.03	23.38	23.90	23.44	22.24	21.77	23.46	1.49	0.64	
0-5 cm	26.98	21.72	24.74	24.15	22.77	22.57	23.82	2.12	0.89	
Soybean Field#: 2 Date: 8/9/82 (Julian: 221) Time: 13:25										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	19.48	23.39	18.87	17.48	18.53	25.99	20.62	3.32	1.61	
2-5 cm	19.36	22.63	18.74	22.33	20.97	24.26	21.38	2.10	0.98	
0-5 cm	19.41	22.93	18.79	20.39	19.99	24.95	21.08	2.58	1.23	
Soybean Field#: 2 Date: 8/16/82 (Julian: 228) Time: 10:54										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	25.30	25.25	23.45	23.33	24.54	26.96	24.80	1.35	0.55	
2-5 cm	23.55	23.37	21.90	23.42	23.63	24.66	23.42	0.88	0.38	
0-5 cm	24.25	24.12	22.52	23.38	23.99	25.58	23.97	1.07	0.45	
Soybean Field#: 2 Date: 8/18/82 (Julian: 230) Time: 14:20										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	22.71	21.28	24.84	21.02	25.02	25.34	23.27	2.01	0.86	
2-5 cm	23.10	20.79	23.29	19.92	99.99	24.17	22.37	1.89	0.85	
0-5 cm	23.07	20.98	23.91	20.36	99.99	24.64	22.73	1.94	0.85	

Soybean Field#: 2 Date: 9/2/82 (Julian: 245) Time: 10:10										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	11.85	14.61	21.22	17.20	18.38	14.71	16.33	3.30	2.02	
2-5 cm	16.41	15.78	17.38	18.05	99.99	17.11	16.95	0.88	0.52	
0-5 cm	14.58	15.31	18.91	17.71	99.99	16.15	16.70	1.85	1.12	
Soybean Field#: 2 Date: 9/9/82 (Julian: 252) Time: 10:10										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	20.26	21.27	19.34	20.95	22.79	16.44	20.17	2.16	1.07	
2-5 cm	19.63	18.93	19.25	19.44	18.92	18.76	19.15	0.34	0.18	
0-5 cm	19.88	19.86	19.29	20.04	20.47	17.83	19.56	1.07	0.53	
Soybean Field#: 2 Date: 9/16/82 (Julian: 259) Time: 12:40										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	18.96	17.09	14.79	17.71	19.09	22.76	18.40	2.65	1.44	
2-5 cm	18.57	16.55	15.31	17.53	18.90	23.23	18.35	2.73	1.49	
0-5 cm	18.73	16.76	15.10	17.60	18.98	23.04	18.37	2.70	1.47	
Soybean Field#: 2 Date: 9/23/82 (Julian: 266) Time: 14:35										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	14.83	14.83	12.06	17.05	13.91	13.47	14.36	1.67	1.16	
2-5 cm	13.60	16.85	12.54	16.35	12.52	13.52	14.23	1.90	1.34	
0-5 cm	14.09	16.04	12.35	16.63	13.08	13.50	14.28	1.81	1.27	
Soybean Field#: 2 Date: 9/28/82 (Julian: 271) Time: 10:00										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	10.67	14.12	12.15	7.82	7.88	10.20	10.47	2.45	2.34	
2-5 cm	12.12	14.92	13.74	10.56	10.04	11.06	12.07	1.92	1.59	
0-5 cm	11.54	14.60	13.10	9.47	9.18	10.72	11.43	2.13	1.89	
Soybean Field#: 2 Date: 9/30/82 (Julian: 273) Time: 10:45										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	10.52	7.58	8.68	15.74	13.41	7.91	10.64	3.30	3.10	
2-5 cm	12.77	7.72	5.19	16.06	17.68	9.19	11.43	4.90	4.29	
0-5 cm	11.87	7.66	6.58	15.93	15.98	8.68	11.12	4.26	3.81	
Soybean Field#: 2 Date: 10/5/82 (Julian: 278) Time: 14:05										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	8.18	10.11	10.81	14.19	13.34	17.35	12.33	3.29	2.67	
2-5 cm	10.12	10.96	11.10	14.72	14.53	15.58	12.83	2.36	1.84	
0-5 cm	9.34	10.62	10.98	14.51	14.05	16.29	12.63	2.73	2.17	
Soybean Field#: 2 Date: 10/7/82 (Julian: 280) Time: 10:26										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	9.50	11.08	7.82	12.77	17.23	12.89	11.88	3.26	2.75	
2-5 cm	11.76	11.79	9.23	14.15	16.26	14.82	13.00	2.55	1.96	
0-5 cm	10.85	11.50	8.67	13.60	16.64	14.05	12.55	2.83	2.27	
Soybean Field#: 2 Date: 10/12/82 (Julian: 285) Time: 12:35										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	22.67	21.55	22.52	20.68	18.30	22.11	21.30	1.64	0.77	
2-5 cm	22.34	19.99	19.94	20.52	19.52	21.37	20.61	1.06	0.51	
0-5 cm	22.47	20.61	20.97	20.58	19.03	21.67	20.89	1.29	0.62	
Soybean Field#: 2 Date: 10/19/82 (Julian: 292) Time: 11:25										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	14.02	13.61	10.74	17.86	15.78	19.10	15.19	3.05	2.01	
2-5 cm	16.15	16.04	14.86	17.33	18.18	18.62	16.86	1.43	0.85	
0-5 cm	15.30	15.07	13.21	17.54	17.22	18.81	16.19	2.08	1.31	
Soybean Field#: 2 Date: 10/21/82 (Julian: 294) Time: 11:00										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	13.09	15.43	9.81	12.48	12.66	17.31	13.46	2.60	1.93	
2-5 cm	16.69	17.60	15.43	17.78	15.83	18.31	16.94	1.15	0.68	
0-5 cm	15.25	16.73	13.18	15.66	14.56	17.91	15.55	1.73	1.18	
Soybean Field#: 2 Date: 10/26/82 (Julian: 299) Time: 11:00										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	8.07	14.58	8.77	15.90	15.99	14.19	12.92	3.56	2.76	
2-5 cm	14.52	15.87	13.15	15.96	17.08	15.44	15.34	1.35	0.88	
0-5 cm	11.94	15.35	11.40	15.94	16.64	14.94	14.37	2.24	1.63	
Soybean Field#: 3 Date: 6/14/82 (Julian: 165) Time: 10:45										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	26.13	23.51	20.64	25.73	28.60	29.67	25.72	3.31	1.29	
2-5 cm	24.47	22.23	20.80	20.82	24.84	29.80	23.83	3.40	1.43	
0-5 cm	25.13	22.74	20.74	22.79	26.34	29.75	24.58	3.36	1.37	
Soybean Field#: 3 Date: 6/16/82 (Julian: 167) Time: 10:45										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	21.82	18.96	19.68	26.01	29.96	27.24	23.95	4.45	1.86	
2-5 cm	24.31	21.13	21.58	30.94	25.63	27.39	25.16	3.70	1.47	
0-5 cm	23.32	20.26	20.82	28.97	27.36	27.33	24.68	4.00	1.62	
Soybean Field#: 3 Date: 6/18/82 (Julian: 169) Time: 13:24										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	17.53	20.95	17.21	14.41	15.27	15.65	16.84	2.34	1.39	
2-5 cm	19.15	18.11	19.54	22.48	21.11	22.72	20.52	1.88	0.92	
0-5 cm	18.51	19.25	18.61	19.25	18.77	19.89	19.05	2.06	1.10	
Soybean Field#: 3 Date: 6/21/82 (Julian: 172) Time: 10:45										
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	6.13	18.71	6.47	13.68	15.85	14.95	12.63	5.18	4.10	
2-5 cm	14.78	20.30	16.04	22.04	26.52	23.40	20.51	4.46	2.18	
0-5 cm	11.32	19.66	12.21	18.69	22.25	20.02	17.36	4.75	2.95	



Soybean Field#: 3 Date: 6/23/82 (Julian: 174) Time: 15:00									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	23 36	99.99	24.66	32.03	20.37	24.79	25.04	4 29	1.71
2-5 cm	23.39	23 22	22.40	30.70	26.99	24.23	25.16	3 15	1 25
0-5 cm	23.38	99.99	23.31	31.23	24.34	24.45	25.11	3 60	1 44
Soybean Field#: 3 Date: 6/25/82 (Julian: 176) Time: 13:10									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	10 79	6.69	7.14	18.90	15.95	24.34	13 97	7 01	5.02
2-5 cm	17 61	15 18	15.31	20.52	19.66	25.49	18 96	3 87	2 04
0-5 cm	14.88	11 78	12 04	19 87	18.17	25.03	16.96	5 12	3 23
Soybean Field#: 3 Date: 6/28/82 (Julian: 179) Time: 14:10									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	20 75	16.93	16 60	22.62	20.18	27.07	20 69	3 89	1.88
2-5 cm	21 52	20 18	19.13	23 50	22 24	30.54	22 85	4 07	1.78
0-5 cm	21 21	18.88	18.12	23.15	21.41	29.15	21 99	3 99	1 82
Soybean Field#: 3 Date: 7/ 6/82 (Julian: 187) Time: 14:42									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	4 83	6 20	4.75	5.05	7.18	6.41	5.74	1 00	1.75
2-5 cm	16.04	12 06	8.26	7.03	9.94	10.80	10 69	3 17	2.97
0-5 cm	11.55	9.72	6.86	6 23	8.84	9.05	8 71	2 31	2 48
Soybean Field#: 3 Date: 7/ 7/82 (Julian: 188) Time: 14:42									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	2.10	1.13	1 34	1.62	1.46	3.77	1.91	0 97	5 10
2-5 cm	10 60	7 32	5.37	10.52	6 33	11.37	8 59	2 55	2 97
0-5 cm	7 20	4.84	3 76	6.96	4.38	8 33	5 91	1 92	3.82
Soybean Field#: 3 Date: 7/12/82 (Julian: 193) Time: 09:45									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	11.95	11.54	10 40	14.80	14.81	14.61	13.02	1 96	1.50
2-5 cm	14 44	13.42	13.32	15.81	16.87	17.51	15.23	1 78	1 17
0-5 cm	13 44	12 67	12 15	15.41	16 05	16.35	14.34	1 85	1 30
Soybean Field#: 3 Date: 7/13/82 (Julian: 194) Time: 14:10									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	22.92	19.53	23.41	24.84	23.62	28.93	23 88	3 05	1 28
2-5 cm	21 50	19.92	22.66	24 14	23.35	26 44	23 00	2 24	0 98
0-5 cm	22 07	19 76	22.96	24 42	23.46	27.44	23.35	2 57	1 10
Soybean Field#: 3 Date: 7/15/82 (Julian: 196) Time: 14:45									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	15.59	12 12	14 30	10.99	13.52	99.99	13 30	1 80	1 36
2-5 cm	14 95	14.24	14 66	13.56	15 39	17.91	15.12	1.50	0.99
0-5 cm	15 20	13.39	14.52	12.53	14 64	99.99	14.39	1 62	1 14
Soybean Field#: 3 Date: 7/19/82 (Julian: 200) Time: 11:30									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	4 29	2 64	3 23	4 03	4 99	3 73	3 82	0 82	2 15
2-5 cm	10.38	6.26	5.73	7 54	14.39	9.24	8 93	3 20	3 59
0-5 cm	7.95	4.81	4.73	6.14	10 63	7 04	6.88	2 25	3 01
Soybean Field#: 3 Date: 7/23/82 (Julian: 204) Time: 13:38									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	9 09	8.85	4.61	4.86	11.07	4 62	7.18	2.83	3.94
2-5 cm	12.17	14.02	11.91	11.57	12.78	15 09	12 92	1 37	1 06
0-5 cm	10.94	11.95	8.99	8.89	12.10	10.90	10.63	1 95	2 21
Soybean Field#: 3 Date: 7/26/82 (Julian: 207) Time: 14:00									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	2.70	3 23	3.40	4 90	4.17	2.69	3.52	0 87	2.47
2-5 cm	6.31	8.03	6.22	7.76	8.19	7 35	7 31	0 86	1 18
0-5 cm	4.86	6.11	5.09	6.62	6.58	5.49	5.79	0 86	1 70
Soybean Field#: 3 Date: 7/28/82 (Julian: 209) Time: 15:43									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	3 55	3 71	4 43	3 69	2 99	2.86	3.54	0 57	1.61
2-5 cm	7.83	8.20	7.44	10 79	13.73	10.39	9.73	2 40	2 46
0-5 cm	6.12	6.40	6.24	7 95	9.43	7 38	7.25	1 67	2 12
Soybean Field#: 3 Date: 8/ 2/82 (Julian: 214) Time: 11:47									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	1.47	1.56	2.80	3 81	1.56	2 60	2 30	0 94	4 08
2-5 cm	2.76	2 67	4.27	2 21	6.87	8.40	4.53	2 55	5 62
0-5 cm	2 24	2.23	3.68	2.85	4 75	6.08	3 64	1 90	5 01
Soybean Field#: 3 Date: 8/ 6/82 (Julian: 218) Time: 11:47									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	99.99	22.14	22 24	99.99	15.46	25.04	21.22	4 06	1 92
2-5 cm	20 88	20 37	21 43	16 17	99.99	25.76	20.92	3 41	1 63
0-5 cm	99.99	21.08	21 75	99 99	99 99	25.47	21.04	3 67	1 74
Soybean Field#: 3 Date: 8/ 9/82 (Julian: 221) Time: 13:20									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	17.23	16 98	17 57	16.62	17.63	20.99	17.84	1 59	0 89
2-5 cm	17 67	17 28	17 00	17 22	16.84	20 16	17 69	1 24	0 70
0-5 cm	17 49	17 16	17 23	16 98	17 15	20 49	17 75	1 38	0 78
Soybean Field#: 3 Date: 8/16/82 (Julian: 228) Time: 11:00									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	22.72	23.07	24.48	22.27	23.34	25 77	23 61	1 29	0 55
2-5 cm	20.97	19 90	21 68	21 80	22 40	25 29	22 01	1 82	0 83
0-5 cm	21.67	21 16	22.80	21.99	22 78	25.48	22 65	1 61	0 72

Soybean Field# 3 Date: 8/18/82 (Julian: 230) Time: 14:21									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	21.21	99.99	18.13	23.09	19.49	25.21	21.42	2.82	1.31
2-5 cm	20.24	99.99	16.89	21.00	99.99	24.52	20.67	3.13	1.52
0-5 cm	20.63	99.99	17.39	21.84	99.99	24.80	20.97	3.01	1.43
Soybean Field# 3 Date: 9/2/82 (Julian: 245) Time:									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	8.04	11.96	8.79	15.00	14.87	19.71	13.06	4.38	3.35
2-5 cm	16.12	13.60	11.69	16.68	17.36	21.14	16.10	3.26	2.02
0-5 cm	12.89	12.94	10.53	16.01	16.36	20.57	14.88	3.71	2.56
Soybean Field# 3 Date: 9/9/82 (Julian: 252) Time: 09:45									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	19.93	17.00	18.88	10.69	19.45	20.23	17.70	3.62	2.05
2-5 cm	19.12	17.17	19.05	24.73	17.80	20.75	19.77	2.73	1.38
0-5 cm	19.45	17.10	18.98	19.11	18.46	20.55	18.94	3.08	1.65
Soybean Field# 3 Date: 9/16/82 (Julian: 259) Time:									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	16.07	16.92	15.92	17.96	18.96	18.48	17.38	1.27	0.73
2-5 cm	17.74	17.19	16.54	15.46	18.85	19.89	17.61	1.59	0.90
0-5 cm	17.07	17.08	16.29	16.46	18.89	19.33	17.52	1.47	0.84
Soybean Field# 3 Date: 9/23/82 (Julian: 266) Time:									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	12.85	12.26	11.36	10.26	9.68	17.30	12.28	2.73	2.22
2-5 cm	14.47	15.93	12.37	14.28	14.89	18.54	15.08	2.05	1.36
0-5 cm	13.82	14.46	11.96	12.67	12.81	18.04	13.96	2.32	1.71
Soybean Field# 3 Date: 9/28/82 (Julian: 271) Time:									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	7.58	5.12	4.80	4.70	13.30	11.30	7.80	3.70	4.74
2-5 cm	15.66	12.55	12.56	8.41	16.17	15.87	13.54	3.00	2.22
0-5 cm	12.42	9.58	9.45	6.93	15.02	14.04	11.24	3.28	3.23
Soybean Field# 3 Date: 9/30/82 (Julian: 273) Time:									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	5.73	5.21	4.70	9.17	7.04	6.76	6.43	1.61	2.50
2-5 cm	9.58	7.44	6.72	10.56	11.21	10.75	9.38	1.87	2.00
0-5 cm	8.04	6.54	5.91	10.01	9.54	9.16	8.20	1.77	2.20
Soybean Field# 3 Date: 10/5/82 (Julian: 278) Time:									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	2.93	3.35	3.47	2.85	4.27	3.99	3.48	0.56	1.62
2-5 cm	7.59	8.38	8.74	7.48	9.80	14.32	9.39	2.56	2.73
0-5 cm	5.73	6.37	6.63	5.63	7.59	10.19	7.02	1.76	2.29
Soybean Field# 3 Date: 10/12/82 (Julian: 285) Time: 12:33									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	19.74	19.94	19.53	22.26	20.08	22.10	20.61	1.23	0.60
2-5 cm	20.02	19.82	18.81	20.97	20.57	23.55	20.62	1.61	0.78
0-5 cm	19.91	19.87	19.10	21.49	20.37	22.97	20.62	1.46	0.71
Soybean Field# 4 Date: 6/9/82 (Julian: 160) Time: 15:52									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	23.18	17.60	19.99	21.80	23.70	29.17	22.57	3.93	1.74
2-5 cm	22.89	19.06	25.76	26.45	23.24	30.98	24.73	4.02	1.63
0-5 cm	23.01	18.47	23.45	24.59	23.42	30.25	23.87	3.98	1.67
Soybean Field# 4 Date: 6/21/82 (Julian: 172) Time:									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	15.08	11.44	15.81	16.28	13.77	14.33	14.45	1.74	1.20
2-5 cm	16.63	16.30	20.28	21.12	18.00	21.10	18.90	2.21	1.17
0-5 cm	16.01	14.36	18.49	19.18	16.31	18.39	17.12	2.02	1.18
Soybean Field# 4 Date: 6/25/82 (Julian: 176) Time: 13:25									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	11.43	6.73	11.23	22.65	11.31	15.92	13.21	5.46	4.13
2-5 cm	15.70	14.65	18.61	25.78	21.77	21.65	19.69	4.19	2.13
0-5 cm	13.99	11.48	15.66	24.53	17.59	19.36	17.10	4.70	2.93
Soybean Field# 4 Date: 6/28/82 (Julian: 179) Time: 14:00									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	21.55	14.97	27.17	27.56	19.28	21.40	21.99	4.79	2.18
2-5 cm	20.46	17.59	25.63	28.56	19.08	20.94	22.05	4.19	1.90
0-5 cm	20.90	16.54	26.25	28.16	19.16	21.12	22.02	4.43	2.01
Soybean Field# 4 Date: 7/6/82 (Julian: 187) Time: 11:10									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	9.70	2.20	4.53	3.66	2.88	6.57	4.92	2.79	5.66
2-5 cm	18.18	9.57	14.77	11.55	14.13	20.39	14.76	4.03	2.73
0-5 cm	14.79	6.62	10.68	8.39	9.63	14.86	10.83	3.53	3.90
Soybean Field# 4 Date: 7/7/82 (Julian: 188) Time: 14:10									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	3.62	2.31	99.99	1.97	1.53	1.69	2.22	0.84	3.75
2-5 cm	19.16	13.74	12.91	11.12	8.95	8.55	12.40	3.90	3.15
0-5 cm	12.94	9.16	99.99	7.46	5.98	5.81	8.33	2.68	3.39
Soybean Field# 4 Date: 7/12/82 (Julian: 193) Time: 09:30									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	8.09	9.28	8.92	9.15	9.69	11.84	9.49	1.27	1.33
2-5 cm	14.54	12.87	19.92	16.93	16.10	15.84	16.03	2.38	1.48
0-5 cm	11.96	11.43	15.52	13.82	13.54	14.24	13.42	1.93	1.42

Soybean	Field#:	4	Date:	8/ 6/82 (Julian:	218)	Time:	11:30	S.D.	S	D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D.	S.D./Mean
0-2 cm	21.91	20.65	20.11	23.61	20.98	21.07	21.39	1.24	0.58	0.58
2-5 cm	20.08	20.70	19.67	22.69	20.42	20.88	20.74	1.05	0.51	0.51
0-5 cm	20.81	20.68	19.85	23.06	20.65	20.96	21.00	1.13	0.54	0.54
Soybean	Field#:	4	Date:	8/ 9/82 (Julian:	221) <td>Time:</td> <td></td> <td>S</td> <td>D.</td> <td>S.D./Mean</td>	Time:		S	D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D.	S.D./Mean
0-2 cm	13.44	16.81	19.03	21.42	17.63	17.74	17.68	2.63	1.49	1.49
2-5 cm	12.41	15.99	19.54	21.06	16.60	16.64	17.04	3.01	1.77	1.77
0-5 cm	12.83	16.31	19.34	21.20	17.01	17.08	17.30	2.86	1.65	1.65
Soybean	Field#:	4	Date:	8/16/82 (Julian:	228) <td>Time:</td> <td>10:40</td> <td>S</td> <td>D.</td> <td>S.D./Mean</td>	Time:	10:40	S	D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D.	S.D./Mean
0-2 cm	24.63	22.01	24.90	26.01	24.32	26.98	24.81	1.69	0.68	0.68
2-5 cm	21.98	17.92	22.09	24.38	24.60	27.64	23.10	3.27	1.42	1.42
0-5 cm	23.04	19.55	23.22	25.03	24.49	27.37	23.78	2.64	1.12	1.12
Soybean	Field#:	4	Date:	8/18/82 (Julian:	230) <td>Time:</td> <td>14:06</td> <td>S</td> <td>D.</td> <td>S.D./Mean</td>	Time:	14:06	S	D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D.	S.D./Mean
0-2 cm	21.79	19.99	17.63	21.35	22.80	26.44	21.67	2.94	1.36	1.36
2-5 cm	20.31	21.06	17.54	19.91	22.77	99.99	20.32	1.90	0.93	0.93
0-5 cm	20.90	20.63	17.58	20.49	22.78	99.99	20.86	2.32	1.10	1.10
Soybean	Field#:	4	Date:	9/ 2/82 (Julian:	245) <td>Time:</td> <td>14:15</td> <td>S</td> <td>D.</td> <td>S.D./Mean</td>	Time:	14:15	S	D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D.	S.D./Mean
0-2 cm	14.06	14.27	16.09	17.50	15.16	15.17	15.38	1.27	0.83	0.83
2-5 cm	14.05	14.00	17.10	17.85	17.05	18.07	16.35	1.85	1.13	1.13
0-5 cm	14.05	14.11	16.70	17.71	16.29	16.91	15.96	1.62	1.01	1.01
Soybean	Field#:	4	Date:	9/ 9/82 (Julian:	252) <td>Time:</td> <td>09:30</td> <td>S</td> <td>D.</td> <td>S.D./Mean</td>	Time:	09:30	S	D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D.	S.D./Mean
0-2 cm	18.09	15.76	20.23	23.55	23.71	15.79	19.52	3.59	1.84	1.84
2-5 cm	16.00	18.22	20.85	23.62	23.53	15.29	19.58	3.65	1.86	1.86
0-5 cm	16.83	17.23	20.60	23.59	23.61	15.49	19.56	3.63	1.85	1.85
Soybean	Field#:	4	Date:	9/16/82 (Julian:	259) <td>Time:</td> <td>12:00</td> <td>S</td> <td>D.</td> <td>S.D./Mean</td>	Time:	12:00	S	D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D.	S.D./Mean
0-2 cm	17.85	20.14	20.23	18.77	16.94	19.04	18.83	1.29	0.68	0.68
2-5 cm	16.20	20.16	20.06	18.42	18.26	17.95	18.51	1.47	0.80	0.80
0-5 cm	16.86	20.15	20.13	18.56	17.73	18.38	18.64	1.40	0.75	0.75
Soybean	Field#:	4	Date:	9/23/82 (Julian:	266) <td>Time:</td> <td>14:25</td> <td>S</td> <td>D.</td> <td>S.D./Mean</td>	Time:	14:25	S	D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D.	S.D./Mean
0-2 cm	10.20	10.95	11.55	6.38	9.73	14.77	10.60	2.72	2.57	2.57
2-5 cm	11.97	14.04	17.96	9.93	12.78	16.54	13.87	2.97	2.14	2.14
0-5 cm	11.26	12.80	15.40	8.51	11.56	15.83	12.56	2.87	2.31	2.31

Soybean	Field#:	4	Date:	7/13/82 (Julian:	194)	Time:	14:30	S.D.	S	D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D.	S.D./Mean
0-2 cm	29.30	21.79	29.87	28.57	26.22	30.49	27.71	3.25	1.17	1.17
2-5 cm	23.12	19.14	23.33	25.12	23.74	28.50	23.83	3.04	1.28	1.28
0-5 cm	25.59	20.20	25.95	26.50	24.73	29.29	25.38	3.12	1.23	1.23
Soybean	Field#:	4	Date:	7/15/82 (Julian:	196) <td>Time:</td> <td>14:30 <td>S</td> <td>D.</td> <td>S.D./Mean</td> </td>	Time:	14:30 <td>S</td> <td>D.</td> <td>S.D./Mean</td>	S	D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D.	S.D./Mean
0-2 cm	11.43	9.14	17.32	18.53	99.99	14.79	14.24	3.94	2.77	2.77
2-5 cm	15.16	12.94	18.79	21.30	99.99	17.74	17.18	3.24	1.88	1.88
0-5 cm	13.67	11.42	18.20	20.19	99.99	16.56	16.01	3.52	2.24	2.24
Soybean	Field#:	4	Date:	7/19/82 (Julian:	200) <td>Time:</td> <td>11:15 <td>S</td> <td>D.</td> <td>S.D./Mean</td> </td>	Time:	11:15 <td>S</td> <td>D.</td> <td>S.D./Mean</td>	S	D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D.	S.D./Mean
0-2 cm	2.98	2.91	3.44	2.73	3.73	99.99	3.16	0.41	1.31	1.31
2-5 cm	9.19	7.58	9.81	7.93	8.48	99.99	8.60	0.91	1.06	1.06
0-5 cm	6.71	5.72	7.27	5.85	6.58	99.99	6.42	0.71	1.16	1.16
Soybean	Field#:	4	Date:	7/23/82 (Julian:	204) <td>Time:</td> <td>13:54 <td>S</td> <td>D.</td> <td>S.D./Mean</td> </td>	Time:	13:54 <td>S</td> <td>D.</td> <td>S.D./Mean</td>	S	D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D.	S.D./Mean
0-2 cm	12.42	8.82	11.32	7.45	7.09	19.39	11.08	4.59	4.14	4.14
2-5 cm	15.91	14.51	18.06	9.50	15.10	21.16	15.71	3.89	2.47	2.47
0-5 cm	14.51	12.23	15.36	8.68	11.90	20.45	13.86	4.17	3.14	3.14
Soybean	Field#:	4	Date:	7/26/82 (Julian:	207) <td>Time:</td> <td>15:30 <td>S</td> <td>D.</td> <td>S.D./Mean</td> </td>	Time:	15:30 <td>S</td> <td>D.</td> <td>S.D./Mean</td>	S	D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D.	S.D./Mean
0-2 cm	2.74	1.90	5.38	4.04	1.46	3.57	3.18	1.45	4.56	4.56
2-5 cm	8.92	7.00	9.01	7.03	3.50	10.38	7.64	2.41	3.15	3.15
0-5 cm	6.45	4.96	7.56	5.83	2.68	7.66	5.86	2.02	3.71	3.71
Soybean	Field#:	4	Date:	7/28/82 (Julian:	209) <td>Time:</td> <td>15:30 <td>S</td> <td>D.</td> <td>S.D./Mean</td> </td>	Time:	15:30 <td>S</td> <td>D.</td> <td>S.D./Mean</td>	S	D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D.	S.D./Mean
0-2 cm	4.08	3.58	4.76	5.50	4.78	4.57	4.54	0.66	1.45	1.45
2-5 cm	8.31	6.38	11.01	6.22	8.05	6.19	7.69	1.88	2.44	2.44
0-5 cm	6.61	5.26	8.51	5.93	6.74	5.54	6.43	1.39	2.04	2.04
Soybean	Field#:	4	Date:	7/30/82 (Julian:	211) <td>Time:</td> <td>13:15 <td>S</td> <td>D.</td> <td>S.D./Mean</td> </td>	Time:	13:15 <td>S</td> <td>D.</td> <td>S.D./Mean</td>	S	D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D.	S.D./Mean
0-2 cm	3.48	2.76	5.14	5.14	3.27	3.15	3.82	1.05	2.73	2.73
2-5 cm	10.39	4.60	9.67	9.82	6.30	4.00	7.46	2.85	3.82	3.82
0-5 cm	7.63	3.87	7.86	7.95	5.09	3.66	6.01	2.13	3.38	3.38
Soybean	Field#:	4	Date:	8/ 2/82 (Julian:	214) <td>Time:</td> <td>14:30 <td>S</td> <td>D.</td> <td>S.D./Mean</td> </td>	Time:	14:30 <td>S</td> <td>D.</td> <td>S.D./Mean</td>	S	D.	S.D./Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D.	S.D./Mean
0-2 cm	0.60	1.28	3.66	4.58	3.47	2.99	2.76	1.52	5.49	5.49
2-5 cm	3.57	1.87	4.32	10.45	3.65	8.31	5.36	3.29	6.13	6.13
0-5 cm	2.38	1.64	4.06	8.10	3.58	6.18	4.32	2.58	5.87	5.87

Soybean Field#:			Date: 9/28/82 (Julian: 271)			Time: 09 50			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	7.80	6.03	3.42	4.79	6.70	7.81	6.09	1.74	2.85
2-5 cm	17.61	15.06	5.95	6.90	10.50	13.68	11.62	4.64	4.00
0-5 cm	13.69	11.45	4.94	6.05	8.98	11.33	9.41	3.48	3.54

Soybean Field#:			Date: 9/30/82 (Julian: 273)			Time: 13:40			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	8.00	4.76	3.62	4.16	4.33	4.57	4.91	1.57	3.19
2-5 cm	10.71	8.05	6.26	5.14	6.13	7.85	7.35	1.98	2.69
0-5 cm	9.63	6.73	5.21	4.74	5.41	6.54	6.38	1.82	2.89

Soybean Field#:			Date: 10/5/82 (Julian: 278)			Time: 13:40			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	2.74	7.65	4.44	9.46	9.10	7.87	6.88	2.69	3.91
2-5 cm	8.92	10.30	9.30	10.34	12.62	11.85	10.56	1.43	1.36
0-5 cm	6.45	9.24	7.35	9.99	11.21	10.25	9.08	1.94	2.38

Soybean Field#:			Date: 10/12/82 (Julian: 285)			Time: 12:35			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	17.44	19.51	18.42	19.75	19.70	26.37	20.20	3.15	1.56
2-5 cm	20.51	18.20	17.88	19.22	21.28	24.55	20.27	2.47	1.22
0-5 cm	19.28	18.73	18.10	19.43	20.65	25.28	20.24	2.74	1.36

Soybean Field#:			Date: 10/14/82 (Julian: 287)			Time: 11:10			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	16.66	16.17	17.77	17.19	8.51	16.01	15.38	3.43	2.23
2-5 cm	14.63	14.16	18.67	15.63	12.22	99.99	15.06	2.37	1.57
0-5 cm	15.44	14.97	18.31	16.25	10.73	99.99	15.19	2.79	1.84

Soybean Field#:			Date: 10/19/82 (Julian: 292)			Time: 11:10			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	14.73	9.87	10.98	5.44	9.05	9.85	9.99	3.00	3.01
2-5 cm	17.26	12.85	13.89	99.99	16.65	19.79	16.09	2.77	1.72
0-5 cm	16.25	11.66	12.73	99.99	13.61	15.81	13.65	2.86	2.24

Soybean Field#:			Date: 6/14/82 (Julian: 165)			Time: 16 00			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	25.55	26.68	22.36	22.01	27.89	23.76	24.71	2.38	0.96
2-5 cm	24.87	24.68	23.68	25.36	25.11	24.33	24.67	0.60	0.24
0-5 cm	25.14	25.48	23.15	24.02	26.22	24.10	24.69	1.31	0.53

Soybean Field#:			Date: 6/16/82 (Julian: 167)			Time: 11:40			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	16.54	18.52	22.83	19.26	20.04	19.85	19.51	2.06	1.06
2-5 cm	19.95	20.93	21.56	20.74	24.48	21.33	21.50	1.56	0.73
0-5 cm	18.59	19.96	22.07	20.15	22.70	20.74	20.70	1.76	0.86

Soybean Field#:			Date: 6/18/82 (Julian: 169)			Time: 10:00			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	22.42	19.96	19.64	23.41	22.50	22.19	21.69	1.52	0.70
2-5 cm	19.84	20.37	20.87	23.18	23.12	23.11	21.75	1.55	0.71
0-5 cm	20.87	20.21	20.38	23.27	22.87	22.74	21.72	1.54	0.71

Soybean Field#:			Date: 6/21/82 (Julian: 172)			Time: 13:50			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	3.19	12.22	8.93	9.48	5.91	5.28	7.50	3.29	4.39
2-5 cm	13.10	19.42	20.60	20.30	21.93	19.57	19.15	3.10	1.62
0-5 cm	9.14	16.54	15.93	15.98	15.52	13.85	14.49	3.18	2.73

Soybean Field#:			Date: 6/25/82 (Julian: 176)			Time: 13:35			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	11.09	10.84	13.99	16.23	10.97	20.12	13.87	3.74	2.70
2-5 cm	18.31	20.02	18.08	18.93	18.89	14.44	18.11	1.92	1.06
0-5 cm	15.42	16.35	16.44	17.85	15.72	16.71	16.42	2.65	1.71

Soybean Field#:			Date: 6/28/82 (Julian: 179)			Time: 10:42			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	25.16	22.77	22.23	23.75	24.75	22.45	23.52	1.24	0.53
2-5 cm	23.34	21.61	21.25	22.45	21.68	22.24	22.10	0.75	0.34
0-5 cm	24.07	22.07	21.64	22.97	22.91	22.33	22.66	0.95	0.41

Soybean Field#:			Date: 7/6/82 (Julian: 187)			Time: 14:00			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	4.48	6.07	5.23	5.79	5.04	99.99	5.32	0.63	1.18
2-5 cm	15.46	12.37	16.74	16.71	13.65	15.14	15.01	1.73	1.15
0-5 cm	11.07	9.85	12.13	12.34	10.20	99.99	11.14	1.29	1.16

Soybean Field#:			Date: 7/7/82 (Julian: 188)			Time: 15:09			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	2.44	1.39	0.87	1.38	0.87	1.99	1.49	0.62	4.18
2-5 cm	8.29	7.22	99.99	6.38	5.75	8.44	7.22	1.17	1.63
0-5 cm	5.95	4.89	99.99	4.38	3.80	5.86	4.93	0.95	2.65

Soybean Field#:			Date: 7/12/82 (Julian: 193)			Time: 11:30			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	6.39	7.66	9.53	10.19	13.46	13.28	10.09	2.88	2.85
2-5 cm	9.54	15.81	16.36	12.77	18.07	13.45	14.33	3.05	2.13
0-5 cm	8.28	12.55	13.63	11.74	16.23	13.38	12.64	2.98	2.42

