

1978

The Uniform Soybean Tests: Northern States 1978

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THE UNIFORM SOYBEAN TESTS

NORTHERN STATES

1978

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TABLE OF CONTENTS

| | |
|--|-----|
| Introduction ----- | 2 |
| Uniform Test Participants-1978 ----- | 3 |
| Strain Designation ----- | 6 |
| Methods-1978 ----- | 7 |
| Disease ----- | 10 |
| Policy on Testing and Release of Strains ----- | 12 |
| Uniform Test Locations-1978 ----- | 15 |
| Uniform Test 00 ----- | 17 |
| Uniform Test 0 ----- | 23 |
| Uniform Test I ----- | 28 |
| Preliminary Test I ----- | 40 |
| Uniform Test II ----- | 60 |
| Preliminary Test II ----- | 90 |
| Uniform Test III ----- | 110 |
| Preliminary Test III ----- | 140 |
| Uniform Test IV ----- | 160 |
| Preliminary Test IV ----- | 176 |
| Origin and Development of Wells II Soybean ----- | 195 |

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The cooperation of Dr. Robert Kleiman and Thomas D. Simpson, Horticultural Crops Laboratory, Northern Regional Research Center, Peoria, Illinois, in their analyses of Uniform Test samples for protein and oil content of the seeds is gratefully acknowledged. The assistance of Gary Nowling, Michael Roach and Patrick Williams in packeting and distributing seed for the Uniform Tests is sincerely appreciated.

INTRODUCTION

The purpose of the Uniform Soybean Tests is to critically evaluate the best of the experimental soybean lines developed by federal and state research personnel in the U.S. and Canada, for their potential as new varieties.

A test is established for each of ten maturity groups. Uniform Test 00 includes maturity Group 00 strains for the northern fringe of the present area of soybean production. Uniform Tests 0 through IV include later strains adapted to locations progressively farther south in the North Central States and areas of similar latitude. Each year new selections are added and others that have been sufficiently tested are dropped. The summary of performance of strains in Uniform Tests 00 through IV in the northern states is included in this report. The report on Uniform Tests IVS through VIII in the southern states is issued separately.

Data from the Uniform Tests form the basis for decisions on the regional release of soybean varieties. Preliminary Tests are grown at a limited number of locations throughout the region to screen the experimental strains for maturity and general agronomic performance for one year before they are entered in the Uniform Tests.

Experimental lines entered in the uniform tests should be labelled "Experimental Line" and not identified by code numbers when grown in demonstration plots or when the uniform tests are shown on field days or farm tours.

Seed of experimental lines entered in the uniform tests should not be sent to non participants. Requests for seed of unreleased lines or experimental strains should be referred to the breeder or agency originating the strain listed on page 6.

The Uniform Test Report is a progress report containing statements which may or may not be verified by subsequent experiments. Statements or data in the report, therefore, should not be published unless permission has been obtained previously by those concerned.

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STRAIN DESIGNATION

Experimental (i.e., unreleased) strains are identified by a number with a code letter prefix. The code letters have been agreed upon in meetings of experiment station agronomists cooperating with the U.S. Department of Agriculture.

| | |
|-----|--|
| A | Iowa A.E.S. |
| Ar | Arizona A.E.S. |
| Au | Alabama A.E.S. |
| B | California |
| C | Purdue (Indiana) A.E.S. |
| CM | Canada Dept. of Agriculture, Morden, Manitoba |
| D | Mississippi A.E.S. |
| E | Michigan A.E.S. |
| F | Florida A.E.S. |
| FC | Forage and Range Research Branch, U.S.D.A. |
| Ga | Georgia A.E.S. |
| H | Ohio A.R.D.C. |
| K | Kansas A.E.S. |
| L | Illinois A.E.S. |
| La | Louisiana A.E.S. |
| M | Minnesota A.E.S. |
| Md | Maryland A.E.S. |
| Me | Maine A.E.S. |
| N | North Carolina A.E.S. |
| ND | North Dakota A.E.S. |
| O | Central Experiment Farm, Ottawa, Ontario |
| O | Research Station, Harrow, Ontario |
| OAC | University of Guelph, Guelph, Ontario |
| Ok | Oklahoma A.E.S. |
| PI | Plant Introduction, Germplasm Resources Laboratory, Beltsville, Md. |
| R | Arkansas A.E.S. |
| S | Missouri A.E.S. |
| SC | South Carolina A.E.S. |
| SD | South Dakota A.E.S. |
| SL | Two or more states cooperatively |
| Ts | Texas A.E.S. |
| T | Soybean Genetic Type Collection, U.S.R.L. |
| U | Nebraska A.E.S. |
| UD | Delaware A.E.S. |
| UM | University of Manitoba, Winnipeg, Manitoba |
| UT | Tennessee A.E.S. |
| V | Virginia A.E.S. |
| W | Wisconsin A.E.S. |

METHODS - 1978

Uniform Tests are planted in multiple row plots with three or four replications and the center rows are harvested. Preliminary Test are multiple row plots (the center rows harvested) with two replications. Usually 15 to 20 feet of row are planted and 12 to 16 feet harvested, to eliminate end-of-row effects. At the Soybean Workers Conference in Memphis, Tennessee on February 24 and 25, 1976, the Northern breeders discussed and made the following recommendation: Only data from bordered row plots will be included in the regional means. Yield means will not be included in regional means if they do not have a CV value. We will use discretion when including values that have a high CV. If the CV value is high (greater than 15), we hope you will include the reason, such as disease or environmental conditions. Lines will be allowed to be heterogeneous the first year in the Uniform tests but must be a pure line the second year of testing. It is up to the breeder to clean up his heterogeneous line. If the breeder plans on purifying the line let us know so we can star the line so when you breeders vote on the line for further testing you know it will be purified.

Generation Compositid is the generation after the final single-plant selection in which the line is composited.

Previous Testing. The number of pervious years in the same Uniform Test is given, or, in the case of new entries, a reference to last year's test abbreviated UT 0 for Uniform Test 0, PT III for Preliminary Test III, etc.

Yield is measured after the seeds have been dried to a uniform moisture content and is recorded in bushels (60 pounds) per acre. (To convert to kilograms per acre (or quintals per hectare) multiply by .6725; 1 kg/acre=1.487 bu/acre.)

Maturity is the date when 95% of the pods have ripened. Delayed leaf drop and green stems are not considered in assigning maturity. Maturity is expressed as days earlier (-) or later (+) than the average date of the reference variety. To aid in maturity group classification, one earlier and one later "tie" variety are given on the maturity table for each test. Current reference and tie varieties and the maturity group limits relative to the reference varieties are:

| <u>Group</u> | <u>Reference</u> | <u>Range</u> | <u>Early Tie</u> | <u>Late Tie</u> |
|--------------|------------------|--------------|------------------|-----------------|
| 00 | Portage | -2 to +6 | | Clay (0) |
| 0 | Evans | -5 to +3 | Altona (00) | Hodgson (I) |
| I | Hodgson 78 | -3 to +5 | Evans (0) | Corsoy (II) |
| II | Corsoy | -3 to +5 | Coles (I) | Woodworth (III) |
| III | Woodworth | -4 to +4 | Beeson (II) | Union (IV) |
| IV | Union | -3 to +8 | Williams (III) | Essex (V) |

These maturity group ranges are based on long-time means over many locations. When using data from other environments, the interval between reference varieties may vary, and the division between maturity groups should be estimated in proportion to the above figures.

Lodging is rated at maturity according to the following scores:

- 1 Almost all plants erect
- 2 All plants leaning slightly or a few plants down
- 3 All plants leaning moderately (45°), or 25% to 50% of the plants down
- 4 All plants leaning considerably, or 50% to 80% of the plants down
- 5 Almost all plants down

Height is the average length in inches of plants from the ground to the tip of the main stem at the time of maturity. (To convert to centimeters, multiply by 2.54.)

Seed Quality is rated according to the following scores considering the amount and degree of wrinkling, defective seed coat (growth cracks), greenishness, and moldy or rotten seeds. (Threshing or handling damage is not considered, nor is mottling or other pigment.)

- 1 Very Good 2 Good 3 Fair 4 Poor 5 Very Poor

Seed Size (i.e. weight per seed) in grams per 100 based on a 100 or 200 seed sample. (To convert to seeds per pound divide this into 45,359.2).

Seed Composition is measured on sample submitted to the Laboratory. A 60 to 70-gram sample of clean seeds is prepared by taking an equal volume or weight of seeds from each replication. Protein and oil percentages are measured using Infrared reflectance.

Descriptive Code: 1 2 3 4 5 6, abbreviated as underlined below:

- 1 = Flower Color: Purple, White
 2 = Pubescence Color: Tawny, Gray, Light tawny
 = Pod Color: Brown, Tan
 4 = Seed Coat Luster: Dull, Shiny, Intermediate
 5 = Seed Coat Color: Yellow, Gray, Light gray, Green
 6 = Hilum Color: Black, Imperfect black, Brown, Buff, Gray,
Tan, Yellow; prefixes indicate Light or Dark
 shades, e.g., Lbf = light buff, Dib = dark
 imperfect black.

Shattering is scored at a specified time after maturity and is based on estimates of the percent of open pods as follows:

- 1 No shattering
- 2 1% to 10% shattered
- 3 10% to 25% shattered
- 4 25% to 50% shattered
- 5 Over 50% shattered

Iron Chlorosis is rated from 1, no chlorosis, to 5, severe chlorosis.

Emergence Score is related to Hypocotyl elongation and was measured at Ames, Iowa by germination at 25° c. (a critical temperature for differentiating strains). Four replications of 25 seeds/entry are planted in a 5-inch plastic pot, at a 4 1/2 - inch depth in sand. Only the seedlings which have emerged by 12 days after planting are counted. Emergence score in relation to % of seeds which germinate and emerge are as follows:

- 1 > 85%
- 2 = 70 - 84%
- 3 = 45 - 69%
- 4 = 20 - 44%
- 5 = 0 - 19%

DISEASE

Disease reactions are listed according to "Soybean Disease Survey Standards", March 1960, unless otherwise specified. Disease reaction is scored from 1 (no disease) to 5 (very severe), or in some cases as percent infected or simply as + (present) or 0 (absent). Purple seed stain and seed mottling follow the disease severity class rating:

| Disease severity class rating | 1 | 2 | 3 | 4 | 5 |
|-----------------------------------|---|------|------|-------|---------|
| Number of diseased seed in sample | 0 | 1-3% | 4-8% | 4-19% | 20-100% |

An additional classification to describe the extent of seedcoat mottling as M (mild), E (extensive), or S (severe), if included, Pod and stem blight is rated as percent of infected seed on a four-week delayed harvest sample. The location where the test was made is identified in the column heading, and the letter "a" or "n" signifies artificial or natural infection. Clearcut and consistent reactions are given by letter instead of number: R = resistant, S = susceptible, I = intermediate, and H = heterogeneous. Natural infection ratings are from agronomic tests in some instances and from special disease planting in others. Absence of symptoms under natural infection does not necessarily mean high resistance.

| Abbreviation | Disease | Pathogen |
|-----------------------------------|----------------------|---|
| BB | Bacterial blight | <u>Pseudomonas glycines</u> |
| BBV | Bud blight | T obacco ringspot virus |
| BP | Bacterial pustule | <u>Xanthomonas phaseoli</u> var. <u>sojensis</u> |
| BS | Brown spot | <u>Septoria glycines</u> |
| BSR | Brown stem rot | <u>Cephalosporium gregatum</u> |
| CN | Cyst nematode | <u>Heterodera glycines</u> |
| CR | Charcoal rot | <u>Macrophomi-a phaseoli</u> |
| DM | Downy mildew | <u>Peronospora manshurica</u> |
| FE ₁ , FE ₂ | Frogeye race 1, 2 | <u>Cercospora sojina</u> |
| PM | Powdery mildew | <u>Microsphaera diffusa</u> |
| PR | Phytophthora rot | <u>Phytophthora sojae</u> |
| PS | Purple stain | <u>Cercospora kikuchii</u> |
| PSB | Pod & stem blight | <u>Diaporthe phaseolorum</u> var. <u>sojae</u> |
| Pyd | Pythium root rot | <u>Pythium debaryanum</u> |
| Pyu | Pythium root rot | <u>Pythium ultimum</u> |
| RK | Root knot nematode | <u>Meloidogyne spp.</u> |
| RP | Rhizoctonia root rot | <u>Rhizoctonia solani</u> |
| SB | Sclerotial blight | <u>Sclerotium rolfsii</u> |
| SC | Stem canker | <u>Disporthe phaseolorum</u> var. <u>caulivora</u> |
| SMV | Soybean mosaic | <u>Soja varus 1</u> |
| TS | Target spot | <u>Corynespora cassilicola</u> |
| WF | Wildfire | <u>Pseudomonas tabaci</u> |
| YMV | Yellow mosaic | <u>Phaseolus virus 2</u> |

Ratings for BB, BP, DM, FE₂, and PM were based on leaf symptoms; those for BSR on percent of plants with stem browning, or percent of stem length browned, and those for PR on seedling rotting and/or stunting. Tolerance ratings with PR races 1 and 3 present are: 1=none-trace dead plants; 2=up to 2% dead plants, no stunting or chlorosis; 3=up to 10% dead plants, slight stunting or chlorosis; 4= up to 50% dead plants, moderate stunting and chlorosis; 5=over 50% dead plants, severe stunting and chlorosis.

POLICY ON TESTING AND RELEASE OF STRAINS

This policy on testing and release of soybean strains evaluated in the Uniform Soybean Tests, Northern States, has been agreed upon by public soybean breeders. The policy was developed to assist breeders in preparing schedules for seed increases and to assist individuals and committees responsible for approving releases. The policy will aid private breeders in the U.S. and in foreign countries to understand how releases will be made that may affect their programs.

Development and release of soybean strains is carried out by many public institutions. The programs at these institutions operate independently until strains are available for advanced testing in the Uniform Soybean Tests. The Uniform Soybean Tests are coordinated by Agricultural Research, Science and Education Administration, U.S. Department of Agriculture. The tests are divided into those in the Northern States, for strains in maturity groups 00 to IV and those in the Southern States for strains in maturity groups V to VIII. Group IV maturity strains are divided into a IV N test for the northern states and a IV S test for the southern states.

Public soybean breeders are encouraged to enter superior strains they develop into the Uniform Soybean Tests. Strains entered in these tests must have been evaluated by the breeder in a minimum of four environments of replicated yield tests. Strains developed by four or more backcrosses to a released cultivar may be entered without prior yield evaluations.

Strains are evaluated for one year in the Preliminary Tests (PT) which are conducted at eight or more locations in several states. When the tests are completed, each public breeder is given an opportunity to review the results and to decide which strains merit further testing. In instances where there is little concensus among the breeders on the merits of a strain, the originator of the strain generally makes the final decision.

Strains that merit further testing are evaluated in the Uniform Tests (UT) conducted at more locations and with more replications than the PT. Lines developed by four or more backcrosses to a released cultivar may be entered directly in the UT without prior evaluation in the PT.

Strains may be considered for release after they have been evaluated for two years in the UT. Exceptions to this are special purpose strains or strains derived from four or more backcrosses to a released cultivar; these may be considered for release after one year in the UT. Consideration for release of any strains in the UT

may be requested by any institution or breeder participating in the Uniform Soybean Tests, however it is generally initiated by the institution that developed the strain.

A strain should be released only if it is distinctly superior to existing varieties in one or more characteristics important for the crop, or it is superior in overall performance in areas where adapted. A single major production hazard which a new cultivar can overcome, e.g. a highly destructive disease, may become the overriding consideration in releasing a variety. Strains with a very limited range in adaptation should not be released unless performance in that limited range is outstandingly superior, or the strain possesses important use values not otherwise available, including diversification of the germplasm base for the species.

Where a decision has been made to multiply a strain for release, the originating institution will inform other UT participants of the decision by February 15. This will give each UT participant the opportunity to participate in the multiplication and release of the strains. By March 15 all institutions intending to participate in the multiplication of the strain must notify the originating institution of their intent. A final decision to participate in the release of the strain may be delayed until an additional year's data are available for review. By April 1 the originating institution should notify all UT participants what states will be participating in the multiplication and are considering participating in the release of the strain. Breeder seed is distributed to foundation seed organizations in participating states for production during the summer. At this time, if a final decision to release has been made, a sample of seed may be distributed to non-participants in the UT, including private soybean breeders, in accordance with a state's experiment station policy, for use in making crosses. This distribution is made only by the originating institution.

A release notice to soybean seed producers listing all institutions participating in the release of the cultivar is prepared by the originating institutions. This notice is circulated for signature by all participating institutions. Assistance in the preparation and circulation of this release notice may be obtained from R.C. Leffel, Oilseed Specialist, National Program Staff, Room 111, Bldg. 005, Beltsville Agricultural Research Center West, Beltsville, Maryland, 20705. The date for simultaneous publicity release on the new cultivar by participating states usually August 1, but the date may be delayed until April 1 of the following year if additional UT data are being reviewed and a final decision to release has not been made.

If an additional year of UT data are being reviewed prior to a final decision on release, states producing foundation seed must notify the originating state by February 15 of their intent to participate in the release of the cultivar. The release notice to soybean seed producers should be distributed for signature by the participating institutions by April 1.

Foundation seed under the name of the new cultivar is distributed to qualified certified seed producers in states releasing the new cultivar by April 1. At this time a sample of seed may be distributed to non-participants in the UT including private plant breeders, for testing and for crossing if this distribution has not been made previously.

UNIFORM TEST LOCATIONS - 1978

| Location* | Tests Conducted by: | Uniform Tests | | | | | | Preliminary Tests | | | | |
|--|---------------------|------------------|----------|----------|----------|----------|----------|-------------------|----------|-----|----|---|
| | | 00 | 0 | I | II | III | IV | I | II | III | IV | |
| Ohio | Wooster | A. K. Walker | | | | x | x | | | | | |
| | Hoytville | " | | | | <u>x</u> | <u>x</u> | | <u>x</u> | | | |
| | S. Charleston | R. L. Cooper | | | | <u>x</u> | <u>x</u> | | | x | | |
| | Wheelersburg | " | | | | <u>x</u> | <u>x</u> | | | | | x |
| Ont. | Ottawa | H. Voldeng | x | | | | | | | | | |
| | Elora | W. D. Beversdorf | <u>x</u> | <u>x</u> | | | | | | | | |
| | Ridgetown | J. C. Schleihauf | | <u>x</u> | <u>x</u> | | | | <u>x</u> | | | |
| | Harrow | R. I. Buzzell | | | | <u>x</u> | | | | | | |
| Pa. | Landisville | J.O. Yocum | | | <u>x</u> | x | x | | | | | |
| S.D. | Reville | J.J. Bonnemann | | <u>x</u> | x | | | | | | | |
| | Brookings | " | | <u>x</u> | x | | | x | | | | |
| | Elk Point | " | | | | | <u>x</u> | | | | x | |
| Tex. | Lubbock | R. D. Brigham | | | | | | | | | | x |
| Wisc. | Ashland | E. T. Gritton | x | | | | | | | | | |
| | Durand | " | | x | x | | | | | | | |
| | Spooner | " | | <u>x</u> | | | | | | | | |
| | Arlington | " | | | x | x | | <u>x</u> | x | | | |
| No. locations with agronomic data (x, <u>x</u>) | | | 8 | 9 | 14 | 21 | 26 | 23 | 9 | 11 | 9 | 7 |
| No. with seed composition data (x) | | | 5 | 5 | 6 | 8 | 14 | 9 | 4 | 4 | 4 | 4 |

I=Irrigation

1978 Disease and Shattering Tests

| Location | Tests Conducted by: | Test | U.T. | P.T. |
|----------|---------------------|--------------------------------|---------------------------|--------|
| Ill. | Girard | R. L. Bernard | BP | II-III |
| | Belleville | " | DM | III-IV |
| Ind. | Lafayette | K. L. Athow & F. A. Laviolotte | PR, FE ₂ , BSR | 00-IV |
| | Lafayette | T. S. Abney & T. L. Richards | PS, PSB, SMV | 00-IV |
| Iowa | Ames | W. R. Fehr | Chlorosis | 00-IV |
| | | | Hypocotyl | 00-IV |
| | | H. Tachibana & L. C. Card | PR, BSR | 00-IV |
| Kans. | Manhattan | C. D. Nickell | Shattering | 00-IV |
| Ohio | Vickery | A. F. Schmitthenner | PR(Tolerance) | 00-III |

UNIFORM TEST 00, 1978

| Strain | Parentage | Previous Testing* | Generation Compositd |
|-----------------|-------------------------------|-------------------|----------------------|
| 1. Altona | 0-52-903 X Flambeau | 14 | F ₅ |
| 2. Clay (0) | Capital X Renville | 1 | F ₅ |
| 3. Maple Arrow | Harosoy X 840-7-3 | 1 | F ₇ |
| 4. Portage (00) | Acme X Comet | 18 | F ₅ |
| 5. BC 1413 | (Amsoy X Portage) X 840-73 | - | F ₆ |
| 6. BD 2117 | (Amsoy X Portage) X 827-4 | - | F ₅ |
| 7. M 65-217 | M433 (Acme X Chippewa) X Hark | 5 | F ₅ |
| 8. M68-201 | Evans X Steele | 2 | F ₅ |

* Number of years in this test, or name of 1977 test.

Regional data have shown that the strain M65-217 has consistently been the highest yielding Group 00 strain in the test. The strain M68-201 has yielded more than the check varieties over the years, but this should be classified as a Group 0 strain.