Soybean Field#:			Date: 7/13/82 (Julian: 194)			Time: 10:47			
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	25.25	24.62	29.70	23.89	25.48	24.96	25.65	2.06	0.80
2-5 cm	21.87	21.87	24.62	22.46	24.63	22.41	22.98	1.30	0.57
0-5 cm	23.23	22.97	26.65	23.03	24.97	23.43	24.05	1.61	0.66

Soybean Field#: 5 Date: 7/15/82 (Julian: 196) Time: 13:10  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 9.53 7.08 8.58 8.49 9.55 11.59 9.14 1.50 1.65  
 2-5 cm 13.74 14.00 14.55 12.51 15.04 16.59 14.40 1.37 0.95  
 0-5 cm 12.06 11.23 12.17 10.90 12.84 14.59 12.30 1.42 1.23

Soybean Field#: 5 Date: 7/19/82 (Julian: 200) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 2.27 2.83 2.06 2.74 2.69 3.68 2.71 0.56 2.06  
 2-5 cm 5.02 6.02 8.18 5.63 5.68 9.54 6.68 1.77 2.66  
 0-5 cm 3.92 4.74 5.73 4.47 4.48 7.20 5.09 1.29 2.42

Soybean Field#: 5 Date: 7/23/82 (Julian: 204) Time: 14:00  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 10.47 7.13 8.39 7.66 9.27 9.36 8.71 1.23 1.41  
 2-5 cm 16.63 14.64 15.21 12.99 14.24 14.77 14.75 1.19 0.81  
 0-5 cm 14.16 11.64 12.48 10.86 12.25 12.61 12.33 1.21 1.05

Soybean Field#: 5 Date: 7/26/82 (Julian: 207) Time: 15:00  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 2.82 2.45 2.63 2.87 2.69 3.39 2.81 0.32 1.15  
 2-5 cm 8.18 5.09 6.07 5.58 5.82 7.58 6.39 1.22 1.91  
 0-5 cm 6.04 4.03 4.69 4.49 4.57 5.90 4.95 0.86 1.60

Soybean Field#: 5 Date: 7/28/82 (Julian: 209) Time: 10:30  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 14.63 12.66 12.54 99.99 14.86 13.53 13.64 1.08 0.79  
 2-5 cm 12.90 12.08 17.34 12.23 12.62 8.13 12.55 2.93 2.34  
 0-5 cm 13.59 12.31 15.42 99.99 13.51 10.29 12.99 2.19 1.72

Soybean Field#: 5 Date: 7/30/82 (Julian: 211) Time: 14:20  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 6.04 4.67 5.49 4.88 6.16 7.87 5.85 1.15 1.97  
 2-5 cm 12.54 8.87 11.08 9.60 8.57 13.01 10.61 1.89 1.78  
 0-5 cm 9.94 7.19 8.84 7.71 7.61 10.95 8.71 1.60 1.86

Soybean Field#: 5 Date: 8/4/82 (Julian: 216) Time: 10:24  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 3.25 2.50 2.82 3.02 3.55 3.84 3.16 0.49 1.54  
 2-5 cm 4.33 3.77 3.71 3.78 5.73 6.39 4.62 1.16 2.51  
 0-5 cm 3.90 3.26 3.35 3.48 4.86 5.37 4.04 0.89 2.12

Soybean Field#: 5 Date: 8/9/82 (Julian: 221) Time: 14:18  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 12.65 15.98 9.21 16.30 17.02 13.50 14.11 2.94 2.09  
 2-5 cm 15.26 15.86 13.18 17.02 16.77 14.31 15.40 1.47 0.96  
 0-5 cm 14.22 15.91 11.59 16.73 16.87 13.98 14.88 2.06 1.41

Soybean Field#: 5 Date: 8/16/82 (Julian: 228) Time: 15:30  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 24.36 22.27 23.57 23.27 23.36 25.47 23.71 1.09 0.46  
 2-5 cm 21.12 18.51 21.91 22.48 22.27 23.95 21.71 1.82 0.84  
 0-5 cm 22.42 20.01 22.57 22.79 22.70 24.55 22.51 1.53 0.69

Soybean Field#: 5 Date: 9/9/82 (Julian: 252) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 17.76 22.20 16.99 20.50 20.80 21.15 19.90 2.05 1.03  
 2-5 cm 17.59 21.20 16.38 19.68 19.45 20.38 19.11 1.80 0.94  
 0-5 cm 17.66 21.60 16.62 20.01 19.99 20.69 19.43 1.90 0.98

Soybean Field#: 5 Date: 9/16/82 (Julian: 259) Time: 14:05  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 21.82 21.03 16.27 23.65 24.87 20.01 21.28 3.02 1.42  
 2-5 cm 22.17 19.08 17.17 23.56 22.83 19.40 20.70 2.51 1.21  
 0-5 cm 22.03 19.86 16.81 23.59 23.65 19.64 20.93 2.72 1.30

Soybean Field#: 5 Date: 9/28/82 (Julian: 271) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 8.37 9.36 99.99 99.99 19.31 16.16 13.30 5.30 3.98  
 2-5 cm 16.38 14.92 13.43 15.15 18.44 16.12 15.74 1.68 1.07  
 0-5 cm 13.17 12.70 99.99 99.99 18.79 16.14 14.76 3.13 2.23

Soybean Field#: 5 Date: 9/30/82 (Julian: 273) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 6.83 2.35 7.50 8.53 18.93 15.01 9.86 6.03 6.11  
 2-5 cm 13.24 11.47 13.03 14.23 18.82 16.36 14.53 2.65 1.82  
 0-5 cm 10.68 7.82 10.82 11.95 18.86 15.82 12.66 4.00 3.54

Soybean Field#: 5 Date: 10/5/82 (Julian: 278) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 5.00 5.06 7.68 9.20 7.62 6.05 6.77 1.68 2.48  
 2-5 cm 13.17 16.14 12.27 16.73 16.51 14.16 14.83 1.89 1.28  
 0-5 cm 9.90 11.71 10.44 13.72 12.96 10.91 11.61 1.81 1.76

Soybean Field#: 5 Date: 10/12/82 (Julian: 285) Time: 14:00  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 21.54 16.18 19.17 21.60 23.95 22.97 20.90 2.82 1.35  
 2-5 cm 21.34 16.42 18.46 19.23 21.72 22.18 19.89 2.25 1.13  
 0-5 cm 21.42 16.32 18.74 20.18 22.61 22.50 20.30 2.48 1.22

Soybean Field#: 5 Date: 10/14/82 (Julian: 287) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 22.78 22.09 23.29 21.37 21.52 19.35 21.73 1.38 0.63  
 2-5 cm 21.23 19.07 22.13 19.07 21.42 21.90 20.80 1.38 0.66  
 0-5 cm 21.85 20.28 22.59 19.99 21.46 20.88 21.18 1.38 0.65

Soybean Field#: 6 Date: 6/ 9/82 (Julian: 160) Time: 14:43  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 24 27 23.18 23.59 28 48 25 74 27 56 25 47 2.18 0.86  
 2-5 cm 25.75 23.97 23.65 25 76 27.18 26.59 25 48 1.40 0.55  
 0-5 cm 25.16 23.66 23.63 26.85 26.60 26.98 25 48 1.71 0.67

Soybean Field#: 6 Date: 6/14/82 (Julian: 165) Time: 16:20  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 21.70 24.22 23.06 28 84 26 60 32.02 26.07 3.87 1.49  
 2-5 cm 23 05 24.55 23.53 26 66 26.91 26.50 25 20 1 71 0.68  
 0-5 cm 22 51 24.42 23 34 27.53 26.78 28.71 25.55 2.57 1.00

Soybean Field#: 6 Date: 6/16/82 (Julian: 167) Time: 11:53  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 17 58 20.14 22.06 27 02 24 33 26.21 22 89 3 65 1 59  
 2-5 cm 19.04 20.86 21.64 25.12 27 14 32.01 24 30 4 79 1 97  
 0-5 cm 18 46 20 57 21 81 25 88 26.01 29.69 23.74 4 33 1.82

Soybean Field#: 6 Date: 6/18/82 (Julian: 169) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 21 91 20.96 21.48 26 53 22 49 21 36 22 45 2 06 0 92  
 2-5 cm 21.84 19.84 22 56 28 66 22 98 22.69 23 09 2.95 1.28  
 0-5 cm 21 87 20.29 22.13 27.81 22.78 22.16 22.84 2 60 1 13

Soybean Field#: 6 Date: 6/21/82 (Julian: 172) Time: 14:05  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 12.00 11.19 17.20 13 24 16 14 13 82 13 93 2 34 1.68  
 2-5 cm 16 28 16.85 19 27 19.75 20 53 19 40 18.68 1.71 0.91  
 0-5 cm 14.57 14.58 18.44 17.14 18 77 17.17 16 78 1.96 1.22

Soybean Field#: 6 Date: 6/25/82 (Julian 176) Time: 13 51  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 12.49 15.11 15.35 16 69 19.03 17.00 15 95 2.20 1 38  
 2-5 cm 16.50 19 68 18.83 21 78 21 85 21.00 19 94 2.06 1.03  
 0-5 cm 14 90 17 85 17.44 19 75 20.72 19.40 18 34 2.12 1.17

Soybean Field#: 6 Date: 6/28/82 (Julian: 179) Time: 10:40  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 16.64 21 14 20 38 24.13 21.27 23.35 21 15 2.63 1 24  
 2-5 cm 17.14 20.74 21.33 22 87 22 20 22.73 21.17 2 14 1 01  
 0-5 cm 16.94 20 90 20 95 23.37 21.83 22 98 21.16 2 33 1.10

Soybean Field#: 6 Date: 7/ 6/82 (Julian: 187) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 6 02 4.48 10.17 5 22 3.52 1.46 5 15 2 92 5.68  
 2-5 cm 14 09 12.44 16 68 15.28 12.38 9.97 13 47 2 39 1.77  
 0-5 cm 10 86 9 26 14 08 11.26 8 83 6.57 10 14 2 60 3.33

Soybean Field#: 6 Date: 7/ 9/82 (Julian: 190) Time: 09:15  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 2.34 3 07 5.54 4.97 8.49 7 05 5.24 2.33 4.44  
 2-5 cm 10.99 9.74 10 77 15.17 13.64 11.86 12.03 2.02 1.68  
 0-5 cm 7 53 7.07 8.68 11 09 11.58 9.94 9.32 2 14 2.78

Soybean Field#: 6 Date: 7/12/82 (Julian: 193) Time: 13:15  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 1.92 9.43 5.93 7.94 99.99 7.34 6.51 2.86 4.39  
 2-5 cm 6.55 13.42 12.30 16.58 16.03 14 38 13.21 3.63 2.75  
 0-5 cm 4 70 11.82 9.75 13 12 99.99 11 57 10.53 3.32 3.40

Soybean Field#: 6 Date: 7/13/82 (Julian: 194) Time: 10:51  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 22.66 22.48 15.85 24.88 24.76 24.00 22.44 3.39 1.51  
 2-5 cm 19.09 18 33 18 90 22.17 22.05 99 99 20.11 1 85 0.92  
 0-5 cm 20.52 19 99 17.68 23.25 23.14 99.99 21 04 2 46 1 16

Soybean Field#: 6 Date: 7/15/82 (Julian: 196) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 5.73 7.40 7 78 12.32 12.51 8.20 8.99 2.78 3 10  
 2-5 cm 11.42 12.10 11.66 14.92 15.16 13.77 13 17 1 67 1 26  
 0-5 cm 9.15 10.22 10.11 13.88 14.10 11.54 11.50 2.11 2.00

Soybean Field#: 6 Date: 7/23/82 (Julian: 204) Time: 14:40  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 10.59 10.41 11 43 12 67 14.19 13.91 12 20 1.64 1.35  
 2-5 cm 16.17 13 64 13 89 16.13 16.35 15 05 15.20 1.21 0.80  
 0-5 cm 13.94 12.35 12.90 14.75 15 48 14.60 14.00 1.38 1.02

Soybean Field#: 6 Date: 7/26/82 (Julian: 207) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 1.75 1 84 2 87 4 12 3.74 3.91 3 04 1.05 3 47  
 2-5 cm 4 26 8 36 7 72 10.73 7.22 9 78 8.01 2 25 2 81  
 0-5 cm 3.25 5.75 5 78 8.09 5.83 7.43 6 02 1 77 3 08

Soybean Field#: 6 Date: 7/28/82 (Julian: 209) Time: 10:35  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 12.54 10 02 15.74 10.17 15 66 12.67 12.80 2 51 1.96  
 2-5 cm 7.58 5 39 13 14 99.99 13.41 12 00 10 30 3 61 3.50  
 0-5 cm 9.56 7.24 14.18 99 99 14.31 12 26 11 30 3.17 2 89

Soybean Field#: 6 Date: 7/30/82 (Julian: 211) Time: 14:40  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S D S D./Mean  
 0-2 cm 5.74 9 08 7.68 11 81 10.29 10 69 9.21 2 21 2 40  
 2-5 cm 8.31 12.48 11.61 11.28 12.80 13 60 11.68 1.85 1.58  
 0-5 cm 7 28 11 12 10 04 11 49 11.79 12.43 10 69 1.99 1.91

Soybean Field#: 6 Date: 8/ 4/82 (Julian: 216) Time: 10:40											
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
0-2 cm	2.26	2.42	2.81	3.29	3.03	3.08	2.81	0.40	1.43		
2-5 cm	2.72	3.00	3.52	4.84	4.02	6.35	4.08	1.35	3.30		
0-5 cm	2.53	2.77	3.24	4.22	3.63	5.04	3.57	0.97	2.55		
Soybean Field#: 6 Date: 8/ 9/82 (Julian: 221) Time: 14:30											
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
0-2 cm	9.97	11.74	10.95	15.79	14.34	13.67	12.74	2.22	1.74		
2-5 cm	11.26	10.58	11.59	14.77	16.12	14.30	13.10	2.25	1.72		
0-5 cm	10.75	11.04	11.34	15.18	15.41	14.05	12.96	2.24	1.73		
Soybean Field#: 6 Date: 8/16/82 (Julian: 228) Time: 14:45											
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
0-2 cm	19.24	19.17	18.40	21.72	19.59	19.69	19.64	1.12	0.57		
2-5 cm	16.74	16.17	16.83	20.20	19.24	18.38	17.93	1.60	0.89		
0-5 cm	17.74	17.37	17.46	20.81	19.38	18.91	18.61	1.41	0.76		
Soybean Field#: 6 Date: 9/ 9/82 (Julian: 252) Time: 11:20											
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
0-2 cm	13.51	14.81	13.65	17.06	15.16	13.61	14.63	1.38	0.94		
2-5 cm	13.36	13.21	12.75	16.15	15.96	14.78	14.37	1.48	1.03		
0-5 cm	13.42	13.85	13.11	16.52	15.64	14.31	14.47	1.44	0.99		
Soybean Field#: 6 Date: 9/16/82 (Julian: 259) Time: 13:40											
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
0-2 cm	13.13	14.91	12.48	16.31	15.19	17.87	14.98	1.99	1.33		
2-5 cm	13.81	7.14	13.47	14.02	15.56	18.14	13.69	3.64	2.66		
0-5 cm	13.54	10.24	13.07	14.93	15.41	18.03	14.21	2.98	2.13		
Soybean Field#: 6 Date: 9/28/82 (Julian: 271) Time:											
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
0-2 cm	3.37	5.10	4.04	4.77	4.04	6.23	4.59	1.01	2.19		
2-5 cm	4.60	9.27	7.08	7.89	5.45	10.79	7.51	2.32	3.09		
0-5 cm	4.11	7.60	5.86	6.64	4.88	8.97	6.34	1.79	2.73		
Soybean Field#: 6 Date: 9/30/82 (Julian: 273) Time:											
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
0-2 cm	3.04	5.01	4.53	3.10	3.81	4.73	4.04	0.85	2.10		
2-5 cm	4.56	8.96	8.05	6.67	6.48	5.51	6.70	1.61	2.40		
0-5 cm	3.95	7.38	6.64	5.24	5.41	5.20	5.64	1.30	2.28		
Soybean Field#: 7 Date: 7/19/82 (Julian: 200) Time: 15:20											
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
0-2 cm	99.99	8.20	9.70	6.01	17.12	16.77	11.56	5.09	4.40		
2-5 cm	17.90	19.13	16.92	16.88	19.43	16.42	17.78	1.26	0.71		
0-5 cm	99.99	14.76	14.03	12.53	18.51	16.56	15.29	2.79	2.19		
Soybean Field#: 7 Date: 7/26/82 (Julian: 207) Time: 10:30											
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
0-2 cm	14.30	22.56	29.88	28.86	24.83	19.71	23.36	5.85	2.50		
2-5 cm	17.95	24.92	26.74	27.07	26.14	19.79	23.77	3.91	1.64		
0-5 cm	16.49	23.97	28.00	27.78	25.61	19.76	23.60	4.68	1.99		
Soybean Field#: 7 Date: 7/28/82 (Julian: 209) Time: 10:25											
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
0-2 cm	19.92	20.23	24.46	25.61	17.79	10.98	19.83	5.24	2.64		
2-5 cm	18.96	19.12	21.52	24.63	20.62	13.53	19.73	3.67	1.86		
0-5 cm	19.34	19.57	22.70	25.02	19.49	12.51	19.77	4.30	2.17		
Soybean Field#: 7 Date: 7/30/82 (Julian: 211) Time: 14:30											
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
0-2 cm	17.63	12.65	26.47	20.70	23.34	14.72	19.25	5.25	2.73		
2-5 cm	19.55	21.93	27.66	20.62	25.78	16.61	22.03	4.08	1.85		
0-5 cm	18.78	18.22	27.18	20.65	24.81	15.85	20.92	4.55	2.20		
Soybean Field#: 7 Date: 8/ 4/82 (Julian: 216) Time: 10:25											
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
0-2 cm	15.20	12.98	8.90	18.79	4.98	3.29	10.69	6.03	5.64		
2-5 cm	15.63	17.77	17.74	19.61	9.83	4.98	14.26	5.67	3.98		
0-5 cm	15.46	15.85	14.21	19.28	7.89	4.30	12.83	5.81	4.64		
Soybean Field#: 7 Date: 8/ 9/82 (Julian: 221) Time: 14:20											
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
0-2 cm	15.67	18.36	8.89	3.30	19.71	11.27	12.87	6.24	4.85		
2-5 cm	16.50	19.14	18.73	20.05	19.55	10.94	17.49	3.43	1.96		
0-5 cm	16.17	18.83	14.80	13.35	19.62	11.07	15.64	4.56	3.12		
Soybean Field#: 7 Date: 8/16/82 (Julian: 228) Time: 14:00											
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
0-2 cm	20.89	20.89	25.51	99.99	99.99	19.72	21.75	2.56	1.18		
2-5 cm	19.55	22.61	27.24	99.99	99.99	17.96	21.84	4.08	1.87		
0-5 cm	20.09	21.92	26.55	99.99	99.99	18.66	21.81	3.48	1.59		
Soybean Field#: 7 Date: 9/ 9/82 (Julian: 252) Time: 11:20											
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
0-2 cm	13.11	22.19	19.92	17.67	17.58	14.91	17.56	3.28	1.87		
2-5 cm	11.92	20.63	21.54	16.74	16.70	14.23	16.96	3.67	2.17		
0-5 cm	12.39	21.25	20.89	17.11	17.05	14.50	17.20	3.52	2.05		
Soybean Field#: 7 Date: 9/16/82 (Julian: 259) Time:											
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean		
0-2 cm	14.80	19.34	22.71	20.32	10.67	14.72	17.09	4.45	2.61		
2-5 cm	16.18	19.37	21.02	19.73	12.61	15.64	17.42	3.16	1.81		
0-5 cm	15.63	19.36	21.69	19.96	11.83	15.28	17.29	3.68	2.13		

Soybean Field#: 7 Date: 9/28/82 (Julian: 271) Time: 10:00									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
0-2 cm	5.19	10.66	12.69	10.79	4.37	8.06	8.63	3.33	3.86
2-5 cm	8.63	13.69	16.36	12.66	7.73	6.90	11.00	3.79	3.45
0-5 cm	7.25	12.48	14.90	11.91	6.39	7.37	10.05	3.61	3.61
Soybean Field#: 7 Date: 9/30/82 (Julian: 273) Time: 10:00									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
0-2 cm	4.47	10.57	8.26	6.01	4.26	4.91	6.41	2.51	3.91
2-5 cm	5.13	13.66	10.46	9.10	6.04	6.47	8.48	3.24	3.82
0-5 cm	4.87	12.43	9.58	7.87	5.33	5.85	7.65	2.95	3.86
Soybean Field#: 7 Date: 10/ 5/82 (Julian: 278) Time: 11:20									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
0-2 cm	9.74	11.76	8.14	12.66	5.52	7.19	9.17	2.74	2.99
2-5 cm	11.57	13.68	11.49	14.88	8.38	7.66	11.28	2.84	2.52
0-5 cm	10.84	12.92	10.15	13.99	7.24	7.47	10.43	2.80	2.71
Soybean Field#: 7 Date: 10/ 7/82 (Julian: 280) Time: 11:20									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
0-2 cm	6.12	7.70	7.15	10.75	6.95	5.35	7.34	1.87	2.54
2-5 cm	8.41	9.87	11.05	11.43	8.09	7.82	9.45	1.57	1.66
0-5 cm	7.50	9.00	9.49	11.16	7.63	6.83	8.60	1.69	2.01
Soybean Field#: 7 Date: 10/12/82 (Julian: 285) Time: 11:25									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
0-2 cm	18.63	21.46	20.85	22.74	22.82	16.80	20.55	2.39	1.16
2-5 cm	18.47	21.13	19.85	21.50	19.99	17.65	19.77	1.49	0.75
0-5 cm	18.53	21.26	20.25	22.00	21.12	17.31	20.08	1.85	0.92
Soybean Field#: 7 Date: 10/14/82 (Julian: 287) Time: 11:25									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
0-2 cm	11.41	20.39	21.18	22.45	19.19	16.79	18.57	4.00	2.15
2-5 cm	99.99	21.62	21.22	19.77	99.99	17.56	20.04	1.84	0.92
0-5 cm	99.99	21.13	21.20	20.84	99.99	17.25	19.45	2.70	1.41
Soybean Field#: 7 Date: 10/19/82 (Julian: 292) Time: 13:20									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
0-2 cm	17.20	12.55	13.18	11.09	14.93	10.23	13.20	2.56	1.94
2-5 cm	17.03	16.79	18.52	15.87	15.74	11.89	15.97	2.24	1.40
0-5 cm	17.10	15.09	16.39	13.96	15.42	11.22	14.86	2.37	1.62
Soybean Field#: 7 Date: 10/21/82 (Julian: 294) Time: 13:20									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
0-2 cm	6.51	18.34	14.56	22.16	20.29	11.52	15.56	5.88	3.78
2-5 cm	12.84	19.46	18.78	21.06	20.71	14.43	17.88	3.43	1.92
0-5 cm	10.31	19.01	17.09	21.50	20.54	13.27	16.95	4.41	2.66
Soybean Field#: 7 Date: 10/26/82 (Julian: 299) Time: 10:40									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
0-2 cm	5.49	14.91	10.81	21.88	12.56	11.50	12.86	5.41	4.20
2-5 cm	11.57	17.28	17.21	19.93	18.19	13.62	16.30	3.10	1.90
0-5 cm	9.14	16.33	14.65	20.71	15.94	12.77	14.92	4.02	2.82
Soybean Field#: 7 Date: 11/ 1/82 (Julian: 305) Time: 10:40									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
0-2 cm	23.02	23.76	25.92	25.47	23.63	19.73	23.59	2.20	0.93
2-5 cm	20.66	22.58	23.96	99.99	23.28	19.48	21.99	1.87	0.85
0-5 cm	21.60	23.05	24.74	99.99	23.42	19.58	22.63	2.00	0.88
Soybean Field#: 8 Date: 7/ 9/82 (Julian: 190) Time: 10:40									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
0-2 cm	12.74	18.14	17.22	20.85	15.65	22.03	17.77	3.40	1.91
2-5 cm	17.93	18.49	20.33	99.99	99.99	19.32	19.02	1.04	0.55
0-5 cm	15.85	18.35	19.09	99.99	99.99	20.41	18.52	1.99	1.10
Soybean Field#: 8 Date: 7/12/82 (Julian: 193) Time: 10:40									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
0-2 cm	17.57	17.18	19.72	8.94	6.31	19.82	14.92	5.82	3.90
2-5 cm	17.30	20.73	17.98	16.08	16.51	19.70	18.05	1.83	1.01
0-5 cm	17.41	19.31	18.67	13.22	12.43	19.75	16.80	3.42	2.17
Soybean Field#: 8 Date: 7/13/82 (Julian: 194) Time: 15:18									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
0-2 cm	17.20	14.78	18.81	8.90	9.88	17.85	14.57	4.24	2.91
2-5 cm	13.70	13.91	19.00	8.38	14.60	20.29	14.98	4.26	2.84
0-5 cm	15.10	14.26	18.92	8.59	12.72	19.32	14.82	4.25	2.87
Soybean Field#: 8 Date: 7/19/82 (Julian: 200) Time: 10:30									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
0-2 cm	20.04	19.82	17.87	6.78	4.12	10.23	13.14	7.00	5.32
2-5 cm	19.31	20.56	17.89	15.38	9.93	15.06	16.35	3.81	2.33
0-5 cm	19.60	20.26	17.88	11.94	7.60	13.13	15.07	5.09	3.53
Soybean Field#: 8 Date: 7/26/82 (Julian: 207) Time: 10:30									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
0-2 cm	13.77	14.93	22.98	6.86	11.65	17.60	14.63	5.45	3.73
2-5 cm	18.57	18.17	23.13	11.43	16.34	19.39	17.84	3.86	2.16
0-5 cm	16.65	16.87	23.07	9.60	14.46	18.68	16.56	4.49	2.79
Soybean Field#: 8 Date: 7/28/82 (Julian: 209) Time: 11:30									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D	S.D./Mean
0-2 cm	8.37	15.06	17.12	8.55	6.78	11.49	11.23	4.11	3.66
2-5 cm	12.90	14.14	17.94	10.71	9.77	14.81	13.38	2.96	2.21
0-5 cm	11.09	14.51	17.61	9.84	8.57	13.48	12.52	3.42	2.79



Soybean Field#: 8 Date: 10/7/82 (Julian: 280) Time: 13:40												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	8.36	10.98	5.26	6.96	5.41	10.19	7.86	2.41	3.06			
2-5 cm	10.92	11.17	8.14	7.88	8.66	11.86	9.77	1.74	1.78			
0-5 cm	9.90	11.09	6.99	7.51	7.36	11.19	9.01	2.01	2.29			
Soybean Field#: 8 Date: 10/12/82 (Julian: 285) Time: 13:40												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	16.18	15.52	15.58	15.09	15.73	16.81	15.82	0.60	0.38			
2-5 cm	17.17	16.40	16.95	15.85	16.04	17.94	16.73	0.78	0.47			
0-5 cm	16.77	16.05	16.40	15.55	15.92	17.49	16.36	0.71	0.43			
Soybean Field#: 8 Date: 10/14/82 (Julian: 287) Time: 13:00												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	14.44	14.99	16.87	11.55	13.12	10.14	13.52	2.44	1.80			
2-5 cm	12.83	15.60	17.34	13.38	18.93	13.58	15.27	2.45	1.61			
0-5 cm	13.47	15.35	17.15	12.65	16.60	12.20	14.57	2.45	1.69			
Soybean Field#: 8 Date: 10/19/82 (Julian: 292) Time: 13:00												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	7.47	9.72	6.31	8.80	11.39	6.85	8.42	1.92	2.28			
2-5 cm	14.03	15.68	13.18	10.76	12.20	15.27	13.52	1.87	1.38			
0-5 cm	11.41	13.29	10.43	9.97	11.88	11.90	11.48	1.89	1.74			
Soybean Field#: 8 Date: 10/21/82 (Julian: 294) Time: 10:40												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	11.55	8.55	6.69	6.85	10.98	11.40	9.34	2.26	2.43			
2-5 cm	14.44	13.71	12.32	9.75	13.69	12.40	12.72	1.67	1.32			
0-5 cm	13.29	11.65	10.07	8.59	12.61	12.00	11.37	1.91	1.76			
Soybean Field#: 9 Date: 7/6/82 (Julian: 187) Time: 15:02												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	18.59	12.17	6.49	7.18	5.30	6.56	9.38	5.11	5.44			
2-5 cm	22.07	15.29	11.89	13.15	8.84	11.70	13.82	4.55	3.29			
0-5 cm	20.68	14.04	9.73	10.76	7.43	9.64	12.05	4.78	4.15			
Soybean Field#: 9 Date: 7/9/82 (Julian: 190) Time: 10:42												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	4.94	3.03	2.14	3.09	2.09	3.23	3.09	1.03	3.35			
2-5 cm	8.97	5.11	2.57	6.55	2.68	9.59	5.91	3.02	5.10			
0-5 cm	7.36	4.28	2.40	5.17	2.44	7.04	4.78	2.22	4.40			
Soybean Field#: 9 Date: 7/13/82 (Julian: 194) Time: 11:32												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	9.16	3.56	99.99	6.01	7.60	17.65	8.80	5.37	6.10			
2-5 cm	8.67	6.90	9.23	11.05	10.50	11.23	9.60	1.67	1.73			
0-5 cm	8.87	5.56	99.99	9.04	9.34	13.80	9.28	3.15	3.48			
Soybean Field#: 8 Date: 8/4/82 (Julian: 216) Time: 11:52												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	3.83	1.10	0.35	0.53	0.60	0.55	1.16	1.33	11.48			
2-5 cm	6.54	2.09	0.98	0.98	0.68	1.77	2.17	2.21	10.15			
0-5 cm	5.46	1.70	0.73	0.80	0.65	1.28	1.77	1.86	10.68			
Soybean Field#: 8 Date: 8/9/82 (Julian: 221) Time: 15:12												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	9.29	7.21	5.07	6.64	6.01	11.97	7.70	2.53	3.28			
2-5 cm	11.10	12.38	13.22	10.57	10.44	12.58	11.71	1.16	0.99			
0-5 cm	10.38	10.31	9.96	9.00	8.66	12.34	10.11	1.71	1.91			
Soybean Field#: 8 Date: 8/16/82 (Julian: 228) Time: 13:50												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	15.72	17.13	16.93	15.37	14.33	21.22	16.78	2.41	1.43			
2-5 cm	15.86	17.25	17.23	15.65	14.50	16.85	16.22	1.08	0.67			
0-5 cm	15.81	17.20	17.11	15.53	14.43	18.60	16.45	1.61	0.98			
Soybean Field#: 8 Date: 9/9/82 (Julian: 252) Time: 11:05												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	14.96	16.72	14.57	13.33	13.02	15.74	14.72	1.41	0.96			
2-5 cm	14.42	15.98	13.10	12.81	13.11	15.25	14.11	1.31	0.93			
0-5 cm	14.64	16.28	13.69	13.02	13.08	15.44	14.36	1.35	0.94			
Soybean Field#: 8 Date: 9/16/82 (Julian: 259) Time: 11:05												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	15.21	16.65	8.22	13.40	13.26	15.90	13.77	3.04	2.20			
2-5 cm	14.72	16.57	17.99	14.16	13.06	16.23	15.46	1.80	1.17			
0-5 cm	14.92	16.60	14.08	13.86	13.14	16.10	14.78	2.30	1.58			
Soybean Field#: 8 Date: 9/28/82 (Julian: 271) Time: 11:05												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	6.06	7.91	6.67	3.71	4.90	8.78	6.34	1.87	2.96			
2-5 cm	8.54	10.14	9.17	6.97	8.87	10.75	9.07	1.32	1.45			
0-5 cm	7.55	9.24	8.17	5.67	7.29	9.96	7.98	1.54	2.06			
Soybean Field#: 8 Date: 9/30/82 (Julian: 273) Time: 11:35												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	3.82	4.64	5.58	4.01	4.19	3.66	4.32	0.70	1.63			
2-5 cm	7.01	8.76	9.70	7.83	7.95	6.59	7.97	1.14	1.43			
0-5 cm	5.73	7.11	8.05	6.30	6.45	5.41	6.51	0.96	1.51			
Soybean Field#: 8 Date: 10/5/82 (Julian: 278) Time: 11:35												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean			
0-2 cm	9.80	7.59	10.08	5.26	4.96	5.80	7.25	2.28	3.14			
2-5 cm	11.10	99.99	11.18	8.16	7.78	9.31	9.50	1.60	1.68			
0-5 cm	10.58	99.99	10.74	7.00	6.65	7.90	8.60	1.87	2.27			

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Soybean		Field#:	9	Date:	7/19/82 (Julian: 200)	Time:	15:04	S D		S D /Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D	S D /Mean
0-2 cm	10.68	5.24	0.82	1.30	9.81	99.99	5.57	4.61	8.28	8.28
2-5 cm	11.99	6.16	9.07	6.16	10.95	99.99	8.87	2.68	3.03	3.03
0-5 cm	11.47	5.79	5.77	4.22	10.50	99.99	7.55	3.45	5.13	5.13
Soybean		Field#:	9	Date:	7/26/82 (Julian: 207)	Time:	10:30	S D		S D /Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D	S D /Mean
0-2 cm	5.09	4.79	5.68	5.67	7.97	5.76	5.83	1.12	1.92	1.92
2-5 cm	5.86	6.08	10.79	6.56	11.01	5.91	7.70	2.49	3.23	3.23
0-5 cm	5.55	5.57	8.75	6.21	9.79	5.85	6.95	1.94	2.71	2.71
Soybean		Field#:	9	Date:	7/28/82 (Julian: 209)	Time:		S D		S D /Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D	S D /Mean
0-2 cm	4.35	7.23	2.17	3.13	6.08	4.63	4.60	1.85	4.03	4.03
2-5 cm	8.53	9.31	9.31	4.03	10.26	5.54	7.83	2.47	3.15	3.15
0-5 cm	6.86	8.48	6.46	3.67	8.59	5.18	6.54	2.22	3.51	3.51
Soybean		Field#:	9	Date:	8/2/82 (Julian: 214)	Time:		S D		S D /Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D	S D /Mean
0-2 cm	99.99	6.40	6.37	5.83	7.40	6.17	6.43	0.58	0.91	0.91
2-5 cm	10.02	8.35	8.02	12.15	9.50	7.83	9.31	1.64	1.76	1.76
0-5 cm	99.99	7.57	7.36	9.62	8.66	7.17	8.16	1.21	1.42	1.42
Soybean		Field#:	9	Date:	8/4/82 (Julian: 216)	Time:	11:35	S D		S D /Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D	S D /Mean
0-2 cm	0.71	0.72	0.45	1.47	0.83	0.45	0.77	0.38	4.84	4.84
2-5 cm	0.58	1.25	0.90	1.24	1.07	0.62	0.94	0.30	3.15	3.15
0-5 cm	0.63	1.04	0.72	1.33	0.97	0.55	0.88	0.33	3.82	3.82
Soybean		Field#:	9	Date:	8/9/82 (Julian: 221)	Time:	15:22	S D		S D /Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D	S D /Mean
0-2 cm	4.71	3.95	8.14	5.16	2.84	9.40	5.70	2.53	4.45	4.45
2-5 cm	9.63	16.33	9.97	12.07	9.57	9.97	11.25	2.65	2.36	2.36
0-5 cm	7.66	11.38	9.24	9.30	6.88	9.74	9.03	2.61	3.19	3.19
Soybean		Field#:	9	Date:	8/16/82 (Julian: 228)	Time:	13:40	S D		S D /Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D	S D /Mean
0-2 cm	14.91	14.70	13.42	16.29	17.53	13.49	15.06	1.61	1.07	1.07
2-5 cm	14.71	14.65	15.13	20.16	15.40	14.28	15.72	2.21	1.41	1.41
0-5 cm	14.79	14.67	14.44	18.61	16.25	13.96	15.46	1.97	1.27	1.27
Soybean		Field#:	9	Date:	9/9/82 (Julian: 252)	Time:	11:00	S D		S D /Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D	S D /Mean
0-2 cm	11.24	11.21	9.83	14.19	10.69	12.06	11.54	1.49	1.29	1.29
2-5 cm	11.19	11.58	9.50	14.44	10.07	11.23	11.34	1.71	1.51	1.51
0-5 cm	11.21	11.43	9.63	14.34	10.32	11.57	11.42	1.63	1.43	1.43
Soybean		Field#:	9	Date:	9/16/82 (Julian: 259)	Time:	13:05	S D		S D /Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D	S D /Mean
0-2 cm	10.61	10.87	11.55	23.08	13.47	13.23	13.80	4.70	3.40	3.40
2-5 cm	9.24	10.56	11.92	12.75	13.68	13.27	11.90	1.71	1.44	1.44
0-5 cm	9.79	10.68	11.77	16.88	13.60	13.25	12.66	2.91	2.22	2.22
Soybean		Field#:	9	Date:	9/28/82 (Julian: 271)	Time:		S D		S D /Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D	S D /Mean
0-2 cm	3.20	3.35	3.99	4.11	3.99	2.98	3.60	0.48	1.34	1.34
2-5 cm	5.86	4.36	4.55	5.65	5.90	5.69	5.34	0.69	1.30	1.30
0-5 cm	4.79	3.96	4.32	5.03	5.14	4.61	4.64	0.61	1.31	1.31
Soybean		Field#:	9	Date:	9/30/82 (Julian: 273)	Time:	09:55	S D		S D /Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D	S D /Mean
0-2 cm	2.91	2.89	3.19	3.27	2.91	2.91	3.01	0.17	0.57	0.57
2-5 cm	3.62	3.88	-0.13	3.95	4.66	3.38	3.23	1.70	5.27	5.27
0-5 cm	3.34	3.48	1.20	3.68	3.96	3.19	3.14	1.09	3.39	3.39
Soybean		Field#:	9	Date:	10/5/82 (Julian: 278)	Time:		S D		S D /Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D	S D /Mean
0-2 cm	99.99	4.97	8.05	7.61	3.18	4.99	5.76	2.03	3.53	3.53
2-5 cm	7.71	6.90	7.14	9.61	99.99	4.61	7.19	1.79	2.49	2.49
0-5 cm	99.99	6.13	7.50	8.81	99.99	4.76	6.62	1.89	2.91	2.91
Soybean		Field#:	9	Date:	10/7/82 (Julian: 280)	Time:	11:20	S D		S D /Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D	S D /Mean
0-2 cm	5.46	6.44	4.81	7.04	4.85	4.37	5.49	1.04	1.90	1.90
2-5 cm	99.99	5.64	5.73	6.63	99.99	4.94	5.73	0.69	1.21	1.21
0-5 cm	99.99	5.96	5.36	6.79	99.99	4.71	5.64	0.83	1.49	1.49
Soybean		Field#:	9	Date:	10/12/82 (Julian: 285)	Time:	13:40	S D		S D /Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D	S D /Mean
0-2 cm	16.12	15.24	14.14	15.31	17.61	14.75	15.53	1.21	0.78	0.78
2-5 cm	16.96	14.67	12.31	15.14	17.24	16.09	15.40	1.81	1.18	1.18
0-5 cm	16.62	14.90	13.04	15.21	17.39	15.55	15.45	1.57	1.02	1.02
Soybean		Field#:	9	Date:	10/14/82 (Julian: 287)	Time:	11:55	S D		S D /Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D	S D /Mean
0-2 cm	15.73	18.37	13.97	16.74	19.25	18.54	17.10	2.00	1.17	1.17
2-5 cm	16.03	16.69	13.46	16.12	17.37	18.59	16.38	1.71	1.05	1.05
0-5 cm	15.91	17.36	13.66	16.37	18.12	18.57	16.67	1.83	1.10	1.10
Soybean		Field#:	9	Date:	10/19/82 (Julian: 292)	Time:	12:50	S D		S D /Mean
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S	D	S D /Mean
0-2 cm	13.72	13.86	12.22	17.11	16.63	9.70	13.87	2.77	2.00	2.00
2-5 cm	14.10	15.32	13.45	17.20	16.54	11.81	14.74	2.02	1.37	1.37
0-5 cm	13.95	14.74	12.96	17.17	16.58	10.96	14.39	2.32	1.62	1.62

Soybean Field#: 9 Date: 10/21/82 (Julian: 294) Time: 10:00												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 6	LOC 5	LOC 4
0-2 cm	12.55	11.67	12.93	13.39	14.77	14.34	13.28	1.15	0.86	8.51	7.22	6.96
2-5 cm	15.37	13.25	13.33	13.79	15.65	13.29	14.11	1.10	0.78	14.70	15.06	15.64
0-5 cm	14.25	12.62	13.17	13.63	15.30	13.71	13.78	1.12	0.82	12.22	11.92	12.17
Soybean Field#: 9 Date: 10/26/82 (Julian: 299) Time: 10:30												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 6	LOC 5	LOC 4
0-2 cm	11.99	11.71	5.66	13.38	8.33	14.48	10.92	3.31	3.03	12.14	10.35	9.74
2-5 cm	9.12	12.75	10.46	14.58	11.92	5.20	10.67	3.27	3.07	14.11	15.86	11.98
0-5 cm	10.27	12.33	8.54	14.10	10.48	8.91	10.77	3.29	3.05	13.32	13.66	15.70
Soybean Field#: 10 Date: 6/14/82 (Julian: 165) Time: 10:09												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 6	LOC 5	LOC 4
0-2 cm	21.06	20.78	28.26	25.92	23.65	22.55	23.70	2.92	1.23	9.46	7.87	6.64
2-5 cm	35.31	34.71	36.33	38.67	41.03	40.24	37.72	2.65	0.70	16.25	16.50	15.85
0-5 cm	29.61	29.14	33.10	33.57	34.08	33.16	32.11	2.76	0.91	13.53	13.05	12.17
Soybean Field#: 10 Date: 6/16/82 (Julian: 167) Time: 10:50												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 6	LOC 5	LOC 4
0-2 cm	17.24	22.45	25.43	18.53	19.96	17.21	20.14	3.26	1.62	10.71	10.22	9.24
2-5 cm	40.75	42.46	42.94	40.43	35.76	38.98	40.22	2.61	0.65	16.43	18.78	17.74
0-5 cm	31.35	34.46	35.94	31.67	29.44	30.27	32.19	2.87	1.04	12.80	10.81	11.61
Soybean Field#: 10 Date: 6/21/82 (Julian: 172) Time: 10:50												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 6	LOC 5	LOC 4
0-2 cm	18.60	25.55	10.96	19.58	18.65	19.65	18.83	4.66	2.47	16.55	18.14	17.55
2-5 cm	31.38	34.14	30.00	29.82	33.14	32.06	31.76	1.71	0.54	18.30	16.43	23.78
0-5 cm	26.27	30.70	22.39	25.72	27.35	27.09	26.59	2.89	1.31	16.48	18.52	21.29
Soybean Field#: 10 Date: 6/25/82 (Julian: 176) Time: 10:00												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 6	LOC 5	LOC 4
0-2 cm	19.04	18.12	17.40	19.94	99.99	26.52	20.20	3.66	1.81	11.51	11.51	10.52
2-5 cm	37.98	34.33	35.70	33.71	33.69	30.18	34.27	2.57	0.75	13.63	14.82	11.78
0-5 cm	30.40	27.84	28.38	28.20	99.99	28.72	28.64	3.01	1.17	13.50	10.66	11.27
Soybean Field#: 10 Date: 6/28/82 (Julian: 179) Time: 14:55												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 6	LOC 5	LOC 4
0-2 cm	29.28	24.81	23.82	21.71	26.41	25.95	25.33	2.56	1.01	9.02	7.31	6.05
2-5 cm	34.77	31.81	32.55	39.35	21.26	32.72	32.08	5.96	1.86	12.80	10.34	10.02
0-5 cm	32.58	29.01	29.06	32.29	23.32	30.01	29.38	4.60	1.52	11.28	9.13	8.34
Soybean Field#: 10 Date: 7/7/82 (Julian: 188) Time: 10:00												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 6	LOC 5	LOC 4
0-2 cm	4.76	4.98	5.19	6.50	8.45	6.76	6.11	1.41	2.32	4.34	3.10	5.04
2-5 cm	9.29	13.71	13.77	16.91	17.48	14.81	14.33	2.93	2.04	6.65	6.26	7.31
0-5 cm	7.48	10.22	10.34	12.75	13.87	11.59	11.04	2.32	2.15	6.62	5.72	6.40
Soybean Field#: 10 Date: 7/23/82 (Julian: 204) Time: 10:00												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 6	LOC 5	LOC 4
0-2 cm	6.96	7.25	6.71	8.11	5.78	8.51	7.22	0.98	1.36	8.51	7.22	8.11
2-5 cm	15.64	13.23	17.55	16.44	12.77	14.70	15.06	1.85	1.23	14.70	15.06	16.44
0-5 cm	12.17	10.84	13.21	13.11	9.97	12.22	11.92	1.51	1.28	12.22	11.92	13.11
Soybean Field#: 10 Date: 7/26/82 (Julian: 207) Time: 11:00												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 6	LOC 5	LOC 4
0-2 cm	99.99	99.99	7.47	12.80	9.74	12.16	10.35	2.15	2.08	12.16	10.35	9.74
2-5 cm	99.99	20.43	11.98	17.63	15.17	14.11	15.86	3.26	2.06	15.86	3.26	11.98
0-5 cm	99.99	16.09	10.18	15.70	13.00	13.32	13.66	2.82	2.06	13.32	13.66	15.70
Soybean Field#: 10 Date: 7/28/82 (Julian: 209) Time: 14:30												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 6	LOC 5	LOC 4
0-2 cm	5.54	9.72	6.64	8.33	7.56	9.46	7.87	1.62	2.06	9.46	7.87	6.64
2-5 cm	20.88	15.88	15.85	16.42	13.71	16.25	16.50	2.36	1.43	16.25	16.50	15.85
0-5 cm	14.75	13.42	12.17	13.19	11.25	13.53	13.05	2.07	1.68	13.53	13.05	12.17
Soybean Field#: 10 Date: 7/30/82 (Julian: 211) Time: 09:30												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 6	LOC 5	LOC 4
0-2 cm	14.85	9.38	9.24	10.71	10.22	11.05	10.91	2.06	1.89	11.05	10.91	9.24
2-5 cm	99.99	10.83	10.15	12.21	6.57	13.97	10.74	2.75	2.56	13.97	10.74	10.15
0-5 cm	99.99	10.25	9.79	11.61	8.03	12.80	10.81	2.48	2.29	12.80	10.81	9.79
Soybean Field#: 10 Date: 8/2/82 (Julian: 214) Time: 11:00												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 6	LOC 5	LOC 4
0-2 cm	17.49	17.97	17.55	17.30	16.55	18.14	17.51	0.56	0.32	18.14	17.51	17.55
2-5 cm	21.19	17.74	23.78	18.43	18.78	19.47	19.47	2.63	1.35	19.47	19.47	23.78
0-5 cm	19.71	17.83	21.29	18.28	16.48	18.52	18.68	1.80	0.94	18.52	18.68	18.28
Soybean Field#: 10 Date: 8/3/82 (Julian: 215) Time: 11:47												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 6	LOC 5	LOC 4
0-2 cm	7.43	7.03	10.52	9.21	10.42	11.51	9.35	1.80	1.93	11.51	9.35	7.03
2-5 cm	11.14	5.38	11.78	12.39	13.63	14.82	11.52	3.29	2.85	14.82	11.52	11.78
0-5 cm	9.65	6.04	11.27	11.12	12.35	13.50	10.66	2.69	2.48	13.50	10.66	11.27
Soybean Field#: 10 Date: 8/4/82 (Julian: 216) Time: 15:13												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 6	LOC 5	LOC 4
0-2 cm	5.70	6.05	8.44	5.77	8.89	9.02	7.31	1.63	2.23	9.02	7.31	6.05
2-5 cm	7.59	9.86	10.02	9.75	12.00	12.80	10.34	1.85	1.78	12.80	10.34	10.02
0-5 cm	6.84	8.34	9.39	8.16	10.76	11.28	9.13	1.76	1.96	11.28	9.13	8.34
Soybean Field#: 10 Date: 9/23/82 (Julian: 266) Time: 13:00												
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	LOC 6	LOC 5	LOC 4
0-2 cm	99.99	8.22	2.19	5.04	3.11	7.32	4.34	3.10	7.16	7.32	4.34	8.22
2-5 cm	7.90	7.16	3.21	7.31	8.96	5.32	6.65	2.06	3.10	5.32	6.65	7.16
0-5 cm	4.80	7.59	2.80	6.40	6.62	6.12	5.72	2.48	4.72	6.12	5.72	7.59

Soybean Field#:10 Date: 9/28/82 (Julian: 271) Time:									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	18.52	11.48	15.78	19.97	23.75	25.20	19.12	5.08	2.66
2-5 cm	27.73	28.52	27.08	32.05	33.47	34.19	30.51	3.10	1.02
0-5 cm	24.05	21.70	22.56	27.22	29.58	30.59	25.95	3.89	1.67

Soybean Field#:10 Date: 9/30/82 (Julian: 273) Time: 12:05									
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean
0-2 cm	15.02	16.78	11.85	18.53	19.38	27.88	18.24	5.43	2.98
2-5 cm	24.95	24.58	23.85	25.69	24.36	32.61	26.01	3.29	1.27
0-5 cm	20.98	21.46	19.05	22.82	22.37	30.72	22.90	4.15	1.95

## APPENDIX III.d

### SOIL BULK DENSITY DATA

1.  $M_g$  and BD data
2. Statistics for correlations between  $M_g$  and BD values.

Wheat			Field#: 1	Date: 4/26/82	(Julian.116)	Time:	Wheat			Field#: 3	Date: 4/26/82	(Julian.116)	Time:
Depth	Mean(Mg)	S.D.	S.D./Mean	Mean(BD)			Depth	Mean(Mg)	S.D.	S.D./Mean	Mean(BD)		
0-2 cm	15.60	0.22	0.14	1.315			0-2 cm	13.31	3.32	2.50	1.211		
2-5 cm	16.31	0.24	0.15	1.384			2-5 cm	14.20	3.16	2.23	1.280		
0-5 cm	16.03	0.23	0.14	1.356			0-5 cm	13.84	3.23	2.34	1.253		
Wheat			Field#: 1	Date: 6/29/82	(Julian.180)	Time:	Wheat			Field#: 3	Date: 6/29/82	(Julian.180)	Time:
Depth	Mean(Mg)	S.D.	S.D./Mean	Mean(BD)			Depth	Mean(Mg)	S.D.	S.D./Mean	Mean(BD)		
0-2 cm	34.83	1.26	0.36	1.426			0-2 cm	23.84	0.76	0.32	1.399		
2-5 cm	32.63	1.03	0.32	1.120			2-5 cm	24.38	0.67	0.27	1.156		
0-5 cm	33.51	1.12	0.33	1.242			0-5 cm	24.16	0.71	0.29	1.253		
Depth			FLD Mean(Mg)	Mean(BD)			Depth			FLD Mean(Mg)	Mean(BD)		
0-2 cm			25.21	1.370			0-2 cm			18.57	1.305		
2-5 cm			24.47	1.252			2-5 cm			19.29	1.218		
0-5 cm			24.77	1.299			0-5 cm			19.00	1.253		
Wheat			Field#: 2	Date: 4/26/82	(Julian.116)	Time:	Wheat			Field#: 4	Date: 4/26/82	(Julian.116)	Time:
Depth	Mean(Mg)	S.D.	S.D./Mean	Mean(BD)			Depth	Mean(Mg)	S.D.	S.D./Mean	Mean(BD)		
0-2 cm	12.73	1.68	1.32	1.194			0-2 cm	7.78	0.06	0.08	1.361		
2-5 cm	13.67	1.53	1.12	1.263			2-5 cm	8.84	0.06	0.06	1.430		
0-5 cm	13.29	1.59	1.20	1.235			0-5 cm	8.42	0.06	0.07	1.403		
Wheat			Field#: 2	Date: 6/29/82	(Julian.180)	Time:	Wheat			Field#: 4	Date: 6/29/82	(Julian.180)	Time:
Depth	Mean(Mg)	S.D.	S.D./Mean	Mean(BD)			Depth	Mean(Mg)	S.D.	S.D./Mean	Mean(BD)		
0-2 cm	30.94	1.09	0.35	1.383			0-2 cm	34.37	1.56	0.45	1.561		
2-5 cm	29.19	1.02	0.35	1.151			2-5 cm	33.28	1.33	0.40	1.170		
0-5 cm	29.89	1.05	0.35	1.244			0-5 cm	33.71	1.42	0.42	1.327		
Depth			FLD Mean(Mg)	Mean(BD)			Depth			FLD Mean(Mg)	Mean(BD)		
0-2 cm			21.83	1.288			0-2 cm			21.07	1.461		
2-5 cm			21.43	1.207			2-5 cm			21.06	1.300		
0-5 cm			21.59	1.240			0-5 cm			21.06	1.365		

Wheat	Field#:	5	Date:	4/26/82	(Julian:116)	Time:	Wheat	Field#:	7	Date:	4/26/82	(Julian:116)	Time:
Depth	Mean(Mg)	S.D.	S.D./Mean	Mean(BD)			Depth	Mean(Mg)	S.D.	S.D./Mean	Mean(BD)		
0-2 cm	7.43	1.13	1.52	1.373			0-2 cm	7.77	1.33	1.71	1.217		
2-5 cm	8.51	1.10	1.29	1.442			2-5 cm	8.97	1.13	1.26	1.286		
0-5 cm	8.08	1.11	1.38	1.414			0-5 cm	8.49	1.21	1.44	1.258		
Wheat	Field#:	5	Date:	6/29/82	(Julian:180)	Time:	Wheat	Field#:	7	Date:	6/29/82	(Julian:180)	Time:
Depth	Mean(Mg)	S.D.	S.D./Mean	Mean(BD)			Depth	Mean(Mg)	S.D.	S.D./Mean	Mean(BD)		
0-2 cm	19.94	2.56	1.28	1.402			0-2 cm	14.18	1.66	1.17	1.062		
2-5 cm	20.41	1.02	0.50	1.189			2-5 cm	17.37	1.25	0.72	1.050		
0-5 cm	20.22	1.63	0.81	1.274			0-5 cm	16.09	1.42	0.90	1.055		
Depth	FLD Mean(Mg)	Mean(BD)					Depth	FLD Mean(Mg)	Mean(BD)				
0-2 cm	13.69	1.387					0-2 cm	10.97	1.139				
2-5 cm	14.46	1.315					2-5 cm	13.17	1.168				
0-5 cm	14.15	1.344					0-5 cm	12.29	1.157				
Wheat	Field#:	6	Date:	4/26/82	(Julian:116)	Time:	Wheat	Field#:	8	Date:	4/26/82	(Julian:116)	Time:
Depth	Mean(Mg)	S.D.	S.D./Mean	Mean(BD)			Depth	Mean(Mg)	S.D.	S.D./Mean	Mean(BD)		
0-2 cm	7.95	0.00	0.00	1.251			0-2 cm	9.06	0.35	0.39	1.136		
2-5 cm	9.10	0.03	0.04	1.321			2-5 cm	10.26	0.34	0.33	1.205		
0-5 cm	8.64	0.02	0.02	1.293			0-5 cm	9.78	0.34	0.35	1.178		
Wheat	Field#:	6	Date:	6/29/82	(Julian:180)	Time:	Wheat	Field#:	8	Date:	6/29/82	(Julian:180)	Time:
Depth	Mean(Mg)	S.D.	S.D./Mean	Mean(BD)			Depth	Mean(Mg)	S.D.	S.D./Mean	Mean(BD)		
0-2 cm	14.29	2.68	1.88	1.345			0-2 cm	25.81	0.46	0.18	1.421		
2-5 cm	17.05	1.34	0.78	1.213			2-5 cm	25.30	0.50	0.20	1.041		
0-5 cm	15.95	1.87	1.22	1.266			0-5 cm	25.50	0.49	0.19	1.193		
Depth	FLD Mean(Mg)	Mean(BD)					Depth	FLD Mean(Mg)	Mean(BD)				
0-2 cm	11.12	1.298					0-2 cm	17.44	1.279				
2-5 cm	13.07	1.267					2-5 cm	17.78	1.123				
0-5 cm	12.29	1.280					0-5 cm	17.64	1.185				

Wheat Field#: 9 Date: 4/26/82 (Julian:116) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 10.34 0.59 0.57 1 078  
 2-5 cm 11.52 0.51 0.45 1 148  
 0-5 cm 11.04 0.55 0.50 1 120

Wheat Field#: 9 Date: 6/29/82 (Julian:180) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 32.50 1.56 0.48 1 155  
 2-5 cm 34.21 1.05 0.31 0 945  
 0-5 cm 33.52 1.25 0.38 1 029

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 21.42 1.117  
 2-5 cm 22.86 1.046  
 0-5 cm 22.28 1 075

Wheat Field#: 10 Date: 4/26/82 (Julian:116) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 4.33 0.07 0.16 1 471  
 2-5 cm 5.48 0.00 0.00 1 540  
 0-5 cm 5.02 0.03 0.06 1 512

Wheat Field#: 10 Date: 6/29/82 (Julian:180) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 15.02 0.39 0.26 1 390  
 2-5 cm 15.55 0.93 0.60 1 378  
 0-5 cm 15.34 0.71 0.46 1 383

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 9.68 1.430  
 2-5 cm 10.52 1 459  
 0-5 cm 10.18 1.448

Corn Field#: 1 Date: 6/3/82 (Julian:154) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 29.08 1.05 0.36 1 325  
 2-5 cm 27.89 1.02 0.37 1 213  
 0-5 cm 28.36 1.03 0.36 1 258

Corn Field#: 1 Date: 7/19/82 (Julian:200) Time: 10:05  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 9.85 1.83 1.85 1 353  
 2-5 cm 12.92 1.35 1.05 1 354  
 0-5 cm 11.69 1.54 1.37 1 354

Corn Field#: 1 Date: 9/2/82 (Julian:245) Time: 14:18  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 13.12 1.34 1.02 1 274  
 2-5 cm 17.02 0.23 0.14 1 450  
 0-5 cm 15.46 0.68 0.49 1 379

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 17.35 1 317  
 2-5 cm 19.28 1 339  
 0-5 cm 18.51 1 330

Corn Field#: 2 Date: 6/3/82 (Julian 154) Time: 14:05  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 28.51 0.89 0.31 1 284  
 2-5 cm 29.61 0.78 0.26 1 134  
 0-5 cm 29.17 0.82 0.28 1 194

Corn Field#: 2 Date: 7/19/82 (Julian:200) Time: 10:05  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 12.75 1.94 1.52 1 214  
 2-5 cm 19.99 1.65 0.82 1 259  
 0-5 cm 17.10 1.76 1 10 1 241

Corn Field#: 2 Date: 9/2/82 (Julian 245) Time: 14:00  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 20.29 1.18 0.58 1 212  
 2-5 cm 20.87 0.62 0.30 1 288  
 0-5 cm 20.64 0.84 0.41 1 257

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 20.52 1 237  
 2-5 cm 23.49 1 227  
 0-5 cm 22.30 1 231



Corn Field#: 3 Date: 6/ 3/82 (Julian:154) Time: 14.33  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 25.91 1.41 0.54 1.344  
 2-5 cm 25.31 1.40 0.55 1.311  
 0-5 cm 25.55 1.40 0.55 1.324

Corn Field#: 3 Date: 7/19/82 (Julian:200) Time: 10.50  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 12.99 1.02 0.78 1.124  
 2-5 cm 17.89 0.47 0.26 1.184  
 0-5 cm 15.93 0.69 0.47 1.160

Corn Field#: 3 Date: 9/ 2/82 (Julian:245) Time: 14.07  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 18.56 0.88 0.47 1.185  
 2-5 cm 19.76 0.55 0.28 1.272  
 0-5 cm 19.28 0.68 0.36 1.237

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 19.15 1.217  
 2-5 cm 20.98 1.255  
 0-5 cm 20.25 1.240

Corn Field#: 4 Date: 6/ 3/82 (Julian:154) Time: 15.10  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 22.62 2.42 1.07 1.499  
 2-5 cm 27.89 1.90 0.68 1.120  
 0-5 cm 25.78 2.11 0.84 1.272

Corn Field#: 4 Date: 7/19/82 (Julian:200) Time: 14.00  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 0  
 2-5 cm 15.37 1.207  
 0-5 cm 0

Corn Field#: 4 Date: 8/31/82 (Julian:243) Time: 15.20  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 11.40 0.66 0.58 1.522  
 2-5 cm 16.94 0.37 0.22 1.671  
 0-5 cm 14.73 0.48 0.36 1.611

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 17.01 1.511  
 2-5 cm 20.07 1.333  
 0-5 cm 18.84 1.404

Corn Field#: 5 Date: 6/ 3/82 (Julian:154) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 30.51 1.25 0.41 1.428  
 2-5 cm 27.60 1.38 0.50 1.089  
 0-5 cm 28.77 1.33 0.46 1.225

Corn Field#: 5 Date: 7/19/82 (Julian:200) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 10.94 0.96 0.87 1.487  
 2-5 cm 15.65 0.92 0.58 1.400  
 0-5 cm 13.76 0.93 0.70 1.435

Corn Field#: 5 Date: 8/31/82 (Julian:243) Time: 15:30  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 17.80 2.14 1.21 1.351  
 2-5 cm 20.67 1.23 0.60 1.523  
 0-5 cm 19.52 1.60 0.84 1.454

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 19.75 1.422  
 2-5 cm 21.31 1.338  
 0-5 cm 20.68 1.371

Corn Field#: 6 Date: 6/ 3/82 (Julian:154) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 21.28 0.71 0.34 1.397  
 2-5 cm 19.88 0.56 0.28 1.254  
 0-5 cm 20.44 0.62 0.30 1.311

Corn Field#: 6 Date: 6/17/82 (Julian:168) Time: 14:42  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 19.23 0.59 0.31 1.521  
 2-5 cm 18.29 0.66 0.36 1.366  
 0-5 cm 18.67 0.63 0.34 1.428

Corn Field#: 6 Date: 7/19/82 (Julian:200) Time: 14.10  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 5.42 0.85 1.57 1.467  
 2-5 cm 9.91 1.12 1.13 1.221  
 0-5 cm 8.12 1.01 1.31 1.319

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 15.31 1.461  
 2-5 cm 16.03 1.280  
 0-5 cm 15.74 1.353

Corn Field#: 7 Date: 6/ 3/82 (Julian:154) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 34 15 1.27 0.37 1.183  
 2-5 cm 37.10 1.52 0.41 1.079  
 0-5 cm 35.92 1.42 0.39 1.121

Corn Field#: 7 Date: 7/20/82 (Julian:201) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 11.87 1.82 1.53 1.100  
 2-5 cm 21.91 1.54 0.70 1.347  
 0-5 cm 17.90 1.65 1.03 1.248

Corn Field#: 7 Date: 8/31/82 (Julian:243) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 26.21 0.92 0.35 1.375  
 2-5 cm 32.65 2.25 0.69 1.478  
 0-5 cm 30.08 1.72 0.55 1.437

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 24.08 1.219  
 2-5 cm 30.56 1.301  
 0-5 cm 27.96 1.268

Corn Field#: 8 Date: 6/ 3/82 (Julian:154) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 33.22 0.97 0.29 1.116  
 2-5 cm 34.63 1.12 0.32 0.962  
 0-5 cm 34.06 1.06 0.31 1.024

Corn Field#: 8 Date: 7/20/82 (Julian:201) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 11.45 1.22 1.07 1.461  
 2-5 cm 21.05 1.58 0.75 1.179  
 0-5 cm 17.21 1.44 0.88 1.292

Corn Field#: 8 Date: 8/31/82 (Julian:243) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 23.90 2.06 0.86 1.242  
 2-5 cm 27.44 0.66 0.24 1.224  
 0-5 cm 26.02 1.22 0.49 1.231

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 22.86 1.273  
 2-5 cm 27.70 1.122  
 0-5 cm 25.77 1.182

Corn Field#: 9 Date: 6/ 3/82 (Julian:154) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 32.76 3.78 1.15 1.401  
 2-5 cm 30.04 1.32 0.44 1.132  
 0-5 cm 31.13 2.30 0.73 1.240

Corn Field#: 9 Date: 7/20/82 (Julian:201) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 8.64 2.32 2.69 1.360  
 2-5 cm 11.98 1.96 1.63 1.182  
 0-5 cm 10.65 2.10 2.05 1.253

Corn Field#: 9 Date: 8/31/82 (Julian:243) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 25.34 0.87 0.34 1.302  
 2-5 cm 24.81 0.31 0.12 1.379  
 0-5 cm 25.02 0.53 0.21 1.348

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 22.25 1.354  
 2-5 cm 22.28 1.231  
 0-5 cm 22.27 1.280

Corn Field#: 10 Date: 6/ 3/82 (Julian:154) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 28.68 2.22 0.77 1.427  
 2-5 cm 30.67 0.28 0.09 1.210  
 0-5 cm 29.87 1.06 0.36 1.297

Corn Field#: 10 Date: 7/20/82 (Julian:201) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 10.32 1.11 1.08 1.209  
 2-5 cm 15.90 0.89 0.56 1.264  
 0-5 cm 13.67 0.98 0.77 1.242

Corn Field#: 10 Date: /99 (Julian:999) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 0  
 2-5 cm 0  
 0-5 cm 0

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 19.50 1.318  
 2-5 cm 23.28 1.237  
 0-5 cm 21.77 1.269

100

Soybean Field#: 1 Date: 7/19/82 (Julian:200) Time: 10.05  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 24.26 0.70 0.29 1.549  
 2-5 cm 24.74 0.92 0.37 1.544  
 0-5 cm 24.55 0.83 0.34 1.546

Soybean Field#: 1 Date: 9/ 2/82 (Julian:245) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 24.37 0.86 0.35 1.321  
 2-5 cm 23.95 0.81 0.34 1.470  
 0-5 cm 24.12 0.83 0.34 1.410

Soybean Field#: 1 Date: 9/23/82 (Julian:266) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 16.69 1.78 1.07 1.261  
 2-5 cm 17.85 1.49 0.83 1.177  
 0-5 cm 17.39 1.61 0.93 1.210

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 21.77 1.377  
 2-5 cm 22.18 1.397  
 0-5 cm 22.02 1.389

Soybean Field#: 2 Date: 7/20/82 (Julian:201) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 24.46 1.28 0.52 1.413  
 2-5 cm 23.12 0.60 0.26 1.334  
 0-5 cm 23.66 0.87 0.36 1.366

Soybean Field#: 2 Date: 9/ 2/82 (Julian:245) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 16.33 1.48 0.90 1.467  
 2-5 cm 16.95 0.44 0.26 1.466  
 0-5 cm 16.70 0.85 0.52 1.466

Soybean Field#: 2 Date: 9/23/82 (Julian:266) Time 14.35  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 14.50 0.78 0.54 1.206  
 2-5 cm 14.23 0.85 0.60 1.331  
 0-5 cm 14.34 0.82 0.57 1.281

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 18.43 1.362  
 2-5 cm 18.10 1.377  
 0-5 cm 18.23 1.371

Soybean Field#: 3 Date: 6/22/82 (Julian:173) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 19.36 0.75 0.39 1.131  
 2-5 cm 21.53 1.25 0.58 1.052  
 0-5 cm 20.66 1.05 0.50 1.084

Soybean Field#: 3 Date: 7/27/82 (Julian:208) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 6.33 0.39 0.61 1.452  
 2-5 cm 9.49 1.08 1.14 1.319  
 0-5 cm 8.23 0.80 0.93 1.373

Soybean Field#: 3 Date: 9/ 2/82 (Julian:245) Time  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 13.06 1.96 1.50 1.242  
 2-5 cm 16.10 1.46 0.90 1.574  
 0-5 cm 14.88 1.66 1.14 1.441

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 12.92 1.275  
 2-5 cm 15.71 1.315  
 0-5 cm 14.59 1.299

Soybean Field#: 4 Date: 6/22/82 (Julian:173) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 16.26 0.92 0.57 1.114  
 2-5 cm 20.30 0.89 0.44 1.336  
 0-5 cm 18.68 0.90 0.49 1.247

Soybean Field#: 4 Date: 7/19/82 (Julian:200) Time: 11.15  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 7.59 0.94 1.24 1.202  
 2-5 cm 11.82 0.45 0.38 1.011  
 0-5 cm 10.13 0.65 0.73 1.088

Soybean Field#: 4 Date: 9/ 2/82 (Julian:245) Time: 14:15  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 15.31 0.51 0.33 1.253  
 2-5 cm 16.35 0.83 0.51 1.362  
 0-5 cm 15.94 0.70 0.44 1.318

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 13.05 1.190  
 2-5 cm 16.16 1.236  
 0-5 cm 14.92 1.218

Soybean Field# 5 Date: 6/22/82 (Julian:173) Time: 13:00  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 12.81 0.70 0.54 1.309  
 2-5 cm 18.89 0.81 0.43 1.306  
 0-5 cm 16.46 0.76 0.47 1.307

Soybean Field# 5 Date: 7/19/82 (Julian:200) Time: 13:53  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 3.20 0.26 0.80 1.335  
 2-5 cm 7.38 0.55 0.75 1.143  
 0-5 cm 5.71 0.43 0.77 1.220

Soybean Field# 5 Date: 9/30/82 (Julian:273) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 11.36 2.67 2.35 1.277  
 2-5 cm 14.53 1.18 0.82 1.219  
 0-5 cm 13.26 1.78 1.43 1.242

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 9.13 1.307  
 2-5 cm 13.60 1.223  
 0-5 cm 11.81 1.256

Soybean Field# 6 Date: 6/22/82 (Julian:173) Time: 13 18  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 17.14 1.32 0.77 1.383  
 2-5 cm 20.13 0.75 0.37 1.299  
 0-5 cm 18.93 0.98 0.53 1.333

Soybean Field# 6 Date: 7/19/82 (Julian:200) Time: 14.30  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 2.59 0.71 2.73 1.303  
 2-5 cm 6.08 0.92 1.52 1.275  
 0-5 cm 4.68 0.84 2.00 1.286

Soybean Field# 6 Date: 8/31/82 (Julian:243) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 16.62 0.69 0.42 1.284  
 2-5 cm 15.53 0.37 0.24 1.046  
 0-5 cm 15.97 0.50 0.31 1.141

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 12.12 1.323  
 2-5 cm 13.91 1.207  
 0-5 cm 13.19 1.253

Soybean Field# 7 Date: 7/20/82 (Julian:201) Time: 10:18  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 11.68 2.35 2.01 1.530  
 2-5 cm 18.92 0.82 0.43 1.431  
 0-5 cm 16.03 1.43 1.06 1.470

Soybean Field# 7 Date: 8/31/82 (Julian:243) Time: 15:40  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 18.62 1.16 0.63 1.307  
 2-5 cm 18.74 1.33 0.71 1.363  
 0-5 cm 18.69 1.26 0.68 1.341

Soybean Field# 7 Date: 9/28/82 (Julian:271) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 8.63 1.49 1.73 1.729  
 2-5 cm 11.05 1.67 1.51 1.481  
 0-5 cm 10.08 1.60 1.60 1.580

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 12.98 1.522  
 2-5 cm 16.24 1.425  
 0-5 cm 14.93 1.464

Soybean Field# 8 Date 7/27/82 (Julian 208) Time: 10.25  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 10.15 1.44 1.42 1.469  
 2-5 cm 14.23 1.19 0.84 1.357  
 0-5 cm 12.59 1.29 1.07 1.402