UNIFORM TEST 00, 1978

Descriptive and other Data

| Strain | Descriptive Code | | Chlorosis <u>Score</u> Ames | Hypocotyl <u>Score</u> Ames | <u>Shattering</u> Manhattan 2 weeks |
|--------------|------------------|------|-----------------------------------|-----------------------------------|---|
| Altona | PTBr | SYB1 | 3 | 1 | 4 |
| Clay (0) | PGBr | SY Y | 3 | 1 | 3 |
| Maple Arrow | PTBr | SYBr | 2 | 1 | 5 |
| Portage (00) | PGBr | SY Y | 2 | 1 | 5 |
| BC 1413 | PTTr | SYBr | 2 | 1 | 5 |
| BD 2117 | PTBr | DYG | 4 | 1 | 5 |
| M 65-217 | PGBr | DYY | 2 | 1 | 3 |
| M 69-201 | PGBr | DYY | 2 | 1 | 2 |

Disease Data

| Strain | <u>FE₂</u> | <u>BSR</u> | | <u>PSB</u> | <u>PS</u> | <u>PR</u> | <u>PR</u> | <u>race 1</u> | |
|--------------|-----------------------|-------------------|-------------------|--------------------|-------------------|-------------------|----------------------|-------------------|------------------|
| | Laf. Ind. a | Laf. Ind. n | Ames Stem n | Ia. Plants n | Laf. Ind. d | Laf. Ind. a | Vickery Ohio a | Laf. Ind. a | Ames Ia. a |
| | Score | % | % | % | % | % | -----Reaction----- | | |
| Altona | 2 | 20 | 50 | 80 | 23 | 3 | 3.5 | R | R |
| Clay (0) | 5 | 0 | 57 | 100 | 7 | 1 | 4.5 | S | S |
| Maple Arrow | 2 | 80 | 41 | 70 | 3 | 0 | 3.0 | R | R |
| Portage (00) | 4 | 40 | 65 | 100 | 4 | 1 | 3.5 | S | S |
| BC 1413 | 3 | 60 | 47 | 80 | - | - | 3.5 | S | S |
| BD 2117 | 2 | 0 | 49 | 90 | 9 | 1 | 4.0 | R | R |
| M65-217 | 4 | 60 | 52 | 100 | 1 | 1 | 3.5 | S | S |
| M68-201 | 5 | 0 | 60 | 100 | 5 | 1 | 3.5 | R | R |

UNIFORM TEST 00, 1978

Regional Summary

| Strain | Yield Bu/a | Rank No. | Mat- rity Date | Lodg- ing Score | Height In. | Seed Quality Score | Seed Size g/100 | Seed Composition | |
|--------------|---------------|-------------|----------------------|-----------------------|---------------|--------------------------|-----------------------|------------------|----------|
| | | | | | | | | Protein % | Oil % |
| No. of Tests | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 6 | 6 |
| Altona | 34.8 | 4 | +6.9 | 2.1 | 28 | 2.1 | 18.6 | 41.5 | 19.0 |
| Clay (0) | 39.4 | 1 | +15.0 | 1.7 | 27 | 2.3 | 17.2 | 40.8 | 20.6 |
| Maple Arrow | 32.5 | 5 | +8.0 | 1.5 | 28 | 2.0 | 17.8 | 40.5 | 20.4 |
| Portage (00) | 29.6 | 7 | 9-2* | 1.4 | 27 | 2.1 | 16.2 | 39.8 | 19.5 |
| BC 1413 | 29.7 | 6 | -2.4 | 1.7 | 26 | 2.4 | 17.5 | 38.6 | 20.7 |
| BD 2117 | 26.9 | 8 | -9.5 | 1.4 | 24 | 2.8 | 14.9 | 39.2 | 20.1 |
| M65-217 | 36.5 | 3 | +4.0 | 1.4 | 28 | 2.0 | 15.4 | 39.7 | 19.5 |
| M68-201 | 38.2 | 2 | +14.9 | 1.3 | 28 | 2.0 | 16.5 | 40.6 | 20.3 |

* 106 days after planting

1977-1978, 2-year mean

| | | | | | | | | | |
|--------------|------|----|--------|-----|----|-----|------|------|------|
| No. of Tests | 15 | 15 | 14 | 16 | 16 | 15 | 16 | 10 | 10 |
| Altona | 35.1 | 4 | +6.1 | 2.4 | 28 | 2.2 | 18.2 | 41.5 | 18.3 |
| Clay (0) | 36.8 | 1 | +14.3 | 1.8 | 28 | 2.3 | 16.8 | 40.9 | 19.6 |
| Maple Arrow | 33.6 | 5 | +8.3 | 1.8 | 28 | 1.9 | 17.4 | 40.2 | 19.9 |
| Portage (00) | 30.6 | 6 | 9-1.2* | 1.4 | 27 | 2.2 | 16.8 | 39.6 | 18.9 |
| M65-217 | 36.8 | 1 | +5.2 | 1.6 | 28 | 2.1 | 15.2 | 39.4 | 19.4 |
| M68-201 | 36.3 | 3 | +13.7 | 1.4 | 28 | 2.3 | 16.0 | 40.6 | 19.5 |

* 106 days after planting

1976-1978, 3-year mean

| | | | | | | | | | |
|--------------|------|----|--------|-----|----|-----|------|------|------|
| No. of Tests | 23 | 23 | 22 | 24 | 23 | 24 | 25 | 16 | 16 |
| Altona | 34.9 | 3 | +5.7 | 2.2 | 29 | 2.2 | 18.2 | 41.4 | 18.4 |
| Portage | 30.1 | 4 | 9-3.6* | 1.4 | 27 | 2.3 | 16.9 | 39.7 | 19.0 |
| M65-217 | 36.8 | 1 | +4.5 | 1.5 | 29 | 2.1 | 15.2 | 39.8 | 19.2 |
| M68-201 | 35.8 | 2 | +12.0 | 1.4 | 28 | 2.3 | 15.7 | 40.8 | 19.6 |

* 107 days after planting

1973-1978, 6-year mean

| | | | | | | | | | |
|--------------|------|----|--------|-----|----|-----|------|------|------|
| No. of Tests | 51 | 51 | 47 | 50 | 51 | 51 | 52 | 34 | 34 |
| Altona | 34.0 | 2 | +5.6 | 2.2 | 28 | 2.4 | 18.3 | 41.2 | 19.0 |
| Portage | 30.4 | 3 | 9-4.9* | 1.3 | 27 | 2.4 | 17.5 | 39.9 | 19.5 |
| M65-217 | 36.5 | 1 | +4.6 | 1.6 | 29 | 2.0 | 15.3 | 39.8 | 19.6 |

* 107 days after planting

UNIFORM TEST 00, 1978

| Strain | Ont. | | Wisc. | | Minn. | | Man. | | |
|--------------------------|-----------------|--------|-------|--------------|----------------|--------|----------------|--------|---------|
| | Mean 8 Tests | Ottawa | Elora | Ash- land | Crook- ston | Morris | Rose- Mount | Morden | Brandon |
| YIELD (bu/a) | | | | | | | | | |
| Altona | 34.8 | 36.8 | 30.1 | 36.2 | 24.4 | 34.3 | 37.4 | 42.5 | 37.1 |
| Clay (0) | 39.4 | 39.0 | 40.6 | 29.3 | 33.0 | 41.0 | 40.8 | 48.1 | 43.4 |
| Maple Arrow | 32.5 | 23.8 | 34.4 | 32.8 | 22.6 | 29.3 | 34.6 | 39.5 | 42.8 |
| Portage (00) | 29.6 | 31.2 | 28.4 | 33.3 | 22.4 | 23.9 | 29.7 | 28.4 | 39.9 |
| BC 1413 | 29.7 | 36.6 | 30.4 | 32.2 | 21.6 | 22.5 | 26.1 | 28.2 | 40.0 |
| BD 2117 | 26.9 | 28.3 | 30.3 | 29.1 | 19.1 | 18.2 | 22.4 | 31.7 | 35.8 |
| M65-217 | 36.5 | 38.8 | 34.5 | 33.3 | 29.6 | 31.5 | 34.7 | 45.0 | 44.5 |
| M68-201 | 38.2 | 29.7 | 40.9 | 35.3 | 32.7 | 42.8 | 38.2 | 44.3 | 41.3 |
| C.V. (%) | | 11.9 | 8.5 | 8.6 | 16.4 | 7.4 | 9.1 | 20.5 | 5.1 |
| L.S.D. (5%) | | 5.8 | 4.2 | 4.9 | 7.4 | 3.9 | 5.2 | 11.9 | 3.6 |
| Row sp (in.) | | 9" | 7" | 24" | 22" | 30" | 30" | 12" | 9" |
| Rows/plot | | 4 | 8 | 4 | 4 | 4 | 4 | 4 | 4 |
| Reps | | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| YIELD RANK | | | | | | | | | |
| Altona | 4 | 3 | 7 | 1 | 4 | 3 | 3 | 4 | 7 |
| Clay (0) | 1 | 1 | 2 | 7 | 1 | 2 | 1 | 1 | 2 |
| Maple Arrow | 5 | 8 | 4 | 5 | 5 | 5 | 5 | 5 | 3 |
| Portage (00) | 7 | 5 | 8 | 3 | 6 | 6 | 6 | 7 | 6 |
| BC 1413 | 6 | 4 | 5 | 6 | 7 | 7 | 7 | 8 | 5 |
| BD 2117 | 8 | 7 | 6 | 8 | 8 | 8 | 8 | 6 | 8 |
| M65-217 | 3 | 2 | 3 | 3 | 3 | 4 | 4 | 2 | 1 |
| M68-201 | 2 | 6 | 1 | 2 | 2 | 1 | 2 | 3 | 4 |
| MATURITY (relative date) | | | | | | | | | |
| Altona | +6.9 | +2 | +3 | +10 | +12 | +12 | +7 | +4 | +5 |
| Clay (0) | +15.0 | +21 | +14 | +16 | +13 | +15 | +8 | +15 | +18 |
| Maple Arrow | +8.0 | +9 | +6 | +9 | +9 | +12 | +7 | +4 | +8 |
| Portage(00)* | 9-2 | 8-29 | 9-3 | 9-12 | 9-2 | 8-25 | 8-26 | 8-31 | 9-11 |
| BC 1413 | -2.4 | -5 | -1 | -4 | -1 | +3 | -5 | 0 | -6 |
| BD 2117 | -9.5 | -11 | -10 | -11 | -9 | -7 | -11 | -6 | -11 |
| M65-217 | +4.0 | 0 | +3 | +10 | +2 | +4 | +4 | +4 | +5 |
| M68-201 | +14.9 | +27 | +11 | +13 | +13 | +15 | +7 | +15 | +18 |
| Date planted | 5-19 | 5-17 | 5-24 | 5-22 | 5-24 | 5-23 | 5-17 | 5-12 | 5-16 |
| * Days to mat. | 106 | 104 | 102 | 113 | 101 | 94 | 101 | 111 | 118 |

UNIFORM TEST 00, 1978

| Strain | Mean 8 Tests | Ont. | | Wisc. | Minn. | | Man- | | |
|------------------------------|-----------------|--------|-------|--------------|----------------|----------------|--------|--------------|-----|
| | | Ottawa | Elora | Ash- land | Crook- ston | Rose- Mount | Morden | Bran- don | |
| <u>LODGING (score)</u> | | | | | | | | | |
| Altona | 2.1 | 1.0 | 1.0 | 2.7 | 2.7 | 3.3 | 3.0 | 1.0 | 2.0 |
| Clay (0) | 1.7 | 1.0 | 1.0 | 2.3 | 2.0 | 1.7 | 2.0 | 1.3 | 2.0 |
| Maple Arrow | 1.5 | 1.0 | 1.0 | 3.0 | 2.3 | 1.0 | 1.0 | 1.0 | 2.0 |
| Portage (00) | 1.4 | 1.0 | 1.0 | 2.7 | 2.7 | 1.0 | 1.0 | 1.0 | 1.0 |
| BC 1413 | 1.7 | 1.0 | 1.0 | 3.0 | 3.0 | 2.0 | 1.7 | 1.0 | 1.0 |
| BD 2117 | 1.4 | 1.0 | 1.0 | 2.7 | 2.3 | 1.0 | 1.0 | 1.0 | 1.0 |
| M65-217 | 1.4 | 1.0 | 1.0 | 2.7 | 2.0 | 1.0 | 1.3 | 1.0 | 1.0 |
| M68-201 | 1.3 | 1.0 | 1.0 | 2.0 | 1.7 | 1.0 | 1.0 | 1.0 | 2.0 |
| <u>PLANT HEIGHT (inches)</u> | | | | | | | | | |
| Altona | 28 | 31 | 20 | 27 | 28 | 28 | 27 | 27 | 36 |
| Clay (0) | 27 | 28 | 20 | 25 | 28 | 25 | 26 | 28 | 35 |
| Maple Arrow | 28 | 32 | 19 | 29 | 31 | 24 | 30 | 26 | 36 |
| Portage(00) | 27 | 32 | 20 | 28 | 28 | 22 | 26 | 23 | 35 |
| BC 1413 | 26 | 31 | 19 | 29 | 27 | 21 | 22 | 24 | 36 |
| BD 2117 | 24 | 30 | 20 | 29 | 24 | 22 | 19 | 21 | 30 |
| M65-217 | 28 | 31 | 19 | 30 | 30 | 23 | 29 | 25 | 37 |
| M68-201 | 28 | 28 | 17 | 28 | 30 | 27 | 30 | 26 | 36 |
| <u>SEED QUALITY (score)</u> | | | | | | | | | |
| Altona | 2.1 | 2.3 | 2.0 | 2.7 | 2.8 | 2.0 | 2.0 | 1.3 | 2.0 |
| Clay (0) | 2.3 | 2.0 | 3.0 | 2.7 | 2.3 | 2.0 | 2.3 | 1.3 | 3.0 |
| Maple Arrow | 2.0 | 2.0 | 2.0 | 2.0 | 2.3 | 2.0 | 1.7 | 2.0 | 2.0 |
| Portage (00) | 2.1 | 2.3 | 1.5 | 2.7 | 2.8 | 2.0 | 1.7 | 2.0 | 2.0 |
| BC 1413 | 2.4 | 3.0 | 3.0 | 2.6 | 2.3 | 2.3 | 2.0 | 2.0 | 2.0 |
| BD 2117 | 2.8 | 3.0 | 3.5 | 4.0 | 2.8 | 2.3 | 2.3 | 2.7 | 2.0 |
| M65-217 | 2.0 | 2.0 | 2.5 | 3.3 | 2.3 | 2.3 | 1.3 | 1.0 | 1.0 |
| M68-201 | 2.0 | 2.3 | 2.5 | 2.3 | 2.0 | 2.0 | 1.7 | 1.3 | 2.0 |

UNIFORM TEST 00, 1978

| Strain | Mean 8 Tests | Ont. | | Wisc. | Minn. | | Man. | | |
|--------------------------|-----------------|--------|-------|--------------|----------------|----------------|-----------------|------|------|
| | | Ottawa | Elora | Ash- land | Crook- ston | Rose- Mount | Bran- Morden | don | |
| <u>SEED SIZE (g/100)</u> | | | | | | | | | |
| Altona | 18.6 | 21.8 | 18.9 | 19.7 | 18.0 | 18.0 | 18.4 | 18.4 | 15.9 |
| Clay (0) | 17.2 | 19.8 | 16.6 | 19.7 | 16.5 | 16.7 | 16.0 | 17.5 | 14.6 |
| Maple Arrow | 17.8 | 22.3 | 20.0 | 18.0 | 14.5 | 17.7 | 17.3 | 18.0 | 14.9 |
| Portage (00) | 16.2 | 19.8 | 17.0 | 18.6 | 13.8 | 14.4 | 17.3 | 15.2 | 13.4 |
| BC 1413 | 17.5 | 21.0 | 17.7 | 19.8 | 16.7 | 16.7 | 18.0 | 16.4 | 13.6 |
| BD 2117 | 14.9 | 17.8 | 15.9 | 16.8 | 15.0 | 13.3 | 14.0 | 14.0 | 12.4 |
| M65-217 | 15.4 | 17.8 | 17.0 | 17.7 | 14.1 | 15.0 | 14.2 | 13.9 | 13.2 |
| M68-201 | 16.5 | 20.5 | 16.9 | 16.9 | 15.5 | 15.8 | 15.4 | 16.5 | 14.4 |
| <u>PROTEIN (%)</u> | | | | | | | | | |
| 6 Tests | | | | | | | | | |
| Altona | 41.5 | 40.4 | 42.0 | | 41.5 | | 42.5 | 40.4 | 42.1 |
| Clay (0) | 40.8 | 38.2 | 40.8 | | 42.1 | | 41.8 | 40.1 | 41.8 |
| Maple Arrow | 40.5 | 39.1 | 42.2 | | 42.3 | | 39.8 | 38.5 | 40.9 |
| Portage (00) | 39.8 | 39.0 | 40.0 | | 40.4 | | 38.5 | 38.6 | 42.1 |
| BC 1413 | 38.6 | 39.0 | 39.7 | | 37.7 | | 38.3 | 36.7 | 39.9 |
| BD 2117 | 39.2 | 39.1 | 38.2 | | 40.0 | | 38.6 | 38.7 | 40.9 |
| M65-217 | 39.7 | 39.3 | 40.2 | | 39.1 | | 39.2 | 38.6 | 42.0 |
| M68-201 | 40.6 | 39.2 | 40.9 | | 41.5 | | 39.6 | 39.2 | 43.0 |
| <u>OIL (%)</u> | | | | | | | | | |
| 6 Tests | | | | | | | | | |
| Altona | 19.0 | 18.0 | 18.7 | | 19.6 | | 19.3 | 20.3 | 17.8 |
| Clay (0) | 20.6 | 19.6 | 21.4 | | 20.9 | | 21.0 | 21.9 | 18.8 |
| Maple Arrow | 20.4 | 18.9 | 19.7 | | 20.3 | | 21.7 | 21.9 | 19.6 |
| Portage (00) | 19.5 | 18.7 | 19.8 | | 19.4 | | 21.1 | 20.6 | 17.6 |
| BC 1413 | 20.7 | 19.0 | 20.5 | | 21.4 | | 21.6 | 22.0 | 19.6 |
| BD 2117 | 20.1 | 19.4 | 21.1 | | 19.7 | | 21.4 | 20.8 | 18.0 |
| M65-217 | 19.5 | 18.3 | 19.7 | | 20.3 | | 20.1 | 20.4 | 18.0 |
| M68-201 | 20.3 | 18.4 | 20.6 | | 21.4 | | 21.9 | 21.4 | 18.3 |

UNIFORM TEST 0, 1978

| Strain | Parentage | Previous Testing* | Generation Composit ed |
|-------------------|------------------------------|-------------------|------------------------|
| 1. Altona (00) | 0-52-903 x Flambeau | 1 | F ₅ |
| 2. Clay | Capital x Renville | 11 | F ₅ |
| 3. Evans (0) | Merit x Herosoy | 8 | F ₅ |
| 4. Hodgson 78 (I) | Hodgson ⁷ x Merit | 1 | F ₅ |
| 5. M70-74 | Evans x PI 291,322 | - | F ₅ |
| 6. M70-77 | Ja 53-7-6 x Hodgson | - | F ₅ |
| 7. M70-127 | Evans x II-63-217Y | - | F ₅ |
| 8. M70-153 | Steele x Hodgson | - | F ₅ |
| 9. M70-330 | M62-93 x M64-3 | - | F ₅ |
| 10. M70-334 | M62-93 x M64-3 | - | F ₅ |

* Number of years in this test, or name of 1977 test.

REGIONAL SUMMARY

| Strain | Yield bu/a | Rank No. | Matu- rity Date | Lodg- ing Score | Height In. | Seed Quality Score | Seed Size g/100 | Seed Composition | |
|------------------|---------------|-------------|-----------------------|-----------------------|---------------|--------------------------|-----------------------|------------------|----------|
| | | | | | | | | Protein % | Oil % |
| <u>1978</u> | | | | | | | | | |
| No. of Tests | 8 | 8 | 8 | 8 | 8 | 7 | 8 | 5 | 5 |
| Altona (00) | 26.1 | 10 | -7.9 | 1.4 | 25 | 2.9 | 18.1 | 42.1 | 19.5 |
| Clay | 31.3 | 9 | -5.4 | 1.2 | 24 | 3.0 | 16.3 | 42.0 | 21.2 |
| Evans (0) | 33.7 | 8 | 9-17* | 1.1 | 30 | 2.4 | 16.3 | 40.6 | 21.3 |
| ✓ Hodgson 78 (I) | 37.3 | 2 | +7.2 | 1.5 | 33 | 2.3 | 17.5 | 40.1 | 21.8 |
| M70-74 | 35.8 | 4 | +4.6 | 1.4 | 31 | 2.5 | 17.9 | 40.4 | 21.5 |
| M70-77 | 34.1 | 7 | +0.8 | 1.2 | 30 | 2.5 | 17.4 | 39.2 | 22.5 |
| M70-127 | 35.8 | 4 | +1.1 | 1.1 | 28 | 2.6 | 18.1 | 40.3 | 21.4 |
| M70-153 | 37.6 | 1 | +2.8 | 1.0 | 29 | 2.5 | 16.5 | 40.2 | 22.0 |
| M70-330 | 36.8 | 3 | +4.2 | 1.2 | 29 | 2.6 | 16.6 | 37.1 | 22.2 |
| M70-334 | 34.4 | 6 | +3.9 | 1.0 | 27 | 2.6 | 17.8 | 40.0 | 22.0 |

* 116 days after planting

All of the experimental strains in this test were superior to the Group 0 check varieties in yield, in resistance to shattering, and were equal to the checks in lodging resistance. The highest yielding strain in the test, M70-153, was resistant to race 1 of phytophthora root rot.

UNIFORM TEST 0, 1978

Descriptive and Other Data

| Strain | Descriptive Code | | Chlorosis | Hypocotyl | Shattering |
|----------------|------------------|------|---------------|---------------|--------------------|
| | | | Score Ames | Score Ames | Score Manhattan |
| | | | | | 2 weeks |
| Altona (00) | PTBr | SYB1 | 3 | 1 | 4.0 |
| Clay | PGBr | SY Y | 3 | 1 | 3.0 |
| Evans (0) | WGBr | DY Y | 2 | 1 | 2.0 |
| Hodgson 78 (I) | PGBr | DYBf | 2 | 5 | 5.0 |
| M70-74 | WGBr | DYBf | 1 | 2 | 1.0 |
| M70-77 | PGBr | DY Y | 2 | 1 | 1.5 |
| M70-127 | PGBr | DY Y | 2 | 1 | 1.5 |
| M70-153 | PGBr | DYBf | 2 | 4 | 1.5 |
| M70-330 | WGBr | DY Y | 2 | 2 | 1.0 |
| M70-334 | WGBr | DY Y | 2 | 5 | 1.5 |

Disease Data

| Strain | FE ₂ | | BSR | | SMV | PSB | PS | PR | PR | Race 1 |
|---------------|-----------------|------|------------|--------|-------|------|------|--------------------|------|--------|
| | Laf. | Laf. | Ames, Iowa | | Laf. | Laf. | Laf. | Vickery | Laf. | Ames |
| | Ind. | Ind. | Stem | Plants | Ind. | Ind. | Ind. | Ohio | Ind. | Iowa |
| | a | n | n | n | a | d | a | a | a | a |
| | Score | % | % | % | Score | % | % | -----Reaction----- | | |
| Altona (00) | 2 | 20 | 46 | 100 | 5E | 23 | 1 | 4.5 | R | R |
| Clay | 5 | 0 | 68 | 100 | 5E | 7 | 5 | 4.5 | S | S |
| Evans (0) | 5 | 40 | 72 | 100 | 1 | 11 | 6 | 3 | R | R |
| Hodgson 78(I) | 5 | 0 | 62 | 90 | 3E | 7 | 3 | 2 | R | R |
| M70-74 | 5 | 20 | 89 | 100 | 1 | 7 | 6 | 3.5 | R | R |
| M70-77 | 5 | 40 | 69 | 100 | 2M | 7 | 8 | 2.5 | R | R |
| M70-127 | 5 | 100 | 61 | 100 | 2E | 6 | 3 | 3 | H | S |
| M70-153 | 5 | 0 | 54 | 100 | 1 | 4 | 4 | 4.5 | R | R |
| M70-330 | 5 | 20 | 66 | 100 | 1 | 4 | 8 | 4.5 | S | S |
| M70-334 | 5 | 20 | 89 | 100 | 1 | 4 | 3 | 4.5 | S | S |

UNIFORM TEST 0, 1978

| Strain | Mean 8 Tests | Ont. | | Mich. | Wisc. | Dur- and | Minn. | | N.D. | S.D. |
|---------------------------------|-----------------|-------|----------------|-----------------|--------------|-------------|-------------|----------------|------------|-------------------|
| | | Elora | Ridge- town | E. Lan- sing | Spoo- ner | | Mor- ris | Rose- mount | Far- go | Re- villo + |
| <u>YIELD (bu/a)</u> | | | | | | | | | | |
| Altona (00) | 26.1 | 32.2 | 37.0 | 23.3 | 14.0 | 13.2 | 28.8 | 33.0 | 30.9 | 27.3 |
| Clay | 31.3 | 39.2 | 40.4 | 26.9 | 18.5 | 13.2 | 38.9 | 38.5 | 37.0 | 34.8 |
| Evans (0) | 33.7 | 43.8 | 44.1 | 29.1 | 22.2 | 11.0 | 40.0 | 44.9 | 39.2 | 34.7 |
| Hodgson 78 (I) | 37.3 | 47.7 | 46.3 | 32.7 | 31.3 | 9.5 | 44.8 | 47.1 | 41.6 | 39.0 |
| M70-74 | 35.8 | 46.9 | 48.3 | 29.4 | 22.5 | 13.9 | 42.5 | 44.7 | 40.8 | 38.2 |
| M70-77 | 34.1 | 43.5 | 46.8 | 30.6 | 22.7 | 11.3 | 38.3 | 45.4 | 39.0 | 34.2 |
| M70-127 | 35.8 | 47.6 | 48.7 | 30.1 | 20.8 | 11.1 | 44.6 | 46.5 | 38.5 | 36.5 |
| M70-153 | 37.6 | 47.6 | 46.7 | 35.7 | 22.9 | 14.2 | 45.8 | 49.8 | 44.7 | 38.1 |
| M70-330 | 36.8 | 44.7 | 47.5 | 36.2 | 22.6 | 12.0 | 43.9 | 48.8 | 39.9 | 38.8 |
| M70-334 | 34.4 | 43.1 | 44.7 | 30.0 | 21.1 | 12.6 | 40.1 | 47.0 | 40.5 | 36.7 |
| C.V. (%) | | 8.1 | 5.9 | 14.8 | 11.1 | 27.8 | 9.4 | 6.0 | 10.8 | 12.4 |
| L.S.D. (5%) | | 5.1 | 3.9 | 7.7 | 4.3 | 5.7 | 6.5 | 4.6 | 6.1 | 6.3 |
| Row Sp. (in.) | | 7" | 24" | - | 36" | 38" | 30" | 30" | 30" | 38" |
| Rows/Plot | | 8 | 4 | - | 4 | 4 | 4 | 4 | 3 | 3 |
| Reps | | 4 | 4 | - | 3 | 3 | 3 | 3 | 4 | 4 |
| <u>YIELD RANK</u> | | | | | | | | | | |
| Altona (00) | 10 | 10 | 10 | 10 | 10 | 3 | 10 | 10 | 10 | 10 |
| Clay | 9 | 9 | 9 | 9 | 9 | 3 | 8 | 9 | 9 | 7 |
| Evans (0) | 8 | 6 | 8 | 8 | 6 | 9 | 7 | 7 | 6 | 8 |
| Hodgson 78 (I) | 2 | 1 | 6 | 3 | 1 | 10 | 2 | 3 | 2 | 1 |
| M70-74 | 4 | 4 | 2 | 7 | 5 | 2 | 5 | 8 | 3 | 3 |
| M70-77 | 7 | 7 | 4 | 4 | 3 | 7 | 9 | 6 | 7 | 9 |
| M70-127 | 4 | 2 | 1 | 5 | 8 | 8 | 3 | 5 | 8 | 6 |
| M70-153 | 1 | 3 | 5 | 2 | 2 | 1 | 1 | 1 | 1 | 4 |
| M70-330 | 3 | 5 | 3 | 1 | 4 | 6 | 4 | 2 | 5 | 2 |
| M70-334 | 6 | 8 | 7 | 6 | 7 | 5 | 6 | 4 | 4 | 5 |
| <u>MATURITY (relative date)</u> | | | | | | | | | | |
| Altona (00) | -7.9 | -12 | -9 | -10 | -3 | -6 | -14 | -4 | -12 | -5 |
| Clay | -5.4 | -1 | -6 | -10 | -3 | -6 | -11 | -4 | -9 | -2 |
| Evans * (0) | 9-17 | 9-17 | 9-14 | 9-14 | 9-18 | 9-16 | 9-20 | 9-6 | 9-18 | 10-1 |
| Hodgson 78 (I) | +7.2 | +9 | +5 | +2 | +8 | +9 | +6 | +14 | +11 | +5 |
| M70-74 | +4.6 | +8 | +5 | -6 | +7 | +9 | +5 | +6 | +6 | +3 |
| M70-77 | +0.8 | +2 | +4 | -6 | +2 | +1 | +2 | 0 | +2 | +1 |
| M70-127 | +1.1 | +2 | +1 | -3 | +5 | +1 | +3 | -2 | +4 | +2 |
| M70-153 | +2.8 | +6 | 0 | -1 | +2 | +2 | +5 | +5 | +8 | +3 |
| M70-330 | +4.2 | +11 | +5 | -1 | +3 | +2 | +5 | +6 | +9 | +3 |
| M70-334 | +3.9 | +10 | +3 | 0 | +1 | +2 | +5 | +6 | +10 | +4 |
| Date planted | | 5-24 | 5-25 | - | 5-15 | 5-25 | 5-23 | 5-17 | 5-17 | 6-10 |
| * Days to mature | | 116 | 112 | - | 126 | 114 | 120 | 112 | 124 | 113 |
| + Not included in the mean | | | | | | | | | | |

UNIFORM TEST 0, 1978

| Strain | Mean 8 Tests | Ont. | Mich. | Wisc. | | Minn. | N.D. | S.D. | | |
|------------------------------|-----------------|-------|----------------|-----------------|---------|-------------|-------------|----------------|-----------------|--------------|
| | | Elora | Ridge- town | E. Lan- sing | Spooner | Dur- and | Mor- ris | Rose- mount | Far- go + | Re- villo |
| <u>LODGING (score)</u> | | | | | | | | | | |
| Altona (00) | 1.4 | 1.0 | 1.5 | 1.0 | 1.0 | 1.0 | 3.0 | 2.0 | 2.5 | 1.0 |
| Clay | 1.2 | 1.0 | 1.0 | 1.2 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 1.0 |
| Evans (0) | 1.1 | 1.0 | 1.0 | 1.2 | 1.0 | 1.0 | 1.3 | 1.0 | 1.0 | 1.0 |
| Hodgson 78 (I) | 1.5 | 1.0 | 1.0 | 1.5 | 1.7 | 1.0 | 2.3 | 2.3 | 2.0 | 1.0 |
| M70-74 | 1.4 | 1.0 | 1.0 | 1.5 | 1.7 | 1.0 | 2.0 | 1.7 | 1.5 | 1.0 |
| M70-77 | 1.2 | 1.0 | 1.0 | 1.0 | 1.3 | 1.0 | 1.3 | 1.7 | 1.5 | 1.0 |
| M70-127 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.3 | 1.3 | 1.0 | 1.0 |
| M70-153 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.3 | 1.0 | 1.0 | 1.0 |
| M70-330 | 1.2 | 1.0 | 1.3 | 1.0 | 1.0 | 1.0 | 2.0 | 1.7 | 1.5 | 1.0 |
| M70-334 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.3 | 1.0 | 1.0 | 1.0 |
| <u>PLANT HEIGHT (inches)</u> | | | | | | | | | | |
| Altona (00) | 25 | 20 | 25 | 26 | 28 | 24 | 25 | 25 | 27 | 26 |
| Clay | 24 | 21 | 21 | 25 | 23 | 21 | 28 | 26 | 31 | 29 |
| Evans (0) | 30 | 24 | 27 | 29 | 32 | 28 | 32 | 34 | 41 | 34 |
| Hodgson 78 (I) | 33 | 29 | 29 | 34 | 32 | 31 | 35 | 38 | 40 | 36 |
| M70-74 | 31 | 24 | 30 | 28 | 32 | 32 | 30 | 35 | 35 | 36 |
| M70-77 | 30 | 25 | 30 | 28 | 33 | 29 | 31 | 32 | 37 | 35 |
| M70-127 | 28 | 21 | 24 | 26 | 30 | 26 | 31 | 30 | 34 | 34 |
| M70-153 | 29 | 23 | 24 | 30 | 30 | 26 | 31 | 32 | 34 | 34 |
| M70-330 | 29 | 23 | 26 | 29 | 29 | 26 | 31 | 32 | 34 | 35 |
| M70-334 | 27 | 22 | 23 | 28 | 26 | 26 | 28 | 30 | 31 | 30 |
| <u>SEED QUALITY (score)</u> | | | | | | | | | | |
| | 7 Tests | | | | | | | | | |
| Altona (00) | 2.9 | 2.5 | 3.0 | | 3.7 | 4.0 | 2.7 | 2.7 | 3.0 | 2.0 |
| Clay (0) | 3.0 | 3.0 | 2.0 | | 4.3 | 3.0 | 3.0 | 2.7 | 2.0 | 3.0 |
| Evans | 2.4 | 2.0 | 2.0 | | 3.0 | 3.0 | 2.7 | 2.3 | 1.0 | 2.0 |
| Hodgson 78 (I) | 2.3 | 2.5 | 2.0 | | 2.0 | 4.0 | 1.7 | 2.0 | 1.0 | 2.0 |
| M70-74 | 2.5 | 2.0 | 2.0 | | 3.3 | 4.0 | 1.3 | 1.7 | 1.0 | 3.0 |
| M70-77 | 2.5 | 3.0 | 2.0 | | 3.7 | 3.0 | 2.3 | 1.7 | 1.0 | 2.0 |
| M70-127 | 2.6 | 2.0 | 3.0 | | 3.7 | 3.0 | 2.0 | 2.3 | 1.0 | 2.0 |
| M70-153 | 2.5 | 2.5 | 2.0 | | 4.0 | 3.3 | 1.3 | 2.7 | 1.0 | 2.0 |
| M70-330 | 2.6 | 3.0 | 2.0 | | 4.3 | 3.0 | 2.0 | 2.0 | 1.0 | 2.0 |
| M70-334 | 2.6 | 2.5 | 2.0 | | 4.3 | 3.0 | 1.7 | 2.5 | 1.0 | 2.0 |

+ Not included in the mean

UNIFORM TEST 0, 1978

| Strain | Mean 8 Tests | Ont. | | Mich. | Wisc. | | Minn. | | N.D. | S.D. |
|--------------------------|-----------------|-------|----------------|-----------------|---------|-------------|-------------|----------------|-----------------|--------------|
| | | Elora | Ridge- town | E. Lan- sing | Spooner | Dur- and | Mor- ris | Rose- mount | Far- go + | Re- villo |
| <u>SEED SIZE (g/100)</u> | | | | | | | | | | |
| Altona (00) | 18.1 | 18.2 | 20.3 | 22.0 | 16.8 | 13.3 | 19.2 | 17.0 | 17.6 | 17.9 |
| Clay | 16.3 | 16.2 | 17.9 | 19.0 | 15.0 | 12.1 | 17.0 | 16.0 | 15.6 | 17.1 |
| Evans (0) | 16.3 | 16.5 | 17.5 | 20.0 | 16.4 | 11.2 | 17.1 | 15.5 | 15.8 | 16.0 |
| Hodgson 78 (I) | 17.5 | 18.9 | 17.4 | 21.0 | 17.5 | 13.4 | 17.2 | 16.7 | 15.6 | 17.9 |
| M70-74 | 17.9 | 17.9 | 18.2 | 19.5 | 17.3 | 15.0 | 18.6 | 17.6 | 17.7 | 19.4 |
| M70-77 | 17.4 | 19.2 | 18.7 | 20.0 | 17.6 | 11.9 | 18.5 | 15.7 | 16.4 | 17.7 |
| M70-127 | 18.1 | 19.2 | 19.6 | 21.5 | 18.6 | 12.5 | 19.6 | 15.6 | 18.3 | 18.1 |
| M70-153 | 16.5 | 17.1 | 18.0 | 20.1 | 17.0 | 12.9 | 16.2 | 14.3 | 14.8 | 16.2 |
| M70-330 | 16.6 | 16.5 | 16.0 | 20.0 | 15.5 | 13.4 | 17.0 | 17.2 | 16.1 | 17.1 |
| M70-334 | 17.8 | 17.9 | 17.4 | 20.0 | 16.0 | 14.4 | 19.4 | 17.3 | 17.7 | 19.8 |

| | 5 Tests | <u>PROTEIN (%)</u> | | | | | | | | |
|--|---------|--------------------|------|-----------|----------------|--------|--------|---------|---------|---------|
| | | Altona | Clay | Evans (0) | Hodgson 78 (I) | M70-74 | M70-77 | M70-127 | M70-153 | M70-330 |
| | | 41.3 | | | | 42.5 | | 42.6 | 42.8 | 41.4 |
| | | 42.0 | | | | 44.9 | | 42.0 | 41.2 | 41.2 |
| | | 40.6 | | | | 42.8 | | 40.3 | 39.4 | 40.2 |
| | | 40.1 | | | | 41.7 | | 39.0 | 40.5 | 39.1 |
| | | 40.4 | | | | 41.6 | | 40.7 | 40.6 | 39.3 |
| | | 40.1 | | | | 42.4 | | 38.0 | 37.0 | 38.4 |
| | | 40.3 | | | | 42.9 | | 40.4 | 38.9 | 39.0 |
| | | 40.2 | | | | 42.0 | | 40.5 | 38.2 | 39.8 |
| | | 37.1 | | | | 39.3 | | 35.4 | 36.4 | 36.3 |
| | | 40.0 | | | | 42.5 | | 39.6 | 37.8 | 39.9 |

| | 5 Tests | <u>OIL (%)</u> | | | | | | | | |
|--|---------|----------------|------|-----------|----------------|--------|--------|---------|---------|---------|
| | | Altona (00) | Clay | Evans (0) | Hodgson 78 (I) | M70-74 | M70-77 | M70-127 | M70-153 | M70-330 |
| | | 19.5 | 19.3 | | | 18.5 | | 20.3 | 18.9 | 20.4 |
| | | 21.2 | 21.5 | | | 18.5 | | 22.0 | 21.8 | 22.4 |
| | | 21.3 | 20.8 | | | 19.8 | | 22.6 | 21.9 | 21.3 |
| | | 21.8 | 21.0 | | | 19.8 | | 23.2 | 22.6 | 22.6 |
| | | 21.5 | 21.2 | | | 20.6 | | 22.1 | 21.9 | 21.6 |
| | | 22.5 | 21.3 | | | 20.4 | | 24.0 | 24.2 | 22.5 |
| | | 21.4 | 20.2 | | | 19.0 | | 22.2 | 22.4 | 23.2 |
| | | 22.0 | 21.3 | | | 20.9 | | 22.0 | 23.2 | 22.5 |
| | | 22.2 | 21.0 | | | 20.9 | | 23.7 | 23.2 | 22.2 |
| | | 22.0 | 20.7 | | | 19.8 | | 22.7 | 24.8 | 22.0 |

+ Not included in the mean

UNIFORM TEST I, 1978

| Strain | Parentage | Previous Testing* | Generation Compositd |
|-------------------|-----------------------------------|-------------------|----------------------|
| 1. Coles | Hark x (Provar x (Magna x Disoy) | 3 | F ₅ |
| 2. Corsoy (II) | Harosoy x Capital | 1 | F ₉ |
| 3. Evans (0) | Merit x Harosoy | 1 | F ₅ |
| 4. Harlon | Blackhawk x Harosoy 63 | 5 | F ₅ |
| 5. Hodgson 78 (I) | Hodgson ⁷ x Merit | 1 | F ₃ |
| 6. A75-102032 | AP6 (40 lines intermated 3 times) | 1 | F ₅ |
| 7. A75-103019 | AP 6 | 1 | F ₄ |
| 8. A76-101019 | AP 6 | PI | F ₆ |
| 9. A76-101024 | AP 6 | PI | F ₆ |
| 10. A76-102009 | Corsoy ³ x Cutler 71 | PI | F ₃ |
| 11. A76-102013 | AP 6 | PI | F ₆ |
| 12. A76-103002 | AP 6 | PI | F ₆ |
| 13. A76-103003 | AP 6 | PI | F ₆ |

* Number of years in this test or names of 1977 test.

The two-year test data shows that A75-102032 and A75-103019 are two to three bushels higher in yield than the Group I check varieties. The first of these strains is susceptible to phytophthora root rot, the second is either hetero-geneous or susceptible in reaction to race 1 of this disease. Both strains yield slightly above Corsoy, the Group II check variety.

The yields of two strains, A76-102009 and A76-103002 are slightly higher than the two Iowa strains previously tested. A76-102009 was also the highest yielding strains in the Preliminary I Test in 1977. It is resistant to race 1 of phytophthora.