Soybean Field# 8 Date 8/31/82 (Julian:243) Time: 15.45  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 16.52 0.94 0.57 1.237  
 2-5 cm 15.75 0.31 0.20 0.899  
 0-5 cm 16.06 0.56 0.35 1.034

Soybean Field# 8 Date: 9/28/82 (Julian:271) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 6.34 0.84 1.32 1.300  
 2-5 cm 9.07 0.59 0.65 1.325  
 0-5 cm 7.98 0.69 0.92 1.315

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 11.00 1.335  
 2-5 cm 13.02 1.194  
 0-5 cm 12.21 1.250

Soybean Field#: 9 Date: 7/27/82 (Julian:208) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 6.48 1.08 1.67 1.371  
 2-5 cm 10.47 0.62 0.59 1.367  
 0-5 cm 8.87 0.81 1.02 1.368

Soybean Field#: 9 Date: 8/31/82 (Julian:243) Time: 15:45  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 12.84 1.32 1.02 1.221  
 2-5 cm 12.36 0.30 0.24 1.217  
 0-5 cm 12.55 0.70 0.55 1.218

Soybean Field#: 9 Date: 9/28/82 (Julian:271) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 3.60 0.22 0.60 1.302  
 2-5 cm 5.34 0.31 0.58 1.423  
 0-5 cm 4.64 0.27 0.59 1.375

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 7.64 1.298  
 2-5 cm 9.39 1.336  
 0-5 cm 8.69 1.320

Soybean Field# 10 Date: 6/22/82 (Julian:173) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 33.37 2.31 0.69 0.994  
 2-5 cm 38.36 1.09 0.28 0.784  
 0-5 cm 36.36 1.58 0.45 0.868

Soybean Field#:10 Date: 8/31/82 (Julian:243) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 36.28 1.75 0.48 1.189  
 2-5 cm 35.22 1.01 0.29 1.420  
 0-5 cm 35.65 1.30 0.36 1.328

Soybean Field#:10 Date: 7/20/82 (Julian:201) Time  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 10.03 1.26 1.25 0.939  
 2-5 cm 20.88 1.90 0.91 0.970  
 0-5 cm 16.54 1.65 1.05 0.957

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 26.56 1.041  
 2-5 cm 31.49 1.058  
 0-5 cm 29.52 1.051

Soybean Field#:21 Date: 6/22/82 (Julian:173) Time.  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 17.96 0.38 0.21 1.208  
 2-5 cm 20.25 0.30 0.15 1.064  
 0-5 cm 19.34 0.33 0.17 1.121

Soybean Field#:21 Date: 7/27/82 (Julian:208) Time.  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 6.77 0.32 0.47 1.298  
 2-5 cm 9.64 0.65 0.68 1.178  
 0-5 cm 8.49 0.52 0.60 1.226

Soybean Field#:21 Date: 9/30/82 (Julian:273) Time:  
 Depth Mean(Mg) S.D. S.D./Mean Mean(BD)  
 0-2 cm 6.04 0.50 0.83 1.361  
 2-5 cm 11.59 0.70 0.60 1.668  
 0-5 cm 9.37 0.62 0.69 1.545

Depth FLD Mean(Mg) Mean(BD)  
 0-2 cm 10.26 1.289  
 2-5 cm 13.83 1.303  
 0-5 cm 12.40 1.297

Field#: 1									
Wheat	Slope	CORR	YCEPT	COVA	N	8	8	8	8
0-2 cm	-0.005	-0.299	1.580	-0.370	N	8	8	8	8
2-5 cm	-0.021	-0.694	1.800	-1.250	N	8	8	8	8
0-5 cm	-0.013	-0.775	1.670	-0.830	N	8	8	8	8
Field#: 2									
Wheat	Slope	CORR	YCEPT	COVA	N	8	8	8	8
0-2 cm	0.003	0.168	1.280	0.220	N	8	8	8	8
2-5 cm	-0.010	-0.628	1.450	-0.560	N	8	8	8	8
0-5 cm	-0.004	-0.472	1.370	-0.240	N	8	8	8	8
Field#: 3									
Wheat	Slope	CORR	YCEPT	COVA	N	8	8	8	8
0-2 cm	0.005	0.124	1.270	0.120	N	8	8	8	8
2-5 cm	-0.016	-0.477	1.560	-0.380	N	8	8	8	8
0-5 cm	-0.008	-0.254	1.440	-0.180	N	8	8	8	8
Field#: 4									
Wheat	Slope	CORR	YCEPT	COVA	N	6	6	6	6
0-2 cm	0.004	0.338	1.440	0.670	N	6	6	6	6
2-5 cm	-0.013	-0.564	1.600	-2.050	N	6	6	6	6
0-5 cm	-0.007	-0.712	1.570	-1.180	N	6	6	6	6
Field#: 5									
Wheat	Slope	CORR	YCEPT	COVA	N	8	8	8	8
0-2 cm	-0.007	-0.334	1.540	-0.330	N	8	8	8	8
2-5 cm	-0.023	-0.733	1.660	-0.740	N	8	8	8	8
0-5 cm	-0.015	-0.651	1.590	-0.520	N	8	8	8	8
Field#: 6									
Wheat	Slope	CORR	YCEPT	COVA	N	8	8	8	8
0-2 cm	-0.005	-0.420	1.420	-0.160	N	8	8	8	8
2-5 cm	-0.016	-0.557	1.490	-0.290	N	8	8	8	8
0-5 cm	-0.010	-0.511	1.430	-0.210	N	8	8	8	8
Field#: 7									
Wheat	Slope	CORR	YCEPT	COVA	N	8	8	8	8
0-2 cm	-0.028	-0.617	1.500	-0.420	N	8	8	8	8
2-5 cm	-0.032	-0.677	1.620	-0.620	N	8	8	8	8
0-5 cm	-0.035	-0.833	1.630	-0.530	N	8	8	8	8
Field#: 8									
Wheat	Slope	CORR	YCEPT	COVA	N	8	8	8	8
0-2 cm	0.009	0.502	1.180	0.450	N	8	8	8	8
2-5 cm	-0.015	-0.541	1.410	-0.690	N	8	8	8	8
0-5 cm	-0.004	-0.336	1.310	-0.210	N	8	8	8	8
Field#: 9									
Wheat	Slope	CORR	YCEPT	COVA	N	8	8	8	8
0-2 cm	-0.004	-0.295	1.280	-0.410	N	8	8	8	8
2-5 cm	-0.012	-0.679	1.340	-1.300	N	8	8	8	8
0-5 cm	-0.008	-0.773	1.310	-0.870	N	8	8	8	8
Field#: 10									
Wheat	Slope	CORR	YCEPT	COVA	N	8	8	8	8
0-2 cm	-0.020	-0.359	1.690	-0.340	N	8	8	8	8
2-5 cm	-0.015	-0.525	1.640	-0.340	N	8	8	8	8
0-5 cm	-0.016	-0.428	1.640	-0.310	N	8	8	8	8
Field#: 1									
Corn	Slope	CORR	YCEPT	COVA	N	18	18	18	18
0-2 cm	-0.001	-0.039	1.330	-0.050	N	18	18	18	18
2-5 cm	-0.010	-0.400	1.540	-0.490	N	18	18	18	18
0-5 cm	-0.007	-0.433	1.460	-0.380	N	18	18	18	18
Field#: 2									
Corn	Slope	CORR	YCEPT	COVA	N	18	18	18	18
0-2 cm	0.004	0.150	1.160	0.190	N	18	18	18	18
2-5 cm	-0.010	-0.278	1.460	-0.250	N	18	18	18	18
0-5 cm	-0.003	-0.151	1.310	-0.100	N	18	18	18	18
Field#: 3									
Corn	Slope	CORR	YCEPT	COVA	N	18	17	17	17
0-2 cm	0.015	0.394	0.940	0.520	N	18	17	17	17
2-5 cm	0.011	0.155	1.020	0.140	N	17	17	17	17
0-5 cm	0.020	0.533	0.840	0.400	N	17	17	17	17
Field#: 4									
Corn	Slope	CORR	YCEPT	COVA	N	11	13	11	11
0-2 cm	-0.003	-0.096	1.550	-0.110	N	11	13	11	11
2-5 cm	-0.042	-0.777	2.300	-1.740	N	13	13	11	11
0-5 cm	-0.032	-0.906	2.090	-1.190	N	11	11	11	11
Field#: 5									
Corn	Slope	CORR	YCEPT	COVA	N	18	18	18	18
0-2 cm	-0.003	-0.171	1.480	-0.220	N	18	18	18	18
2-5 cm	-0.029	-0.687	1.950	-0.910	N	18	18	18	18
0-5 cm	-0.016	-0.698	1.710	-0.770	N	18	18	18	18
Field#: 6									
Corn	Slope	CORR	YCEPT	COVA	N	16	18	16	16
0-2 cm	0.000	-0.009	1.470	-0.010	N	16	18	16	16
2-5 cm	0.012	0.301	1.090	0.270	N	18	18	16	16
0-5 cm	0.008	0.386	1.230	0.260	N	16	16	16	16

Corn			Soybean Field#: 7			Soybean Field#: 8			Soybean Field#: 9			Soybean Field#: 10			Soybean Field#: 1			Soybean Field#: 2			Soybean Field#: 3			Soybean Field#: 4											
	Slope	CORR	YCEPT	COVA	N		Slope	CORR	YCEPT	COVA	N		Slope	CORR	YCEPT	COVA	N		Slope	CORR	YCEPT	COVA	N		Slope	CORR	YCEPT	COVA	N						
0-2 cm	0.005	0.207	1.090	0.530	18	0-2 cm	-0.014	-0.493	1.590	-1.290	18	0-2 cm	0.011	0.570	1.090	1.220	12	0-2 cm	0.022	0.413	0.890	0.450	17	0-2 cm	-0.018	-0.449	1.500	-0.640	17	0-2 cm	-0.008	-0.125	1.290	-0.140	18
2-5 cm	-0.006	-0.186	1.490	-0.350	18	2-5 cm	-0.011	-0.362	1.430	0.420	18	2-5 cm	-0.005	-0.191	1.360	-0.320	12	2-5 cm	0.041	0.714	0.480	0.640	18	2-5 cm	-0.025	-0.448	1.710	-0.780	17	2-5 cm	0.026	0.403	0.830	0.380	17
0-5 cm	-0.003	-0.144	1.360	-0.220	18	0-5 cm	-0.012	-0.467	1.490	-0.660	18	0-5 cm	0.	-0.028	1.290	-0.040	17	0-5 cm	0.036	0.828	0.610	0.610	18	0-5 cm	-0.024	-0.580	1.650	-0.760	17	0-5 cm	0.018	0.365	0.940	0.270	17
Corn			Soybean Field#: 5			Soybean Field#: 6			Soybean Field#: 7			Soybean Field#: 8			Soybean Field#: 9			Soybean Field#: 10			Soybean Field#: 21														
	Slope	CORR	YCEPT	COVA	N		Slope	CORR	YCEPT	COVA	N		Slope	CORR	YCEPT	COVA	N		Slope	CORR	YCEPT	COVA	N		Slope	CORR	YCEPT	COVA	N						
0-2 cm	0.	-0.009	1.310	-0.010	17	0-2 cm	0.002	0.055	1.300	0.080	17	0-2 cm	-0.023	-0.546	1.820	-0.710	17	0-2 cm	-0.011	-0.201	1.390	-0.210	17	0-2 cm	0.005	0.243	0.910	0.740	17	0-2 cm	-0.008	-0.184	1.370	-0.260	18
2-5 cm	0.010	0.303	1.080	0.260	16	2-5 cm	0.002	0.063	1.170	0.080	17	2-5 cm	-0.013	-0.272	1.630	-0.280	16	2-5 cm	-0.027	-0.488	1.580	-0.270	18	2-5 cm	0.005	0.116	0.890	0.350	17	2-5 cm	-0.028	-0.449	1.700	-0.680	18
0-5 cm	0.008	0.419	1.140	0.210	15	0-5 cm	-0.006	-0.239	1.350	-0.200	16	0-5 cm	-0.021	-0.471	1.770	-0.400	15	0-5 cm	-0.015	-0.383	1.460	-0.190	17	0-5 cm	0.007	0.249	0.830	0.660	17	0-5 cm	-0.022	-0.497	1.570	-0.570	18

APPENDIX III.e

CROP CONDITION AND GROWTH-STAGE CODES

1. Crop Condition Codes
2. Growth-Stage Codes

III.e



CROP CONDITION CODES

Crop Damage:

Type:                    I - Insects  
                              W - Wind  
                              R - Rain, Water  
                              H - Hail  
                              F - Frost  
                              D - Disease

Scale:                    0 - Nil  
                              1 - Light  
                              2 - Moderate  
                              3 - Heavy

Weediness:

0 - Nil  
1 - Light  
2 - Moderate  
3 - Heavy

CROP GROWTH STAGES CODES

Barley, Oats, Wheat and Rye Crop Growth Stages

<u>CODE</u>	<u>STAGE</u>
<u>PLANT EMERGENCE AND TILLERING</u>	
10	Undetermined; plant emergence and tillering substage not detectable.
11	Emergence from soil, single shoot.
12	Primary leaf stage, from two-five leaves.
13	Early tillering, one-two tillers visible.
14	Full tillering, three or more tillers visible.
<u>VEGETATIVE GROWTH</u>	
20	Undetermined; vegetative growth substage not detectable.
21	First node of stem visible at base of shoot.
22	Second node on stem visible.
23	Last leaf visible, flag leaf, but still rolled as it emerges from last sheath.
24	Early to mid boot, leaf sheath swollen.
25	Mid to late boot, leaf sheath swollen, tip of head may be visible.
<u>HEADING AND FLOWERING</u>	
30	Undetermined; heading and flowering substage not detectable.
31	Early heading, heads just visible as they push out of split in sheath of flag leaf.
32	Heading complete, all of head emerged from sheath.
33	Flowering, stem fully elongated and yellow antlers visible on outside of heads.
34	Kernels formed, kernels visible in head but are very tender and watery.
<u>RIPENING AND SEED DEVELOPMENT</u>	
40	Undetermined; ripening and seed development substage not detectable.
41	Milk Stage, contents of kernels like heavy cream.
42	Soft Dough Stage, contents of kernel soft but becoming dry.
43	Hard Dough Stage, kernel may be dented with fingernail with difficulty.
<u>MATURITY</u>	
50	Undetermined; maturity substage not detectable.
51	Ripe for cutting, kernel at hard dough stage but straw not completely dead.
52	Ripe for cutting, kernel at hard dough stage and straw completely dead.
53	Post ripe stage, crop still standing, becoming darker in color.
<u>HARVEST</u>	
60	Undetermined; harvest substage not detectable.
61	Crop harvested by combine; straw and stubble on surface.
62	Crop harvested by combine; straw raked, stacked, baled, and removed from soil surface.
63	Crop windrowed or swathed, not yet threshed.
64	Crop windrowed or swathed, followed by threshing with combine, straw and stubble on soil surface.
65	Crop windrowed or swathed, followed by threshing with combine, straw raked, stacked, or baled and removed from soil surface.

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Corn Growth Stages

<u>CODE</u>	<u>STAGE</u>
<u>PLANT EMERGENCE</u>	
10	Undetermined; plant emergence substage not detectable.
11	Plant emergence; tip of coleoptile visible above soil surface.
12	One or two leaves fully emerged from coleoptile.
<u>VEGETATIVE GROWTH</u>	
20	Undetermined; vegetative substage not detectable.
21	Three-four leaves emerged.
22	Five-eight leaves fully emerged.
23	Nine-twelve leaves fully emerged.
24	Thirteen-sixteen leaves fully emerged; lower four-five leaves perhaps lost leaving eight-nine functional leaves; tassel developed but still enclosed within whorl; brace roots from lower nodes are now developing.
25	Seventeen-twenty leaves fully emerged.
26	More than twenty leaves fully emerged.
<u>HEADING AND FLOWERING</u>	
30	Undetermined; heading and flowering substage not detectable.
31	Tips of tassels visible from whorl of leaves.
32	Tassels fully emerging; all leaves fully emerged; some silks starting to emerge from tip of husks.
33	Silks nearly fully emerged; pollen shedding.
<u>RIPENING AND SEED DEVELOPMENT</u>	
40	Undetermined; ripening and seed development substage not detectable.
41	Kernels in blister stage; cob, husks, and ear shank approaching full size; about twelve days after silking.
42	Soft dough or just past "roasting ear" stage; about twenty-four days after silking.
43	Beginning dent stage; a few kernels showing dents about thirty-six days after silking.
44	Full dent stage; all kernels fully dented but not dry; husks on ear and leaves starting to senesce.
<u>MATURITY</u>	
50	Undetermined; maturity substage not detectable.
51	Physiological maturity; about sixty days after silking; black layer formed at base of most kernels; some of remaining leaves still green.
52	Physiological maturity; black layer formed; leaves dried up and bright yellow.
53	Post maturity; crop still standing with leaves, stalks, and ear husks turning dark color.
<u>HARVEST</u>	
60	Undetermined; harvest substage not detectable.
61	Crop harvested green before full maturity for use as silage.
62	Crop harvested for grain with corn picker; ear only removed and plants still partially standing.
63	Crop harvested for grain with combine; plants reduced to stubble and residue.
64	Ear and entire plant removed; very little residue on soil surface.

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Soybeans Growth Stages

<u>CODE</u>	<u>STAGE</u>
<u>PLANT EMERGENCE</u>	
10	Undetermined; plant emergence substage not detectable.
11	Cotyledons emerged above soil surface.
12	First true leaf; appearance of two unifoliate (single leaflet) leaves above cotyledons.
<u>VEGETATIVE GROWTH</u>	
20	Undetermined; vegetative growth substage not detectable.
21	Plant has two or less nodes. If two nodes are present, one is at the unifoliate leaves and the second at the first trifoliate leaf.
22	Plant has three-four nodes on the main stem, each with fully developed leaves. Node at unifoliate leaves is counted as No. 1.
23	Plant has five or more nodes on main stem. Vegetative stages can continue for several weeks before entering reproductive stage.
<u>HEADING AND FLOWERING</u>	
30	Undetermined; heading and flowering substage not detectable.
31	One open flower at any node on the main stem.
32	Full bloom; open flower at one of the two uppermost nodes on main stem.
<u>RIPENING AND SEED DEVELOPMENT</u>	
40	Undetermined; ripening and seed development substage not detectable.
41	Pod, 1/4 inch long, at one of the four uppermost nodes on main stem with fully developed leaf.
42	Full pod; pod one inch long at one of the four uppermost nodes on main stem with fully developed leaf.
43	Beginning seed; seed bean 1/8 inch long in a pod at one of the four uppermost nodes on the main stem.
44	Full seed stage; seed fills the pod cavity at one of the four uppermost nodes on the main stem, bottom leaves starting to turn yellow.
<u>MATURITY</u>	
50	Undetermined; maturity substage not detectable.
51	Physiological maturity; leaves on plant should range from green at the top of the plant to yellow and falling off at the bottom; one yellow or brown pod with seeds completely yellow, free of green color, on the main stem.
52	Harvest maturity; 95% of pods are brown, most leaves have fallen from plant.
<u>HARVEST</u>	
60	Undetermined; harvest substage not detectable.
61	Crop harvested with combine; stubble and plant residue sufficient to cover soil surface.
62	Harvested with combine; soil surface exposed with small amount of stubble and residue.

APPENDIX III.f

GROWTH-STAGE OBSERVATIONS

III.f

FIELD	DATE	PHYSIOLOGICAL GROWTH STAGE	CROP DAMAGE	WEEDINESS	COLOR SLIDES	COMMENTS	FIELD	DATE	PHYSIOLOGICAL GROWTH STAGE	CROP DAMAGE	WEEDINESS	COLOR SLIDES	COMMENTS	
W1	05/07/82	33	D-1	0	X		W6	06/03/82	41	R-3	0	X	LODGING	
	05/20/82	34	D-1	0	X	LODGING		06/10/82	42	D-2, R-2	0	X		
	05/27/82	40	D-1, R-2	0	X			06/17/82	42	W-3, R-3	0	X		
	06/01/82	41	R-2	0	X	LODGING		06/24/82	42	W-2, R-2	0	X		
	06/03/82	41	D-2, R-2	0	X	RUST		07/01/82	61					
	06/10/82	41	D-2, R-2	0	X	RUST		05/07/82	33	D-1	0	X		
	06/17/82	41	D-2, R-2	0	X	RUST		05/20/82	34	D-2	0	X		
	06/24/82	42	R-2, W-2	0	X			06/01/82	40	R-3	0	X		
	06/29/82	61						06/03/82	41	D-2	0	X		
	07/01/82	61						06/10/82	42	D-3, R-2	0	X		LEAVES COMPLETELY DRY
W2	05/07/82	33	D-1	0	X		W7	06/17/82	42	D-2, R-2	0	X		
	05/20/82	34		0	X			06/24/82	51	D-2	1	X		
	05/27/82	40	D-1, R-2	0	X	LODGING		07/01/82	61					
	06/01/82	41	R-3	0	X	RUST		07/08/82						
	06/03/82	41	D-2, R-2	0	X	RUST		05/07/82	33	D-1	2	X		
	06/10/82	41	D-2, R-2	0	X	RUST		05/20/82	34	D-1	2	X		
	06/17/82	42	D-2, R-2	0	X	RUST		06/01/82	40	D-1	3	X		
	06/24/82	50	R-2, W-3	0	X			06/03/82	41	D-1	2	X		
	06/29/82	61						06/10/82	42	R-1, D-1	2	X		
	07/01/82	61						06/17/82	42	D-1	3	X		
W3	05/07/82	32	D-1	0	X	STANDING WATER	W8	07/01/82	51	D-1	3	X		
	05/20/82	34	R-1	0	X	STUNTED GROWTH		07/08/82						
	05/27/82	41	R-2	0	X			05/07/82	33	0	0	X		
	06/01/82	41	0	0	X			05/20/82	41	0	0	X		
	06/03/82	41	W-1	0	X	RUST		06/03/82	42	D-2, R-2, W-1	0	X		
	06/10/82	42	W-2, R-2, D-2	2	X			06/17/82	42	D-1, R-1	0	X		
	06/17/82	42	0	2	X			06/24/82	42	0	1	X		
	06/24/82	51	0	2	X			07/01/82	52	0	1	X		
	07/01/82	61						07/08/82	61					
	07/08/82	61						05/07/82	33	0	2	X		
W4	05/07/82	32	D-1	0	X		W9	05/20/82	34	D-1	3	X		
	05/20/82	34	R-1	0	X			05/27/82	40	0	3	X		
	06/01/82	41	R-2	0	X			06/01/82	40	0	3	X		
	06/03/82	41	0	0	X			06/10/82	41	R-1	3	X		
	06/10/82	42	W-2, R-2, D-2	2	X	RUST		06/03/82	42	R-2	3	X		
	06/17/82	42	0	2	X			06/10/82	42	R-3	3	X		
	06/24/82	51	0	2	X			06/17/82	43	R-3	3	X		
	07/01/82	61						06/24/82	50	R-3	3	X		
	07/08/82	61						07/01/82	53	D-2, R-3	3	X		
	07/08/82	61						07/08/82	61					
W5	05/07/82	32	D-1	0	X	STANDING WATER	W10	05/07/82	33	0	0	X		
	05/20/82	34	R-1	0	X	STANDING WATER		06/10/82	42	D-2, R-2, W-1	0	X		
	05/27/82	41	R-2	0	X			06/17/82	42	D-1, R-1	0	X		
	06/01/82	41	0	0	X			06/24/82	42	0	1	X		
	06/03/82	41	W-2, R-2, D-2	2	X	RUST		07/01/82	52	0	1	X		
	06/10/82	42	0	2	X			07/08/82	61					
	06/17/82	42	D-1	0	X	FIELD FLOODED		05/07/82	33	0	2	X		
	06/24/82	51	D-1	0	X	STANDING WATER		05/20/82	34	0	3	X		
	07/01/82	61				CHLOROTIC		05/27/82	40	D-1	3	X		
	07/08/82	61				DEAD AREAS		06/01/82	40	0	3	X		
W6	05/07/82	32	D-1	0	X	STANDING WATER	W9	06/10/82	41	R-1	3	X		
	05/20/82	34	R-1	0	X	STANDING WATER		06/17/82	42	R-2	3	X		
	05/27/82	41	R-2	0	X			06/24/82	42	R-3	3	X		
	06/01/82	41	0	0	X			06/10/82	42	R-3	3	X		
	06/03/82	41	W-2, R-2, D-2	2	X	RUST		06/17/82	43	R-3	3	X		
	06/10/82	42	0	2	X			06/24/82	50	R-3	3	X		
	06/17/82	42	D-1	0	X	FIELD FLOODED		07/01/82	53	D-2, R-3	3	X		
	06/24/82	51	D-1	0	X	STANDING WATER		07/08/82	61					
	07/01/82	61				CHLOROTIC		05/07/82	33	0	2	X		
	07/08/82	61				DEAD AREAS		05/20/82	34	D-1	3	X		
W7	05/07/82	32	D-1	0	X	STANDING WATER	W10	05/20/82	34	D-1	3	X		
	05/20/82	34	R-1	0	X	STANDING WATER		05/27/82	40	0	3	X		
	05/27/82	41	R-2	0	X			06/01/82	40	0	3	X		
	06/01/82	41	0	0	X			06/10/82	41	R-1	3	X		
	06/03/82	41	W-2, R-2, D-2	2	X	RUST		06/03/82	42	R-2	3	X		
	06/10/82	42	0	2	X			06/10/82	42	R-3	3	X		
	06/17/82	42	D-1	0	X	FIELD FLOODED		06/17/82	43	R-3	3	X		
	06/24/82	51	D-1	0	X	STANDING WATER		06/24/82	50	R-3	3	X		
	07/01/82	61				CHLOROTIC		07/01/82	53	D-2, R-3	3	X		
	07/08/82	61				DEAD AREAS		07/08/82	61					

FIELD	DATE	PHYSIOLOGICAL GROWTH STAGE	CROP DAMAGE	WEEDINESS	COLOR SLIDES	COMMENTS	FIELD	DATE	PHYSIOLOGICAL GROWTH STAGE	CROP DAMAGE	WEEDINESS	COLOR SLIDES	COMMENTS
C1	05/20/82	32	D-1	1	X			09/07/82	50	1-1	2	X	
	05/27/82	34	D-1	0	X	CHLOROTIC, SPARSE		09/23/82	53	1-1	3	X	
	06/01/82	40	D-1	0	X			09/30/82	53	1-1	3	X	
	06/03/82	41	D-2	0	X	RUST		10/12/82	62			X	
	06/10/82	42	D-2	0	X		C3	05/20/82				X	
	06/17/82	42	D-2	1	X			05/27/82	22	0	0	X	LEAVES TORN
	06/24/82	42	R-2	1	X			06/01/82	22	R-1	0	X	
	07/01/82	53	0	2	X			06/03/82	22	0	0	X	
	07/08/82	61			X			06/10/82	22	W-1	0	X	
	05/07/82				X			06/17/82	23	0	0	X	
	05/20/82	22	I-1	0	X			06/24/82	24	0	0	X	
	05/27/82	22	0	0	X			07/01/82	24	0	0	X	
	06/03/82	22	0	0	X			07/08/82	33	0	2	X	
	06/10/82	22	R-2, W-2	0	X	SHREDDED LEAVES		07/15/82	41	0	2	X	
	06/17/82	23	R-2, W-2	0	X	SHREDDED LEAVES		07/16/82				X	
06/24/82	24	R-3, W-1	0	X	PLANT HEIGHTS VARY		07/23/82				X		
07/01/82	24	R-1	0	X	STUNTED GROWTH		08/03/82	42	0	2	X		
07/08/82	31	0	0	X			08/10/82	44	0	1	X	LEAVES TURNING BROWN	
07/15/82	33	0	0	X			08/24/82	50	0	1	X	COBS DROOPING	
07/29/82	42	0	0	X			09/02/82	63	0	1	X	HARVESTED APPROX 50 FEET FROM ROAD	
07/30/82	42	0	0	X							X		
08/03/82	42	0	0	X							X		
08/10/82	44	0	0	X							X		
08/16/82	44	0	0	X							X		
08/24/82	50	0	0	X							X		
09/02/82	50	0	0	X							X		
09/07/82	50	0	0	X							X		
09/16/82	63			X							X		
05/07/82	21	0	0	X							X		
05/20/82	22	0	0	X							X		
05/27/82	22	0	0	X							X		
06/03/82	22	R-3	0	X	SWAMPY, STUNTED GROWTH						X		
06/10/82	22	R-3, W-2	0	X	SHREDDED LEAVES						X		
06/17/82	23	W-2, R-3	0	X	STUNTED GROWTH						X		
06/24/82	23	R-3, W-1	1	X							X		
07/01/82	23	0	1	X							X		
07/08/82	31	0	1	X							X		
07/15/82	33	0	1	X	VARIABLE GROWTH						X		
07/29/82	42	0	2	X							X		
07/30/82	42	0	2	X							X		
08/03/82	42	0	2	X							X		
08/10/82	44	I-1	2	X	LEAVES TURNING BROWN						X		
08/24/82	50	I-1	2	X	COBS DROOPING						X		
09/02/82	50	I-1	2	X							X		

III.f-3

III.f-4

<u>FIELD</u>	<u>DATE</u>	<u>PHYSIOLOGICAL GROWTH STAGE</u>	<u>CROP DAMAGE</u>	<u>WEEDINESS</u>	<u>COLOR SLIDES</u>	<u>COMMENTS</u>	<u>FIELD</u>	<u>DATE</u>	<u>PHYSIOLOGICAL GROWTH STAGE</u>	<u>CROP DAMAGE</u>	<u>WEEDINESS</u>	<u>COLOR SLIDES</u>	<u>COMMENTS</u>
	06/10/82	23	R-2	0	X			07/26/82		0	2	X	
	06/17/82	23	0	0	X			07/29/82	42	0	2	X	
	06/24/82	24	R-1	0	X			08/03/82	43	0	2	X	WORMS ON COBS
	07/01/82	24	0	0	X			08/10/82	44	I-1	0	X	
	07/08/82	33	R-2	0	X			08/24/82	44	I-1	1	X	
	07/15/82	41	0	0	X			09/02/82	44	I-1	2	X	
	07/16/82				X			09/07/82	50	0	0	X	
	07/26/82				X		C8	09/16/82	63			X	
	07/27/82	42	0	0	X			05/20/82	22	R-1	0	X	LARGE BARE AREA
	08/03/82	43	I-1	0	X	LOWER LEAVES DRY		05/27/82	22	R-2	0	X	LEAVES TORN, GROWTH
	08/10/82	43	0	1	X	COBS DROOPING		06/01/82	22			X	STAGE VARIES
	08/24/82	50	0	1	X							X	
	09/02/82	61			X					R-3, W-3	0	X	
	09/07/82				X					R-2, W-3	0	X	
	05/20/82				X					W-2	0	X	LEAVES SHREDDED
	05/27/82	22	0	0	X	TILLED				R-2	0	X	
	06/01/82	22	0	0	X					0	0	X	
	06/03/82	22	R-2	0	X					0	0	X	STILL BARE AREAS
	06/17/82	23	R-1	0	X	CHLOROTIC				0	0	X	
	06/24/82	23	R-1	0	X	STUNTED GROWTH				0	0	X	
	07/01/82	23	I-1	0	X					0	0	X	
	07/08/82	32	0	1	X					0	0	X	
	07/15/82	33	0	1	X					0	0	X	
	07/23/82				X					0	0	X	
	07/27/82	41	0	1	X					0	0	X	
	08/03/82	41	0	2	X					0	0	X	WORMS ON COBS
	08/10/82	44	0	1	X					0	0	X	
	08/24/82	50	0	1	X	LEAVES TURNING BROWN COBS DROOPING				0	0	X	
	09/07/82	41	0	1	X					0	0	X	TILLED
	09/16/82	44	0	1	X					0	0	X	CENTER FIELD STUNTED GROWTH
	09/27/82	50	0	1	X					0	0	X	
	09/28/82	53	0	0	X					0	0	X	STUNTED GROWTH
	05/20/82				X					0	0	X	
	05/27/82	22	0	0	X	HERBICIDE USED				0	0	X	STUNTED GROWTH
	06/01/82	22	R-2	0	X	DEAD WEEDS				0	0	X	
	06/03/82	22	R-2	0	X	LEAVES TORN				0	0	X	
	06/10/82	22	R-2	0	X	LEAVES TORN				0	0	X	
	06/17/82	23	R-2	0	X	TILLED, MANY BROKEN PLANTS				0	3	X	BARE AREAS
	06/24/82	24	0	0	X					0	0	X	
	07/01/82	24	0	0	X					0	0	X	
	07/08/82	32	0	0	X					0	0	X	
	07/15/82	33	0	0	X					0	0	X	
	07/29/82	42	0	0	X					0	2	X	BARE AREAS
	08/03/82	42	0	0	X					0	2	X	
	08/24/82	44	0	1	X	STUNTED GROWTH				0	1	X	HARVESTED APPROX 50 FT. FROM ROAD
	09/07/82	33	0	1	X					0	2	X	
	09/15/82	33	0	0	X					0	0	X	
	07/16/82				X					0	0	X	



FIELD	DATE	PHYSIOLOGICAL GROWTH STAGE	CROP DAMAGE	WEEDINESS	COLOR SLIDES	COMMENTS	FIELD	DATE	PHYSIOLOGICAL GROWTH STAGE	CROP DAMAGE	WEEDINESS	COLOR SLIDES	COMMENTS
	05/27/82	22	0	0	X			07/23/82	41	0	0	X	
	06/01/82	22	R-1	0		LEAVES TORN		07/27/82	41	0	0	X	STILL FLOWERING
	06/03/82	22	R-1	0	X	LARGE BARE AREA		07/30/82	41	0	0	X	
	06/10/82	22	W-1	1	X			08/03/82	41	I-1	0	X	
	06/17/82	23	0	1	X			08/10/82	43	I-1	0	X	BOTTOM LEAVES YELLOW
	06/24/82	24	0	2	X			08/11/82	44	I-1	0	X	
	07/01/82	25	0	1	X			08/24/82	44	I-1	0	X	
	07/08/82	33	0	1	X			09/02/82	44	I-1	0	X	
	07/15/82	41	0	1	X	FIELD DROPPED FORM OBSERVATION		09/07/82	50	I-1	0	X	
	07/16/82	41	0	1	X	WHEAT STUBBLE		09/16/82	52	I-1	0	X	
S1	07/08/82	12	0	0	X			09/23/82	52	I-1	0	X	
	07/15/82	21	0	0	X			09/30/82	52	I-1	0	X	
	07/16/82	23	I-1	0	X	UNEVEN PLANT SPACING	S4	10/12/82	12	I-2	0	X	
	07/29/82	23	I-1	0	X	BARE AREA		06/10/82	12	0	0	X	
	07/30/82	23	I-2	0	X			06/24/82	12	0	0	X	
	08/03/82	30	I-2	0	X			07/01/82	22	0	0	X	
	08/10/82	41	I-1	1	X			07/08/82	23	0	0	X	TILLED RECENTLY
	08/24/82	41	I-1	2	X			07/15/82	30	I-1	0	X	
	09/02/82	41	I-1	2	X			07/16/82	32	I-1	0	X	
	09/07/82	43	I-1	3	X			07/23/82	32	I-1	0	X	
	09/16/82	44	I-1	1	X			07/27/82	32	I-1	1	X	
	09/23/82	44	I-1	1	X			07/30/82	41	I-1	0	X	
	09/30/82	52	I-1	1	X			08/03/82	43	I-1	2	X	
	10/12/82	52	I-1	1	X			08/11/82	44	I-1	1	X	
	10/19/82	52	I-1	1	X			08/24/82	44	I-1	1	X	
S2	07/15/82	12	0	0	X	WHEAT STUBBLE		09/02/82	44	I-1	2	X	
	07/16/82	12	0	0	X			09/07/82	50	I-1	2	X	
	07/16/82	22	0	0	X			09/16/82	50	I-1	0	X	
	07/23/82	22	0	0	X			09/23/82	52	0	0	X	
	07/27/82	23	I-1	0	X	UNEVEN PLANT SPACING		09/30/82	52	0	0	X	
	08/03/82	31	I-1	1	X			10/12/82	52	0	0	X	
	08/10/82	40	I-1	2	X			10/19/82	61	I-2	0	X	
	08/11/82	42	I-1	3	X			06/10/82	22	I-2	0	X	TILLED TODAY
	08/24/82	42	I-1	3	X			06/17/82	22	I-2	0	X	
	09/02/82	43	I-1	3	X		S5	06/24/82	23	I-1	0	X	
	09/07/82	50	I-1	3	X			07/01/82	23	I-1	0	X	
	09/23/82	52	I-1	3	X			07/08/82	23	I-1	0	X	RECENTLY TILLED
	09/30/82	52	I-1	3	X			07/15/82	32	I-1	0	X	
	10/12/82	52	I-1	3	X			07/16/82	32	I-1	0	X	
S3	06/10/82	21	I-2	0	X			07/23/82	41	0	0	X	STILL FLOWERING
	06/17/82	22	0	0	X			07/27/82	41	I-1	0	X	
	06/24/82	23	0	0	X			08/03/82	43	I-1	0	X	
	07/01/82	23	I-1	0	X			08/11/82	44	I-1	0	X	
	07/08/82	23	0	0	X	TILLED RECENTLY		08/24/82	44	I-1	0	X	
	07/15/82	32	0	0	X			09/07/82	51	I-1	0	X	
	07/16/82	32	0	0	X			09/16/82	51	I-1	0	X	