UNIFORM TEST I, 1978

Descriptive and Other Data

| Strain | Descriptive Code | | Chlorosis | Hypocotyl | Shattering |
|----------------|------------------|------|---------------|---------------|----------------------|
| | | | Score Ames | Score Ames | Manhattan 2 Weeks |
| Coles | PGBr | SY Y | 2 | 1 | 5 |
| Corsoy (II) | PGBr | SY Y | 4 | 1 | 3 |
| Evans (0) | WGBr | DY Y | 2 | 1 | 2 |
| Harlon | WGBr | DY Y | 2 | 1 | 5 |
| Hodgson 78 (I) | PGBr | DYBf | 2 | 5 | 5 |
| A75-102032 | WTBr | DYB1 | 2 | 2 | 3 |
| A75-103019 | PTBr | SYB1 | 2 | 5 | 5 |
| A76-101019 | WGBr | SY Y | 3 | 1 | 5 |
| A76-101024 | PGBr | DYIb | 4 | 5 | 5 |
| A76-102009 | PGBr | DY Y | 3 | 1 | 4 |
| A76-102013 | PTBr | SY G | 4 | 1 | 5 |
| A76-103002 | WTBr | SY G | 4 | 1 | 5 |
| A76-103003 | PTBr | SYB1 | 3 | 4 | 5 |

Disease Data

| Strain | FE ₂ | BSR | | PSB | PS | PR | PR | Race 1 | |
|----------------|-----------------|--------------|---------------|---------------|--------------|--------------|-------------------------|--------------|-------------|
| | Laf. Ind. | Laf. Ind. | Ames, Stem | Ia. Plants | Laf. Ind. | Laf. Ind. | Vickery Ohio | Laf. Ind. | Ames Ia. |
| | a Score | n % | n % | n % | d % | a % | a -----Reaction----- | a a | a a |
| Coles | 4 | 0 | 49 | 100 | 4 | 2 | 4 | S | S |
| Corsoy (II) | 5 | 20 | 48 | 100 | 4 | 1 | 4 | S | S |
| Evans (0) | 5 | 40 | 63 | 90 | 11 | 6 | 3 | R | R |
| Harlon | 5 | 20 | 61 | 100 | 4 | 2 | 4.5 | R | R |
| Hodgson 78 (I) | 5 | 0 | 59 | 100 | 7 | 3 | 2 | R | R |
| A75-102032 | 3 | 40 | 61 | 100 | 2 | 0 | 4 | S | S |
| A75-103019 | 4 | 10 | 71 | 100 | 5 | 1 | 3 | H | S |
| A76-101019 | 4 | 80 | 53 | 100 | 0 | 1 | 5 | S | S |
| A76-101024 | 4 | 30 | 74 | 100 | 0 | 0 | 2.5 | S | S |
| A76-102009 | 4 | 30 | - | - | 2 | 3 | 3.5 | R | R |
| A76-102013 | 5 | 0 | 81 | 100 | 0 | 1 | 2.5 | S | S |
| A76-103002 | 5 | 40 | 92 | 100 | 1 | 2 | 3 | S | S |
| A76-103003 | 2 | 30 | 71 | 100 | 3 | 0 | 2 | S | S |

REGIONAL SUMMARY

| Strain | Yield bu/a | Rank No. | Matu- | Lodg- | Height In. | Seed Quality Score | Seed Size g/100 | Seed Composition | |
|------------------|---------------|-------------|--------------|--------------|---------------|--------------------------|-----------------------|------------------|----------|
| | | | rity Date | ing Score | | | | Protein % | Oil % |
| 1978 | | | | | | | | | |
| No. of Tests | 13 | 13 | 12 | 13 | 12 | 9 | 12 | 6 | 6 |
| Coles | 40.1 | 11 | +6.2 | 2.2 | 38 | 2.1 | 19.5 | 42.3 | 20.2 |
| Corsoy (II) | 40.5 | 10 | +7.8 | 2.0 | 37 | 2.4 | 16.3 | 41.4 | 20.5 |
| Evans (0) | 34.9 | 13 | -6.3 | 1.2 | 30 | 2.9 | 16.2 | 40.3 | 22.2 |
| Harlon | 36.8 | 12 | -5.2 | 1.6 | 34 | 2.5 | 17.4 | 39.6 | 21.8 |
| Hodgson 78 (I) | 41.7 | 5 | 9-20* | 1.5 | 34 | 2.2 | 17.6 | 39.4 | 22.1 |
| leber A75-102032 | 42.8 | 3 | +4.2 | 1.8 | 36 | 2.3 | 13.7 | 40.2 | 21.4 |
| A75-193019 | 41.7 | 5 | +1.7 | 1.8 | 30 | 2.6 | 16.9 | 40.4 | 21.2 |
| A76-101019 | 40.8 | 8 | +0.3 | 1.6 | 31 | 2.3 | 14.6 | 40.8 | 20.6 |
| A76-101024 | 40.6 | 9 | +1.2 | 1.6 | 33 | 2.6 | 17.5 | 41.2 | 21.2 |
| A76-102009 | 44.7 | 1 | +3.6 | 1.9 | 36 | 2.3 | 15.8 | 41.0 | 21.0 |
| A76-102013 | 42.0 | 4 | +1.8 | 2.2 | 35 | 2.6 | 15.8 | 42.9 | 20.0 |
| A76-103002 | 43.6 | 2 | +1.6 | 1.9 | 37 | 2.7 | 17.1 | 41.1 | 21.2 |
| A76-103003 | 41.6 | 7 | +1.0 | 1.9 | 37 | 2.1 | 18.0 | 42.1 | 20.2 |

* 118 days after planting

1977-1978, 2-YEAR MEAN

| No. of Tests | 28 | 28 | 25 | 28 | 26 | 20 | 24 | 12 | 12 |
|----------------|------|----|---------|-----|----|-----|------|------|------|
| Coles | 41.4 | 5 | +6.9 | 2.3 | 39 | 2.1 | 19.2 | 41.1 | 20.2 |
| Corsoy (II) | 42.5 | 3 | +7.4 | 2.2 | 38 | 2.3 | 16.1 | 40.0 | 20.6 |
| Evans (0) | 34.3 | 7 | -7.8 | 1.4 | 31 | 2.5 | 15.6 | 39.2 | 22.2 |
| Harlon | 36.3 | 6 | -5.6 | 1.8 | 35 | 2.4 | 16.8 | 38.7 | 21.8 |
| Hodgson 78 (I) | 41.5 | 4 | 9-17.5* | 1.7 | 34 | 2.1 | 17.0 | 38.4 | 22.2 |
| A75-102032 | 44.6 | 1 | +4.8 | 2.0 | 36 | 2.1 | 14.0 | 39.0 | 21.4 |
| A75-103019 | 43.2 | 2 | +3.0 | 1.9 | 31 | 2.3 | 17.0 | 39.2 | 21.3 |

* 119 days after planting

UNIFORM TEST I, 1978

| Strain | Mean | Ont. | Mich. | | Ind. | Wisc. | |
|----------------|----------|---------------------|--------|---------------|----------------|----------------|--------|
| | | Ridge- town | Monroe | E. Lansing | Lafay- ette | Arling- ton | Durand |
| | 13 Tests | <u>YIELD (bu/a)</u> | | | | | |
| Coles | 40.1 | 47.9 | 22.3 | 39.1 | 47.5 | 33.4 | 19.7 |
| Corsoy (II) | 40.5 | 46.9 | 17.3 | 34.4 | 49.6 | 31.4 | 18.0 |
| Evans (0) | 34.9 | 42.3 | 12.0 | 28.2 | 32.3 | 34.0 | 9.6 |
| Harlon | 36.8 | 43.3 | 15.0 | 29.4 | 39.3 | 30.2 | 13.6 |
| Hodgson 78 (I) | 41.7 | 49.9 | 21.4 | 34.6 | 47.3 | 36.4 | 13.7 |
| A75-102032 | 42.8 | 45.2 | 17.8 | 41.0 | 50.3 | 35.4 | 14.8 |
| A75-103019 | 41.7 | 47.2 | 20.3 | 36.3 | 46.0 | 38.6 | 21.1 |
| A76-101019 | 40.8 | 45.0 | 9.3 | 38.3 | 44.0 | 35.5 | 16.1 |
| A76-101024 | 40.6 | 44.9 | 21.3 | 39.4 | 47.7 | 36.3 | 11.9 |
| A76-102009 | 44.7 | 48.1 | 22.2 | 44.1 | 50.9 | 42.1 | 19.2 |
| A76-102013 | 42.0 | 40.9 | 19.1 | 40.6 | 49.4 | 37.1 | 13.5 |
| A76-103002 | 43.6 | 46.5 | 18.2 | 42.6 | 49.3 | 37.2 | 17.9 |
| A76-103003 | 41.6 | 46.1 | 23.0 | 41.4 | 50.0 | 35.3 | 13.0 |
| C.V. (%) | | 5.1 | 24.1 | 7.8 | 8.8 | 9.0 | 27.7 |
| L.S.D. (5%) | | 3.3 | 7.5 | 4.9 | 6.7 | 5.1 | 7.0 |
| Row sp (in.) | | 24" | - | - | 30" | 30" | 38" |
| Rows/plot | | 4 | - | - | 4 | 4 | 4 |
| Reps | | 4 | - | - | 3 | 3 | 3 |
| | 13 Tests | <u>YIELD RANK</u> | | | | | |
| Coles | 11 | 3 | 2 | 7 | 8 | 11 | 2 |
| Corsoy (II) | 10 | 5 | 10 | 11 | 4 | 12 | 4 |
| Evans (0) | 13 | 12 | 12 | 13 | 13 | 10 | 13 |
| Harlon | 12 | 11 | 11 | 12 | 12 | 13 | 9 |
| Hodgson 78 (I) | 5 | 1 | 4 | 10 | 9 | 5 | 8 |
| A75-102032 | 3 | 8 | 9 | 4 | 2 | 8 | 7 |
| A75-103019 | 5 | 4 | 6 | 9 | 10 | 2 | 1 |
| A76-101019 | 8 | 9 | 13 | 8 | 11 | 7 | 6 |
| A76-101024 | 9 | 10 | 5 | 6 | 7 | 6 | 12 |
| A76-102009 | 1 | 2 | 3 | 1 | 1 | 1 | 3 |
| A76-102013 | 4 | 13 | 7 | 5 | 5 | 4 | 10 |
| A76-103002 | 2 | 6 | 8 | 2 | 6 | 3 | 5 |
| A76-103003 | 7 | 7 | 1 | 3 | 3 | 9 | 11 |

UNIFORM TEST I, 1978

| Strain | Minn. | | Iowa | | N.D. | S.D. | | Neb. |
|----------------|---------------------|----------------|--------|---------|------|---------|----------------|------|
| | Waseca | Lamber- ton | Nashua | Corwith | + | Reville | Brook- ings | Mead |
| | <u>YIELD (bu/a)</u> | | | | | | | |
| Coles | 49.3 | 54.0 | 48.7 | 55.3 | 47.1 | 28.3 | 27.2 | 48.9 |
| Corsoy (II) | 53.2 | 47.9 | 50.3 | 51.3 | 55.3 | 33.9 | 42.6 | 50.2 |
| Evans (0) | 42.1 | 46.2 | 40.3 | 42.4 | 47.2 | 36.8 | 52.7 | 35.3 |
| Harlon | 48.7 | 49.2 | 45.4 | 44.9 | 46.6 | 35.0 | 42.0 | 42.6 |
| Hodgson 78 (I) | 53.3 | 54.4 | 51.8 | 48.1 | 45.2 | 39.7 | 43.6 | 47.9 |
| A75-102032 | 53.0 | 57.3 | 49.4 | 57.9 | 45.8 | 39.5 | 43.5 | 51.6 |
| A75-103019 | 51.8 | 49.0 | 44.5 | 54.1 | 43.4 | 37.6 | 42.6 | 53.4 |
| A76-101019 | 54.5 | 53.7 | 44.3 | 52.8 | 51.1 | 37.7 | 44.2 | 54.8 |
| A76-101024 | 52.2 | 58.1 | 47.7 | 50.8 | 49.8 | 37.2 | 31.2 | 49.5 |
| A76-102009 | 56.4 | 55.0 | 52.6 | 52.7 | 50.4 | 41.3 | 42.1 | 54.2 |
| A76-102013 | 52.5 | 54.9 | 51.4 | 53.4 | 50.5 | 41.9 | 40.9 | 50.0 |
| A76-103002 | 55.8 | 56.5 | 48.8 | 54.8 | 48.0 | 42.7 | 45.2 | 51.4 |
| A76-103003 | 52.0 | 54.4 | 47.4 | 51.8 | 46.4 | 32.6 | 42.8 | 50.7 |
| C.V. | 6.8 | 6.8 | 6.1 | 6.2 | 13.8 | 6.8 | 15.2 | 6.1 |
| L.S.D. (5%) | 5.8 | 6.0 | 4.1 | 4.5 | 9.3 | 3.6 | 9.1 | 5.0 |
| Row sp (in.) | 30" | 30" | 13.5" | 27" | 12" | 38" | 30" | 30" |
| Rows/plot | 4 | 4 | 5 | 4 | 4 | 3 | 3 | 4 |
| Reps | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 3 |

| | | | | | | | | |
|----------------|-------------------|----|----|----|----|----|----|----|
| | <u>YIELD RANK</u> | | | | | | | |
| Coles | 11 | 8 | 7 | 2 | 8 | 13 | 13 | 10 |
| Corsoy (II) | 5 | 12 | 4 | 9 | 1 | 11 | 8 | 7 |
| Evans (0) | 13 | 13 | 13 | 13 | 7 | 9 | 1 | 13 |
| Harlon | 12 | 10 | 10 | 12 | 9 | 10 | 10 | 12 |
| Hodgson 78 (I) | 4 | 6 | 2 | 11 | 12 | 4 | 4 | 11 |
| A75-102032 | 6 | 2 | 5 | 1 | 11 | 5 | 5 | 4 |
| A75-103019 | 10 | 11 | 11 | 4 | 13 | 7 | 7 | 3 |
| A76-101019 | 3 | 9 | 12 | 6 | 2 | 6 | 3 | 1 |
| A76-101024 | 8 | 1 | 8 | 10 | 5 | 8 | 12 | 9 |
| A76-102009 | 1 | 4 | 1 | 7 | 4 | 3 | 9 | 2 |
| A76-102013 | 7 | 5 | 3 | 5 | 3 | 2 | 11 | 8 |
| A76-103002 | 2 | 3 | 6 | 3 | 6 | 1 | 2 | 5 |
| A76-103003 | 9 | 6 | 9 | 8 | 10 | 12 | 6 | 6 |

+ Not included in the mean

UNIFORM TEST I, 1978

| Strain | Mean 12 Tests | Ont. | Mich. | | Ind. | Wisc. | |
|---------------------------------|------------------|----------------|--------|---------------|----------------|----------------|--------|
| | | Ridge- town | Monroe | E. Lansing | Lafay- ette | Arling- ton | Durand |
| <u>MATURITY (relative date)</u> | | | | | | | |
| Coles | +6.2 | +1 | +2 | +5 | +7 | +12 | +5 |
| Corsoy (0) | +7.8 | +6 | +4 | +12 | +9 | +10 | +20 |
| Evans (0) | -6.3 | -8 | -1 | -3 | -5 | -1 | -12 |
| Harlon | -5.2 | -5 | 0 | 0 | -4 | -2 | -11 |
| Hodgson 78* (I) | 9-20 | 9-17 | 9-19 | 9-18 | 9-7 | 9-19 | 9-26 |
| A75-102032 | +4.2 | +1 | 0 | +3 | +4 | +5 | +20 |
| A75-103019 | +1.7 | -1 | 0 | 0 | +2 | +2 | +8 |
| A76-101019 | +0.3 | +1 | 0 | +2 | +5 | +1 | 0 |
| A76-101024 | +1.2 | -2 | 0 | +3 | +1 | +4 | +4 |
| A76-102009 | +3.6 | +1 | 0 | +5 | +4 | +3 | +11 |
| A76-102013 | +1.8 | -1 | -1 | +3 | +4 | +6 | +3 |
| A76-103002 | +1.6 | +1 | -1 | +3 | +2 | +5 | +4 |
| A76-103003 | +1.0 | -1 | 0 | +3 | +1 | +3 | +1 |
| Date planted | 5-24 | 5-25 | - | - | 5-27 | 5-23 | 5-25 |
| * days to mat. | 118 | 115 | - | - | 103 | 119 | 124 |
| <u>LODGING (score)</u> | | | | | | | |
| 13 Tests | | | | | | | |
| Coles | 2.2 | 2.0 | 1.2 | 3.0 | 2.7 | 3.0 | 1.0 |
| Corsoy (II) | 2.0 | 2.0 | 1.0 | 2.0 | 2.5 | 3.0 | 1.3 |
| Evans (0) | 1.2 | 1.0 | 1.0 | 1.5 | 1.0 | 1.7 | 1.0 |
| Harlon | 1.6 | 2.0 | 1.0 | 1.7 | 1.3 | 2.0 | 1.0 |
| Hodgson (I) | 1.5 | 1.3 | 1.2 | 1.5 | 2.0 | 1.3 | 1.0 |
| A75-102032 | 1.8 | 1.5 | 1.0 | 1.4 | 2.2 | 2.3 | 1.0 |
| A75-103019 | 1.8 | 2.3 | 1.5 | 1.2 | 2.8 | 2.0 | 1.0 |
| A76-101019 | 1.6 | 1.8 | 1.0 | 1.5 | 1.8 | 2.3 | 1.0 |
| A76-101024 | 1.6 | 2.3 | 1.3 | 1.7 | 1.5 | 2.3 | 1.0 |
| A76-102009 | 1.9 | 2.0 | 1.0 | 1.6 | 3.2 | 2.3 | 1.7 |
| A76-102013 | 2.2 | 2.0 | 1.7 | 2.5 | 2.8 | 2.7 | 1.0 |
| A76-103002 | 1.9 | 1.8 | 1.4 | 1.7 | 3.0 | 2.3 | 1.0 |
| A76-103003 | 1.9 | 2.0 | 1.2 | 2.0 | 2.5 | 2.7 | 1.0 |

UNIFORM TEST I, 1978

| Strain | Minn. | | Iowa | | N.D. | S.D. | | Neb. |
|---------------------------------|--------|----------------|--------|---------|------|---------|----------------|------|
| | Waseca | Lamber- ton | Nashua | Corwith | + | Revilla | Brook- ings | Mead |
| <u>MATURITY (relative date)</u> | | | | | | | | |
| Coles | +6 | +8 | +8 | | | +6 | +4 | +10 |
| Corsoy (II) | +5 | +5 | +6 | | | +2 | +3 | +11 |
| Evans (0) | -11 | -7 | -10 | | | -6 | -6 | -6 |
| Harlon | -10 | -7 | -8 | | | -5 | -3 | -7 |
| Hodgson 78 (I) | 9-18 | 9-12 | 9-13 | | | 10-6 | 10-10 | 9-12 |
| A75-102032 | +3 | +2 | +4 | | | +3 | +1 | +4 |
| A75-103019 | -1 | 0 | +1 | | | +3 | +3 | +3 |
| A76-101019 | -2 | -1 | +1 | | | -3 | -2 | +2 |
| A76-101024 | 0 | 0 | +1 | | | +2 | +1 | 0 |
| A76-102009 | +4 | +1 | +2 | | | +1 | 0 | +11 |
| A76-102013 | +1 | 0 | +2 | | | +1 | 0 | +4 |
| A76-103002 | +3 | 0 | +1 | | | -1 | 0 | +2 |
| A76-103003 | +1 | +1 | +3 | | | 0 | -1 | +1 |
| Date planted | 5-15 | 5-11 | 5-23 | 5-15 | 5-20 | 6-10 | 6-5 | 5-22 |
| * days to mat. | 126 | 124 | 113 | - | - | 119 | 128 | 113 |

| <u>LODGING (score)</u> | | | | | | | | |
|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Coles | 3.0 | 4.0 | 2.2 | 2.7 | 3.3 | 1.0 | 1.0 | 1.3 |
| Corsoy (II) | 2.0 | 3.0 | 2.2 | 2.9 | 2.8 | 1.0 | 1.0 | 1.5 |
| Evans (0) | 1.0 | 1.3 | 2.0 | 1.6 | 2.0 | 1.0 | 1.0 | 1.0 |
| Harlon | 2.0 | 2.3 | 1.9 | 2.2 | 2.5 | 1.0 | 1.0 | 1.0 |
| Hodgson 78 (I) | 1.3 | 2.3 | 1.9 | 2.1 | 2.8 | 1.0 | 1.0 | 1.3 |
| A75-102032 | 2.3 | 3.0 | 2.0 | 2.9 | 3.0 | 1.0 | 1.0 | 1.5 |
| A75-103019 | 2.0 | 3.0 | 2.2 | 2.4 | 2.0 | 1.0 | 1.0 | 1.3 |
| A76-101019 | 1.7 | 1.7 | 2.2 | 2.4 | 1.8 | 1.0 | 1.0 | 1.2 |
| A76-101024 | 1.0 | 2.3 | 1.9 | 2.4 | 1.8 | 1.0 | 1.0 | 1.0 |
| A76-102009 | 2.0 | 2.7 | 2.0 | 3.0 | 3.0 | 1.0 | 1.0 | 1.3 |
| A76-102013 | 3.0 | 3.3 | 2.0 | 3.2 | 3.3 | 1.0 | 1.0 | 1.7 |
| A76-103002 | 2.0 | 3.0 | 2.0 | 3.0 | 2.8 | 1.0 | 1.0 | 1.5 |
| A76-103003 | 2.0 | 3.0 | 2.0 | 2.8 | 3.0 | 1.0 | 1.0 | 1.2 |

+ Not included in the mean

UNIFORM TEST I, 1978

| Strain | Mean | Ont. | Mich. | | Ind. | Wisc. | |
|----------------|----------|-----------------|--------|---------------|----------------|----------------|--------|
| | | Ridge- town | Monroe | E. Lansing | Lafay- ette | Arling- ton | Durand |
| | 12 Tests | HEIGHT (inches) | | | | | |
| Coles | 38 | 38 | 27 | 33 | 35 | 43 | 37 |
| Corsoy (II) | 37 | 38 | 28 | 33 | 36 | 43 | 35 |
| Evans (0) | 30 | 26 | 21 | 32 | 26 | 36 | 26 |
| Harlon | 34 | 33 | 27 | 33 | 30 | 40 | 31 |
| Hodgson 78 (I) | 34 | 29 | 26 | 32 | 32 | 38 | 34 |
| A75-102032 | 36 | 32 | 28 | 32 | 34 | 40 | 36 |
| A75-103019 | 30 | 30 | 23 | 27 | 30 | 32 | 27 |
| A76-101019 | 31 | 29 | 23 | 32 | 27 | 34 | 29 |
| A76-101024 | 33 | 31 | 26 | 32 | 29 | 38 | 30 |
| A76-102009 | 36 | 36 | 28 | 36 | 34 | 40 | 36 |
| A76-102013 | 35 | 33 | 30 | 34 | 35 | 41 | 29 |
| A76-103002 | 37 | 34 | 27 | 36 | 38 | 42 | 36 |
| A76-103003 | 37 | 36 | 31 | 36 | 37 | 40 | 35 |

SEED QUALITY (score)

| Strain | 9 Tests | SEED QUALITY (score) | | | | | |
|----------------|---------|----------------------|-------|------|-------|--------|--|
| | | Ont. | Mich. | Ind. | Wisc. | Durand | |
| Coles | 2.1 | 2 | | 1.0 | 2.3 | 3.0 | |
| Corsoy (II) | 2.4 | 2 | | 1.5 | 3.3 | 3.0 | |
| Evans (0) | 2.9 | 2 | | 1.5 | 3.0 | 4.0 | |
| Harlon | 2.5 | 2 | | 2.0 | 2.7 | 2.7 | |
| Hodgson 78 (I) | 2.2 | 2 | | 1.0 | 2.3 | 3.3 | |
| A75-102032 | 2.3 | 2 | | 2.0 | 2.0 | 3.0 | |
| A75-103019 | 2.6 | 2 | | 1.5 | 2.0 | 3.0 | |
| A76-101019 | 2.3 | 2 | | 1.5 | 3.0 | 3.3 | |
| A76-101024 | 2.6 | 2 | | 2.0 | 1.7 | 3.3 | |
| A76-102009 | 2.3 | 2 | | 1.5 | 2.3 | 3.0 | |
| A76-102013 | 2.6 | 2 | | 1.5 | 2.3 | 3.7 | |
| A76-103002 | 2.7 | 2 | | 2.0 | 3.3 | 3.3 | |
| A76-103003 | 2.1 | 2 | | 1.0 | 1.3 | 3.0 | |