III f-8

III f-7

FIELD	DATE	PHYSIOLOGICAL GROWTH STAGE	CROP DAMAGE	WEEDINESS	COLOR SLIDES	COMMENTS	FIELD	DATE	PHYSIOLOGICAL GROWTH STAGE	CROP DAMAGE	WEEDINESS	COLOR SLIDES	COMMENTS		
S6	09/30/82	52	0	0	X		S10	08/11/82	32	I-2	2	X			
	10/12/82	52	0	1	X			08/24/82					X		
	06/10/82	22	I-2	0	X			09/07/82	43	I-1	2	2	X		
	06/17/82	22	I-1, R-1	0	X			09/16/82	44	I-1	2	2	X		
	06/24/82	23	I-1	0	X			09/30/82	51	I-1	2	2	X		
	07/01/82	23	I-1	0	X			10/12/82	51	I-1	2	2	X		
	07/08/82	23	0	0	X			10/19/82	52	0	0	0	X		
	07/15/82	32	I-1	0	X			06/10/82	21	I-2, R-1	0	0	0	X	STANDING WATER
	07/16/82				X			06/17/82	22	I-2	1	1	X		
	07/23/82				X			06/24/82	22	I-2	1	1	X		
	08/03/82	41	0	0	X	STILL FLOWERING		07/01/82	23	I-2	1	1	X	BARE AREAS TILLED	
	08/11/82	42	I-1	0	X			07/08/82	23	R-2	1	1	X		
08/24/82	44	I-1	0	X		07/15/82	32	I-2	2	2					
09/07/82	51	I-1	0	X		07/29/82	41	I-1	1	1					
09/16/82	51	I-1	0	X		08/03/82	43	I-1	1	1	X				
09/30/82	52	0	0	X	WHEAT STUBBLE	08/10/82	44	I-1	2	2	X				
07/15/82	12	0	0	X		08/24/82	44	I-1	2	2	X				
07/16/82				X		09/02/82	44	I-2	2	2	X				
07/23/82				X		09/07/82	50	I-1	2	2	X				
08/03/82				X		09/16/82	52		0	1					
08/11/82	23	I-1	2	X											
08/24/82	32	I-2	2	X											
09/07/82	32	I-2	3	X	HERBICIDE APPLIED										
09/16/82	43	I-1	3	X											
09/30/82	44	I-1	3	X											
10/12/82	51	I-1	3	X											
10/19/82	52	0	0	X	WHEAT STUBBLE										
07/15/82	22	0	0	X											
07/16/82				X											
07/23/82				X											
08/03/82	23	I-1	2	X											
08/11/82	30	I-1	2	X											
08/24/82	32	I-1	0	X											
09/07/82	42	I-1	0	X											
09/16/82	50	I-1	0	X											
09/30/82	50	I-1	0	X											
10/12/82	51	I-1	0	X											
10/19/82	52	0	0	X											
07/15/82	21	0	0	X	WHEAT STUBBLE										
07/16/82				X											
07/23/82				X											
08/03/82	22	I-1	2	X	VARIED GROWTH STAGES										
08/11/82	23	I-2	2	X											

APPENDIX III.g

PARTICLE SIZE AND TEXTURAL CLASSIFICATION

III.g

APPENDIX III.g  
Particle Size and Textural Classification  
of the 0- to 5-cm Layer

Field	% Sand	% Silt	% Clay	Classification	*
W 1	39.7	44.2	16.1	Loam	(Ju)
2	39.7	44.2	16.1	Loam	(Ju)
3	32.4	56.0	11.6	Silty Loam	(Ju)
4	28.0	59.5	12.5	--	(Km)
5	--	--	--	--	(Ev)
6	10.1	61.4	27.8	Silty Clay Loam	(Ev)
7	--	--	--	--	(Ev)
8	60.9	29.5	9.6	Sandy Loam	(Ev)
9	--	--	--	--	(Km)
10	46.0	41.5	9.6	Sandy Loam	(Ew)
C 1	31.5	52.4	16.1	Silty Loam	(Kb)
2	15.0	68.5	16.5	Silty Loam	(Kb)
3	35.9	51.9	12.2	Silty Loam	(Ev)
4	24.1	51.1	24.8	Silty Loam	(Ev)
5	66.0	27.0	7.0	Sandy Loam	(Ev)
6	36.1	49.9	14.0	Loam	(Ev)
7	6.1	68.3	25.6	Silty Loam	(Km)
8	12.5	63.5	24.0	Silty Loam	(Km)
9	14.0	62.0	24.0	Silty Loam	(Ev)
10	15.0	71.0	14.0	Silty Loam	(Ju)
S 1	39.7	44.2	16.1	Loam	(Ju)
2	32.4	56.0	11.6	Silty Loam	(Ju)
3	33.0	64.0	3.0	Silty Loam	(Ev)
4	37.2	45.8	17.0	Loam	(Ev)
5	47.0	45.0	8.0	Loam	(Ev)
6	40.6	44.3	15.1	Loam	(Km)
7	16.0	60.0	24.0	Silty Loam	(Ev)
8	10.1	61.4	27.8	Silty Clay Loam	(Ev)
9	55.0	41.0	4.0	Sandy Loam	(Et)
10	30.4	40.9	28.7	Clayey Loam	(Km)

\*Soil textural classifications in parentheses are based on Dickey et al. (1977). Codes are as follows:

Et: Eudora silt loam  
 Ev: Eudora-Kimo Complex  
 Ew: Eudora-Kimo fine sandy loam, overwash  
 Ju: Judson silt loam  
 Kb: Kennebec silt loam  
 Km: Kimo silt loam

APPENDIX III.h

FARM OPERATORS' REPORTS

III.h

Appendix III.h  
Farm Operators' Reports

Field	Operator	Field Preparation	Planting Date	Seed Variety	Pesticide Type	Herbicide Type	Harvest Date	Yield Bu/Acre	Bu. Mt. Lbs.
W 1	Ross	Disc	10/11/81	Newton	None	None	6/29/82	32.3	58
W 2	Ross	Disc	10/11/81	Newton	None	None	6/29/82	32.3	58
W 3	Palmateer	Chisel and Field Cultivator	10/09/81	NK835	None	None	7/03/82	22	NA
W 4	Wise	Disc (twice)	10/05/81	Newton	None	None	7/08/82	23	47
W 5	Palmateer	Chisel and Field Cultivator	10/12/81	NK835	None	None	7/03/82	27	NA
W 6	Pine	Disc (twice)	10/05/81	Newton	None	None	6/26/82	31.2	NA
W 7	Palmateer	Chisel and Field Cultivator	10/12/81	NK535	None	None	7/03/82	21	NA
W 8	Palmateer	Chisel and Field Cultivator	10/04/81	Pioneer S-78	None	None	7/06/82	31	NA
W 9	Palmateer	Chisel and Field Cultivator	10/15/81	Pioneer 70	None	None	7/07/82	20	NA
W10	Husted	Disked under soybean stubble	10/05/81	Newton	None	None	6/30/82	30	60

Appendix III.h (contd.)  
Farm Operators' Reports

Field	Operator	Field Preparation	Planting Date	Seed Variety	Pesticide Used	Herbicide Used	Harvest Date	Bu/Acre	Bu. Wt. Lbs.
C 1	Ross	Field Cultivator	4/14/82	Pioneer 3183	Thimet	Lasso Atrazine	9/29/82	154	55
C 2	Kitsmiller	Disc (twice)	4/27/82	Pioneer 3383	Dyfonate	Sutan Atrazine	8/14/82	78	NA
C 3	Ross	Field Cultivator	4/12/82	Cargill 967	Thimet	Lasso Atrazine Bladex	9/22/82	122	55
C 4	Ross	Field Cultivator	4/15/82	Cargill 967	Thimet	Lasso Atrazine	8/16-27/82	Silage	--
C 5	Ross	Field Cultivator	4/15/82	Pioneer 3183	Thimet	Lasso Atrazine	8/16-27/82	Silage	--
C 6	Palmateer	Field Cultivator	4/11/82	NK PX83	Thimet	Lasso Atrazine	9/17/82	131	NA
C 7	Ross	Field Cultivator	4/13/82	Cargill 921	None	Lasso Atrazine	9/07/82	93	55
C 8	Pine	Disc and Field Cultivator	4/10/82	Cargill 967	None Sutan	Atrex 9-0	9/07/82	115	NA
C 9	Pine	Disked, Plowed, Disked, Field Cultivator	5/09/82	Asgrow 3127	None	Treflax Sencore	9/28/82	NA	NA
C10	Husted	Disked under soybean stubble	4/16/82	Deka1b	None	Lasso	10/10/82	100	56

Appendix III.h (contd.)  
Farm Operators' Reports

Field	Operator	Field Preparation	Planting Date	Seed Variety	Pesticide Used	Herbicide Used	Harvest Date	Bu/Acre	Bu. Wt. Lbs.
S 1	Ross	No Till	6/30/82	Williams 79	None	Lasso Lorox Paraquat	10/22/82	34	55
S 2	Palmateer	No Till	7/06/82	Williams 79	None	Lasso Modown	10/22/82	15	NA
S 3	Palmateer	Field Cultivator	5/24/82	Williams 79	None	Treflan	10/23/82	44	NA
S 4	Ross	Field Cultivator	6/08/82	DeSoto	None	Lasso Modown	10/14/82	52	55
S 5	Palmateer	Field Cultivator	5/22/82	Williams 79	None	Treflan	10/21/82	44	NA
S 6	Ross	Field Cultivator	5/20/82	Douglas	None	Lasso Modown	10/18/82	58	55
S 7	Palmateer	Field Cultivator	7/03/82	Williams 79	None	Lasso Modown	10/24/82	18	NA
S 8	Pine	No Till	6/25/82	Williams 79	None	Lasso Lorox Paraquat	10/23/82	39	NA
S 9	Palmateer	Field Cultivator	7/03/82	Williams 79	None	Lasso Modown	10/24/82	17	NA
S10	Pine	Disked, Ripped, Disked, Field Cultivator	5/05/82	Asgrow 3127	None	Treflan Lorox	10/10/82	44	NA

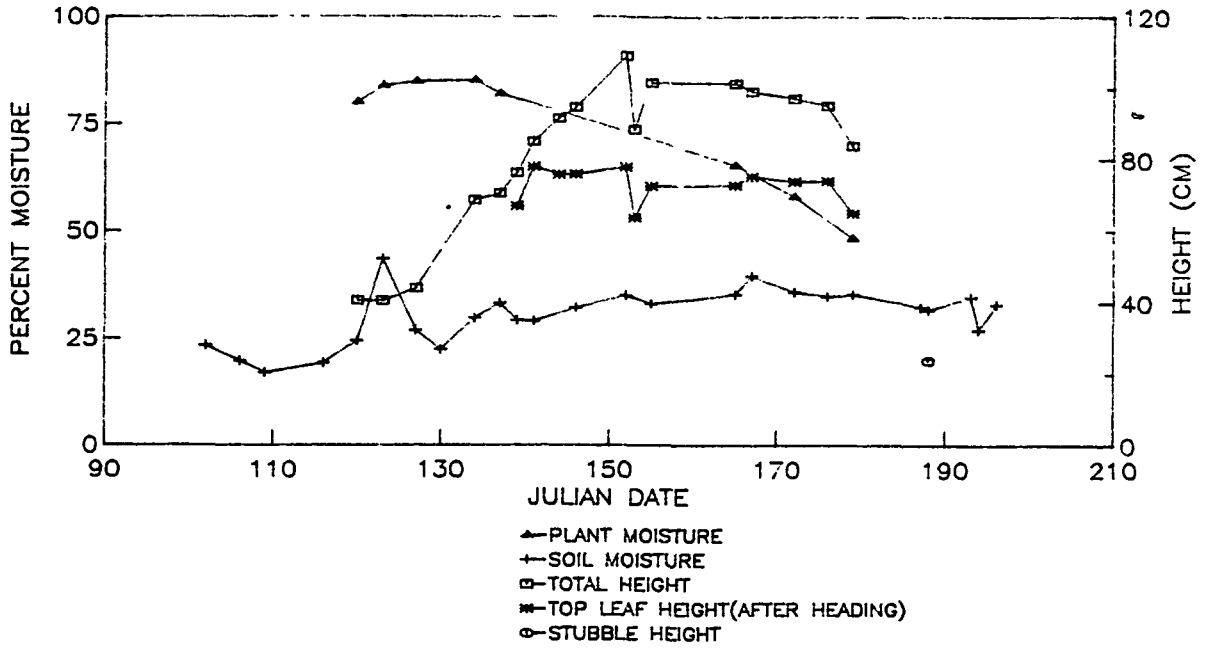


APPENDIX III.i

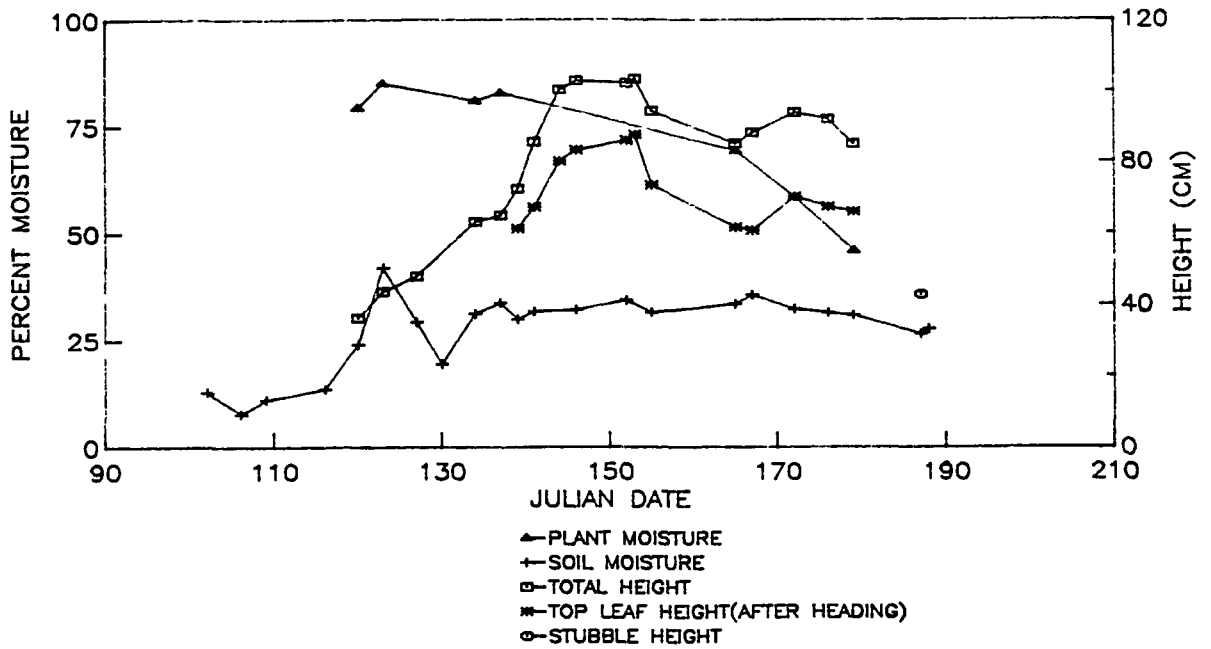
TIME HISTORY OF SELECTED TARGET CHARACTERISTICS  
(PLOTS)