UNIFORM TEST I, 1978

| Strain | Minn. | | Iowa | | N.D. | S.D. | | Neb. |
|------------------------------|--------|----------------|--------|---------|------|---------|----------------|------|
| | Waseca | Lamber- ton | Nashua | Corwith | + | Revilla | Brook- ings | Mead |
| <u>PLANT HEIGHT (inches)</u> | | | | | | | | |
| Coles | | 40 | 39 | 40 | 62 | 42 | 44 | 40 |
| Corsoy (II) | | 40 | 38 | 37 | 54 | 40 | 43 | 38 |
| Evans (0) | | 29 | 32 | 33 | 51 | 35 | 39 | 29 |
| Harlon | | 34 | 34 | 36 | 52 | 39 | 44 | 32 |
| Hodgson 78 (I) | | 34 | 35 | 34 | 50 | 38 | 39 | 35 |
| A75-102032 | | 36 | 37 | 36 | 52 | 36 | 43 | 36 |
| A75-103019 | | 33 | 31 | 29 | 40 | 35 | 36 | 28 |
| A76-101019 | | 33 | 32 | 33 | 42 | 34 | 39 | 30 |
| A76-101024 | | 35 | 34 | 33 | 48 | 37 | 36 | 31 |
| A76-102009 | | 36 | 38 | 37 | 56 | 40 | 40 | 36 |
| A76-102013 | | 35 | 35 | 36 | 58 | 35 | 42 | 35 |
| A76-103002 | | 38 | 38 | 38 | 56 | 37 | 40 | 37 |
| A76-103003 | | 38 | 36 | 36 | 60 | 38 | 41 | 37 |

| <u>SEED QUALITY (score)</u> | | | | | | | | |
|-----------------------------|-----|-----|--|--|-----|--|---|-----|
| Coles | 1.7 | 1.7 | | | 1.3 | | 4 | 2.2 |
| Corsoy (II) | 2.7 | 2.3 | | | 1.2 | | 3 | 2.7 |
| Evans (0) | 3.0 | 3.0 | | | 1.6 | | 5 | 2.8 |
| Harlon | 2.7 | 3.0 | | | 1.7 | | 3 | 2.5 |
| Hodgson 78 (I) | 2.3 | 2.3 | | | 1.3 | | 3 | 2.3 |
| A75-102032 | 2.0 | 1.7 | | | 1.5 | | 4 | 2.2 |
| A75-103019 | 2.7 | 2.7 | | | 2.0 | | 5 | 2.3 |
| A76-101019 | 2.3 | 1.7 | | | 1.8 | | 2 | 3.0 |
| A76-101024 | 2.7 | 2.7 | | | 1.4 | | 5 | 3.0 |
| A76-102009 | 2.0 | 2.7 | | | 1.5 | | 3 | 2.8 |
| A76-102013 | 2.3 | 2.7 | | | 1.5 | | 5 | 2.2 |
| A76-103002 | 2.7 | 2.7 | | | 1.6 | | 4 | 2.5 |
| A76-103003 | 2.0 | 2.3 | | | 1.3 | | 4 | 2.3 |

+ Not included in the mean

UNIFORM TEST I, 1978

| Strain | Mean | Ont. | Mich. | | Ind. | Wisc. | |
|----------------|----------|--------------------------|--------|---------------|----------------|----------------|--------|
| | | Ridge- town | Monroe | E. Lansing | Lafay- ette | Arling- ton | Durand |
| | 12 Tests | <u>SEED SIZE (g/100)</u> | | | | | |
| Coles | 19.5 | 18.3 | 20.0 | 24.8 | 18.3 | 19.2 | 20.2 |
| Corsoy (II) | 16.3 | 15.7 | 16.5 | 20.5 | 16.6 | 15.3 | 15.9 |
| Evans (0) | 16.2 | 16.5 | 19.0 | 18.0 | 17.0 | 15.2 | 9.6 |
| Harlon | 17.4 | 17.6 | 21.0 | 21.0 | 17.5 | 16.4 | 13.3 |
| Hodgson 78 (I) | 17.6 | 17.4 | 20.0 | 21.5 | 17.9 | 16.0 | 15.7 |
| A75-102032 | 13.7 | 12.9 | 13.0 | 15.0 | 13.2 | 14.4 | 13.8 |
| A75-103019 | 16.9 | 16.1 | 13.3 | 19.0 | 17.1 | 15.9 | 18.7 |
| A76-101019 | 14.6 | 13.7 | 15.1 | 17.0 | 14.6 | 14.0 | 13.4 |
| A76-101024 | 17.5 | 16.9 | 17.5 | 20.0 | 18.4 | 18.0 | 15.9 |
| A76-102009 | 15.8 | 15.0 | 15.5 | 18.0 | 16.1 | 14.1 | 15.7 |
| A76-102013 | 15.8 | 14.0 | 15.0 | 23.0 | 14.9 | 15.6 | 16.0 |
| A76-103002 | 17.1 | 15.4 | 17.0 | 20.5 | 17.1 | 16.1 | 16.2 |
| A76-103003 | 18.0 | 17.3 | 18.5 | 21.0 | 18.2 | 17.7 | 15.8 |

PROTEIN (%)

| | 6 Tests | | | | |
|----------------|---------|------|--|------|--|
| Coles | 42.3 | 41.8 | | 42.4 | |
| Corsoy (II) | 41.4 | 41.7 | | 40.5 | |
| Evans (0) | 40.3 | 39.8 | | 39.3 | |
| Harlon | 39.6 | 39.5 | | 39.4 | |
| Hodgson 78 (I) | 39.4 | 38.3 | | 39.8 | |
| A75-102032 | 40.2 | 40.4 | | 41.0 | |
| A75-103019 | 40.4 | 42.2 | | 40.1 | |
| A76-101019 | 40.8 | 42.1 | | 39.7 | |
| A76-101024 | 41.2 | 42.4 | | 40.9 | |
| A76-102009 | 41.0 | 40.5 | | 40.8 | |
| A76-102013 | 42.9 | 43.8 | | 41.9 | |
| A76-103002 | 41.1 | 42.2 | | 40.6 | |
| A76-103003 | 42.1 | 42.1 | | 42.5 | |

UNIFORM TEST I, 1978

| Strain | Minn. | | Iowa | | N.D. | S.D. | | Neb. |
|--------------------------|--------|----------------|--------|---------|------|---------|----------------|------|
| | Waseca | Lamber- ton | Nashua | Corwith | Oaks | Revillo | Brook- ings | Mead |
| <u>SEED SIZE (g/100)</u> | | | | | | | | |
| Coles | 20.0 | 17.7 | | 19.3 | | 18.5 | 19.4 | 18.4 |
| Corsoy (II) | 16.5 | 16.0 | | 16.6 | | 14.8 | 15.3 | 16.3 |
| Evans (0) | 18.2 | 16.2 | | 14.2 | | 15.6 | 16.7 | 17.6 |
| Harlon | 17.3 | 15.9 | | 14.4 | | 18.1 | 18.6 | 17.8 |
| Hodgson 78 (I) | 17.7 | 15.8 | | 15.7 | | 17.9 | 17.3 | 18.3 |
| A75-102032 | 14.0 | 12.7 | | 13.6 | | 14.4 | 14.0 | 13.7 |
| A75-103019 | 17.1 | 16.7 | | 17.3 | | 16.8 | 16.1 | 18.3 |
| A76-101019 | 15.3 | 14.7 | | 14.2 | | 13.8 | 13.9 | 15.9 |
| A76-101024 | 18.4 | 16.0 | | 17.2 | | 15.7 | 16.8 | 19.3 |
| A76-102009 | 16.4 | 16.1 | | 15.4 | | 15.9 | 15.7 | 16.2 |
| A76-102013 | 16.6 | 14.5 | | 15.6 | | 14.0 | 15.0 | 15.2 |
| A76-103002 | 18.0 | 17.7 | | 16.4 | | 17.0 | 16.2 | 17.2 |
| A76-103003 | 18.7 | 17.5 | | 18.2 | | 18.4 | 16.8 | 18.4 |

| <u>PROTEIN (%)</u> | | | | | | | | |
|--------------------|------|--|--|------|--|--|------|------|
| Coles | 41.7 | | | 42.1 | | | 43.1 | 42.8 |
| Corsoy (II) | 40.6 | | | 41.7 | | | 42.3 | 41.7 |
| Evans (0) | 40.4 | | | 39.8 | | | 42.1 | 40.4 |
| Harlon | 38.0 | | | 39.4 | | | 41.9 | 39.4 |
| Hodgson 78 (I) | 38.7 | | | 38.8 | | | 41.5 | 39.5 |
| A75-102032 | 40.3 | | | 39.5 | | | 41.0 | 38.7 |
| A75-103019 | 41.4 | | | 39.7 | | | 40.7 | 38.5 |
| A76-101019 | 41.0 | | | 40.1 | | | 41.7 | 40.5 |
| A76-101024 | 41.5 | | | 39.3 | | | 42.4 | 40.8 |
| A76-102009 | 41.3 | | | 40.3 | | | 42.3 | 40.8 |
| A76-102013 | 42.4 | | | 42.7 | | | 43.3 | 43.5 |
| A76-103002 | 40.2 | | | 40.6 | | | 41.2 | 41.6 |
| A76-103003 | 42.0 | | | 41.5 | | | 41.8 | 42.7 |

UNIFORM TEST I, 1978

| Strain | Mean | <u>Minn.</u> | <u>Ont.</u> | <u>Iowa</u> | <u>Ind.</u> | <u>S.D.</u> | <u>Neb.</u> |
|----------------|---------|----------------|----------------|-------------|----------------|----------------|-------------|
| | | Waseca | Ridge- town | Corwith | Lafay- ette | Brook- ings | Mead |
| | 6 Tests | <u>OIL (%)</u> | | | | | |
| Coles | 20.2 | 20.0 | 20.5 | 20.5 | 20.6 | 18.9 | 20.7 |
| Corsoy (II) | 20.5 | 20.8 | 20.5 | 20.7 | 20.4 | 19.3 | 21.1 |
| Evans (0) | 22.2 | 21.6 | 22.2 | 22.2 | 24.3 | 20.1 | 22.5 |
| Harlon | 21.8 | 22.4 | 21.4 | 21.5 | 22.5 | 20.0 | 22.9 |
| Hodgson 78 (I) | 22.1 | 22.3 | 22.9 | 22.5 | 22.1 | 19.8 | 23.0 |
| A75-102032 | 21.4 | 21.8 | 21.2 | 21.5 | 21.8 | 19.8 | 22.3 |
| A75-103019 | 21.2 | 20.7 | 20.5 | 22.0 | 21.9 | 19.7 | 22.7 |
| A76-101019 | 20.6 | 20.7 | 20.2 | 21.0 | 21.2 | 19.0 | 21.6 |
| A76-101024 | 21.2 | 20.5 | 20.1 | 22.8 | 22.2 | 19.2 | 22.3 |
| A76-102009 | 21.0 | 20.9 | 20.8 | 21.8 | 21.1 | 19.5 | 21.9 |
| A76-102013 | 20.0 | 20.2 | 19.2 | 20.2 | 21.2 | 18.8 | 20.7 |
| A76-103002 | 21.2 | 21.9 | 20.5 | 21.4 | 21.7 | 19.8 | 21.6 |
| A76-103003 | 20.2 | 20.1 | 20.3 | 20.7 | 20.5 | 19.1 | 20.6 |

PRELIMINARY TEST I, 1978

| Strain | Parentage | Generation Compositd |
|-------------------|-----------------------------------|----------------------|
| 1. Coles | Hark x (Provar x (Magna x Disoy)) | F ₅ |
| 2. Corsoy (II) | Harosoy x Capital | F ₉ |
| 3. Evans (O) | Merit x Harosoy | F ₅ |
| 4. Hodgson 78 (I) | Hodgson ⁷ x Merit | F ₃ |
| 5. A77-111019 | Washington x A72-512 | F ₄ |
| 6. A77-112008 | Washington x A72-512 | F ₄ |
| 7. A77-112016 | AP6E(S1)C1 | S ₄ |
| 8. A77-112023 | AP6M(S1)C1 | S ₄ |
| 9. A77-112028 | AP61YT(F4)C1 | F ₄ |
| 10. A77-112029 | AP61YT(F4)C1 | F ₄ |
| 11. A77-112030 | AP61YT(F4)C1 | F ₄ |
| 12. A77-113018 | AP6E(S1)C1 | S ₄ |
| 13. A77-114015 | Washington x Steele | F ₄ |
| 14. A77-114020 | AP6E(S1)C1 | S ₄ |
| 15. A77-114030 | A72-106 x Williams | F ₄ |
| 16. A77-114033 | AP61YT(F4)C1 | F ₄ |
| 17. A77-116013 | AX990 | S ₃ |
| 18. A77-116028 | M62-275 x Beeson | F ₄ |
| 19. L74-3897 | Williams x Beeson | F ₆ |
| 20. L75-3632 | Corsoy ⁶ x Lee 68 | F ₃ |
| 21. L75-9162 | Amsoy 71 x L2-Dt ₂ | F ₆ |
| 22. L75-9164 | Amsoy 71 x L2-Dt ₂ | F ₆ |
| 23. M69-318 | Ja 53-1 x Hark | F ₅ |
| 24. M70-121 | Evans x M63-217Y | F ₅ |
| 25. M70-128 | Evans x M63-217Y | F ₅ |
| 26. M70-150 | Merit x M64-3 | F ₅ |
| 27. M70-179 | Hill x Steele | F ₅ |
| 28. M70-242 | Evans x M64-3 | F ₅ |
| 29. M70-259 | M62-93 x M63-217Y | F ₅ |
| 30. M70-260 | M62-93 x M63-217Y | F ₅ |

Several strains in this test were superior in performance to Hodgson 78, the Group I check. The highest yielding strain, M70-128, is resistant to races 1 and 2 of phytophthora root rot. The strains L75-3632, which ranked 8 in yield, is resistant to all races but 4 and 5 of phytophthora and also had the best phytophthora tolerance score of any strains in this test. Two high yielding Iowa strains, A77-112023, resistant to phytophthora races 1 and 2, and A77-113018 had good resistance to shattering.

PRELIMINARY TEST I, 1978

Descriptive and Other Data

| Strain | Descriptive Code | | Chlorosis Score Ames | Shattering Manhattan 2 Weeks |
|----------------|------------------|--------|----------------------------|------------------------------------|
| Coles | PGBr | SY Y | 2 | 5 |
| Corsoy (II) | PGBr | SY Y | 4 | 3 |
| Evans (0) | WGBr | DY Y | 2 | 2 |
| Hodgson 78 (I) | PGBr | DYBf | 2 | 5 |
| A77-111019 | PGBr | DY Y | 2 | 5 |
| A77-112008 | PGTn | DY Y | 3 | 5 |
| A77-112016 | WTBr | SY Y | 4 | 5 |
| A77-112023 | PTBr+Tn | DYB1 | 1 | 2 |
| A77-112028 | PGBr | DYIb | 5 | 4 |
| A77-112029 | PGBr | DYIb | 3 | 5 |
| A77-112030 | WTBr | SYB1 | 3 | 3 |
| A77-113018 | PTBr | SYBr | 3 | 2 |
| A77-114015 | PTBr | SYBr | 5 | 5 |
| A77-114020 | PTBr | SYB1 | 3 | 4 |
| A77-114030 | P+WTTn | SYG | 3 | 5 |
| A77-114033 | WGBr | DYBf | 1 | 5 |
| A77-116013 | PTBr | DYB1 | 3 | 3 |
| A77-116028 | PGBr | DY Y | 2 | 5 |
| L74-3897 | PT+GTn | SYB1 | 3 | 3 |
| L75-3632 | PGBr | DY Y | 4 | 2 |
| L75-9162 | PGTn | SY Y | 2 | 5 |
| L75-9164 | PGTn | DY Y | 2 | 5 |
| M69-318 | P+WGTn | DYBf | 2 | 3 |
| M70-121 | PGBr | DY Y+G | 1 | 5 |
| M70-128 | PGBr | DY Y | 1 | 3 |
| M70-150 | WGBr | DY Y | 1 | 3 |
| M70-179 | WGTn | DY Y | 3 | 5 |
| M70-242 | WTBr | DY Y | 1 | 5 |
| M70-259 | WGBr | DY Y | 1 | 5 |
| M70-260 | P+WGBr | DY Y | 2 | 5 |

PRELIMINARY TEST I, 1978

Disease Data

| Strain | FE2 | BSR | | PSB | PS | PR | PR | Race 1 | |
|----------------|-------------------|-------------------|-------------------|--------------------|-------------------|-------------------|----------------------|-------------------|-------------------|
| | Laf. Ind. a | Laf. Ind. n | Ames Stem n | Ia. Plants n | Laf. Ind. d | Laf. Ind. a | Vickery Ohio n | Laf. Ind. a | Ames. Ia. a |
| | Score | % | % | % | % | % | -----Reaction----- | | |
| Coles | 4 | 0 | 76 | 100 | 4 | 2 | 3.5 | S | S |
| Corsoy (II) | 5 | 20 | 72 | 100 | 4 | 1 | 3.5 | S | S |
| Evans (0) | 5 | 40 | 69 | 100 | 11 | 6 | 3.5 | R | R |
| Hodgson 78 (I) | 5 | 0 | 60 | 90 | 7 | 3 | 3.0 | R | R |
| A77-111019 | 4 | 20 | 87 | 100 | 4 | 2 | 4.5 | S | S |
| A77-112008 | 4 | 20 | 76 | 100 | 3 | 1 | 4.5 | S | S |
| A77-112016 | 5 | 20 | 65 | 100 | 2 | 0 | 4.0 | S | S |
| A77-112023 | 3 | 0 | 76 | 100 | 2 | 0 | 2.5 | R | R |
| A77-112028 | 4 | 20 | 81 | 100 | 0 | 0 | 3.0 | S | S |
| A77-112029 | 4 | 60 | 75 | 100 | 8 | 0 | 3.0 | S | S |
| A77-112030 | 5 | 20 | 69 | 100 | 1 | 0 | 2.5 | H | H |
| A77-113018 | 4 | 100 | 80 | 90 | 6 | 2 | 3.0 | S | S |
| A77-114015 | 3 | 0 | 74 | 100 | 2 | 0 | 3.0 | S | S |
| A77-114020 | 5 | 50 | 74 | 100 | 0 | 0 | 2.5 | S | S |
| A77-114030 | 5 | 10 | 69 | 100 | 1 | 0 | 3.0 | S | S |
| A77-114033 | 5 | 0 | 64 | 100 | 4 | 5 | 4.0 | S | S |
| A77-116013 | 4 | 0 | 26 | 70 | 0 | 0 | 4.0 | R | R |
| A77-116028 | 1 | 0 | 42 | 100 | 8 | 2 | 3.5 | H | H |
| L74-3897 | 4 | 0 | 76 | 100 | 0 | 1 | 3.5 | H | S |
| L75-3632 | 4 | 0 | 81 | 100 | 1 | 1 | 2.0 | R | R |
| L75-9162 | 4 | 20 | 96 | 100 | 0 | 0 | 5.0 | R | R |
| L75-9164 | 5 | 0 | 82 | 100 | 2 | 0 | 5.0 | R | R |
| M69-318 | 4 | 10 | 82 | 100 | 1 | 1 | 2.5 | R | R |
| M70-121 | 5 | 20 | 71 | 100 | 4 | 0 | 3.5 | R | R |
| M70-128 | 5 | 10 | 56 | 90 | 1 | 0 | 4.5 | R | R |
| M70-150 | 5 | 30 | 73 | 100 | 0 | 0 | 5.0 | R | R |
| M70-179 | 3 | 40 | 62 | 100 | 0 | 0 | 2.5 | R | R |
| M70-242 | 5 | 50 | 68 | 100 | 3 | 4 | 4.0 | R | R |
| M70-259 | 5 | 20 | 57 | 100 | 11 | 1 | 4.0 | R | R |
| M70-260 | 5 | 0 | 67 | 100 | 6 | 2 | 4.0 | R | R |

PRELIMINARY TEST I, 1978

Regional Summary

| Strain | Yield | Rank | Matu- rity | Lodg- ing | Height | Seed Quality | Seed Size | Seed Protein | Composition Oil |
|----------------|-----------|----------|---------------|--------------|----------|-----------------|--------------|-----------------|--------------------|
| No. of Tests | 9 bu/a | 9 No. | 8 Date | 9 Score | 8 In. | 5 Score | 8 g/100 | 4 % | 4 % |
| Coles | 43.8 | 19 | +6.4 | 2.6 | 38 | 2.4 | 20.1 | 44.0 | 19.2 |
| Corsoy (II) | 45.2 | 5 | +5.5 | 2.0 | 39 | 2.3 | 16.0 | 42.0 | 20.3 |
| Evans (O) | 38.7 | 30 | -5.2 | 1.4 | 32 | 2.5 | 16.6 | 41.1 | 21.0 |
| Hodgson 78 (I) | 44.5 | 10 | 9-19* | 1.8 | 34 | 2.2 | 17.1 | 40.0 | 21.8 |
| A77-111019 | 45.0 | 6 | +1.1 | 1.5 | 37 | 2.4 | 20.3 | 40.2 | 20.0 |
| A77-112008 | 46.3 | 3 | +2.0 | 1.5 | 33 | 2.1 | 20.0 | 42.9 | 19.2 |
| A77-112016 | 43.5 | 21 | +2.0 | 2.8 | 40 | 2.6 | 15.8 | 42.6 | 19.8 |
| A77-112023 | 46.2 | 4 | -0.2 | 2.7 | 40 | 2.6 | 16.3 | 43.2 | 19.8 |
| A77-112028 | 41.5 | 27 | +2.6 | 1.5 | 37 | 2.5 | 18.9 | 43.3 | 20.6 |
| A77-112029 | 42.6 | 25 | +4.8 | 2.2 | 34 | 2.4 | 17.6 | 41.8 | 20.3 |
| A77-112030 | 44.0 | 17 | +2.1 | 1.6 | 32 | 2.4 | 18.2 | 42.3 | 20.4 |
| A77-113018 | 45.0 | 6 | +2.4 | 1.5 | 35 | 3.0 | 18.0 | 42.7 | 20.0 |
| A77-114015 | 42.9 | 24 | +2.1 | 2.7 | 38 | 2.5 | 15.8 | 43.2 | 19.8 |
| A77-114020 | 44.0 | 17 | +3.4 | 2.0 | 34 | 1.8 | 18.5 | 42.6 | 19.8 |
| A77-114030 | 44.2 | 14 | +2.2 | 1.5 | 34 | 2.4 | 18.2 | 44.5 | 19.3 |
| A77-114033 | 44.2 | 14 | +4.5 | 1.6 | 40 | 2.6 | 17.0 | 43.1 | 20.5 |
| A77-116013 | 44.4 | 11 | +4.1 | 1.7 | 35 | 2.2 | 18.4 | 42.4 | 19.8 |
| A77-116028 | 43.1 | 23 | -2.0 | 1.9 | 36 | 3.0 | 21.7 | 41.1 | 20.2 |
| L74-3897 | 47.0 | 2 | +3.0 | 1.5 | 34 | 2.3 | 20.1 | 41.6 | 20.7 |
| L75-3632 | 44.7 | 8 | +3.1 | 2.1 | 38 | 2.5 | 16.6 | 41.2 | 20.7 |
| L75-9162 | 42.4 | 26 | +2.6 | 1.8 | 35 | 2.4 | 18.3 | 41.8 | 20.3 |
| L75-9164 | 43.7 | 20 | +0.1 | 1.8 | 36 | 2.8 | 18.7 | 40.5 | 20.9 |
| M69-318 | 39.6 | 29 | -0.4 | 1.4 | 31 | 2.3 | 20.9 | 40.4 | 22.4 |
| M70-121 | 44.6 | 9 | -1.8 | 2.2 | 38 | 2.6 | 17.4 | 39.9 | 21.6 |
| M70-128 | 47.4 | 1 | -1.9 | 1.8 | 32 | 2.4 | 17.4 | 39.2 | 22.4 |
| M70-150 | 44.3 | 12 | +2.4 | 1.4 | 32 | 2.3 | 15.7 | 38.7 | 22.8 |
| M70-179 | 41.5 | 27 | +1.0 | 1.9 | 38 | 2.7 | 17.7 | 42.4 | 20.1 |
| M70-242 | 43.3 | 22 | +0.1 | 1.7 | 36 | 2.7 | 16.4 | 41.0 | 21.8 |
| M70-259 | 44.3 | 12 | -0.2 | 1.9 | 36 | 2.6 | 18.8 | 40.7 | 22.2 |
| M70-260 | 44.2 | 14 | -1.8 | 1.7 | 33 | 2.3 | 18.9 | 40.8 | 21.4 |

* 120 Days after planting

PRELIMINARY TEST I. 1978

| Strain | Mean 9 Tests | Ont. | Mich. | | Wisc. |
|----------------|-----------------|----------------|--------|-----------------|----------------|
| | | Ridge- town | Dundee | E. Lan- sing | Arling- ton |
| | | YIELD (bu/a) | | | |
| Coles | 43.8 | 45.9 | 27.2 | 42.1 | 31.5 |
| Corsoy (II) | 45.2 | 50.1 | 26.8 | 42.4 | 35.8 |
| Evans (0) | 38.7 | 51.6 | 20.2 | 28.1 | 33.3 |
| Hodgson 78 (I) | 44.5 | 51.3 | 26.2 | 44.9 | 36.6 |
| A77-111019 | 45.0 | 53.8 | 27.0 | 39.0 | 37.6 |
| A77-112008 | 46.3 | 50.8 | 24.3 | 44.8 | 38.9 |
| A77-112016 | 43.5 | 47.2 | 28.8 | 41.3 | 34.9 |
| A77-112023 | 46.2 | 51.3 | 32.7 | 42.7 | 36.6 |
| A77-112028 | 41.5 | 47.5 | 24.6 | 43.4 | 35.3 |
| A77-112029 | 42.6 | 43.6 | 18.5 | 49.1 | 35.5 |
| A77-112030 | 44.0 | 48.7 | 22.2 | 40.6 | 37.2 |
| A77-113018 | 45.0 | 47.6 | 25.5 | 42.5 | 43.2 |
| A77-114015 | 42.9 | 49.1 | 28.1 | 37.9 | 34.3 |
| A77-114020 | 44.0 | 47.2 | 28.7 | 41.4 | 35.8 |
| A77-114030 | 44.2 | 45.9 | 30.8 | 41.4 | 33.6 |
| A77-114033 | 44.2 | 45.3 | 21.3 | 43.9 | 33.8 |
| A77-116013 | 44.4 | 45.9 | 31.6 | 45.5 | 36.0 |
| A77-116028 | 43.1 | 47.5 | 23.2 | 36.5 | 35.6 |
| L74-3897 | 47.0 | 51.5 | 25.5 | 49.5 | 40.4 |
| L75-3632 | 44.7 | 49.8 | 24.7 | 33.1 | 38.3 |
| L75-9162 | 42.4 | 45.9 | 24.3 | 31.2 | 35.9 |
| L75-9164 | 43.7 | 44.3 | 25.0 | 40.4 | 38.0 |
| M69-318 | 39.6 | 46.9 | 20.6 | 31.0 | 34.7 |
| M70-121 | 44.6 | 48.4 | 29.0 | 41.8 | 35.6 |
| M70-128 | 47.4 | 54.9 | 28.0 | 44.6 | 38.3 |
| M70-150 | 44.3 | 46.4 | 30.3 | 35.4 | 34.3 |
| M70-179 | 41.5 | 40.5 | 29.4 | 35.5 | 36.0 |
| M70-242 | 43.3 | 43.1 | 30.0 | 43.8 | 35.2 |
| M70-259 | 44.3 | 55.0 | 26.7 | 35.4 | 36.3 |
| M70-260 | 44.2 | 57.6 | 26.1 | 36.9 | 39.3 |
| C.V. (%) | | 5.5 | 15.2 | 12.1 | 6.0 |
| L.S.D. (5%) | | 5.5 | 6.6 | 8.1 | 4.4 |
| Row sp (in.) | | 24" | - | - | 30" |
| Rows/plot | | 4 | - | - | 4 |
| Reps | | 4 | - | - | 2 |

PRELIMINARY TEST I, 1978

| Minn. | | Iowa | | S.D. |
|---------------------|----------------|--------|---------|----------------|
| Waseca | Lamber- ton | Nashua | Corwith | Brook- ings |
| <u>YIELD (bu/a)</u> | | | | |
| 54.1 | 53.5 | 50.8 | 53.1 | 36.2 |
| 57.8 | 53.4 | 51.8 | 45.6 | 43.3 |
| 49.8 | 40.4 | 43.0 | 35.5 | 46.5 |
| 57.0 | 50.3 | 49.8 | 43.9 | 40.1 |
| 51.8 | 49.6 | 56.9 | 47.5 | 41.7 |
| 50.2 | 49.8 | 56.5 | 57.0 | 44.1 |
| 48.2 | 49.6 | 50.3 | 51.5 | 40.0 |
| 54.1 | 53.8 | 54.1 | 44.6 | 46.1 |
| 51.5 | 47.3 | 49.2 | 41.5 | 32.9 |
| 49.8 | 52.2 | 48.2 | 47.5 | 39.3 |
| 51.8 | 59.0 | 48.4 | 45.6 | 42.1 |
| 56.8 | 54.4 | 48.1 | 43.2 | 43.5 |
| 47.0 | 51.6 | 49.2 | 51.3 | 37.7 |
| 46.2 | 53.7 | 53.1 | 49.1 | 41.0 |
| 45.6 | 52.1 | 52.0 | 52.2 | 44.0 |
| 56.2 | 52.0 | 48.5 | 51.5 | 45.1 |
| 43.5 | 51.0 | 49.8 | 56.7 | 40.0 |
| 55.0 | 52.0 | 48.6 | 47.5 | 42.1 |
| 52.6 | 54.2 | 50.0 | 54.3 | 44.8 |
| 54.2 | 52.8 | 56.4 | 44.8 | 48.2 |
| 51.9 | 49.0 | 51.1 | 50.1 | 42.2 |
| 53.0 | 50.4 | 48.3 | 47.4 | 46.7 |
| 44.6 | 49.4 | 47.5 | 40.2 | 41.7 |
| 55.6 | 47.9 | 49.6 | 47.8 | 45.6 |
| 57.0 | 57.8 | 51.0 | 47.8 | 47.4 |
| 51.2 | 51.2 | 46.6 | 54.8 | 48.2 |
| 49.2 | 48.4 | 44.2 | 49.6 | 41.0 |
| 53.2 | 49.0 | 43.4 | 49.4 | 42.6 |
| 50.6 | 52.4 | 51.4 | 46.5 | 44.1 |
| 48.4 | 48.8 | 52.7 | 42.4 | 45.3 |
| 7.5 | 5.2 | 5.3 | 9.3 | N.S. |
| 7.9 | 5.5 | 5.3 | 8.9 | 12.1 |
| 30" | 30" | 13.5" | 27" | 30" |
| 2 | 2 | 5 | 4 | 3 |
| 2 | 2 | 2 | 2 | 3 |

PRELIMINARY TEST I, 1978

| Strain | Mean 9 Tests | Ont. | Mich. | | Wisc. |
|----------------|-----------------|----------------|--------|-----------------|----------------|
| | | Ridge- town | Dundee | E. Lan- sing | Arling- ton |
| YIELD RANK | | | | | |
| Coles | 19 | 22 | 12 | 13 | 30 |
| Corsoy (II) | 5 | 10 | 14 | 12 | 16 |
| Evans (0) | 30 | 5 | 29 | 30 | 29 |
| Hodgson 78 (I) | 10 | 7 | 16 | 4 | 10 |
| A77-111019 | 6 | 4 | 13 | 20 | 8 |
| A77-112008 | 3 | 9 | 23 | 5 | 4 |
| A77-112016 | 21 | 18 | 8 | 17 | 23 |
| A77-112023 | 4 | 7 | 1 | 10 | 10 |
| A77-112028 | 27 | 16 | 22 | 9 | 21 |
| A77-112029 | 25 | 28 | 30 | 2 | 20 |
| A77-112030 | 17 | 13 | 26 | 18 | 9 |
| A77-113018 | 6 | 15 | 18 | 11 | 1 |
| A77-114015 | 24 | 12 | 10 | 21 | 25 |
| A77-114020 | 17 | 18 | 9 | 15 | 16 |
| A77-114030 | 14 | 22 | 3 | 15 | 28 |
| A77-114033 | 14 | 26 | 27 | 7 | 27 |
| A77-116013 | 11 | 22 | 2 | 3 | 13 |
| A77-116028 | 23 | 16 | 25 | 23 | 18 |
| L74-3897 | 2 | 6 | 18 | 1 | 2 |
| L75-3632 | 8 | 11 | 21 | 27 | 5 |
| L75-9162 | 26 | 22 | 23 | 28 | 15 |
| L75-9164 | 20 | 27 | 20 | 19 | 7 |
| M69-318 | 29 | 20 | 28 | 29 | 24 |
| M70-121 | 9 | 14 | 7 | 14 | 18 |
| M70-128 | 1 | 3 | 11 | 6 | 5 |
| M70-150 | 12 | 21 | 4 | 25 | 25 |
| M70-179 | 27 | 30 | 6 | 24 | 13 |
| M70-242 | 22 | 29 | 5 | 8 | 22 |
| M70-259 | 12 | 2 | 15 | 25 | 12 |
| M70-260 | 14 | 1 | 17 | 22 | 3 |

PRELIMINARY TEST 1, 1978

| Minn. | | Iowa | | S.D. |
|--------|----------------|------------|---------|----------------|
| Waseca | Lamber- ton | Nashua | Corwith | Brook- ings |
| | | YIELD RANK | | |
| 9 | 7 | 12 | 5 | 29 |
| 1 | 8 | 8 | 21 | 15 |
| 21 | 30 | 30 | 30 | 5 |
| 2 | 19 | 15 | 25 | 24 |
| 15 | 21 | 1 | 16 | 20 |
| 20 | 20 | 2 | 1 | 11 |
| 25 | 21 | 13 | 7 | 26 |
| 9 | 5 | 4 | 24 | 6 |
| 17 | 29 | 18 | 28 | 30 |
| 21 | 11 | 24 | 16 | 27 |
| 15 | 1 | 22 | 21 | 18 |
| 4 | 3 | 25 | 26 | 14 |
| 26 | 15 | 18 | 9 | 28 |
| 27 | 6 | 5 | 13 | 22 |
| 28 | 12 | 7 | 6 | 13 |
| 5 | 13 | 21 | 7 | 9 |
| 30 | 17 | 15 | 2 | 25 |
| 7 | 13 | 20 | 16 | 19 |
| 13 | 4 | 14 | 4 | 10 |
| 8 | 9 | 3 | 23 | 2 |
| 14 | 24 | 10 | 10 | 17 |
| 12 | 18 | 23 | 19 | 4 |
| 29 | 23 | 26 | 29 | 21 |
| 6 | 28 | 17 | 14 | 7 |
| 2 | 2 | 11 | 14 | 3 |
| 18 | 16 | 27 | 3 | 1 |
| 23 | 27 | 28 | 11 | 23 |
| 11 | 24 | 29 | 12 | 16 |
| 19 | 10 | 9 | 20 | 12 |
| 24 | 26 | 6 | 27 | 8 |

PRELIMINARY TEST I, 1978

| Strain | Mean | Ont. | Mich. | | Wisc. |
|-----------------|---------|----------------|--------------------------|-----------------|----------------|
| | | Ridge- town | Dundee | E. Lan- sing | Arling- ton |
| | 8 Tests | | MATURITY (relative data) | | |
| Coles | +6.4 | +5 | +1 | +8 | +5 |
| Corsoy (II) | +5.5 | +7 | 0 | +13 | +5 |
| Evans (0) | -5.2 | -4 | -3 | -2 | -1 |
| Hodgson 78* (I) | 9-19 | 9-18 | 9-20 | 9-19 | 9-18 |
| A77-111019 | +1.1 | -1 | +1 | +3 | +5 |
| A77-112008 | +2.0 | 0 | 0 | +6 | +3 |
| A77-112016 | +2.0 | +2 | -5 | +4 | +5 |
| A77-112023 | -0.2 | -1 | -5 | +1 | +3 |
| A77-112028 | +2.6 | 0 | +1 | +4 | +3 |
| A77-112029 | +4.8 | +2 | 0 | +11 | +5 |
| A77-112030 | +2.1 | +2 | -1 | +4 | +3 |
| A77-113018 | +2.4 | +2 | -1 | +2 | +4 |
| A77-114015 | +2.1 | 0 | -2 | +1 | +3 |
| A77-114020 | +3.4 | +3 | -1 | +6 | +5 |
| A77-114030 | +2.2 | +2 | 0 | +4 | +3 |
| A77-114033 | +4.5 | +7 | -1 | +11 | +7 |
| A77-116013 | +4.1 | +5 | -2 | +12 | +5 |
| A77-116028 | -2.0 | -1 | -5 | +1 | +2 |
| L74-3897 | +3.0 | +2 | +2 | +8 | +3 |
| L75-3632 | +3.1 | +1 | -1 | +4 | +5 |
| L75-9162 | +2.6 | +3 | 0 | +5 | +3 |
| L75-9164 | +0.1 | +1 | -1 | +3 | +2 |
| M69-318 | -0.4 | +1 | +1 | +3 | +3 |
| M70-121 | -1.8 | -1 | 0 | 0 | 0 |
| M70-128 | -1.9 | -2 | -1 | +3 | +2 |
| M70-150 | +2.4 | +5 | -1 | +11 | +2 |
| M70-179 | +1.0 | +5 | -4 | +3 | +5 |
| M70-242 | +0.1 | +1 | 0 | +6 | +4 |
| M70-259 | -0.2 | +2 | +1 | +4 | +2 |
| M70-260 | -1.8 | +3 | +1 | +1 | +1 |
| Date planted | 5-21 | 5-25 | - | - | 5-23 |
| *Days to mat. | 120 | 116 | - | - | 118 |

PRELIMINARY TEST I, 1978

| Minn. | | Iowa | | S.D. |
|---------------------------------|----------------|--------|---------|----------------|
| Waseca | Lamber- ton | Nashua | Corwith | Brook- ings |
| <u>MATURITY (relative data)</u> | | | | |
| +4 | +9 | +12 | | +7 |
| +4 | +7 | +7 | | +1 |
| -9 | -6 | -10 | | -7 |
| 9-18 | 9-11 | 9-12 | | 10-8 |
| -4 | +1 | +2 | | +2 |
| +1 | +1 | +1 | | +4 |
| 0 | +5 | +2 | | +3 |
| -3 | 0 | 0 | | +3 |
| -2 | +3 | +4 | | +8 |
| +2 | +6 | +4 | | +8 |
| +2 | +4 | 0 | | +3 |
| +2 | +5 | +1 | | +4 |
| +1 | +6 | +4 | | +4 |
| +2 | +4 | +4 | | +4 |
| +1 | +3 | +2 | | +3 |
| +2 | +3 | +2 | | +5 |
| 0 | +5 | +2 | | +6 |
| -6 | -3 | -4 | | 0 |
| -1 | +2 | +2 | | +6 |
| +6 | +3 | +4 | | +3 |
| 0 | +1 | +6 | | +3 |
| -3 | 0 | 0 | | -1 |
| -6 | -5 | -2 | | +2 |
| -6 | -5 | 0 | | -2 |
| -3 | -5 | -5 | | -4 |
| -1 | +1 | +4 | | -2 |
| -2 | +1 | 0 | | 0 |
| -6 | 0 | -3 | | -1 |
| -6 | -5 | 0 | | 0 |
| -6 | -6 | -5 | | -3 |
| 5-15 | 5-11 | 5-23 | 5-15 | 6-5 |
| 126 | 123 | 112 | - | 125 |

PRELIMINARY TEST I, 1978

| Strain | Mean 9 Tests | Ont. | Mich. | | Wisc. |
|-----------------|-----------------|----------------|--------|-----------------|----------------|
| | | Ridge- town | Dundee | E. Lan- sing | Arling- ton |
| LODGING (score) | | | | | |
| Coles | 2.6 | 3.0 | 1.2 | 3.5 | 3.0 |
| Corsoy (II) | 2.0 | 2.0 | 1.1 | 2.5 | 2.0 |
| Evans (0) | 1.4 | 1.5 | 1.0 | 1.0 | 1.0 |
| Hodgson 78 (I) | 1.8 | 1.5 | 1.6 | 1.7 | 1.5 |
| A77-111019 | 1.5 | 1.0 | 1.0 | 1.5 | 1.5 |
| A77-112008 | 1.5 | 1.0 | 1.5 | 1.7 | 1.0 |
| A77-112016 | 2.8 | 3.0 | 1.6 | 2.7 | 3.5 |
| A77-112023 | 2.7 | 3.0 | 2.0 | 3.0 | 2.5 |
| A77-112028 | 1.5 | 2.0 | 1.2 | 1.0 | 1.0 |
| A77-112029 | 2.2 | 2.5 | 1.4 | 3.0 | 2.5 |
| A77-112030 | 1.6 | 2.0 | 1.5 | 1.6 | 1.5 |
| A77-113018 | 1.5 | 1.0 | 1.0 | 1.2 | 1.0 |
| A77-114015 | 2.7 | 2.5 | 1.8 | 2.7 | 3.0 |
| A77-114020 | 2.0 | 1.5 | 1.6 | 2.2 | 2.5 |
| A77-114030 | 1.5 | 1.0 | 1.0 | 1.3 | 1.0 |
| A77-114033 | 1.6 | 1.5 | 1.0 | 2.0 | 1.0 |
| A77-116013 | 1.7 | 2.0 | 1.6 | 1.3 | 1.5 |
| A77-116028 | 1.9 | 2.0 | 1.2 | 1.7 | 2.0 |
| L74-3897 | 1.5 | 1.5 | 1.6 | 1.7 | 1.0 |
| L75-3632 | 2.1 | 1.5 | 1.5 | 1.8 | 2.0 |
| L75-9162 | 1.8 | 1.5 | 1.0 | 1.8 | 2.0 |
| L75-9164 | 1.8 | 1.5 | 1.0 | 1.9 | 1.5 |
| M69-318 | 1.4 | 1.5 | 1.0 | 1.0 | 1.0 |
| M70-121 | 2.2 | 2.0 | 1.2 | 2.0 | 2.0 |
| M70-128 | 1.8 | 2.0 | 1.1 | 1.4 | 1.5 |
| M70-150 | 1.4 | 1.0 | 1.1 | 1.2 | 1.0 |
| M70-179 | 1.9 | 1.5 | 1.4 | 2.6 | 1.5 |
| M70-242 | 1.7 | 1.5 | 1.2 | 1.8 | 1.5 |
| M70-259 | 1.9 | 2.5 | 1.1 | 1.6 | 2.5 |
| M70-260 | 1.7 | 2.0 | 1.1 | 1.8 | 1.0 |