III.i

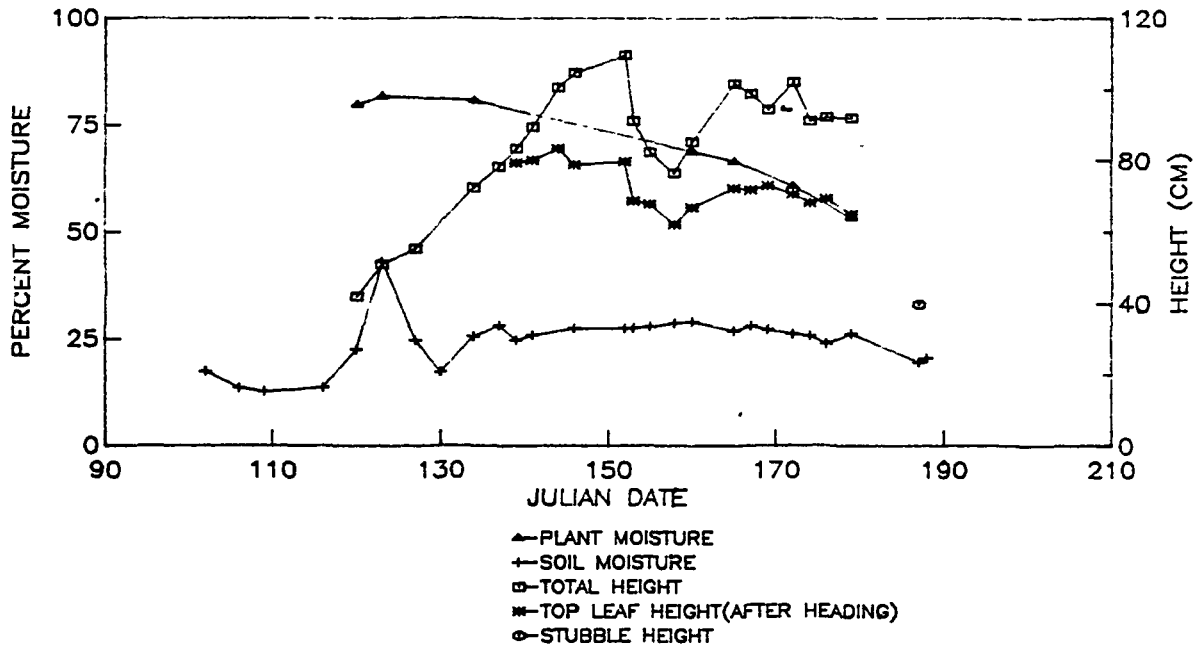
WHEAT FIELD 1



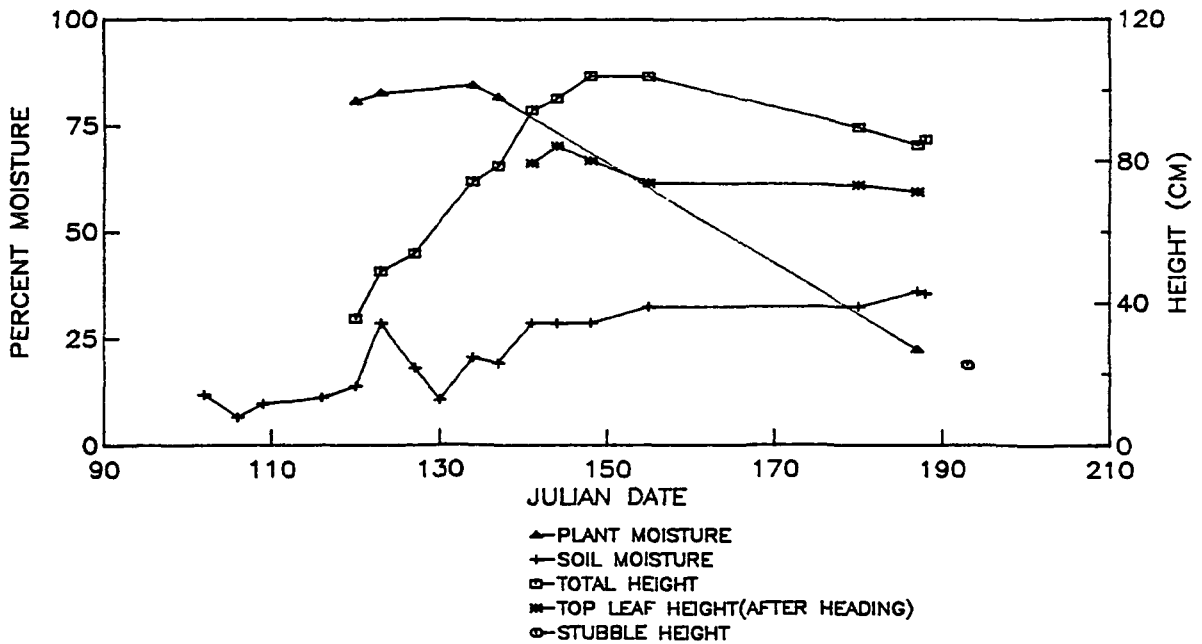
WHEAT FIELD 2



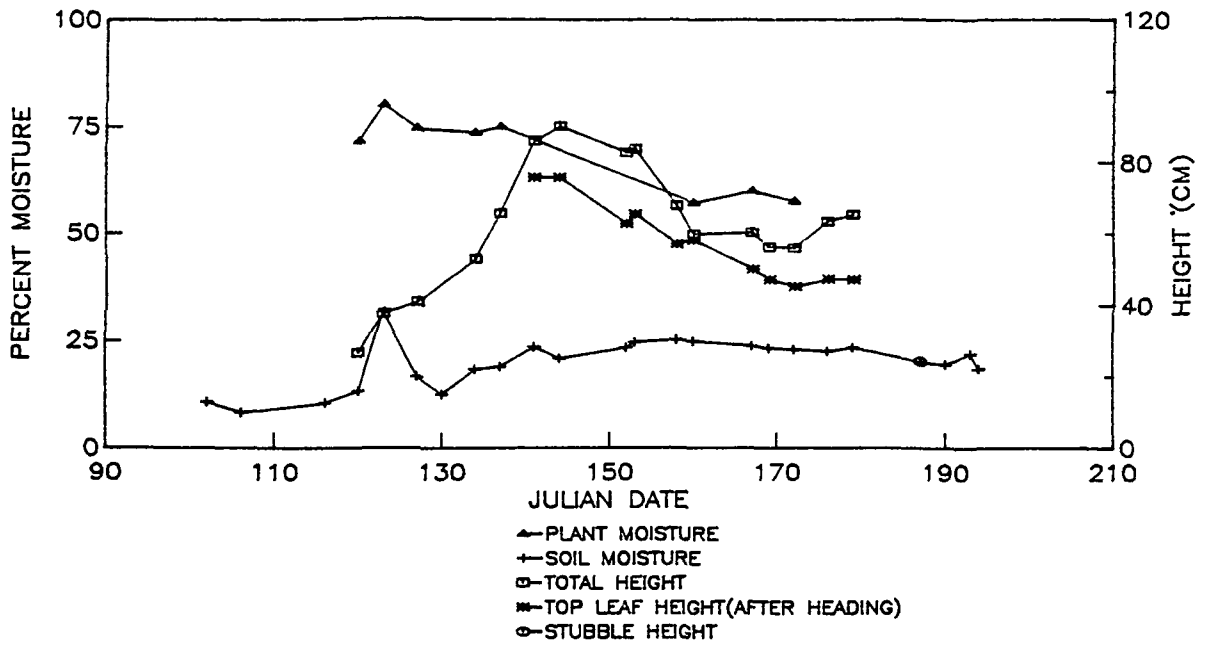
WHEAT FIELD 3



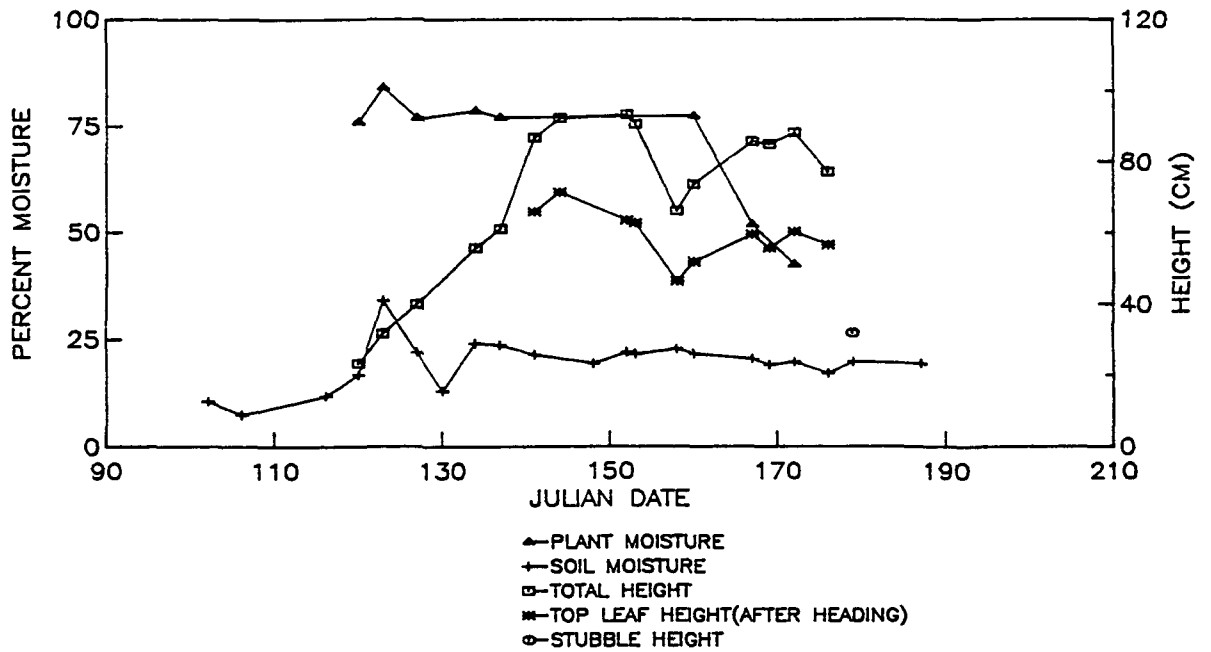
WHEAT FIELD 4



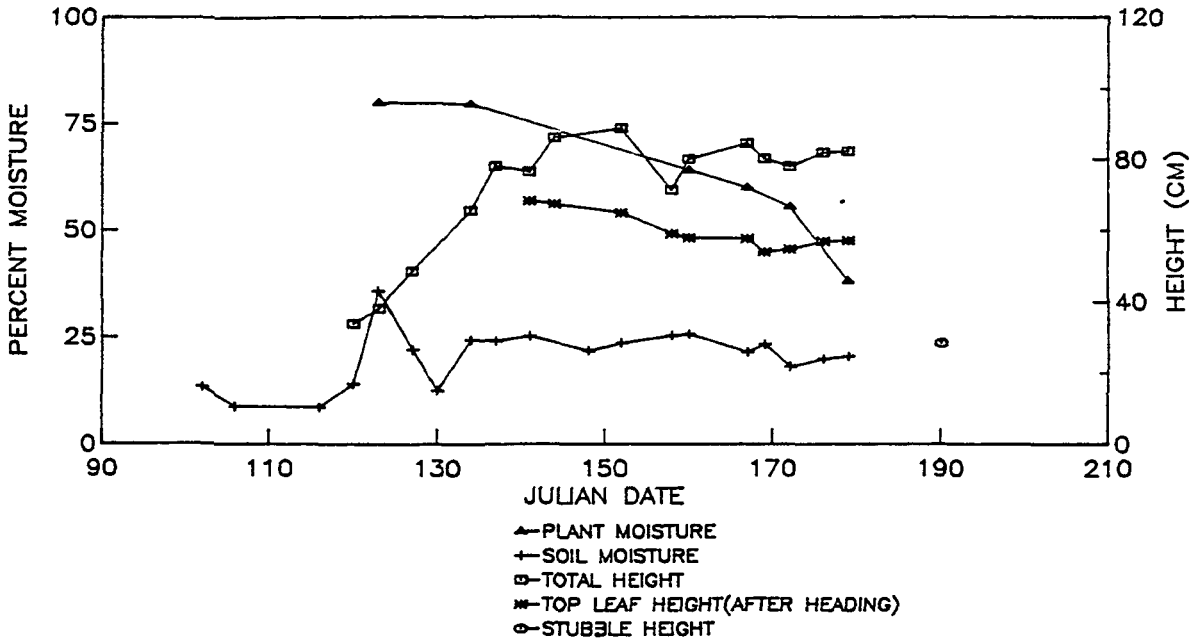
WHEAT FIELD 5



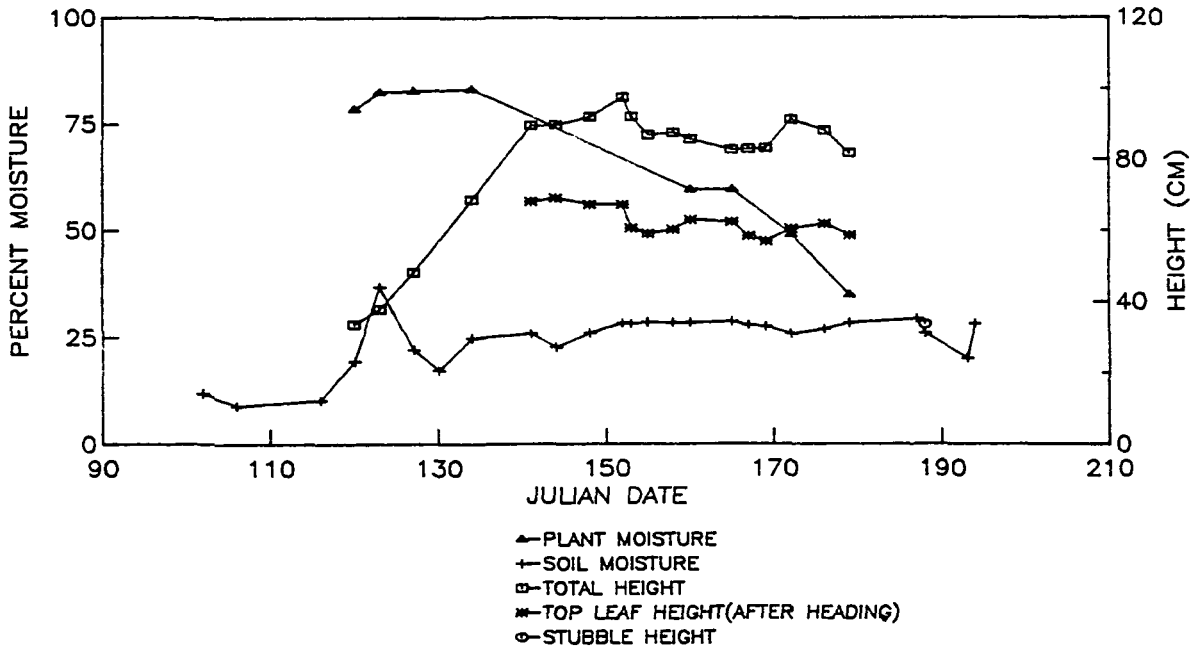
WHEAT FIELD 6



WHEAT FIELD 7

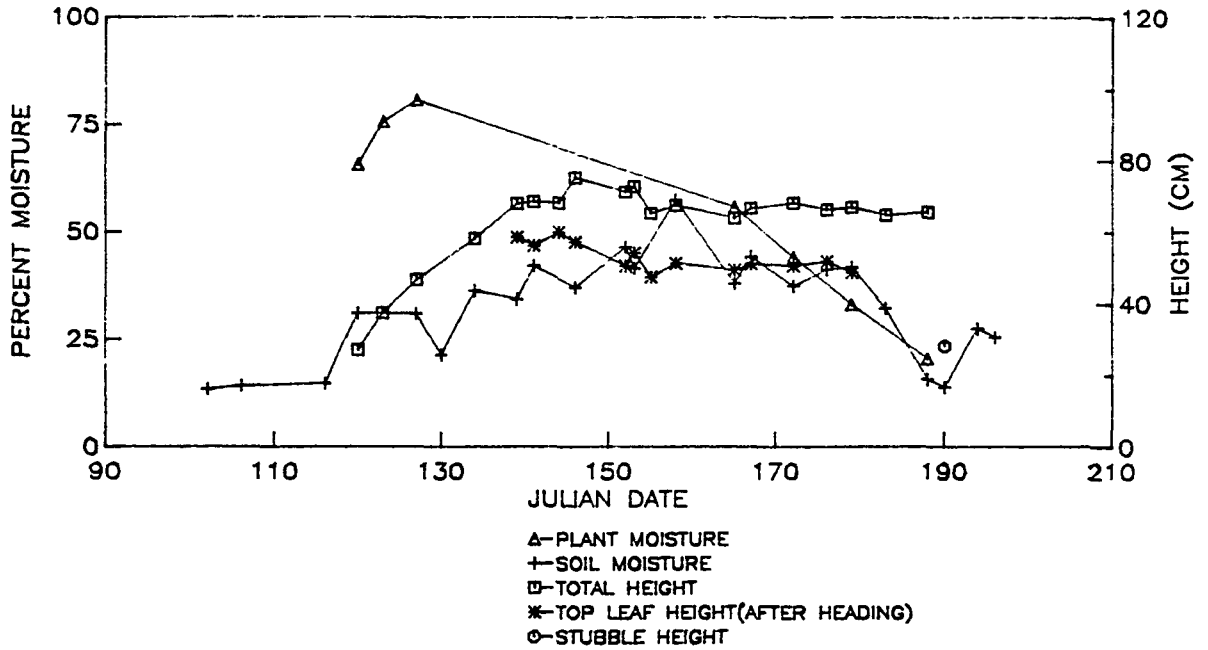


WHEAT FIELD 8

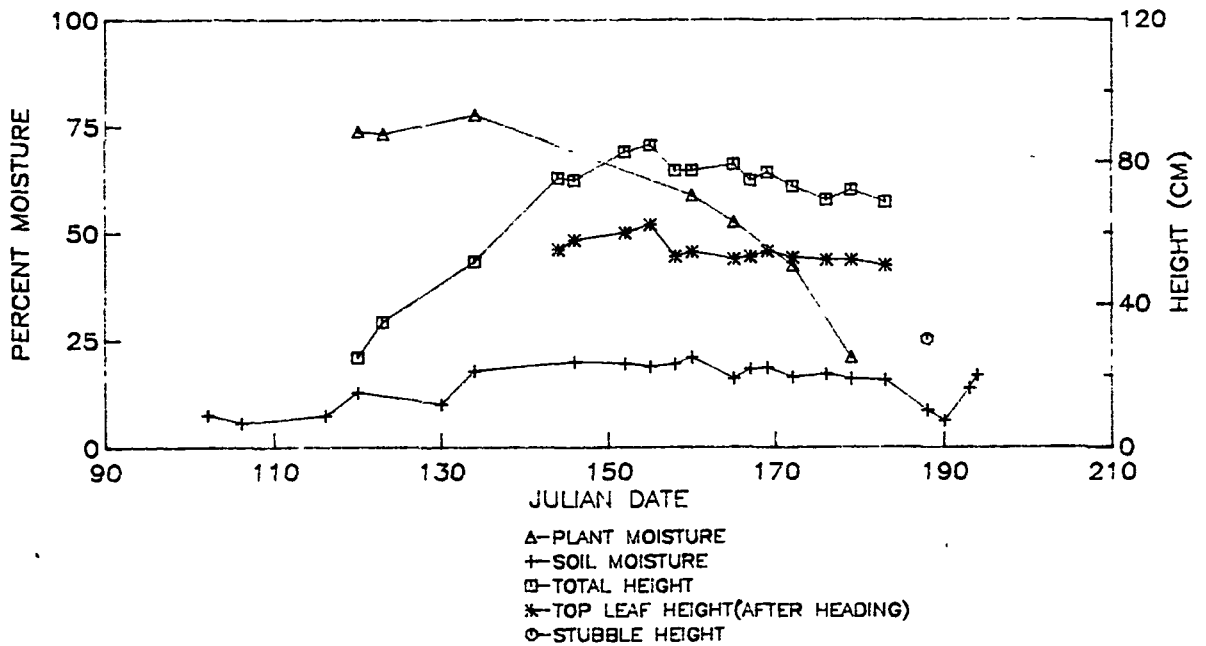


iii.i.4

WHEAT FIELD 9

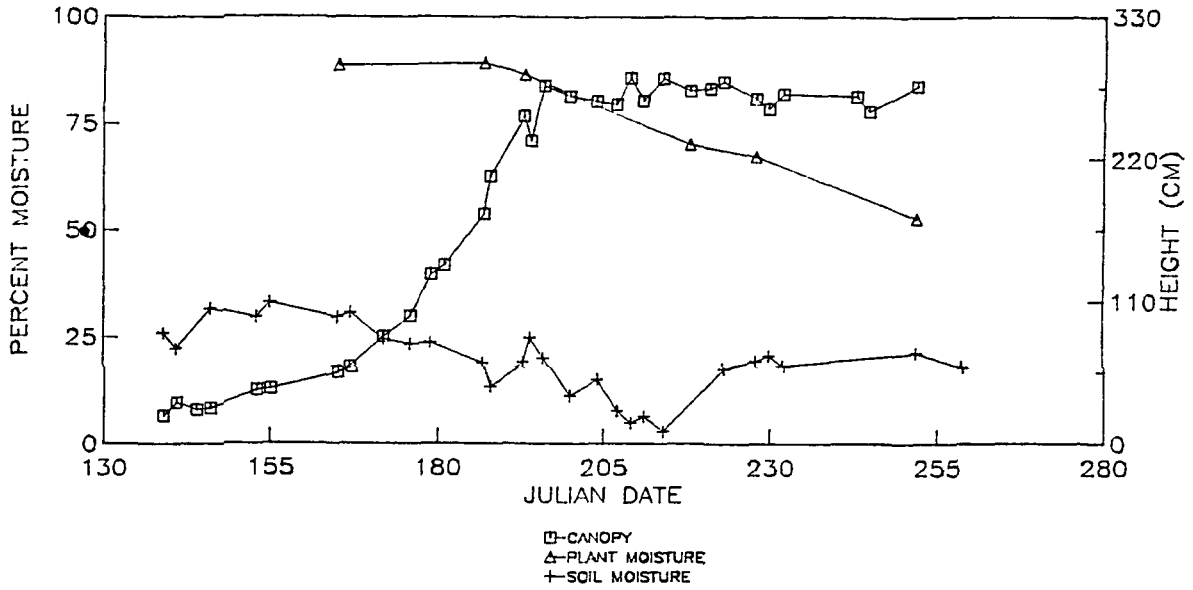


WHEAT FIELD 10

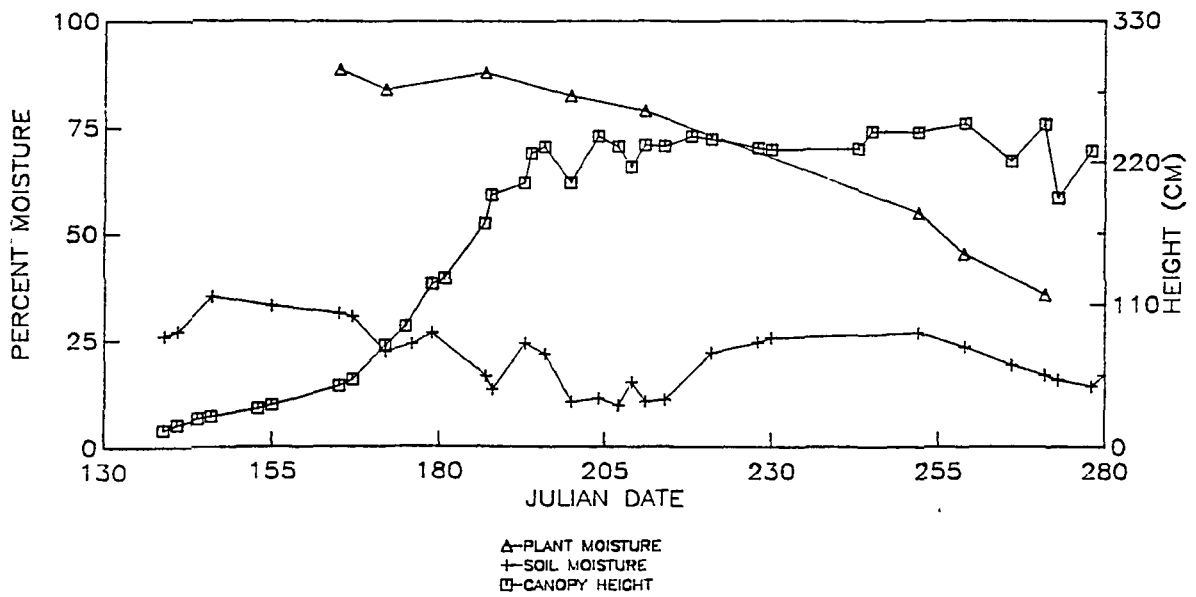


iii.i.5

CORN FIELD 1

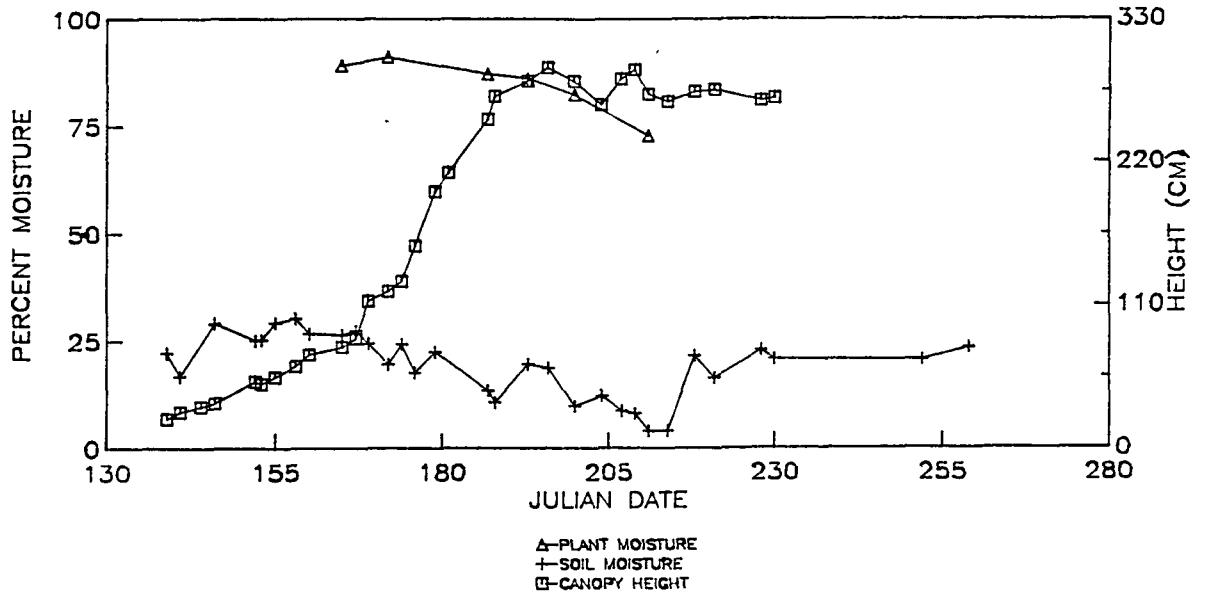


CORN FIELD 2

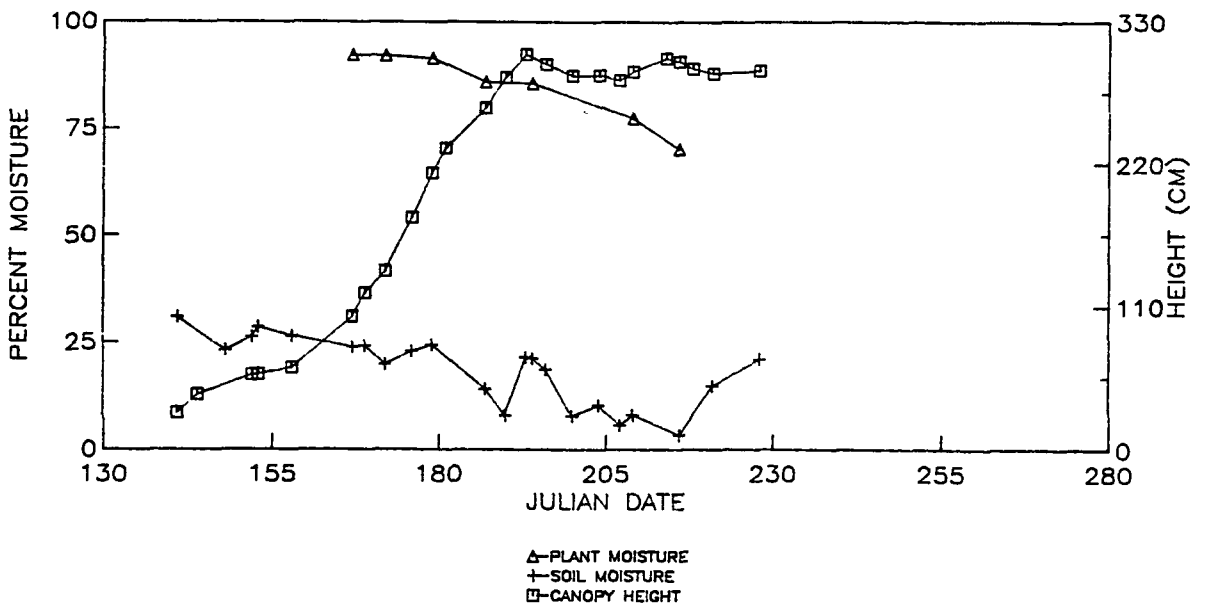


iii.i.6

CORN FIELD 3

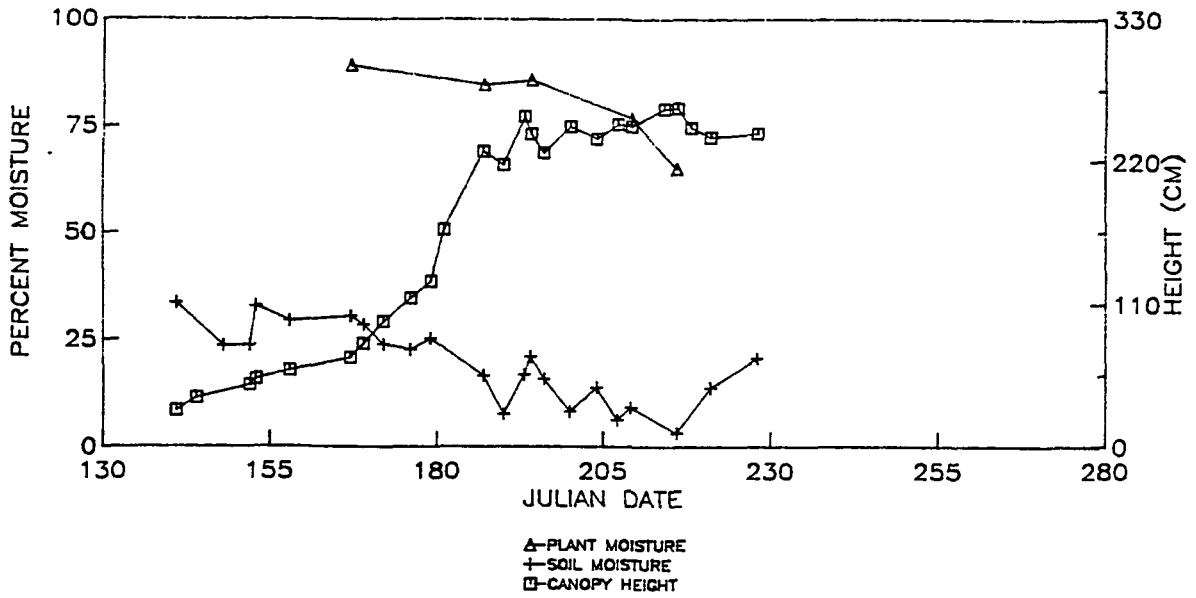


CORN FIELD 4

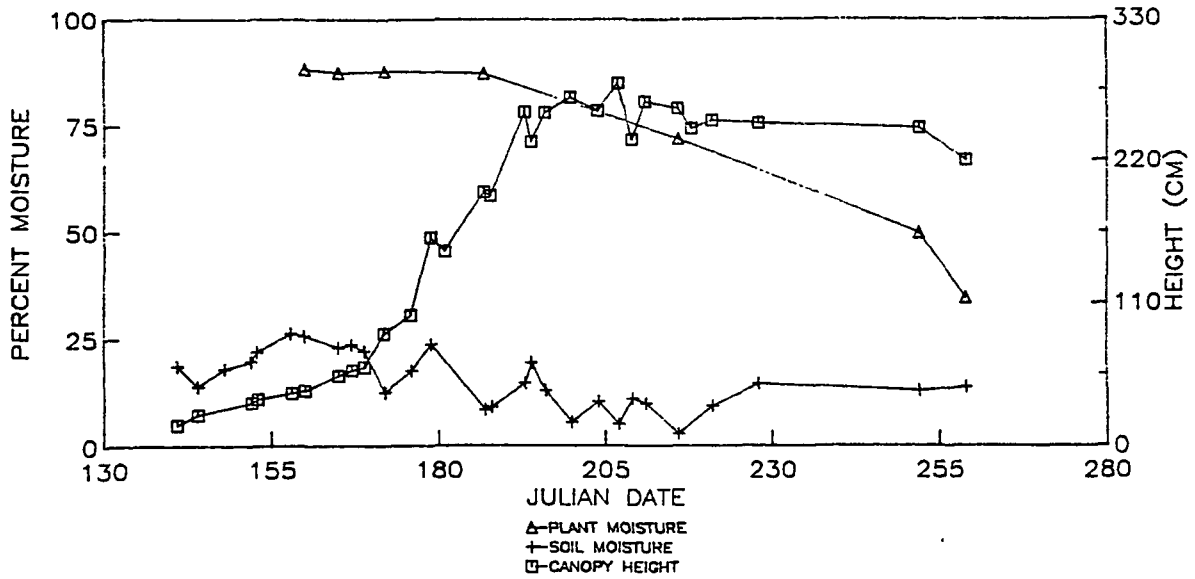




CORN FIELD 5

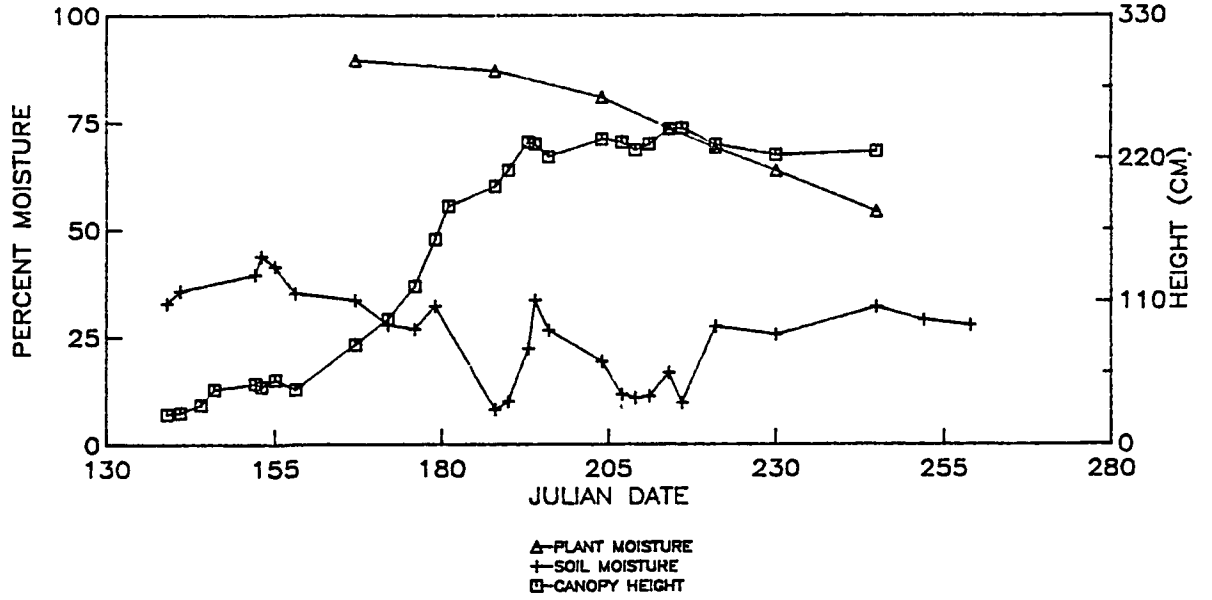


CORN FIELD 6

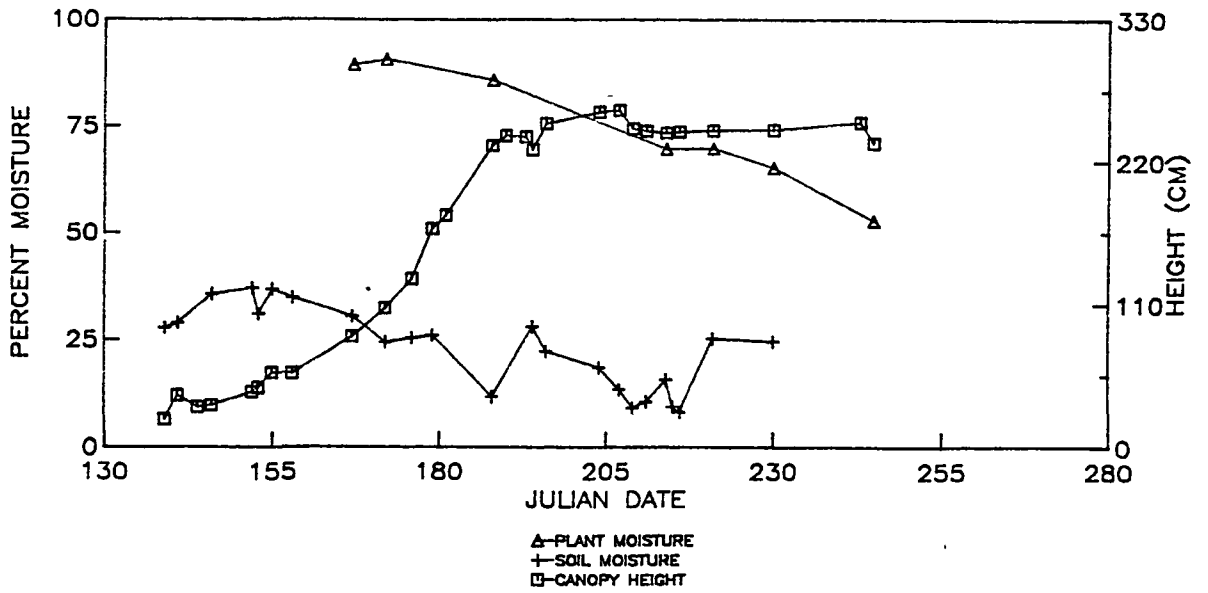


iii.i.8

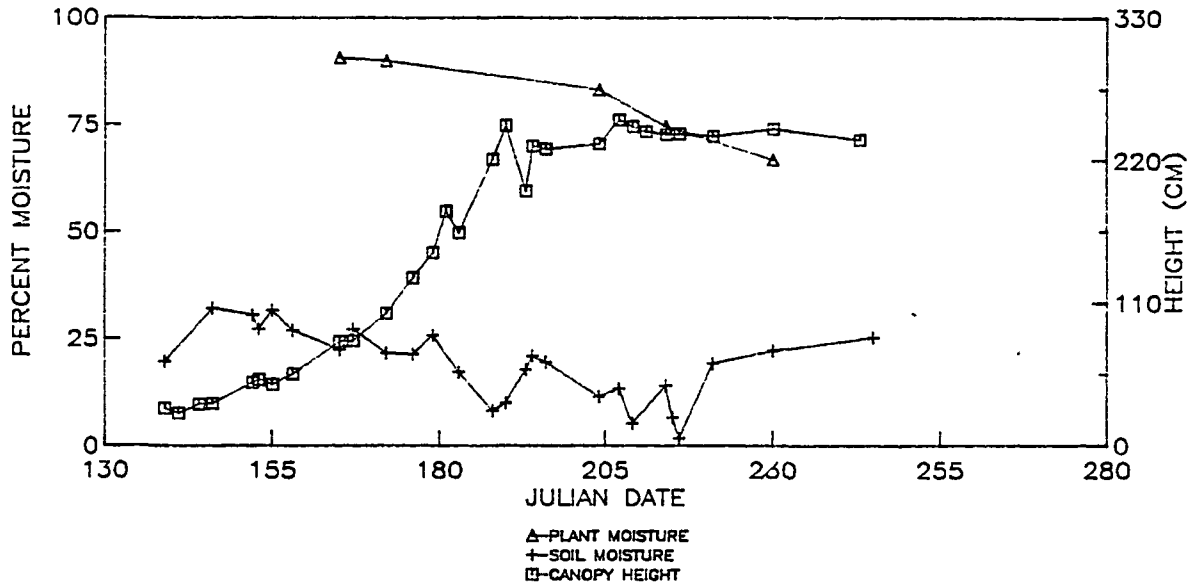
CORN FIELD 7



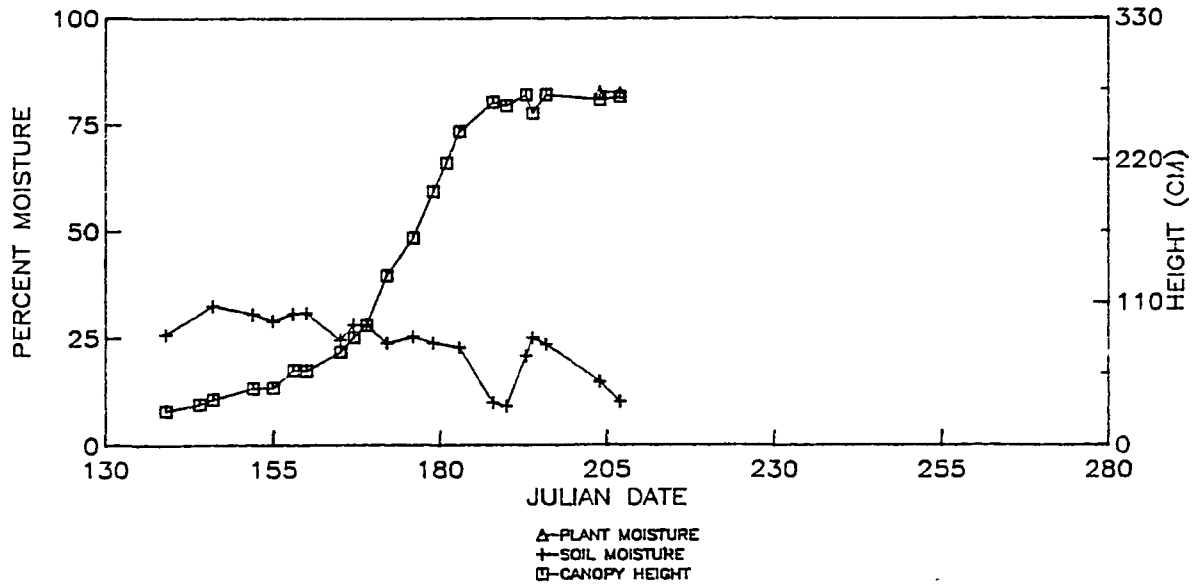
CORN FIELD 8



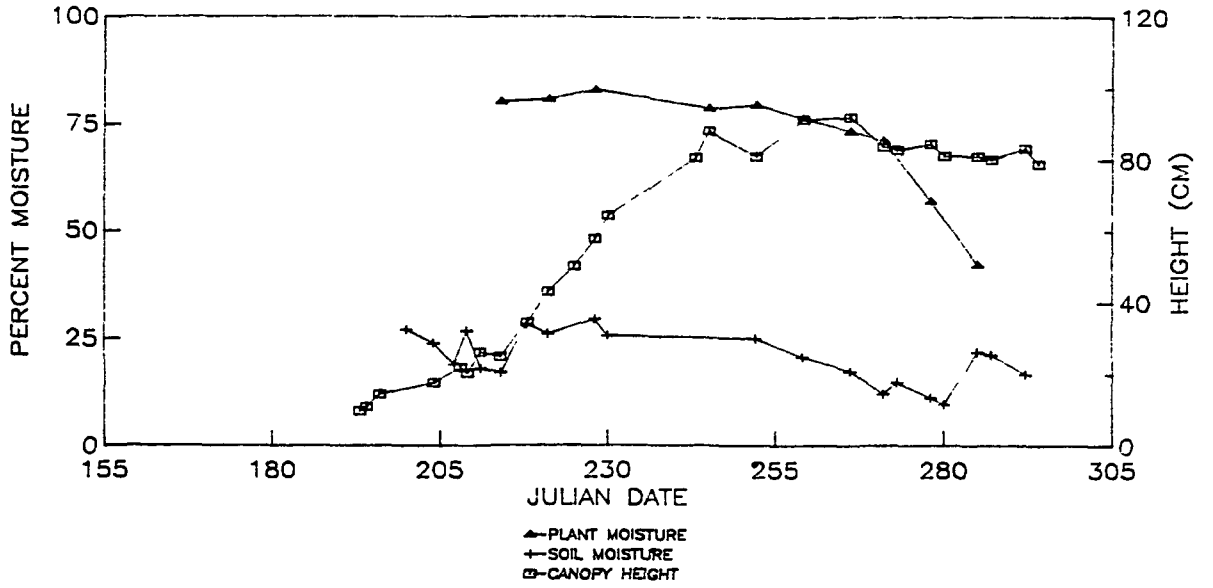
CORN FIELD 9



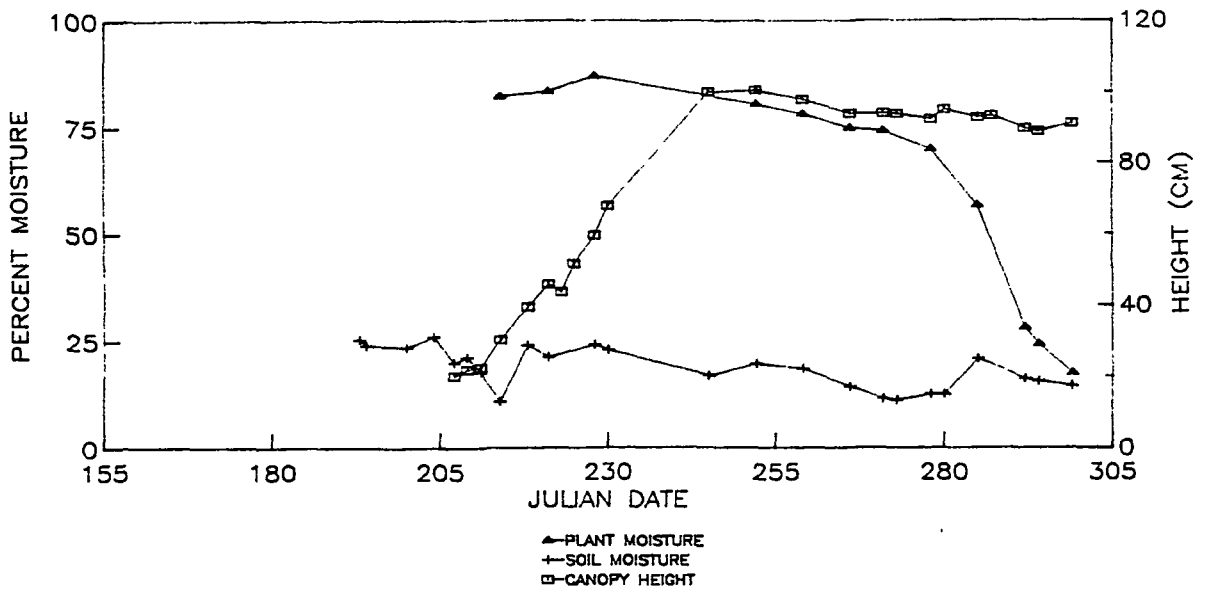
CORN FIELD 10



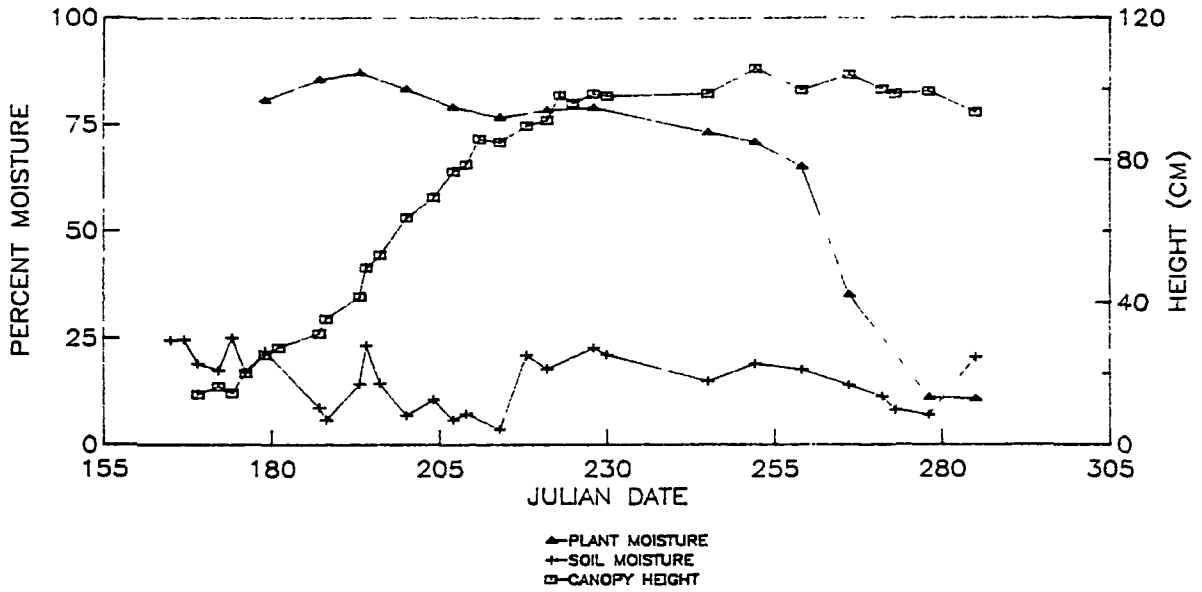
SOYBEAN FIELD 1



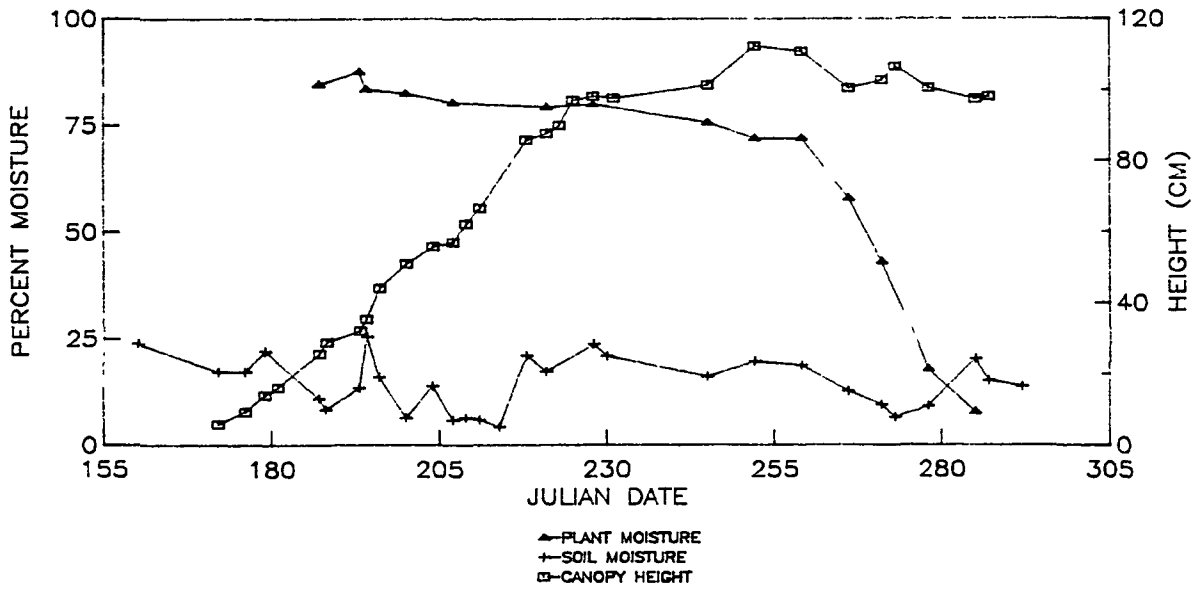
SOYBEAN FIELD 2



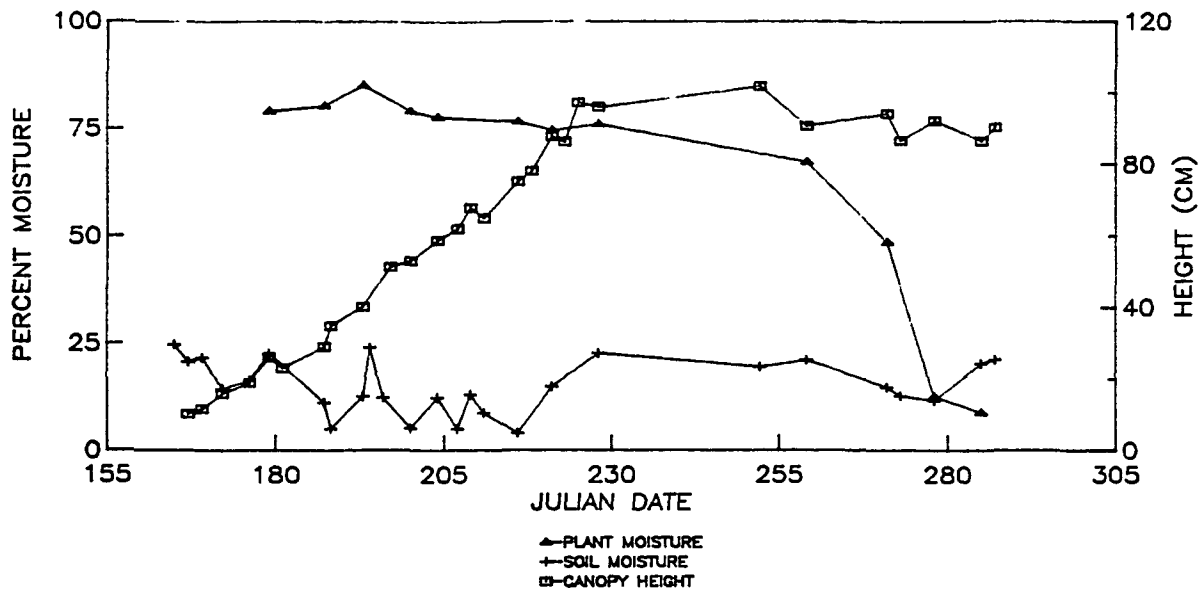
SOYBEAN FIELD 3



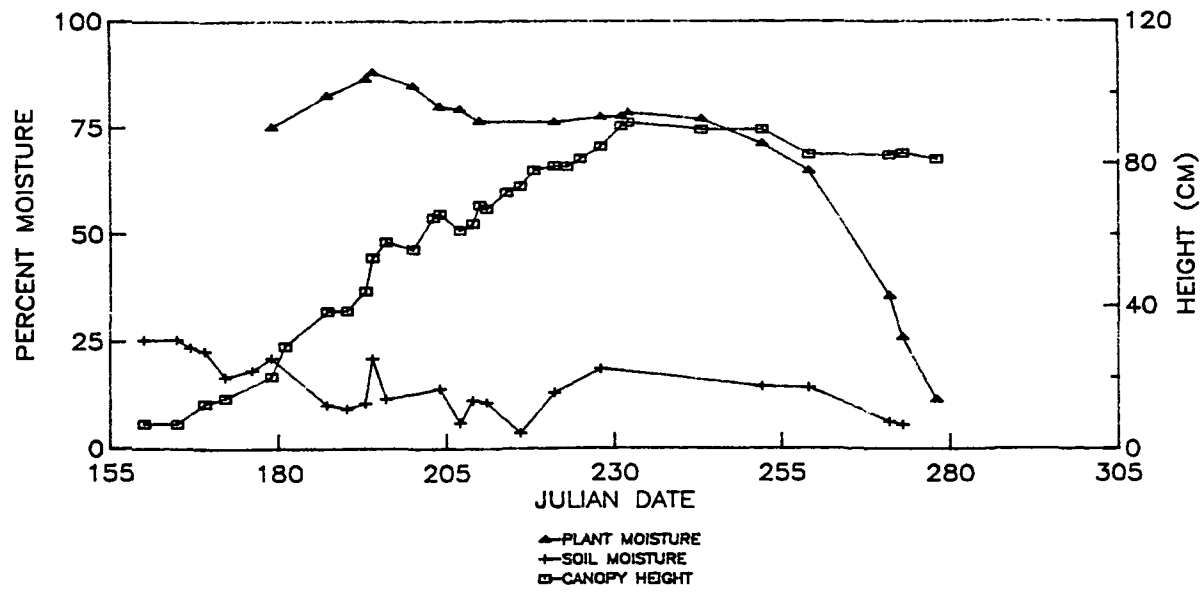
SOYBEAN FIELD 4



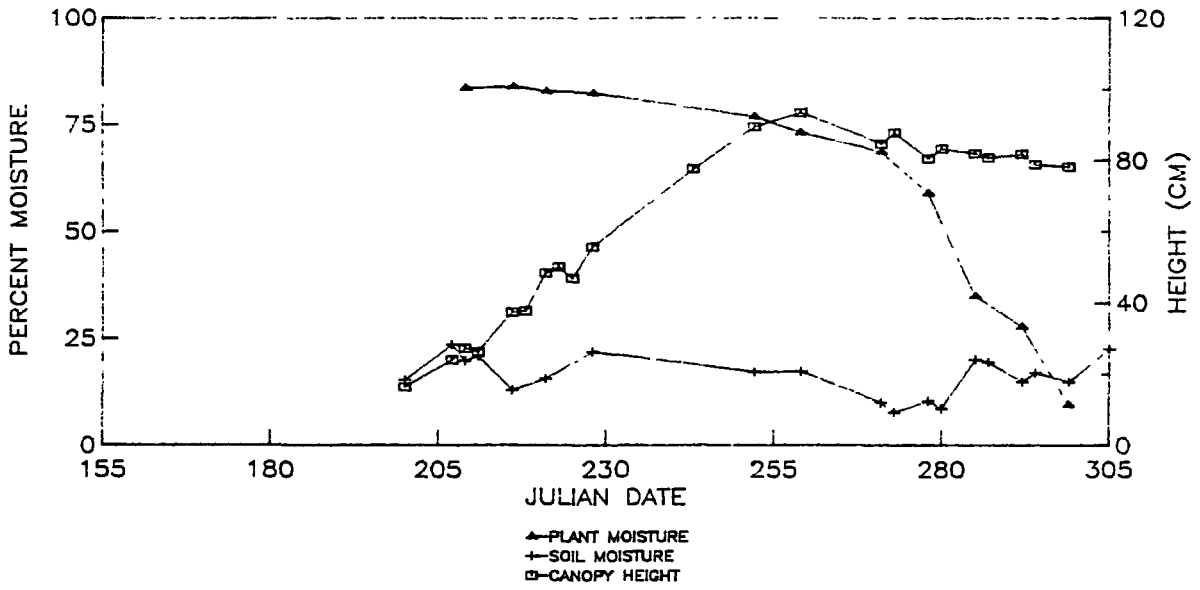
SOYBEAN FIELD 5



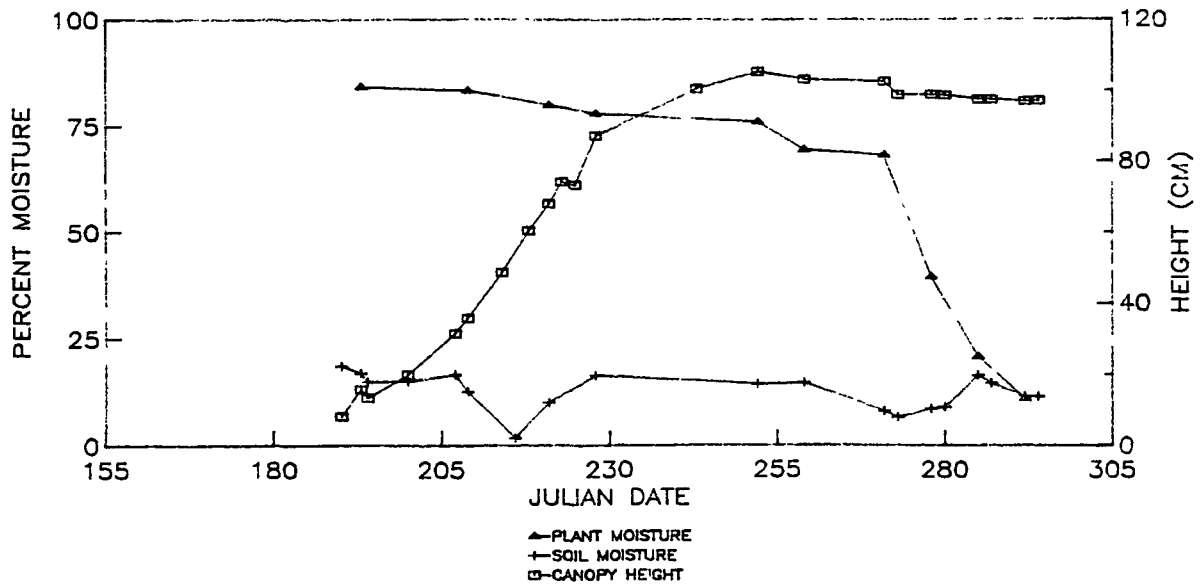
SOYBEAN FIELD 6



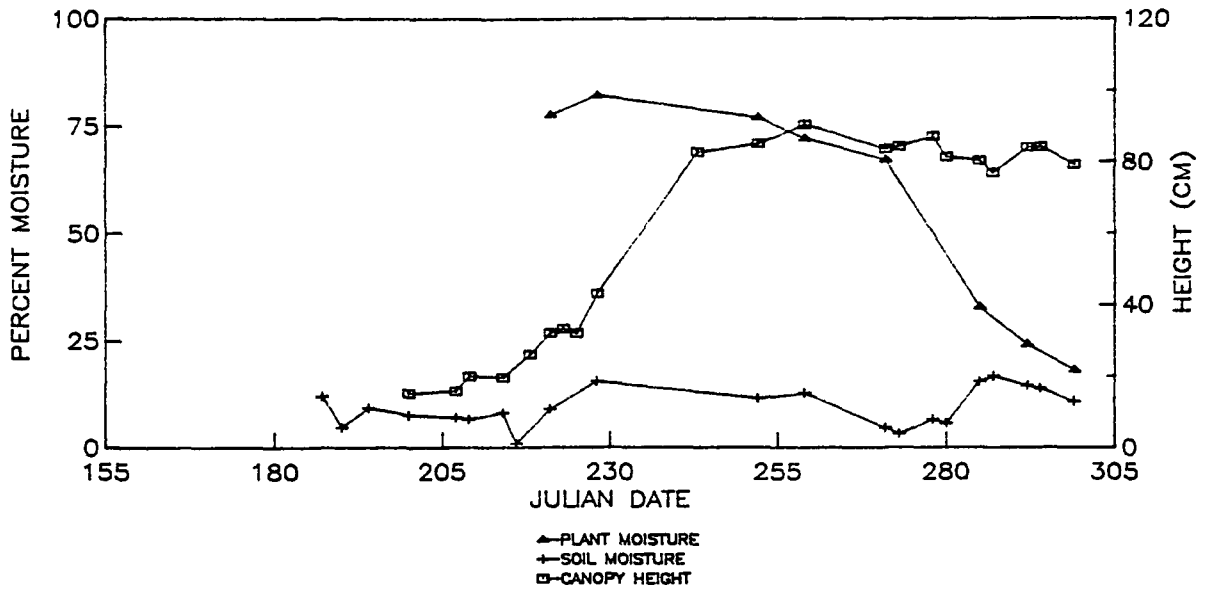
SOYBEAN FIELD 7



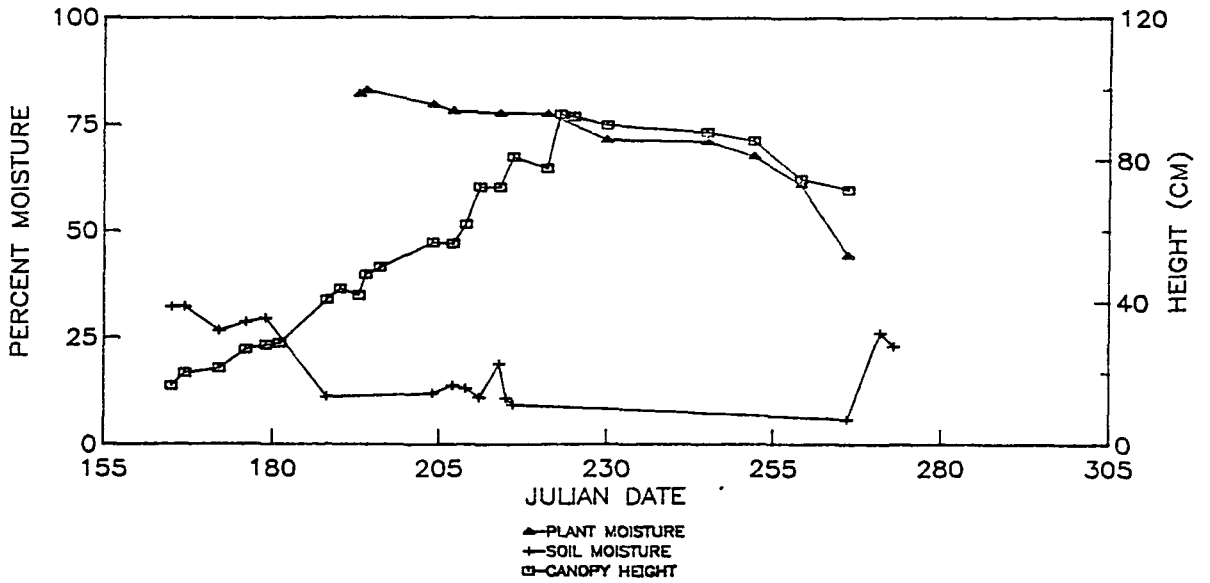
SOYBEAN FIELD 8



SOYBEAN FIELD 9



SOYBEAN FIELD 10





## APPENDIX III.j

### WEATHER DATA

#### Notes:

1. Precipitation on the test site was recorded at about 08:30 every day from four rain gauges (see Fig. 2).
2. Precipitation data collected by the University of Kansas were recorded at 16:00 every day.
3. Wind speed is in km per hour; G stands for gust.

DATE	TEMP (°C)		HUMIDITY		WIND SPEED DIREC	PRECIPITATION (mm)				WIND SPEED DIREC		
	Max	Min	7am	4pm		#1	#2	#3	#4		KU	
4/25/82	13	8	88	94	8	E	-	-	-	0.	16640	SSW
4/26/82	22	7	95	27	27635	NE	-	-	-	0.	5	E
4/27/82	18	9	88	35	13	NE	-	-	-	0.	24640	S
4/28/82	10	7	49	100	24	SE	-	-	-	21.8	14	N
4/29/82	13	9	100	71	11	NE	-	-	-	4.6	3	SW
4/30/82	18	12	97	56	13	N	-	-	-	0	10	ENE
5/1/82	19	10	89	53	5	SW	-	-	-	0.	5	NE
5/2/82	23	14	96	33	6	S	-	-	-	0.	6	SSW
5/3/82	26	17	73	55	23632	S	-	-	-	0.	16	SSW
5/4/82	28	18	89	45	32648	S	-	-	-	0.	18	NE
5/5/82	25	9	85	74	29	S	-	-	-	46.2	2	S
5/6/82	12	7	100	61	18	NNE	-	-	-	0	18	S
5/7/82	22	12	87	20	23	SW	-	-	-	0	10	N
5/8/82	26	16	71	33	29	S	-	-	-	0.	8	W
5/9/82	27	17	57	28	31642	SSW	-	-	-	0	5	N
5/10/82	26	18	64	45	26642	SSW	-	-	-	0.	8	S
5/11/82	23	15	74	79	5	SE	-	-	-	13.7	2	S
5/12/82	22	17	100	72	26	S	-	-	-	23.1	8	S
5/13/82	21	17	100	85	19	S	-	-	-	3	13	S
5/14/82	24	14	100	57	10	S	-	-	-	4.6	5	N
5/15/82	25	16	97	48	23643	SW	-	-	-	3.3	16	ENE
5/16/82	23	16	97	51	29640	SSW	-	-	-	15.7	10	W
5/17/82	23	15	99	61	23	SW	-	-	-	11.9	10	WSW
5/18/82	26	17	97	51	23	SSW	-	-	-	0.	2	SE
5/19/82	25	19	100	70	24	S	-	-	-	0.	6	E
5/20/82	27	14	80	57	16629	W	-	-	-	19.3	24635	SSW
5/21/82	24	12	97	51	14	WNW	-	-	-	-	10	S
5/22/82	21	12	90	46	2	ESE	-	-	-	0	23	S
5/23/82	24	15	99	49	16	ESE	-	-	-	0.3	26	S
5/24/82	22	17	96	84	2	S	-	-	-	31.2	24	SSW
5/25/82	24	14	100	87	13	SSW	-	-	-	0.8	10	N
5/26/82	22	12	95	63	3	NE	-	-	-	0	2	SE
5/27/82	27	18	97	41	16630	S	-	-	-	0.3	5	SE
5/28/82	27	17	86	61	11	NE	-	-	-	46.2	10	NW
5/29/82	30	18	98	51	3	SE	-	-	-	31.8	11	N
5/30/82	24	14	97	86	23637	N	-	-	-	15.7	5	SW
5/31/82	17	8	97	53	5	SW	-	-	-	0	16	S
6/1/82	21	12	87	42	19	NE	-	-	-	2.3	24	SSW
6/2/82	16	12	86	97	8	NE	-	-	-	5.3	19	S
6/3/82	20	13	100	75	6	NE	-	-	-	11.7	16	S
6/4/82	18	12	100	77	24	NE	-	-	-	0	16	S
6/5/82	23	17	100	51	24	SE	-	-	-	0	16	S

DATE	TEMP (°C)		HUMIDITY 7am 4pm	PRECIPITATION (mm)				WIND SPEED DIREC									
	Max	Min		#1	#2	#3	#4										
7/17/82	35	26	87	47	0	0	0	0	0	0	0	0	0	0	0	26	E
7/18/82	36	26	83	45	0	0	0	0	0	0	0	0	0	0	0	6	E
7/19/82	36	24	76	47	0	0	0	0	0	0	0	0	0	0	0	14	SSW
7/20/82	36	21	96	41	0	0	0	0	0	0	0	0	0	0	0	19	SS
7/21/82	34	24	100	62	10.0	7.0	6.0	-	4.6	0	0	0	0	0	0	6	S
7/22/82	32	21	92	43	0	0	0	0	0	0	0	0	0	0	0	27	NE
7/23/82	32	21	100	40	0	0	0	0	0	0	0	0	0	0	0	10	W
7/24/82	33	21	90	37	0	0	0	0	0	0	0	0	0	0	0	29	SSW
7/25/82	34	23	100	33	0	0	0	0	0	0	0	0	0	0	0	19	SSW
7/26/82	36	23	91	35	0	0	0	0	0	0	0	0	0	0	0	13	NE
7/27/82	35	21	97	65	0	0	0	0	0	0	0	0	0	0	0	8	E
7/28/82	31	18	100	40	0	0	0	0	0	0	0	0	0	0	0	13	SE
7/29/82	31	21	91	37	0	0	0	0	0	0	0	0	0	0	0	32	SE
7/30/82	31	17	94	38	0	0	0	0	0	0	0	0	0	0	0	32	SE
7/31/82	33	22	97	29	0	0	0	0	0	0	0	0	0	0	0	32	SE
8/1/82	35	22	65	36	0	0	0	0	0	0	0	0	0	0	0	35	S
8/2/82	36	26	90	38	0	0	0	0	0	0	0	0	0	0	0	16	S
8/3/82	37	26	83	35	0	0	0	0	0	0	0	0	0	0	0	13	W
8/4/82	38	22	80	38	0	0	0	0	0	0	0	0	0	0	0	13	N
8/5/82	31	23	100	64	23	5	22.0	19	0	27	5	21.1	0	0	0	14	S
8/6/82	31	23	100	85	26.0	24.0	24.0	28	0	0	0	0	0	0	0	35	NE
8/7/82	32	22	100	57	12	0	6.0	2.0	11	0	3.6	0	0	0	0	16	N
8/8/82	33	18	100	33	0	0	0	0	0	0	0	0	0	0	0	23	SSW
8/9/82	30	17	88	36	0	0	0	0	0	0	0	0	0	0	0	29	NE
8/10/82	19	14	91	90	2.0	0	0	0	0	0	0	0	0	0	0	19	ENE
8/11/82	23	18	100	63	6	7	4.0	4.0	3.0	5.8	0	0	0	0	0	8	SW
8/12/82	23	19	100	90	6.0	3.5	3.0	4	0	0	0	0	0	0	0	19	SW
8/13/82	27	21	100	75	28.0	24	0	26	0	23	4	0	0	0	0	26	N
8/14/82	26	23	100	78	0	0	0	0	0	0	0	0	0	0	0	18	N
8/15/82	31	23	100	64	8.3	4	8	1.5	9.5	4	3	0	0	0	0	16	S
8/16/82	28	21	100	72	0	0	0	0	0	0	0	0	0	0	0	26	SE
8/17/82	30	19	100	46	0	0	0	0	0	0	0	0	0	0	0	42	S
8/18/82	30	21	100	48	0	0	0	0	0	0	0	0	0	0	0	29	S
8/19/82	32	22	90	42	0	0	0	0	0	0	0	0	0	0	0	19	S
8/20/82	31	18	80	63	0	0	0	0	0	0	0	0	0	0	0	13	S
8/21/82	30	20	87	28	3	0	2.0	5.0	4.0	0	0	0	0	0	0	8	N
8/22/82	36	19	82	35	13	0	14.0	17.0	12.0	0	0	0	0	0	0	2	
8/23/82	29	21	96	56	0	0	0	0	0	0	0	0	0	0	0	21	S
8/24/82	26	14	96	75	0	0	0	0	0	0	0	0	0	0	0	29	S
8/25/82	28	19	97	37	0	0	0	0	0	0	0	0	0	0	0	32	NW
8/26/82	24	19	89	83	0	0	0	0	0	0	0	0	0	0	0	32	S

75  
65  
45

DATE	TEMP (°C)		HUMIDITY		PRECIPITATION (mm)					WIND	
	Max	Min	7am	4pm	#1	#2	#3	#4	KU	SPEED	DIREC
10/ 8/82	24	11	100	98	-	-	-	-	25.1	32	S
10/ 9/82	18	8	72	33	-	-	-	-	10.7	39G57	WSW
10/10/82	13	9	65	55	-	-	-	-	0.	23	WNW
10/11/82	18	8	64	27	-	-	-	-	0.	26	W
10/12/82	19	7	69	51	-	-	-	-	0.	8	W
10/13/82	16	4	93	39	-	-	-	-	0.	6	NW
10/14/82	22	9	97	20	-	-	-	-	0.	19	SW
10/15/82	24	6	55	33	-	-	-	-	0.	32G61	N
10/16/82	19	9	85	30	-	-	-	-	0.	6	S
10/17/82	23	11	55	37	-	-	-	-	0.	48	S
10/18/82	24	16	61	49	-	-	-	-	0.	32G51	S
10/19/82	22	2	84	67	-	-	-	-	0.	35G57	NW
10/20/82	12	0	71	33	-	-	-	-	0.	23	N
10/21/82	13	0	98	34	-	-	-	-	0.	6	E
10/22/82	16	3	97	27	-	-	-	-	0.	8	S
10/23/82	18	4	71	20	-	-	-	-	0.	11	S
10/24/82	19	4	65	24	-	-	-	-	0.	13	S
10/25/82	21	7	60	25	-	-	-	-	0.	13	S
10/26/82	19	12	60	30	-	-	-	-	0.	27	S
10/27/82	23	16	45	47	-	-	-	-	0.	48	S
10/28/82	17	6	94	96	-	-	-	-	14.2	6	WNW
10/29/82	19	11	65	23	-	-	-	-	0.	24	SW
10/30/82	19	16	64	58	-	-	-	-	0.	14	S
10/31/82	26	18	98	50	-	-	-	-	0.	27	S
11/ 1/82	20	9	89	85	-	-	-	-	-	14	WNW
11/ 2/82	16	0	96	48	-	-	-	-	0.	19	NNW
11/ 3/82	9	-4	75	31	-	-	-	-	0.	19	NW
11/ 4/82	4	-6	72	32	-	-	-	-	0.	19	NW
11/ 5/82	7	0	82	33	-	-	-	-	0.	6	SSE
11/ 6/82	17	11	60	39	-	-	-	-	0.	19	S

APPENDIX IV

SPECIAL EXPERIMENTS - GROUND-TRUTH DATA  
VEGETATION AND SOIL MOISTURE

	<u>Page</u>
Corn Defoliation and Row Data . . . . .	IV.1-5
Soybean Defoliation and Row Data . . . . .	6-10
Soybean Screen Data . . . . .	11-17
Alfalfa Data . . . . .	18
Weed Defoliation Data . . . . .	19
Bare Soil Data . . . . .	20