PRELIMINARY TEST I, 1978

| Minn. | | Iowa | | S.D. |
|------------------------|-----------|--------|---------|-----------|
| Waseca | Lamberton | Nashua | Corwith | Brookings |
| <u>LODGING (score)</u> | | | | |
| 2.5 | 4.5 | 2.3 | 2.7 | 1.0 |
| 2.0 | 3.0 | 2.0 | 2.2 | 1.0 |
| 1.5 | 2.0 | 2.2 | 1.6 | 1.0 |
| 2.0 | 3.0 | 2.2 | 2.0 | 1.0 |
| 1.5 | 2.5 | 2.0 | 1.8 | 1.0 |
| 1.5 | 2.5 | 2.0 | 1.7 | 1.0 |
| 3.0 | 5.0 | 2.4 | 3.2 | 1.0 |
| 3.0 | 4.0 | 2.6 | 3.0 | 1.0 |
| 1.5 | 2.0 | 1.8 | 1.7 | 1.0 |
| 2.0 | 3.0 | 2.2 | 2.4 | 1.0 |
| 1.0 | 2.0 | 2.0 | 1.4 | 1.0 |
| 2.0 | 2.5 | 1.8 | 2.0 | 1.0 |
| 3.0 | 4.5 | 2.3 | 3.2 | 1.0 |
| 2.0 | 2.5 | 2.0 | 2.4 | 1.0 |
| 1.5 | 2.5 | 2.0 | 2.0 | 1.0 |
| 1.8 | 2.5 | 1.8 | 2.2 | 1.0 |
| 1.5 | 2.5 | 1.9 | 2.0 | 1.0 |
| 2.0 | 2.5 | 2.2 | 2.8 | 1.0 |
| 1.2 | 2.0 | 1.9 | 1.9 | 1.0 |
| 2.0 | 3.5 | 2.2 | 3.0 | 1.0 |
| 1.5 | 3.0 | 2.2 | 2.1 | 1.0 |
| 2.0 | 3.0 | 2.2 | 1.8 | 1.0 |
| 1.0 | 2.0 | 2.4 | 1.6 | 1.0 |
| 3.0 | 3.5 | 2.2 | 2.8 | 1.0 |
| 1.5 | 3.0 | 2.4 | 2.2 | 1.0 |
| 1.0 | 2.0 | 2.2 | 1.8 | 1.0 |
| 2.0 | 3.0 | 1.8 | 2.4 | 1.0 |
| 2.0 | 2.0 | 2.2 | 1.8 | 1.0 |
| 2.0 | 2.5 | 2.2 | 2.0 | 1.0 |
| 1.5 | 3.0 | 2.0 | 1.8 | 1.0 |

PRELIMINARY TEST I, 1978

| Strain | Mean 8 Tests | Ont. | Mich. | | Wisc. |
|-----------------------|-----------------|----------------|--------|-----------------|----------------|
| | | Ridge- town | Dundee | E. Lan- sing | Arling- ton |
| PLANT HEIGHT (inches) | | | | | |
| Coles | 38 | 36 | 32 | 36 | 42 |
| Corsoy (II) | 39 | 39 | 29 | 37 | 43 |
| Evans (0) | 32 | 33 | 26 | 29 | 36 |
| Hodgson 78 (I) | 34 | 34 | 29 | 35 | 40 |
| A77-111019 | 37 | 37 | 29 | 34 | 42 |
| A77-112008 | 33 | 30 | 29 | 32 | 34 |
| A77-112016 | 40 | 41 | 36 | 38 | 48 |
| A77-112023 | 40 | 40 | 37 | 40 | 42 |
| A77-112028 | 37 | 38 | 29 | 38 | 40 |
| A77-112029 | 34 | 36 | 27 | 33 | 35 |
| A77-112030 | 32 | 31 | 28 | 29 | 32 |
| A77-113018 | 35 | 31 | 31 | 34 | 37 |
| A77-114015 | 38 | 39 | 36 | 37 | 42 |
| A77-114020 | 34 | 32 | 31 | 33 | 34 |
| A77-114030 | 34 | 32 | 29 | 33 | 35 |
| A77-114033 | 40 | 39 | 34 | 39 | 44 |
| A77-116013 | 35 | 35 | 33 | 34 | 38 |
| A77-116028 | 36 | 37 | 32 | 35 | 36 |
| L74-3897 | 34 | 36 | 29 | 34 | 36 |
| L75-3632 | 38 | 38 | 33 | 34 | 41 |
| L75-9162 | 35 | 33 | 32 | 34 | 38 |
| L75-9164 | 36 | 34 | 33 | 35 | 42 |
| M69-318 | 31 | 31 | 28 | 30 | 30 |
| M70-121 | 38 | 34 | 34 | 35 | 42 |
| M70-128 | 32 | 30 | 28 | 31 | 36 |
| M70-150 | 32 | 29 | 27 | 30 | 34 |
| M70-179 | 38 | 36 | 38 | 38 | 40 |
| M70-242 | 36 | 34 | 31 | 34 | 40 |
| M70-259 | 36 | 37 | 31 | 33 | 39 |
| M70-260 | 33 | 34 | 30 | 32 | 37 |

PRELIMINARY TEST I, 1978

| Minn. | | Iowa | | S.D. |
|------------------------------|----------------|--------|---------|----------------|
| Waseca | Lamber- ton | Nashua | Corwith | Brook- ings |
| <u>PLANT HEIGHT (inches)</u> | | | | |
| | 42 | 38 | 36 | 42 |
| | 40 | 42 | 38 | 42 |
| | 36 | 34 | 29 | 36 |
| | 33 | 36 | 32 | 33 |
| | 40 | 38 | 34 | 40 |
| | 37 | 35 | 32 | 35 |
| | 40 | 38 | 39 | 44 |
| | 41 | 37 | 41 | 44 |
| | 40 | 38 | 36 | 39 |
| | 37 | 34 | 34 | 38 |
| | 32 | 32 | 31 | 37 |
| | 36 | 36 | 34 | 38 |
| | 39 | 38 | 37 | 37 |
| | 37 | 34 | 32 | 38 |
| | 36 | 34 | 36 | 38 |
| | 40 | 38 | 43 | 42 |
| | 34 | 31 | 33 | 39 |
| | 36 | 37 | 33 | 39 |
| | 36 | 31 | 32 | 39 |
| | 38 | 40 | 38 | 39 |
| | 36 | 36 | 34 | 38 |
| | 36 | 37 | 34 | 40 |
| | 32 | 32 | 31 | 32 |
| | 37 | 40 | 38 | 41 |
| | 34 | 32 | 32 | 37 |
| | 35 | 32 | 32 | 35 |
| | 38 | 38 | 38 | 40 |
| | 41 | 36 | 38 | 37 |
| | 38 | 36 | 37 | 39 |
| | 34 | 34 | 31 | 35 |

PRELIMINARY TEST I, 1978

| Strain | Mean 5 Tests | Ont. | Mich. | | Wisc. |
|----------------------|-----------------|----------------|--------|-----------------|----------------|
| | | Ridge- town | Dundee | E. Lan- sing | Arling- ton |
| SEED QUALITY (score) | | | | | |
| Coles | 2.4 | 2.0 | | | 4.0 |
| Corsoy (II) | 2.3 | 2.0 | | | 2.5 |
| Evans (0) | 2.5 | 2.0 | | | 3.0 |
| Hodgson 78 (I) | 2.2 | 2.0 | | | 2.0 |
| A77-111019 | 2.4 | 2.0 | | | 3.0 |
| A77-112008 | 2.1 | 2.0 | | | 2.5 |
| A77-112016 | 2.6 | 2.0 | | | 3.0 |
| A77-112023 | 2.6 | 2.0 | | | 3.0 |
| A77-112028 | 2.5 | 2.0 | | | 2.5 |
| A77-112029 | 2.4 | 2.0 | | | 3.0 |
| A77-112030 | 2.4 | 2.0 | | | 2.0 |
| A77-113018 | 3.0 | 3.0 | | | 3.0 |
| A77-114015 | 2.5 | 2.0 | | | 3.0 |
| A77-114020 | 1.8 | 2.0 | | | 2.5 |
| A77-114030 | 2.4 | 2.0 | | | 3.5 |
| A77-114033 | 2.6 | 2.0 | | | 3.5 |
| A77-116013 | 2.2 | 2.0 | | | 2.0 |
| A77-116028 | 3.0 | 2.0 | | | 3.0 |
| L74-3897 | 2.3 | 2.0 | | | 2.5 |
| L75-3632 | 2.5 | 2.0 | | | 3.0 |
| L75-9162 | 2.4 | 2.0 | | | 3.0 |
| L75-9164 | 2.8 | 3.0 | | | 3.5 |
| M69-318 | 2.3 | 2.0 | | | 2.5 |
| M70-121 | 2.6 | 2.0 | | | 3.5 |
| M70-128 | 2.4 | 3.0 | | | 2.0 |
| M70-150 | 2.3 | 2.0 | | | 3.0 |
| M70-179 | 2.7 | 2.0 | | | 3.5 |
| M70-242 | 2.7 | 3.0 | | | 3.5 |
| M70-259 | 2.6 | 2.0 | | | 2.5 |
| M70-260 | 2.3 | 2.0 | | | 2.5 |

PRELIMINARY TEST I, 1978

| Minn. | | Iowa | | S.D. |
|-----------------------------|----------------|--------|---------|----------------|
| Waseca | Lamber- ton | Nashua | Corwith | Brook- ings |
| <u>SEED QUALITY (score)</u> | | | | |
| 2.0 | 3.0 | | 1.2 | |
| 2.5 | 3.0 | | 1.4 | |
| 2.5 | 3.5 | | 1.3 | |
| 2.5 | 3.0 | | 1.3 | |
| 2.0 | 3.5 | | 1.3 | |
| 2.0 | 3.0 | | 1.2 | |
| 2.5 | 3.5 | | 2.0 | |
| 2.5 | 4.0 | | 1.5 | |
| 2.5 | 3.5 | | 1.8 | |
| 2.5 | 3.0 | | 1.7 | |
| 3.0 | 3.0 | | 2.0 | |
| 3.0 | 4.0 | | 1.8 | |
| 2.5 | 2.5 | | 2.5 | |
| 1.5 | 2.0 | | 1.2 | |
| 2.0 | 3.0 | | 1.5 | |
| 3.0 | 3.0 | | 1.7 | |
| 2.5 | 3.0 | | 1.4 | |
| 4.0 | 4.5 | | 1.7 | |
| 2.5 | 3.0 | | 1.3 | |
| 3.0 | 3.0 | | 1.4 | |
| 2.5 | 3.0 | | 1.4 | |
| 3.0 | 3.0 | | 1.3 | |
| 2.5 | 3.0 | | 1.6 | |
| 3.0 | 3.0 | | 1.5 | |
| 2.5 | 3.0 | | 1.5 | |
| 2.0 | 3.0 | | 1.4 | |
| 3.5 | 3.0 | | 1.6 | |
| 2.5 | 3.0 | | 1.3 | |
| 3.0 | 3.5 | | 1.9 | |
| 2.5 | 3.0 | | 1.3 | |

PRELIMINARY TEST I. 1978

| Strain | Mean 8 Tests | Ont. | Mich. | | Wisc. |
|-------------------|-----------------|----------------|--------|-----------------|----------------|
| | | Ridge- town | Dundee | E. Lan- sing | Arling- ton |
| SEED SIZE (g/100) | | | | | |
| Coles | 20.1 | 21.1 | 20.0 | 24.5 | 18.6 |
| Corsoy (II) | 16.0 | 16.4 | 15.5 | - | 14.7 |
| Evans (0) | 16.6 | 16.7 | 16.5 | 20.2 | 15.2 |
| Hodgson 78 (I) | 17.1 | 18.3 | 18.1 | 20.9 | 15.8 |
| A77-111019 | 20.3 | 19.5 | 21.0 | 23.0 | 20.8 |
| A77-112008 | 20.0 | 20.6 | 20.0 | 23.2 | 18.4 |
| A77-112016 | 15.8 | 17.2 | 16.1 | 18.5 | 15.1 |
| A77-112023 | 16.3 | 15.6 | 15.9 | 20.0 | 15.0 |
| A77-112028 | 18.9 | 20.4 | 20.0 | 22.0 | 17.6 |
| A77-112029 | 17.6 | 16.3 | 16.0 | 21.5 | 16.3 |
| A77-112030 | 18.2 | 18.7 | 18.0 | 20.1 | 18.1 |
| A77-113018 | 18.0 | 19.3 | 17.5 | 20.0 | 18.1 |
| A77-114015 | 15.8 | 15.8 | 16.1 | 19.3 | 14.8 |
| A77-114020 | 18.5 | 17.5 | 18.8 | 21.0 | 18.2 |
| A77-114030 | 18.2 | 18.2 | 18.5 | 22.5 | 17.3 |
| A77-114033 | 17.0 | 16.4 | 17.0 | 21.0 | 16.4 |
| A77-116013 | 18.4 | 18.9 | 18.9 | 23.0 | 17.0 |
| A77-116028 | 21.7 | 22.4 | 22.0 | 23.8 | 21.8 |
| L74-3897 | 20.1 | 21.2 | 20.5 | 23.0 | 19.7 |
| L75-3632 | 16.6 | 17.0 | 16.0 | 20.0 | 15.3 |
| L75-9162 | 18.3 | 19.4 | 18.1 | 22.5 | 17.4 |
| L75-9164 | 18.7 | 20.7 | 18.1 | 23.0 | 18.0 |
| M69-318 | 20.9 | 22.6 | 22.0 | 26.0 | 20.9 |
| M70-121 | 17.4 | 16.5 | 18.8 | 22.0 | 15.8 |
| M70-128 | 17.4 | 19.0 | 19.0 | 21.0 | 15.6 |
| M70-150 | 15.7 | 16.0 | 16.5 | 19.9 | 14.1 |
| M70-179 | 17.7 | 18.3 | 19.5 | 20.5 | 17.0 |
| M70-242 | 16.4 | 15.7 | 17.0 | 20.0 | 15.8 |
| M70-259 | 18.8 | 21.1 | 19.0 | 22.7 | 17.3 |
| M70-260 | 18.9 | 22.3 | 21.0 | 22.2 | 17.5 |

PRELIMINARY TEST I, 1978

| Minn. | | Iowa | | S.D. |
|--------------------------|----------------|--------|---------|----------------|
| Waseca | Lamber- ton | Nashua | Corwith | Brook- ings |
| <u>SEED SIZE (g/100)</u> | | | | |
| 18.4 | 18.9 | | 20.2 | 18.8 |
| 17.1 | 16.4 | | 16.1 | 15.8 |
| 18.3 | 15.3 | | 13.2 | 17.1 |
| 17.0 | 15.7 | | 14.8 | 16.2 |
| 20.0 | 18.7 | | 20.7 | 19.0 |
| 20.6 | 18.4 | | 19.4 | 19.0 |
| 14.8 | 14.4 | | 14.8 | 15.1 |
| 16.8 | 17.7 | | 13.4 | 15.8 |
| 17.8 | 16.9 | | 16.8 | 18.0 |
| 18.9 | 16.3 | | 17.2 | 18.3 |
| 18.5 | 17.7 | | 16.3 | 17.9 |
| 18.5 | 16.6 | | 15.7 | 18.3 |
| 15.2 | 15.4 | | 15.0 | 14.7 |
| 19.2 | 18.0 | | 17.0 | 18.5 |
| 17.8 | 16.6 | | 17.8 | 16.9 |
| 16.5 | 16.0 | | 16.6 | 16.1 |
| 16.7 | 17.0 | | 17.9 | 17.4 |
| 21.9 | 21.3 | | 20.0 | 20.7 |
| 19.5 | 18.8 | | 20.5 | 17.5 |
| 17.2 | 15.9 | | 15.6 | 15.8 |
| 18.3 | 16.4 | | 17.8 | 16.8 |
| 18.2 | 16.8 | | 16.6 | 17.9 |
| 20.8 | 18.0 | | 17.0 | 19.6 |
| 18.6 | 15.9 | | 15.2 | 16.2 |
| 16.5 | 16.2 | | 14.2 | 17.5 |
| 15.3 | 13.7 | | 13.8 | 16.5 |
| 18.2 | 15.1 | | 16.1 | 16.8 |
| 18.8 | 14.6 | | 13.9 | 15.0 |
| 19.5 | 17.0 | | 16.0 | 17.6 |
| 17.6 | 17.1 | | 14.8 | 19.0 |

PRELIMINARY TEST I, 1978

| Strain | Mean | Ont. | Wisc. | Minn. | Iowa |
|----------------|---------|----------------|----------------|--------|---------|
| | | Ridge- town | Arling- ton | Waseca | Corwith |
| | 4 Tests | PROTEIN (%) | | | |
| Coles | 44.0 | 45.7 | 45.1 | 43.4 | 41.8 |
| Corsoy (II) | 42.0 | 43.0 | 44.4 | 40.8 | 40.0 |
| Evans (0) | 41.1 | 39.7 | 43.0 | 39.9 | 41.7 |
| Hodgson 78 (I) | 40.0 | 41.2 | 41.5 | 38.7 | 38.6 |
| A77-111019 | 40.2 | 39.0 | 43.0 | 39.3 | 39.4 |
| A77-112008 | 42.9 | 43.6 | 44.6 | 41.8 | 41.7 |
| A77-112016 | 42.6 | 43.1 | 44.3 | 41.6 | 41.2 |
| A77-112023 | 43.2 | 42.8 | 45.8 | 43.0 | 41.1 |
| A77-112028 | 43.3 | 43.6 | 45.5 | 42.0 | 42.0 |
| A77-112029 | 41.8 | 42.9 | 43.5 | 40.6 | 40.4 |
| A77-112030 | 42.3 | 42.8 | 44.6 | 41.0 | 40.9 |
| A77-113018 | 42.7 | 42.6 | 44.6 | 42.6 | 41.1 |
| A77-114015 | 43.2 | 43.0 | 45.3 | 42.4 | 42.3 |
| A77-114020 | 42.6 | 42.7 | 44.5 | 41.9 | 41.2 |
| A77-114030 | 44.5 | 45.0 | 46.1 | 43.4 | 43.5 |
| A77-114033 | 43.1 | 44.9 | 45.1 | 41.8 | 40.7 |
| A77-116013 | 42.4 | 44.1 | 44.9 | 40.5 | 40.2 |
| A77-116028 | 41.1 | 41.5 | 42.8 | 40.6 | 39.6 |
| L74-3897 | 41.6 | 42.6 | 43.4 | 40.7 | 39.8 |
| L75-3632 | 41.2 | 39.9 | 43.7 | 40.9 | 40.3 |
| L75-9162 | 41.8 | 41.4 | 44.5 | 41.1 | 40.1 |
| L75-9164 | 40.5 | 42.8 | 42.7 | 38.3 | 38.1 |
| M69-318 | 40.4 | 42.1 | 42.2 | 39.1 | 38.4 |
| M70-121 | 39.9 | 40.3 | 42.6 | 39.2 | 37.4 |
| M70-128 | 39.2 | 39.8 | 42.1 | 37.6 | 37.3 |
| M70-150 | 38.7 | 38.2 | 42.8 | 37.6 | 36.3 |
| M70-179 | 42.4 | 43.7 | 45.0 | 41.3 | 39.7 |
| M70-242 | 41.0 | 42.6 | 44.3 | 39.4 | 37.6 |
| M70-259 | 40.7 | 41.4 | 44.1 | 38.8 | 38.4 |
| M70-260 | 40.8 | 42.7 | 42.5 | 39.0 | 39.0 |

PRELIMINARY TEST I, 1978

| Strain | Mean | Ont. | Wisc. | Minn. | Iowa |
|----------------|---------|----------------|----------------|--------|---------|
| | | Ridge- town | Arling- ton | Waseca | Corwith |
| | 4 Tests | OIL (%) | | | |
| Coles | 19.2 | 18.3 | 18.1 | 20.2 | 20.3 |
| Corsoy (II) | 20.3 | 19.9 | 19.0 | 20.5 | 21.7 |
| Evans (0) | 21.0 | 22.0 | 19.8 | 22.1 | 20.2 |
| Hodgson 78 (I) | 21.8 | 20.5 | 22.1 | 22.2 | 22.3 |
| A77-111019 | 20.0 | 20.6 | 18.4 | 20.7 | 20.4 |
| A77-112008 | 19.2 | 18.8 | 18.2 | 19.5 | 20.1 |
| A77-112016 | 19.8 | 19.8 | 19.1 | 20.4 | 20.1 |
| A77-112023 | 19.8 | 20.3 | 19.1 | 19.6 | 20.4 |
| A77-112028 | 20.6 | 20.0 | 19.8 | 21.4 | 21.2 |
| A77-112029 | 20.3 | 19.8 | 19.2 | 20.6 | 21.5 |
| A77-112030 | 20.4 | 21.3 | 18.5 | 21.2 | 20.5 |
| A77-113018 | 20.0 | 19.8 | 19.0 | 20.3 | 20.8 |
| A77-114015 | 19.8 | 20.0 | 18.7 | 19.9 | 20.6 |
| A77-114020 | 19.8 | 19.4 | 19.0 | 20.0 | 21.0 |
| A77-114030 | 19.3 | 18.9 | 18.8 | 19.3 | 20.1 |
| A77-114033 | 20.5 | 19.1 | 19.6 | 21.5 | 21.9 |
| A77-116013 | 19.8 | 18.9 | 18.5 | 20.5 | 21.2 |
| A77-116028 | 20.2 | 20.1 | 19.5 | 19.9 | 21.3 |
| L74-3897 | 20.7 | 20.1 | 20.2 | 21.1 | 21.3 |
| L75-3632 | 20.7 | 20.6 | 19.7 | 20.7 | 21.8 |
| L75-9162 | 20.3 | 20.1 | 19.0 | 20.8 | 21.4 |
| L75-9164 | 20.9 | 19.1 | 20.3 | 22.0 | 22.2 |
| M69-318 | 22.4 | 21.3 | 21.8 | 23.4 | 23.2 |
| M70-121 | 21.6 | 21.5 | 20.2 | 21.2 | 23.5 |
| M70-128 | 22.4 | 22.4 | 20.9 | 24.3 | 22.2 |
| M70-150 | 22.8 | 22.7 | 20.8 | 22.9 | 24.8 |
| M70-179 | 20.1 | 19.2 | 19.1 | 20.8 | 21.4 |
| M70-242 | 21.8 | 20.3 | 20.2 | 23.2 | 23.6 |
| M70-259 | 22.2 | 21.1 | 20.2 | 23.2 | 24.1 |
| M70-260 | 21.4 | 20.9 | 20.7 | 21.7 | 22.2 |

UNIFORM TEST II, 1978

| Strain | Parentage | Previous Testing* | Generation Compositd |
|------------------------------|--|-------------------|----------------------|
| 1. Beeson | C1253 x Kent | 11 | F ₇ |
| 2. Coles | Hark x (Provar x (Magna x Disoy)) | 1 | F ₅ |
| 3. Corsoy | Harosoy x Capital | 14 | F ₉ |
| 4. Harcor | Corsoy x OX383 (Corsoy x Harosoy 63) | 4 | F ₄ |
| 5. Sloan ¹ | M59-120 x IVR Ex 4731 | 3 | F ₄ |
| 6. Vickery ² | Corsoy ⁴ x (Mack x L65-1342 or Anoka) | 1 | F ₄ |
| 7. Wells | C1266R (Harosoy x C1079) x C1253 | 6 | F ₇ |
| 8. Wells II ³ | Wells ⁸ x Arksoy | 1 | F ₃ |
| 9. Woodworth | Wayne x L57-0034 (Clark x Adams) | 1 | F ₆ |
| 10. A76-201009 | AP6 | P II | F ₆ |
| 11. A76-201010 | AP6 | P II | F ₆ |
| 12. A76-202015 | AP6 | P II | F ₆ |
| 13. C Beeson PR ₃ | Beeson ⁸ x Arksoy | 0 | F ₃ |
| 14. C1545 | Calland x Bonus | 1 | F ₆ |
| 15. C1553 | Williams x Beeson | P II | F ₈ |
| 16. HW6942-15-6 | Calland x Beeson | P II | F ₄ |
| 17. HW74-618 | Williams x Ransom (dt.) | P III | F ₄ |
| 18. L73D-195 | C1477 (Amsoy ⁸ x C1253) x Corsoy | 2 | F ₆ |
| 19. L73-6084 | L15 (Wayne <u>Rps</u>) x Amsoy 71 | 1 | F ₇ |
| 20. L75-3674 | Corsoy ⁶ x Lee 68 | P II | F ₃ |
| 21. M68-333 | M60-406 x Beeson | P I | F ₅ |
| 22. U11406 | C1432 x C1430 | 1 | F ₇ |
| 23. U11532 | Wayne x C1317-71 | P II | F ₄ |

* Number of years in this test, or name of 1977 test.