Corn Defoliation and Row-Vegetation Data

CORN FIELD #21 DATE: 7/14/R2 (JULIAN: 195) TIME: 17:00 MEAN CANOPY HEIGHT: 290.17 CM  
 TOP LEAF HEIGHT: 280.00 CM TOP COB HEIGHT: 157.00 CM BOTTOM GREEN LEAF HEIGHT: 78.83 CM LEAF DEPTH: 251.17 CM  
 PLANT PARTS: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 74.08 78.32 76.30 84.96 86.76 95.22 88.59 88.06 87.40 76.03 87.20 84.49 86.66 93.34 87.89 87.02  
 % PLANT MOISTURE: 0.22 0.21 0.41 0.81 0.98 2.50 0.66 2.31 2.85 0.56 1.17 1.43 1.92  
 WET BIOMASS DENSITY: 0.06 0.05 0.10 0.12 0.13 0.79 0.08 0.29 0.36 0.09 0.16 0.17 0.25  
 DRY BIOMASS DENSITY: 0.16 0.17 0.31 0.68 0.85 2.22 0.58 2.02 2.48 0.48 1.01 1.26 1.67  
 PLANT WATER DENSITY: 0.16 0.17 0.31 0.68 0.85 2.22 0.58 2.02 2.48 0.48 1.01 1.26 1.67

CORN FIELD #21 DATE: 7/14/R2 (JULIAN: 195) TIME: 16:00 MEAN CANOPY HEIGHT: 294.67 CM  
 TOP LEAF HEIGHT: 280.00 CM TOP COB HEIGHT: 155.83 CM BOTTOM GREEN LEAF HEIGHT: 78.83 CM LEAF DEPTH: 251.17 CM  
 PLANT PARTS: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 77.71 0.17 0.78 2.36 1.11 1.44  
 % PLANT MOISTURE: 0.17 0.78 2.36 1.11 1.44  
 WET BIOMASS DENSITY: 0.04 0.13 0.43 0.20 0.23  
 DRY BIOMASS DENSITY: 0.13 0.65 1.93 0.91 1.21

CORN FIELD #21 DATE: 7/21/R2 (JULIAN: 202) TIME: 12:37 MEAN CANOPY HEIGHT: 296.00 CM  
 TOP LEAF HEIGHT: 268.83 CM TOP COB HEIGHT: 159.17 CM BOTTOM GREEN LEAF HEIGHT: 30.67 CM LEAF DEPTH: 238.17 CM  
 PLANT PARTS: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 71.82 71.22 71.55 76.39 78.85 3.14 0.63 1.31 2.06 0.57 0.81 1.38 1.85  
 % PLANT MOISTURE: 0.25 0.15 0.34 0.77 0.96 79.93 75.24 89.50 78.44 76.89 76.42  
 WET BIOMASS DENSITY: 0.07 0.04 0.10 0.18 0.20 3.14 0.63 1.31 2.06 0.57 0.81 1.38 1.85  
 DRY BIOMASS DENSITY: 0.18 0.11 0.24 0.58 0.76 0.13 0.32 0.44 0.44 0.13 0.19 0.28 0.37  
 PLANT WATER DENSITY: 0.18 0.11 0.24 0.58 0.76 0.51 0.98 1.62 1.62 0.44 0.61 1.19 1.42

CORN FIELD #21 DATE: 7/29/R2 (JULIAN: 210) TIME: 11:40 MEAN CANOPY HEIGHT: 237.00 CM  
 TOP LEAF HEIGHT: 201.50 CM TOP COB HEIGHT: 135.67 CM BOTTOM GREEN LEAF HEIGHT: 33.33 CM LEAF DEPTH: 168.17 CM  
 PLANT PARTS: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 66.97 65.71 66.32 72.23 74.54 83.98 80.17 75.84 79.96 87.77 79.80 72.92 77.87 84.22 80.83 79.46  
 % PLANT MOISTURE: 0.19 0.11 0.22 0.49 0.61 3.04 0.57 1.64 2.10 0.44 0.79 1.47 1.78  
 WET BIOMASS DENSITY: 0.06 0.04 0.07 0.14 0.16 0.60 0.14 0.33 0.42 0.12 0.17 0.28 0.37  
 DRY BIOMASS DENSITY: 0.13 0.07 0.14 0.36 0.46 2.43 0.44 1.31 1.67 0.32 0.61 1.19 1.42  
 PLANT WATER DENSITY: 0.13 0.07 0.14 0.36 0.46 2.43 0.44 1.31 1.67 0.32 0.61 1.19 1.42

CORN FIELD #21 DATE: 8/17/R2 (JULIAN: 229) TIME: 13:00 MEAN CANOPY HEIGHT: 294.00 CM  
 TOP LEAF HEIGHT: 267.00 CM TOP COB HEIGHT: 163.07 CM BOTTOM GREEN LEAF HEIGHT: 57.17 CM LEAF DEPTH: 209.83 CM  
 PLANT PARTS: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 68.10 69.06 68.49 75.28 78.41 91.72 85.59 77.07 82.95 70.15 80.12 74.49 80.80 88.33 84.45 82.74  
 % PLANT MOISTURE: 0.26 0.13 0.32 0.68 0.94 3.86 0.64 1.76 2.44 0.53 0.94 1.83 2.21  
 WET BIOMASS DENSITY: 0.08 0.04 0.10 0.17 0.20 0.56 0.15 0.30 0.49 0.14 0.18 0.28 0.38  
 DRY BIOMASS DENSITY: 0.18 0.09 0.22 0.51 0.74 3.31 0.49 1.46 1.96 0.40 0.76 1.55 1.83  
 PLANT WATER DENSITY: 0.18 0.09 0.22 0.51 0.74 3.31 0.49 1.46 1.96 0.40 0.76 1.55 1.83

CORN FIELD #21 DATE: 9/21/R2 (JULIAN: 264) TIME: 11:30 MEAN CANOPY HEIGHT: 251.17 CM  
 TOP LEAF HEIGHT: 267.00 CM TOP COB HEIGHT: 139.33 CM BOTTOM GREEN LEAF HEIGHT: 251.17 CM  
 PLANT PARTS: L1L L1S TOP1/3 L2L L2S L2C MID1/3 L3L L3S L3C LOW1/3 L123L L123S COBS L123SC WHOLE  
 5.59 10.85 7.47 9.58 49.15 26.69 28.32 6.28 72.67 7.55 86.16 7.55 86.16  
 % PLANT MOISTURE: 0.04 0.10 0.12 0.26 2.29 0.98 0.43  
 WET BIOMASS DENSITY: 0.03 0.09 0.11 0.13 1.64 0.27 0.14  
 DRY BIOMASS DENSITY: 0.00 0.01 0.01 0.13 0.65 0.71 0.28  
 PLANT WATER DENSITY: 0.00 0.01 0.01 0.13 0.65 0.71 0.28

Corn Defoliation - Soil Moisture Data

Corn Defoliation		Field#:21 Date: 7/14/82 (Julian. 195)						Time: 11 00	
Depth		LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6 (Stage. 1)	Full Canopy)
0-2 cm	24 93	28 58	19 03	22 91	21 81	21 33			
2-5 cm	25 65	24 13	18 79	21 45	20 15	21 01			
0-5 cm	25 36	25 91	18 88	22 03	20 81	21 13			
Depth		LOC 7	LOC 8	LOC 9	LOC 10	LOC 11	LOC 12	Mean	S.D. S.D./Mean
0-2 cm	24 06	25 89	30 60	23 93	26 33	22 38	24 31	3 21	1 32
2-5 cm	23 04	24 74	27 97	23 00	25 23	21 89	23 09	2 60	1 13
0-5 cm	23 44	25 20	29 02	23 37	25 67	22 08	23 58	2 85	1 21

Corn Defoliation		Field#:21 Date: 7/14/82 (Julian. 195)						Time: 15 50	
Depth		LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6 (Stage 2)	No Leaves)
0-2 cm	24 33	23 30	17 69	20 76	20 21	17 48			
2-5 cm	24 19	21 55	18 77	21 27	20 58	19 10			
0-5 cm	24 25	22 25	18 34	21 07	20 43	18 45			
Depth		LOC 7	LOC 8	LOC 9	LOC 10	LOC 11	LOC 12	Mean	S D S.D./Mean
0-2 cm	19 86	18 50	26 47	11 90	21 91	19 55	20 16	3 76	1 86
2-5 cm	19 42	19 55	25 87	22 50	22 24	19 82	21 24	2 18	1 02
0-5 cm	19 60	19 13	26 11	18 26	22 10	19 71	20 81	2 81	1 36

Corn Defoliation		Field#:21 Date: 7/14/82 (Julian. 195)						Time: 19:00	
Depth		LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6 (Stage. 3)	Bare Soil)
0-2 cm	24 43	20 30	21 97	20 48	20 28	19 19			
2-5 cm	24 22	21 49	23 14	21 98	21 77	20 22			
0-5 cm	24 31	21 01	22 68	21 38	21 17	19 81			
Depth		LOC 7	LOC 8	LOC 9	LOC 10	LOC 11	LOC 12	Mean	S D S.D./Mean
0-2 cm	20 98	22 77	24 23	21 08	20 28	19 39	21 28	1 73	0 81
2-5 cm	21 49	23 30	24 19	21 79	25 22	21 58	22 53	1 47	0 65
0-5 cm	21 29	23 09	24 21	21 51	23 25	20 70	22 03	1 57	0 72

Corn Screen DEF. (Before)		Field#:21 Date: 7/29/82 (Julian 210)						Time: 11:40	
Depth		LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D. S.D./Mean
0-2 cm	2 78	4 30	5 67	5 43				4 54	1 32
2-5 cm	6 98	8 72	10 35	10 50				9 14	1 65
0-5 cm	5 30	6 95	8 48	8 47				7 30	1 52

70  
60  
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Corn Defoliation		Field#:21 Date: 8/17/82 (Julian: 229)						Time: Full Canopy)	
Depth		LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6 (Stage. 1)	Full Canopy)
0-2 cm	26 07	25 69	22 87	22 00	5 82	23 93			
2-5 cm	25 73	25 90	25 30	21 81	21 41	21 62			
0-5 cm	25 87	25 82	24 33	21 89	15 17	22 55			
Depth		LOC 7	LOC 8	LOC 9	LOC 10	LOC 11	LOC 12	Mean	S D S D /Mean
0-2 cm	24 62	25 87	27 43	25 58	23 61	23 13	23 03	23 53	5 65
2-5 cm	25 67	23 97	19 99	25 86	22 11	23 04	23 53	2 13	0 90
0-5 cm	25 25	24 73	22 97	25 75	22 71	23 08	23 34	3 54	1 52

Corn Defoliation		Field#:21 Date: 8/17/82 (Julian: 229)						Time: No Leaves)	
Depth		LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6 (Stage 2)	No Leaves)
0-2 cm	25 75	26 86	24 05	21 25	21 81	24 40			
2-5 cm	25 52	26 99	25 02	21 58	22 46	24 75			
0-5 cm	25 61	26 94	24 63	21 45	22 20	24 61			
Depth		LOC 7	LOC 8	LOC 9	LOC 10	LOC 11	LOC 12	Mean	S D. S D /Mean
0-2 cm	26 86	23 23	25 25	24 91	25 11	23 53	24 42	1 77	0 72
2-5 cm	27 66	23 91	25 29	25 27	24 49	23 12	24 67	1 74	0 71
0-5 cm	27 34	23 64	25 27	25 13	24 74	23 29	24 57	1 75	0 71

Corn Defoliation		Field#:21 Date: 8/17/82 (Julian: 229)						Time: Bare Soil)	
Depth		LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6 (Stage: 3)	Bare Soil)
0-2 cm	25 43	26 29	24 31	19 50	22 21	24 14			
2-5 cm	24 86	27 07	24 30	20 01	22 19	24 96			
0-5 cm	25 09	26 76	24 31	19 81	22 20	24 63			
Depth		LOC 7	LOC 8	LOC 9	LOC 10	LOC 11	LOC 12	Mean	S D. S.D /Mean
0-2 cm	26 58	23 53	23 30	25 14	22 78	23 67	23 91	1 93	0 81
2-5 cm	25 50	23 94	30 11	24 40	23 88	22 79	24 50	2 50	1 02
0-5 cm	25 93	23 77	27 39	24 70	23 44	23 14	24 26	2 27	0 93

Corn Defoliation		Field#:21 Date: 9/21/82 (Julian. 264)						Time: 11:30	
Depth		LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6 (Stage 1)	Full Canopy)
0-2 cm	22 02	29 20	22 72	20 73	16 74	21 38			
2-5 cm	24 32	23 62	21 68	23 58	18 08	20 85			
0-5 cm	23 40	25 85	22 10	22 44	17 54	21 06			
Depth		LOC 7	LOC 8	LOC 9	LOC 10	LOC 11	LOC 12	Mean	S.D. S D./Mean
0-2 cm	21 05	20 62	22 05	18 19	20 67	20 55	21 33	2 98	1 40
2-5 cm	21 45	22 71	23 08	19 35	20 31	21 89	21 74	1 87	0 86
0-5 cm	21 29	21 87	22 67	18 89	20 46	21 35	21 58	2 31	1 07

Corn Row - Soil Moisture Data

Corn Defoliation		Field#:21 Date: 9/21/82 (Julian: 264)						Time: 12:00	
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	(Stage: 2)	No Leaves	
0-2 cm	18.09	23.41	21.14	18.04	17.99	19.46			
2-5 cm	22.02	21.74	30.48	20.59	20.14	22.10			
0-5 cm	20.45	22.41	26.74	19.57	19.28	21.05			
Depth	LOC 7	LOC 8	LOC 9	LOC10	LOC11	LOC12	Mean	S.D	S.D./Mean
0-2 cm	22.10	18.65	18.15	18.16	15.84	13.72	18.73	2.61	1.40
2-5 cm	24.01	21.93	20.93	19.49	18.70	15.85	21.50	3.50	1.63
0-5 cm	23.25	20.62	19.82	18.96	17.56	15.00	20.39	3.14	1.53
Corn Defoliation		Field# 21 Date: 9/21/82 (Julian: 264)						Time: 15:45	
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	(Stage: 3)	No Cobs	
0-2 cm	18.72	19.85	18.88	19.99	16.16	20.58			
2-5 cm	22.60	19.26	19.73	20.52	20.21	19.22			
0-5 cm	21.05	19.49	19.39	20.30	18.59	19.76			
Depth	LOC 7	LOC 8	LOC 9	LOC10	LOC11	LOC12	Mean	S.D.	S.D./Mean
0-2 cm	20.29	17.98	16.78	19.86	16.71	13.87	18.31	2.05	1.12
2-5 cm	21.38	21.07	20.11	17.40	18.84	18.72	19.92	1.38	0.69
0-5 cm	20.94	19.83	18.78	18.38	17.99	16.78	19.27	1.65	0.87
Corn Defoliation		Field#:21 Date: 9/22/82 (Julian 265)						Time: 12:00	
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	(Stage. 4)	Bare Soil	
0-2 cm	19.01	19.99	19.10	16.73	18.49	20.31			
2-5 cm	23.18	21.19	21.09	18.36	20.53	20.69			
0-5 cm	21.51	20.71	20.29	17.71	19.72	20.54			
Depth	LOC 7	LOC 8	LOC 9	LOC10	LOC11	LOC12	Mean	S D	S D /Mean
0-2 cm	18.67	20.02	13.30	16.15	15.80	15.75	17.78	2.19	1.23
2-5 cm	20.56	21.65	17.90	20.87	18.34	17.64	20.17	1.72	0.85
0-5 cm	19.81	21.00	16.06	18.98	17.33	16.89	19.21	1.91	1.00

Corn Row Before		Field#:21 Date: 7/21/82 (Julian:202)						Time: 12:37	
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean
0-2 cm	22.85	19.02	21.52	22.59	23.58	23.38	22.16	1.70	0.77
2-5 cm	21.60	15.78	20.92	20.92	20.20	19.63	20.20	2.63	1.34
0-5 cm	21.31	14.60	19.14	20.56	11.83	16.50	17.32	3.69	2.13
Depth	LOC 7	LOC 8	LOC 9	LOC10	LOC11	LOC12	Mean	S D.	S.D./Mean
0-2 cm	13.88	14.93	19.37	26.49	15.19	15.32	17.53	4.78	2.73
2-5 cm	22.10	17.08	21.59	21.47	20.64	2.26	2.26	1.11	1.11
0-9 cm	21.75	15.98	21.13	19.26	19.17	2.89	2.89	1.56	1.56
0-15cm	18.60	15.56	23.28	17.68	18.51	3.65	3.65	2.03	2.03
Corn Row After		Field#:21 Date: 7/21/82 (Julian.202)						Time.	
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D.	S.D./Mean
0-2 cm	20.88	19.15	22.03	17.63	21.23	11.69	18.77	3.81	2.03
2-5 cm	19.97	22.52	17.48	23.56	19.50	20.61	20.61	2.44	1.18
0-5 cm	17.39	18.49	18.12	21.22	17.45	18.53	18.53	1.57	0.85
Depth	LOC 7	LOC 8	LOC 9	LOC10	LOC11	LOC12	Mean	S.D.	S.D./Mean
0-2 cm	15.54	15.66	17.44	20.89	18.84	18.68	18.68	1.78	1.16
2-5 cm	20.34	21.17	19.30	21.19	20.19	19.87	19.87	2.99	1.52
0-9 cm	19.03	19.98	18.77	21.21	18.97	19.28	19.28	2.36	1.22
0-15cm	17.63	18.25	18.24	21.08	18.92	18.70	18.70	2.24	1.20
Corn Row Day After		Field#:21 Date 7/22/82 (Julian 203)						Time.	
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S D	S.D./Mean
0-2 cm	11.94	18.82	18.97	13.81	10.92	14.89	14.89	3.80	2.55
2-5 cm	13.68	19.27	22.87	23.44	15.65	13.34	18.04	4.49	2.49
0-5 cm	13.61	19.16	18.90	23.09	15.90	13.90	17.43	3.65	2.09
Depth	LOC 7	LOC 8	LOC 9	LOC10	LOC11	LOC12	Mean	S D	S D /Mean
0-2 cm	13.74	18.16	18.00	22.21	15.20	13.62	16.82	3.30	1.96
2-5 cm	12.98	19.09	21.31	14.91	12.37	16.78	16.78	4.21	2.51
0-9 cm	13.26	19.12	20.24	15.35	13.05	17.07	17.07	3.96	2.33
0-15cm	13.46	18.74	19.34	15.29	13.28	16.97	16.97	3.70	2.18



Soybean Defoliation - Vegetation Data

Soybean Field # 6 Date: 7/22/82(Julian: 203)  
 Time: 10:45 Mean Canopy Height: 55.8 cm  
 Plant Parts. Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 80.77 86.00 85.53 84.77  
 Wet Biomass Density: 1.81 2.99 4.68 3.16  
 Dry Biomass Density: 0.35 0.42 0.68 0.48  
 Plant Water Density: 1.46 2.57 4.00 2.68

Soybean Field # 6 Date: 8/31/82(Julian: 243)  
 Time: 13:45 Mean Canopy Height: 89.5 cm  
 Plant Parts. Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 76.67 77.79 76.30 77.03  
 Wet Biomass Density: 4.38 6.76 4.75 5.30  
 Dry Biomass Density: 1.02 1.50 1.13 1.22  
 Plant Water Density: 3.36 5.26 3.62 4.08

Soybean Field # 6 Date: 10/5/82(Julian: 278)  
 Time: 10:45 Mean Canopy Height: 81.3 cm  
 Plant Parts. Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 8.91 10.15 15.89 11.49  
 Wet Biomass Density: 1.51 2.27 1.58 1.79  
 Dry Biomass Density: 1.38 2.04 1.33 1.58  
 Plant Water Density: 0.13 0.23 0.25 0.21

Soybean Defoliation - Soil Moisture Data

Soybean DEF (Before) Field# 6 Date: 7/22/82(Julian: 203) Time: 10:45  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 13.90 12.70 11.59 12.95 11.91 14.01 12.84 0.99 0.77  
 2-5 cm 11.93 10.42 12.83 12.62 11.95 1.09 0.91  
 0-5 cm 12.24 10.89 12.88 13.18 12.31 1.05 0.86

Soybean DEF (After) Field# 6 Date: 7/22/82(Julian: 203) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 8.54 7.39 9.20 11.39 11.80 8.86 9.53 1.72 1.80  
 2-5 cm 11.50 9.08 10.82 12.69 12.96 13.13 11.70 1.57 1.34  
 0-5 cm 10.31 8.40 10.17 12.17 12.50 11.42 10.83 1.63 1.53

Soybean Defoliation Field# 6 Date: 8/31/82 (Julian: 243) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 (Stage: 1 Full Canopy)  
 0-2 cm 20.23 17.76 19.71 17.85 20.62 17.86  
 2-5 cm 18.13 17.88 18.02 17.85 19.50 17.03  
 0-5 cm 18.97 17.84 18.70 17.85 19.95 17.36  
 Depth LOC 7 LOC 8 LOC 9 LOC10 LOC11 LOC12 Mean S.D. S.D./Mean  
 0-2 cm 17.60 14.80 18.78 19.71 20.32 21.34 18.88 1.81 0.96  
 2-5 cm 17.20 14.71 17.50 18.33 19.61 19.95 17.98 1.40 0.78  
 0-5 cm 17.36 14.75 18.02 18.88 19.89 20.51 18.34 1.56 0.85

Soybean Defoliation Field# 6 Date: 8/31/82 (Julian: 243) Time: 16:00  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 (Stage: 2 Bare Soil)  
 0-2 cm 16.60 19.16 19.34 18.84 17.69 17.05  
 2-5 cm 18.01 18.07 19.23 18.12 17.05 16.17  
 0-5 cm 17.44 18.51 19.27 18.41 17.31 16.52  
 Depth LOC 7 LOC 8 LOC 9 LOC10 LOC11 LOC12 Mean S.D. S.D./Mean  
 0-2 cm 13.43 17.44 16.69 18.39 20.63 27.46 18.56 3.34 1.80  
 2-5 cm 13.66 15.93 19.59 17.70 20.61 22.22 18.03 2.26 1.25  
 0-5 cm 13.57 16.54 18.43 17.97 20.62 24.32 18.24 2.69 1.47

Soybean Defoliation Field# 6 Date: 10/5/82 (Julian: 278) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 (Stage: 1 Full Canopy)  
 0-2 cm 2.62 5.61 5.31 7.97 3.58 4.95  
 2-5 cm 4.12 7.81 7.02 8.37 5.89 6.50  
 0-5 cm 3.52 6.93 6.34 8.21 4.97 5.88  
 Depth LOC 7 LOC 8 LOC 9 LOC10 LOC11 LOC12 Mean S.D. S.D./Mean  
 0-2 cm 5.89 7.37 5.88 4.09 7.42 4.65 5.45 1.61 2.96  
 2-5 cm 8.39 9.90 9.45 5.79 10.30 4.76 7.36 2.01 2.73  
 0-5 cm 7.39 8.88 8.02 5.11 9.15 4.72 6.59 1.85 2.82

Soybean Defoliation Field# 6 Date: 10/5/82 (Julian: 278) Time: 14:50  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 (Stage: 2 Bare Soil)  
 0-2 cm 6.16 5.53 6.49 5.72 7.55 4.74  
 2-5 cm 7.85 7.82 8.43 9.48 8.26 11.01  
 0-5 cm 7.17 6.90 7.66 7.98 7.98 8.50  
 Depth LOC 7 LOC 8 LOC 9 LOC10 LOC11 LOC12 Mean S.D. S.D./Mean  
 0-2 cm 5.79 5.57 7.96 3.56 7.38 6.04 1.28 2.12  
 2-5 cm 9.61 7.43 7.39 8.51 6.08 8.92 8.40 1.27 1.51  
 0-5 cm 8.08 6.69 8.29 5.07 8.30 7.46 1.27 1.76

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 69  
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Soybean Row - Vegetation Data

Soybean Field # 6 Date: 7/29/82(Julian: 210)  
 Time: 12:55 Mean Canopy Height: 68.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 72.94 78.40 77.38 76.61  
 Wet Biomass Density: 3.11 4.61 4.10 3.94  
 Dry Biomass Density: 0.84 1.00 0.93 0.92  
 Plant Water Density: 2.27 3.61 3.17 3.02  
 -----  
 Soybean Field # 6 Date: 8/19/82(Julian: 231)  
 Time: 11:50 Mean Canopy Height: 90.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 76.50 78.43 77.62 77.66  
 Wet Biomass Density: 3.07 4.77 3.38 3.74  
 Dry Biomass Density: 0.72 1.03 0.76 0.84  
 Plant Water Density: 2.35 3.74 2.62 2.90  
 -----  
 Soybean Field # 6 Date: 9/30/82(Julian: 273)  
 Time: Mean Canopy Height: 83.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 15.53 25.16 36.46 26.08  
 Wet Biomass Density: 0.96 1.70 1.13 1.27  
 Dry Biomass Density: 0.81 1.27 0.72 0.94  
 Plant Water Density: 0.15 0.43 0.41 0.33  
 -----

Soybean Row - Soil Moisture Data

Soybean Row Before Field#: 6 Date: 7/29/82(Julian:210) Time: 13:00  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 5.27 4.58 9.31 7.49 6.88 5.39 6.49 1.76 2.71  
 2-5 cm 6.40 7.08 9.20 8.79 7.91 7.40 7.80 1.06 1.35  
 5-9 cm 7.62 7.58 8.48 8.85 9.70 10.71 8.83 1.22 1.38  
 9-15cm 7.52 7.31 4.62 9.84 8.84 8.52 7.77 1.80 2.31  
 0-5 cm 5.95 6.08 9.24 8.27 7.50 6.60 7.27 1.34 1.90  
 0-9 cm 6.69 6.75 8.90 8.53 8.48 8.43 7.96 1.29 1.67  
 0-15cm 7.02 6.97 7.19 9.06 8.62 8.46 7.89 1.49 1.93  
 -----  
 Soybean Row After Field#: 6 Date: 7/29/82(Julian:210) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 2.28 1.46 5.48 7.79 9.69 9.78 6.08 3.63 5.97  
 2-5 cm 6.63 6.18 8.88 10.00 9.29 11.10 8.68 1.92 2.21  
 5-9 cm 6.96 7.48 11.36 8.82 7.80 8.32 8.46 1.56 1.85  
 9-15cm 7.01 6.53 11.24 8.25 7.44 7.87 8.06 1.67 2.08  
 0-5 cm 4.89 4.29 7.52 9.12 9.45 10.57 7.64 2.60 3.71  
 0-9 cm 5.81 5.71 9.23 8.99 8.72 9.57 8.00 2.14 2.89  
 0-15cm 6.29 6.04 10.03 8.69 8.20 8.89 8.02 1.95 2.56  
 -----  
 Soybean Row After Field#: 6 Date: 7/29/82(Julian:210) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 2.89 3.60 4.05 1.29 1.57 2.68 1.22 4.54  
 2-5 cm 5.60 6.75 7.60 4.36 6.09 6.08 1.22 2.00  
 5-9 cm 7.29 7.23 9.01 8.78 8.45 9.53 8.38 0.94 1.12  
 9-15cm 6.89 7.24 9.40 7.99 8.97 10.12 8.44 1.27 1.50  
 0-5 cm 4.52 5.49 6.18 3.13 4.28 4.72 1.22 3.02  
 0-9 cm 5.75 6.26 7.44 5.50 6.62 6.35 1.09 2.17  
 0-15cm 6.21 6.65 8.22 6.89 8.02 7.18 1.16 1.91  
 -----  
 Soybean Row With Canopy Field#: 6 Date: 8/19/82(Julian:231) Time: 11:50  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 10.55 10.44 13.72 11.63 12.80 13.18 12.05 1.39 1.15  
 2-5 cm 11.39 14.59 11.55 13.04 11.87 12.49 1.34 1.07  
 5-9 cm 13.93 13.09 13.52 11.52 11.41 13.08 12.76 1.05 0.82  
 9-15cm 13.06 12.31 14.56 12.04 11.77 12.18 12.66 1.03 0.81  
 0-5 cm 11.01 14.24 11.58 12.94 12.39 12.31 1.36 1.10  
 0-9 cm 11.93 13.92 11.56 12.26 12.70 12.51 1.22 0.98  
 0-15cm 12.08 14.18 11.75 12.07 12.49 12.57 1.15 0.91

Soybean Row Bare Soil		Field#: 6 Date: 8/19/82(Julian:231) Time: 12:45								
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm		5.65	6.30	5.09	5.53	3.58	5.23	1.02	1.95	
2-5 cm	10.99	11.28	12.09	11.70	12.36	9.62	11.34	0.98	0.86	
5-9 cm	12.46	12.57	11.56	14.56	6.64	12.38	11.69	2.67	2.28	
9-15cm	12.80	13.90	13.25	16.10	14.52	12.57	13.86	1.31	0.95	
0-5 cm		9.03	9.77	9.06	9.63	7.20	8.90	1.00	1.30	
0-9 cm		10.61	10.57	11.50	8.30	9.50	10.14	1.74	1.74	
0-15cm		11.92	11.64	13.34	10.79	10.73	11.63	1.57	1.42	

Soybean Row Before		Field#: 6 Date: 9/30/82(Julian:273) Time:								
Depth	LOC 1	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	3.04	5.01	4.53	3.10	3.81	4.73	4.04	0.85	2.10	
2-5 cm	4.56	8.96	8.05	6.67	6.48		6.94	1.68	2.42	
5-9 cm	7.94	10.69	9.48	9.27	8.84	10.98	9.53	1.14	1.20	
9-15cm	9.04	10.89	9.74	10.24	9.59	11.06	10.09	0.78	0.78	
0-5 cm	3.95	7.38	6.64	5.24	5.41		5.78	1.34	2.29	
0-9 cm	5.72	8.85	7.90	7.03	6.94		7.45	1.26	1.80	
0-15cm	7.05	9.67	8.64	8.31	8.00		8.51	1.07	1.39	

Soybean Screen - Vegetation Data

Soybean Field #21 Date: 6/23/82(Julian. 174)  
 Time: 15:15 Mean Canopy Height: 16.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant

% Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

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 Soybean Field #21 Date: 6/28/82(Julian. 179)  
 Time: 14:00 Mean Canopy Height: 19.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture 77.67  
 Wet Biomass Density 0.97  
 Dry Biomass Density 0.22  
 Plant Water Density 0.76  
 -----

Soybean Field #21 Date: 6/30/82(Julian. 181)  
 Time: Mean Canopy Height: 25.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

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 Soybean Field #21 Date: 7/ 6/82(Julian: 187)  
 Time: 10:50 Mean Canopy Height: 28.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 85.91  
 Wet Biomass Density: 1.97  
 Dry Biomass Density: 0.28  
 Plant Water Density: 1.70  
 -----

Soybean Field #21 Date: 7/ 7/82(Julian. 188)  
 Time: 14:25 Mean Canopy Height: 33.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

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 Soybean Field #21 Date: 7/12/82(Julian. 193)  
 Time: 09:40 Mean Canopy Height: 38.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture 84.98  
 Wet Biomass Density 2.73  
 Dry Biomass Density 0.41  
 Plant Water Density 2.32  
 -----

Soybean Field #21 Date: 6/16/82(Julian. 167)  
 Time: 10:45 Mean Canopy Height: 11.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant

% Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

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 Soybean Field #21 Date: 6/18/82(Julian: 169)  
 Time: 13:30 Mean Canopy Height: 13.0 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

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 Soybean Field #21 Date: 6/21/82(Julian 172)  
 Time: 10:25 Mean Canopy Height: 14.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field #21 Date: 7/13/82(Julian: 194)  
 Time: 14:25 Mean Canopy Height: 46.7 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 80.29  
 Wet Biomass Density: 1.79  
 Dry Biomass Density: 0.35  
 Plant Water Density: 1.44

Soybean Field #21 Date: 7/22/82(Julian: 203)  
 Time: Mean Canopy Height: 66.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 81.20 84.96 80.14 82.53  
 Wet Biomass Density: 2.42 3.73 2.42 2.86  
 Dry Biomass Density: 0.45 0.56 0.48 0.50  
 Plant Water Density: 1.96 3.17 1.94 2.36

Soybean Field #21 Date: 8/4/82(Julian: 216)  
 Time: 13:42 Mean Canopy Height: 85.2 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 75.32 79.15 77.24 77.52  
 Wet Biomass Density: 2.30 3.82 4.31 3.48  
 Dry Biomass Density: 0.57 0.80 0.98 0.78  
 Plant Water Density: 1.73 3.02 3.33 2.70

Soybean Field #21 Date: 8/6/82(Julian: 218)  
 Time: 11:30 Mean Canopy Height: 87.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 77.63 80.62 77.65 78.79  
 Wet Biomass Density: 2.37 3.23 2.76 2.79  
 Dry Biomass Density: 0.53 0.63 0.62 0.59  
 Plant Water Density: 1.84 2.60 2.15 2.20

Soybean Field #21 Date: 8/13/82(Julian: 225)  
 Time: 14:35 Mean Canopy Height: 100.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field #21 Date: 8/16/82(Julian: 228)  
 Time: 16:15 Mean Canopy Height: 99.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 76.53 79.34 78.50 78.46  
 Wet Biomass Density: 2.48 5.07 6.26 4.60  
 Dry Biomass Density: 0.58 1.05 1.34 0.99  
 Plant Water Density: 1.90 4.02 4.91 3.61

Soybean Field #21 Date: 8/21/82(Julian: 233)  
 Time: 11:20 Mean Canopy Height: 102.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 72.65 76.29 75.46 75.24  
 Wet Biomass Density: 2.65 5.50 4.64 4.26  
 Dry Biomass Density: 0.72 1.31 1.14 1.06  
 Plant Water Density: 1.92 4.20 3.50 3.21

Soybean Field #21 Date: 9/10/82(Julian: 253)  
 Time: 09:50 Mean Canopy Height: 98.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density: 1.82 3.32 3.15 2.77  
 Dry Biomass Density:  
 Plant Water Density:

Soybean Field #21 Date: 9/13/82(Julian: 256)  
 Time: 14:30 Mean Canopy Height: 94.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 60.44 68.56 67.33 66.70  
 Wet Biomass Density: 1.16 2.88 2.96 2.33  
 Dry Biomass Density: 0.46 0.91 0.97 0.78  
 Plant Water Density: 0.70 1.98 1.99 1.56

Soybean Field #21 Date: 9/17/82(Julian: 260)  
 Time: 14:15 Mean Canopy Height: 95.5 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture:  
 Wet Biomass Density:  
 Dry Biomass Density: 0.45 0.85 0.74 0.68  
 Plant Water Density:

Soybean Field #21 Date: 9/23/82(Julian: 266)  
 Time: 14:45 Mean Canopy Height: 95.6 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 25.07 21.71 38.98 27.04  
 Wet Biomass Density: 1.32 2.56 1.36 1.74  
 Dry Biomass Density: 0.99 2.00 0.83 1.27  
 Plant Water Density: 0.33 0.56 0.53 0.47

Soybean Field #21 Date: 9/28/82(Julian: 271)  
 Time: 09:50 Mean Canopy Height: 95.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 7.93 10.54 15.65 12.02  
 Wet Biomass Density: 0.97 1.56 1.72 1.42  
 Dry Biomass Density: 0.89 1.40 1.45 1.25  
 Plant Water Density: 0.08 0.16 0.27 0.17

Soybean Screen - Soil Moisture Data

Soybean Field#:		Date:		7/6/82 (Julian: 187)						Time: 10:50	
Depth	LOC	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	3.97	3.14	2.75	3.86	4.27	8.09	4.35	1.92	4.41		
2-5 cm	9.24	7.13	4.44	5.64	12.03	11.27	8.29	3.06	3.69		
0-5 cm	7.13	5.53	3.77	4.93	8.93	9.99	6.71	2.60	3.98		

Soybean Field#:		Date:		7/7/82 (Julian: 188)						Time: 14:25	
Depth	LOC	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	2.33	7.28	2.74	3.21	3.87	3.50	3.82	1.78	4.65		
2-5 cm	9.01	15.17	8.45	8.85	7.32	8.53	9.56	2.81	2.95		
0-5 cm	6.34	12.01	6.16	6.59	5.94	6.52	7.26	2.40	3.63		

Soybean Field#:		Date:		7/12/82 (Julian: 193)						Time: 14:25	
Depth	LOC	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	12.85	99.99	13.16	15.70	99.99	15.26	14.24	1.44	1.01		
2-5 cm	15.41	16.22	18.20	16.95	19.25	18.58	17.43	1.48	0.85		
0-5 cm	14.38	99.99	16.18	16.45	99.99	17.25	16.16	1.47	0.92		

Soybean Field#:		Date:		7/13/82 (Julian: 194)						Time: 14:25	
Depth	LOC	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	25.95	21.38	25.30	27.20	24.76	25.31	24.98	1.96	0.78		
2-5 cm	22.52	21.93	25.32	26.87	22.39	23.95	23.83	1.94	0.82		
0-5 cm	23.89	21.71	25.31	27.00	23.34	24.49	24.29	1.95	0.80		

Soybean Field#:		Date:		7/22/82 (Julian: 203)						Time: 09:19	
Depth	LOC	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	13.50	11.39	13.69	17.09	13.05	13.79	13.75	1.86	1.35		
2-5 cm	13.88	12.47	13.89	17.05	99.99	15.23	14.50	1.73	1.19		
0-5 cm	13.72	12.04	13.81	17.06	99.99	14.65	14.20	1.78	1.25		

Soybean Field#:		Date:		8/3/82 (Julian: 215)						Time: 13:47	
Depth	LOC	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	2.41	2.93	3.16	2.32	3.19	2.91	2.82	0.37	1.32		
2-5 cm	5.31	4.64	5.43	99.99	4.51	4.68	4.92	0.42	0.86		
0-5 cm	4.15	3.95	4.52	99.99	3.99	3.97	4.08	0.40	1.04		

Soybean Field#:		Date:		8/6/82 (Julian: 218)						Time: 11:30	
Depth	LOC	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	23.52	21.00	21.35	22.36	23.01	22.79	22.34	0.98	0.44		
2-5 cm	19.10	19.58	20.70	19.56	22.94	21.31	20.53	1.44	0.70		
0-5 cm	20.86	20.15	20.96	20.68	22.97	21.90	21.25	1.26	0.60		

Soybean Field#:		Date:		8/21/82 (Julian: 233)						Time: 11:20	
Depth	LOC	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	14.07	12.43	13.23	14.19	12.31	13.45	13.28	0.79	0.60		
2-5 cm	14.62	14.23	14.30	15.26	12.17	13.18	13.96	1.11	0.79		
0-5 cm	14.40	13.51	13.87	14.83	12.23	13.29	13.69	0.98	0.71		

Soybean Field#:		Date:		6/16/82 (Julian: 167)						Time: 10:45	
Depth	LOC	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	21.56	21.86	22.20	26.47	23.05	23.02	23.03	1.79	0.78		
2-5 cm	21.58	22.87	17.32	25.21	23.16	24.73	22.48	2.85	1.27		
0-5 cm	21.57	22.46	19.28	25.71	23.11	24.05	22.70	2.42	1.07		

Soybean Field#:		Date:		6/18/82 (Julian: 169)						Time: 13:30	
Depth	LOC	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	17.45	18.51	17.10	18.53	18.58	13.79	17.33	1.84	1.06		
2-5 cm	20.19	20.87	20.57	21.80	21.54	21.77	21.12	0.68	0.32		
0-5 cm	19.10	19.93	19.18	20.49	20.36	18.58	19.60	1.14	0.62		

Soybean Field#:		Date:		6/21/82 (Julian: 172)						Time: 10:25	
Depth	LOC	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	15.89	11.72	16.65	14.44	19.31	10.03	14.67	3.38	2.31		
2-5 cm	19.14	19.14	15.62	16.46	22.26	29.37	20.33	5.01	2.46		
0-5 cm	17.84	16.17	16.03	15.65	21.08	21.63	18.07	4.36	2.40		

Soybean Field#:		Date:		6/23/82 (Julian: 174)						Time: 13:09	
Depth	LOC	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	26.54	24.06	25.32	23.96	25.85	31.13	26.14	2.64	1.01		
2-5 cm	25.13	24.27	22.96	27.76	25.78	29.19	25.85	2.29	0.89		
0-5 cm	25.70	24.19	23.90	26.24	25.81	29.97	25.97	2.43	0.93		

Soybean Field#:		Date:		6/25/82 (Julian: 176)						Time: 13:09	
Depth	LOC	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	10.95	4.93	11.02	11.38	11.80	9.53	9.94	2.57	2.59		
2-5 cm	17.09	13.16	15.83	15.07	17.65	18.49	16.22	1.94	1.20		
0-5 cm	14.64	9.87	13.91	13.59	15.31	14.91	13.70	2.19	1.75		

Soybean Field#:		Date:		6/28/82 (Julian: 179)						Time: 14:10	
Depth	LOC	LOC 2	LOC 3	LOC 4	LOC 5	LOC 6	LOC 6	Mean	S.D.	S.D./Mean	
0-2 cm	15.33	17.20	18.27	19.54	17.13	20.25	17.95	1.79	1.00		
2-5 cm	19.37	18.65	19.47	21.17	19.95	21.93	20.09	1.23	0.61		
0-5 cm	17.75	18.07	18.99	20.52	18.82	21.26	19.24	1.45	0.77		

Alfalfa - Vegetation Data

Alfalfa Field Date: 9/16/82(Julian: 259)  
 Time: 15:10 Mean Canopy Height: 29.3 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 83.52  
 Wet Biomass Density: 16.35  
 Dry Biomass Density: 2.69  
 Plant Water Density: 13.65  
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Alfalfa Field Date: 10/07/82(Julian: 280)  
 Time: 11:40 Mean Canopy Height: 9.8 cm  
 Plant Parts: Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture: 66.22  
 Wet Biomass Density: 14.14  
 Dry Biomass Density: 4.78  
 Plant Water Density: 9.37  
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Alfalfa - Soil Moisture Data

Alfalfa Field# 21 Date: 9/16/82(Julian: 259) Time: 15.10  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 16.65 18.23 20.74 22.18 19.72 18.92 19.41 1.94 1.00  
 2-5 cm 18.97 20.55 21.35 21.54 20.44 19.79 20.44 0.96 0.47  
 0-5 cm 18.04 19.62 21.11 21.80 20.15 19.45 20.03 1.35 0.68

Alfalfa Field# 21 Date: 10/7/82(Julian: 280) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 7.20 8.99 7.66 8.08 7.82 6.95 7.78 0.72 0.93  
 2-5 cm 12.60 11.95 13.46 12.89 15.10 13.00 13.16 1.07 0.81  
 0-5 cm 10.44 10.76 11.14 10.97 12.18 10.58 11.01 0.93 0.86

Soybean Field# 21 Date: 9/10/82 (Julian: 253) Time: 09:50  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 13.87 9.68 15.24 15.01 11.70 10.07 12.59 2.45 1.95  
 2-5 cm 14.32 8.84 15.81 14.35 11.68 12.82 12.97 2.47 1.90  
 0-5 cm 14.14 9.18 15.58 14.61 11.69 11.72 12.82 2.46 1.92

Soybean Field# 21 Date: 9/13/82 (Julian: 256) Time: 14:30  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 14.49 16.65 15.33 17.33 15.72 15.76 15.88 1.00 0.63  
 2-5 cm 14.37 13.88 13.88 16.98 14.92 16.10 15.02 1.27 0.85  
 0-5 cm 14.41 14.99 14.46 17.12 15.24 15.96 15.37 1.16 0.76

Soybean Field# 21 Date: 9/17/82 (Julian: 260) Time: 15:15  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 15.88 16.83 17.78 11.74 16.28 18.38 16.15 2.35 1.46  
 2-5 cm 15.27 16.33 17.22 14.71 16.68 16.12 16.05 0.92 0.57  
 0-5 cm 15.51 16.53 17.44 13.52 16.52 17.02 16.09 1.49 0.93

Soybean Field# 21 Date: 9/23/82 (Julian: 266) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 5.83 99.99 11.32 11.84 9.73 9.38 9.62 2.36 2.45  
 2-5 cm 9.44 13.21 13.18 13.57 99.99 13.73 12.63 1.79 1.42  
 0-5 cm 8.00 99.99 12.44 12.88 99.99 11.99 11.42 2.02 1.83

Soybean Field# 21 Date: 9/28/82 (Julian: 271) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 7.60 7.71 7.72 6.41 4.12 6.63 6.70 1.39 2.07  
 2-5 cm 10.72 13.80 13.39 19.69 16.91 12.92 14.57 3.20 2.20  
 0-5 cm 9.47 11.36 11.12 14.38 11.79 10.40 11.42 2.47 2.15

Soybean Field# 21 Date: 9/30/82 (Julian: 273) Time:  
 Depth LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 0-2 cm 4.47 6.84 4.84 6.92 6.15 7.01 6.04 1.12 1.86  
 2-5 cm 9.02 11.36 10.93 12.36 12.23 13.63 11.59 1.57 1.35  
 0-5 cm 7.20 9.55 8.49 10.19 9.80 10.98 9.37 1.39 1.55

22

Weed Defoliation - Vegetation Data

Weed Defoliation (S2) Date: 10/21/82 (Julian: 280)  
 Time: 11:40 Mean Canopy Height: 88.8 cm  
 Plant Parts. Top1/3 Mid1/3 Low1/3 Whole Plant  
 % Plant Moisture. 61.22  
 Wet Biomass Density: 0.35  
 Dry Biomass Density: 0.14  
 Plant Water Density: 0.22  
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Weed Defoliation - Soil Moisture Data

(Before) Field#:S2 Date:10/21/82(Julian:294) Time:  
 Weed DEF LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D S D./Mean  
 Depth 0-2 cm 12.45 14.84 15.67 8.62 12.90 3.16 2.45  
 2-5 cm 14.96 17.23 16.37 13.65 15.55 1.58 1.01  
 0-5 cm 13.96 16.27 16.09 11.64 14.49 2.21 1.59

Bare Soil Moisture Data

Field#:21 Date: 7/15/82(Julian:196) Time: 10:30  
 Bare Soil LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 Depth 0-2 cm 23.06 20.75 21.75 20.01 16.68 18.81 20.18 2.25 1.11  
 2-5 cm 23.17 20.94 21.96 17.30 18.94 20.28 20.43 2.11 1.03  
 0-5 cm 23.13 20.86 21.88 18.38 18.03 19.70 20.33 2.16 1.06

Field#:21 Date: 7/23/82(Julian 204) Time: 11 05  
 Bare Soil LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D S.D./Mean  
 Depth 0-2 cm 6.13 5.22 6.09 6.20 6.29 5.99 0.44 0.73  
 2-5 cm 12.95 14.17 15.33 14.48 15.54 13.64 14.35 0.99 0.69  
 0-5 cm 10.22 11.28 11.13 11.80 10.70 11.00 0.77 0.70

Field#:21 Date: 7/30/82(Julian.211) Time: 10:40  
 Bare Soil LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 Depth 0-2 cm 2.60 2.76 2.00 2.91 2.64 2.76 2.61 0.32 1.23  
 2-5 cm 5.45 4.01 4.57 7.57 5.17 6.83 5.60 1.35 2.42  
 0-5 cm 4.31 3.51 3.54 5.71 4.16 5.20 4.41 0.94 1.94

Field#:21 Date: 8/ 6/82(Julian:218) Time: 10:45  
 Bare Soil LOC 1 LOC 2 LOC 3 LOC 4 LOC 5 LOC 6 Mean S.D. S.D./Mean  
 Depth 0-2 cm 21.78 19.99 21.99 22.42 21.23 26.90 22.39 2.36 1.06  
 2-5 cm 21.45 19.89 20.45 21.19 20.06 22.90 20.99 1.12 0.53  
 0-5 cm 21.58 19.93 21.07 21.68 20.53 24.50 21.55 1.62 0.74