¹ A73-25050 in 1977 UT II

² A75-Corsoy R3 in 1977 UT II

³ Wells BC₆ in 1977 UT II

UNIFORM TEST II, 1978

Descriptive and Other Data

| Strain | Descriptive Code | | Chlorosis Score Ames | Hypocotyl Score Ames | Shattering Manhattan 2 weeks |
|--------------------------|------------------|------|----------------------------|----------------------------|------------------------------------|
| Beeson | PGBr | SYIb | 3 | 5 | 4 |
| Coles (I) | PGBr | DYY | 2 | 1 | 5 |
| Corsoy (II) | PGBr | DYY | 4 | 1 | 3 |
| Harcor | PGBr | SYI | 4 | 1 | 3 |
| Sloan | WTBr | SYBr | 2 | 5 | 3 |
| Vickery | PGBr | DYY | 4 | 1 | 4 |
| Wells | PGBr | DYIb | 3 | 4 | 5 |
| Wells II | PGBr | DYIb | 3 | 5 | 5 |
| Woodworth (III) | WTTn | DYB1 | 4 | 5 | 2 |
| A76-201009 | PGBr | DYY | 1 | 3 | 3 |
| A76-201010 | PTBr | DYB1 | 4 | 1 | 3 |
| A76-202015 | WTBr | DYB1 | 2 | 1 | 2 |
| C Beeson PR ₃ | PGBr | DYIb | 2 | 5 | 3 |
| C1545 | PTBr | DYB1 | 2 | 5 | 4 |
| C1553 | WGTn | DYBf | 4 | 5 | 4 |
| HW6942-15-6 | PTBr | DYB1 | 2 | 5 | 4 |
| HW74-618 | PTTn | SYB1 | 3 | 1 | 2 |
| L73D-195 | PGBr | SYI | 3 | 1 | 2 |
| L73-6084 | WTBr | SYBr | 3 | 1 | 3 |
| L75-3674 | PGBr | DYY | 4 | 1 | 2 |
| M68-333 | WGBr | SYBf | 2 | 5 | 3 |
| U11406 | WGBr | SYBf | 4 | 1 | 3 |
| U11532 | WGTn | SYBf | 3 | 1 | 3 |

UNIFORM TEST II, 1978

Disease Data

| Strain | FE2 | BP | BSR | | PSB | PS | PR | PR race 1 | | |
|--------------------------|-----------|-------------|-----------|---------------|-----------------|-----------|-----------|--------------------|-----------|----------|
| | Laf. Ind. | Girard Ill. | Laf. Ind. | Ames, Ia Stem | Ames, Ia Plants | Laf. Ind. | Laf. Ind. | Vickery Ohio | Laf. Ind. | Ames Ia. |
| | a | n | n | n | n | d | a | n | a | a |
| | Score | Score | % | % | % | % | % | -----Reaction----- | | |
| Beeson | 1 | 3 | 100 | 81 | 100 | | | 4.0 | R | R |
| Coles (I) | 4 | 3 | 0 | 59 | 100 | | | 4.5 | S | S |
| Corsoy (II) | 5 | 3 | 20 | 52 | 100 | | | 4.0 | S | S |
| Harcor | 5 | 3 | 20 | 58 | 100 | | | 3.5 | R | H |
| Sloan | 4 | 3 | 0 | 88 | 100 | | | 5.0 | S | S |
| Vickery | 5 | 3 | 0 | 57 | 100 | | | 2.5 | R | R |
| Wells | 1 | 3 | 40 | 69 | 100 | | | 4.0 | R | R |
| Wells II | 1 | 3 | 0 | 62 | 100 | | | 3.0 | R | R |
| Woodworth (III) | 4 | 1 | 0 | 76 | 100 | | | 3.5 | S | S |
| A76-201009 | 4 | 3 | 20 | 66 | 100 | | | 5.0 | S | S |
| A76-201010 | 5 | 1 | 60 | 75 | 100 | | | 3.0 | S | S |
| A76-202015 | 5 | 3 | 80 | 67 | 100 | | | 3.0 | S | S |
| C Beeson PR ₃ | 1 | 3 | 0 | 61 | 100 | | | 2.5 | R | R |
| Cl545 | 4 | 2 | 20 | 69 | 100 | | | 3.0 | R | R |
| Cl553 | 1 | 3 | 20 | 75 | 100 | | | 3.5 | H | S |
| HW6942-15-6 | 5 | 3 | 20 | 65 | 100 | | | 3.5 | R | R |
| HW74-618 | 1 | 1 | 0 | 100 | 100 | | | 3.5 | S | S |
| L73D-195 | 5 | 3 | 70 | 68 | 100 | | | 3.0 | R | R |
| L73-6084 | 4 | 1 | 80 | 77 | 100 | | | 2.5 | R | R |
| L75-3674 | 5 | 3 | 0 | 61 | 100 | | | 3.0 | R | R |
| M68-333 | 5 | 3 | 30 | 66 | 100 | | | 4.0 | R | R |
| U11406 | 4 | 3 | 30 | 82 | 100 | | | 4.0 | R | R |
| U11532 | 5 | 3 | 20 | 88 | 100 | | | 3.5 | R | R |

UNIFORM TEST II, 1978

Regional Summary

| Strain | Yield bu/a | Rank No. | Matu- rity Date | Lodg- ing Score | Height In. | Seed Quality Score | Seed Size g/100 | Seed Protein % | Seed Composition Oil % |
|---|---------------|-------------|-----------------------|-----------------------|---------------|--------------------------|-----------------------|----------------------|---------------------------------|
| No. of Tests | 21 | 21 | 20 | 21 | 20 | 17 | 19 | 8 | 8 |
| Beeson | 42.6 | 21 | +3.0 | 2.2 | 37 | 2.5 | 19.2 | 42.3 | 20.4 |
| Coles (I) | 43.2 | 18 | -0.6 | 2.5 | 38 | 2.1 | 19.1 | 43.0 | 20.2 |
| Corsoy (II) | 44.9 | 9 | 9-22* | 2.4 | 37 | 2.1 | 16.3 | 41.0 | 21.3 |
| Harcor | 45.7 | 3 | +0.9 | 2.5 | 38 | 2.1 | 15.9 | 41.2 | 20.8 |
| Sloan | 42.5 | 22 | +3.5 | 2.6 | 37 | 2.3 | 17.2 | 41.2 | 22.2 |
| Vickery | 44.9 | 9 | -0.4 | 2.4 | 37 | 2.1 | 16.1 | 41.1 | 21.0 |
| Wells | 44.1 | 15 | +0.2 | 1.7 | 37 | 2.7 | 17.1 | 42.7 | 21.0 |
| Wells II | 44.1 | 15 | +0.2 | 1.7 | 37 | 2.6 | 17.1 | 42.9 | 20.8 |
| Woodworth (III) | 43.2 | 18 | +7.2 | 2.2 | 38 | 1.8 | 16.0 | 41.4 | 20.9 |
| A76-201009 | 41.9 | 23 | -1.4 | 2.0 | 34 | 2.2 | 17.4 | 41.8 | 21.4 |
| A76-201010 | 45.0 | 8 | +2.0 | 3.1 | 35 | 2.4 | 17.1 | 40.4 | 20.7 |
| A76-202015 | 44.9 | 9 | +2.8 | 3.0 | 36 | 2.1 | 17.4 | 41.3 | 20.2 |
| <i>Beeson 80</i> <i>Century</i> C Beeson PR ₃ | 45.6 | 4 | +2.0 | 2.0 | 36 | 2.1 | 19.6 | 42.3 | 20.5 |
| C1545 | 45.6 | 4 | +4.0 | 1.8 | 36 | 2.3 | 19.1 | 43.5 | 19.8 |
| C1553 | 45.3 | 7 | -0.3 | 1.8 | 34 | 2.2 | 20.6 | 41.2 | 21.7 |
| HW6942-15-6 | 44.9 | 9 | +3.2 | 2.1 | 37 | 2.3 | 19.4 | 41.5 | 20.8 |
| <i>Gnome</i> <i>Ancor</i> HW74-618 | 44.3 | 13 | +4.0 | 1.7 | 26 | 1.6 | 16.2 | 43.3 | 20.4 |
| L73D-195 | 46.4 | 1 | +4.5 | 2.6 | 41 | 2.3 | 17.1 | 40.0 | 20.9 |
| L73-6084 | 45.8 | 2 | +3.2 | 2.3 | 42 | 2.3 | 18.8 | 41.5 | 21.5 |
| <i>Corsoy 79</i> L75-3674 | 45.6 | 4 | -0.4 | 2.3 | 38 | 2.1 | 16.2 | 41.2 | 21.2 |
| M68-333 | 43.4 | 17 | -3.7 | 2.4 | 36 | 2.2 | 18.0 | 41.9 | 21.0 |
| <i>Nebsoy</i> U11406 | 42.8 | 20 | +1.2 | 1.6 | 35 | 2.4 | 17.6 | 41.5 | 20.3 |
| U11532 | 44.3 | 13 | +2.2 | 2.1 | 37 | 2.3 | 18.0 | 42.0 | 20.3 |

* 118 days after planting

The 3-year means show the similarity in yield of Harcor and L73D-195, though L73D-195 is 4 days later maturing than Harcor.

Results of the 2-year analysis show very similar yields for Harcor, C1545, L73D-195, and L73-6084. All of these strains are resistant to race 1 of phytophthora, and the experimental strains mature 3 to 4 days after Harcor. C1545 has somewhat better lodging resistance than the other strains.

The 1978 summary shows similar results but with C Beeson PR₃ and L75-3674 yielding about the same as the above strains. These two strains are resistant to races 1,2,3,6,7,8, and 9 of phytophthora while the above strains are resistant only to races 1 and 2. The determinate strain HW74-618 was similar in yield to Corsoy but about 4 days later in maturity than Corsoy.

UNIFORM TEST II, 1978

Regional Summary

| Strain | Yield bu/a | Rank No. | Matu- rity Date | Lodg- ing Score | Height In. | Seed Quality Score | Seed Size g/100 | Seed Composition | |
|-------------------------------|---------------|-------------|-----------------------|-----------------------|---------------|--------------------------|-----------------------|------------------|----------|
| | | | | | | | | Protein % | Oil % |
| <u>1977-1978, 2-Year Mean</u> | | | | | | | | | |
| No. of Tests | 43 | 43 | 39 | 43 | 42 | 38 | 40 | 17 | 17 |
| Beeson | 43.6 | 12 | +3.6 | 2.1 | 36 | 2.6 | 19.1 | 40.9 | 20.4 |
| Coles (I) | 43.0 | 13 | -0.7 | 2.4 | 37 | 2.3 | 18.4 | 41.4 | 20.4 |
| Corsoy (II) | 44.5 | 6 | 9-21.4* | 2.5 | 37 | 2.3 | 15.9 | 39.8 | 21.2 |
| Harcor | 46.4 | 3 | +1.7 | 2.7 | 39 | 2.3 | 15.4 | 39.7 | 20.8 |
| Sloan | 44.1 | 10 | +4.3 | 2.5 | 36 | 2.4 | 16.8 | 39.6 | 22.2 |
| Vickery | 44.6 | 5 | -0.5 | 2.6 | 37 | 2.2 | 15.6 | 39.8 | 21.1 |
| Wells | 44.4 | 8 | -0.3 | 1.8 | 36 | 2.7 | 16.3 | 41.0 | 21.1 |
| Wells II | 44.4 | 8 | -0.1 | 1.8 | 36 | 2.7 | 16.4 | 41.2 | 21.0 |
| Woodworth (III) | 43.7 | 11 | +8.9 | 2.2 | 38 | 2.1 | 15.4 | 40.4 | 20.5 |
| C1545 | 46.7 | 2 | +4.5 | 1.9 | 36 | 2.3 | 18.8 | 41.8 | 20.2 |
| L73D-195 | 46.9 | 1 | +5.6 | 2.8 | 40 | 2.5 | 16.7 | 39.0 | 20.8 |
| L73-6084 | 46.4 | 3 | +4.7 | 2.4 | 41 | 2.4 | 18.5 | 40.1 | 21.4 |
| U11406 | 44.5 | 6 | +1.7 | 1.6 | 34 | 2.6 | 16.7 | 40.0 | 20.3 |

* 121 days after planting

1976-1978, 3-Year Mean

| | | | | | | | | | |
|--------------|------|----|------|-----|----|-----|------|------|------|
| No. of Tests | 67 | 67 | 62 | 68 | 68 | 62 | 61 | 28 | 28 |
| Beeson | 41.4 | 5 | +4.0 | 2.0 | 36 | 2.5 | 18.5 | 40.9 | 20.3 |
| Corsoy (II) | 42.8 | 3 | 9-19 | 2.3 | 36 | 2.2 | 15.5 | 39.7 | 21.1 |
| Harcor | 44.5 | 1 | +1.5 | 2.5 | 37 | 2.2 | 15.0 | 39.6 | 20.7 |
| Sloan | 42.6 | 4 | +4.2 | 2.4 | 36 | 2.4 | 16.5 | 39.6 | 22.1 |
| L73D-195 | 44.4 | 2 | +5.5 | 2.7 | 40 | 2.4 | 16.2 | 38.7 | 20.9 |

* 120 days after planting

1975-1978, 4-Year Mean

| | | | | | | | | | |
|--------------|------|----|--------|-----|----|-----|------|------|------|
| No. of Tests | 93 | 93 | 86 | 93 | 94 | 85 | 84 | 39 | 39 |
| Beeson | 42.2 | 4 | +4.0 | 1.9 | 35 | 2.5 | 18.7 | 40.9 | 20.4 |
| Corsoy (II) | 43.0 | 3 | 9-18.4 | 2.3 | 35 | 2.3 | 15.7 | 40.0 | 21.2 |
| Harcor | 44.6 | 1 | +1.9 | 2.5 | 37 | 2.3 | 15.1 | 39.8 | 20.8 |
| Sloan | 43.3 | 2 | +4.4 | 2.4 | 35 | 2.4 | 16.7 | 39.5 | 21.4 |

* 120 days after planting

UNIFORM TEST II, 1978

| Strain | Mean 21 Tests | N.J. | Penn. | Ont. | | Ohio | |
|--------------------------|------------------|---------------|------------------|----------------|-------------|---------|----------------|
| | | Adel- phia | Landis- ville | Ridge- town | Har- row | Wooster | Hoyt- ville |
| <u>YIELD (bu/a)</u> | | | | | | | |
| Beeson | 42.6 | 30.8 | 43.3 | 48.6 | 43.4 | 26.4 | 47.1 |
| Coles (I) | 43.2 | 33.2 | 40.2 | 52.6 | 45.0 | 30.2 | 45.0 |
| Corsoy (II) | 44.9 | 28.5 | 47.4 | 60.2 | 44.2 | 28.0 | 45.3 |
| Harcor | 45.7 | 36.4 | 48.7 | 56.9 | 44.7 | 29.8 | 46.4 |
| Sloan | 42.5 | 28.8 | 45.0 | 53.5 | 41.1 | 27.3 | 44.9 |
| Vickery | 44.9 | 34.8 | 42.0 | 56.1 | 44.6 | 23.9 | 43.3 |
| Wells | 44.1 | 29.3 | 41.8 | 59.8 | 45.4 | 23.2 | 48.9 |
| Wells II | 44.1 | 29.1 | 43.5 | 57.3 | 46.7 | 21.4 | 48.3 |
| Woodworth (III) | 43.2 | 32.2 | 46.4 | 51.3 | 40.8 | 27.1 | 45.6 |
| A76-201009 | 41.9 | 30.8 | 42.7 | 57.6 | 45.1 | 22.3 | 49.5 |
| A76-201010 | 45.0 | 29.8 | 46.0 | 50.1 | 41.9 | 30.6 | 47.5 |
| A76-202015 | 44.9 | 36.2 | 43.9 | 47.7 | 44.1 | 33.1 | 49.8 |
| C Beeson PR ₃ | 45.6 | 31.2 | 46.2 | 56.3 | 43.4 | 28.2 | 48.6 |
| C1545 | 45.6 | 32.1 | 45.8 | 55.1 | 44.5 | 30.5 | 47.1 |
| C1553 | 45.3 | 31.8 | 41.1 | 55.3 | 43.5 | 26.1 | 48.5 |
| HW6942-15-6 | 44.9 | 35.0 | 47.0 | 50.8 | 43.4 | 27.2 | 48.1 |
| HW74-618 | 44.3 | 41.6 | 47.1 | 46.7 | 41.6 | 28.1 | 47.4 |
| L73D-195 | 46.4 | 43.2 | 50.6 | 54.7 | 44.4 | 32.7 | 46.2 |
| L73-6084 | 45.8 | 35.7 | 46.6 | 53.0 | 44.6 | 28.2 | 47.6 |
| L75-3674 | 45.6 | 34.6 | 46.2 | 56.5 | 41.6 | 27.4 | 43.8 |
| M68-333 | 43.4 | 34.4 | 41.5 | 60.6 | 48.3 | 27.3 | 43.9 |
| U11406 | 42.8 | 29.4 | 40.8 | 52.4 | 45.7 | 23.3 | 47.3 |
| U11532 | 44.3 | 31.8 | 41.4 | 48.4 | 44.4 | 30.5 | 46.9 |
| C.V. (%) | | 10.0 | 5.9 | 10.1 | 5.2 | 13.3 | 5.6 |
| L.S.D. (5%) | | 6.4 | 4.4 | 7.7 | 3.2 | 6.0 | 4.2 |
| Row sp (in.) | | 30" | 30" | 24" | 24" | 30" | 30" |
| Rows/plot | | 3 | 4 | 4 | 4 | 4 | 4 |
| Reps | | 4 | 3 | 4 | 4 | 3 | 3 |

UNIFORM TEST II, 1978

| Strain | Mich. | | Ind. | | | Wisc. | Ill. |
|--------------------------|---------------------|-----------------|---------------|----------------|-----------------|----------------|--------|
| | Dundee | E. Lan- sing | Bluff- ton | Lafay- ette | Green- field | Arling- ton | Urbana |
| | <u>YIELD (bu/a)</u> | | | | | | |
| Beeson | 21.6 | 52.0 | 38.7 | 50.6 | 31.0 | 32.5 | 53.8 |
| Coles (I) | 22.5 | 35.0 | 36.5 | 48.9 | 33.3 | 26.1 | 55.0 |
| Corsoy (II) | 20.5 | 38.9 | 40.7 | 54.6 | 21.5 | 35.5 | 56.0 |
| Harcor | 33.3 | 43.0 | 35.0 | 49.6 | 27.8 | 35.0 | 56.2 |
| Sloan | 22.9 | 43.6 | 32.8 | 51.1 | 30.6 | 33.0 | 50.4 |
| Vickery | 25.8 | 43.9 | 42.1 | 46.1 | 23.5 | 30.6 | 55.0 |
| Wells | 26.7 | 42.2 | 32.0 | 54.8 | 34.1 | 35.6 | 56.6 |
| Wells II | 23.0 | 38.1 | 44.0 | 55.9 | 36.9 | 34.4 | 50.2 |
| Woodworth (III) | 29.5 | 45.3 | 42.2 | 56.0 | 27.3 | 30.0 | 52.4 |
| A76-201009 | 7.4 | 39.8 | 33.8 | 53.1 | 26.1 | 34.6 | 54.0 |
| A76-201010 | 26.7 | 47.5 | 47.4 | 47.5 | 39.5 | 33.4 | 55.4 |
| A76-202015 | 29.7 | 53.1 | 47.7 | 51.0 | 24.6 | 27.7 | 55.2 |
| C Beeson PR ₃ | 31.7 | 51.1 | 48.1 | 46.4 | 35.0 | 34.0 | 53.4 |
| C1545 | 27.5 | 48.3 | 39.3 | 51.4 | 39.4 | 28.0 | 57.6 |
| C1553 | 26.1 | 43.9 | 40.5 | 54.4 | 29.3 | 36.4 | 57.6 |
| HW6942-15-6 | 31.6 | 40.9 | 43.8 | 51.6 | 36.4 | 32.5 | 53.3 |
| HW74-618 | 27.9 | 45.2 | 40.8 | 47.1 | 27.8 | 28.8 | 58.8 |
| L73D-195 | 27.2 | 46.5 | 39.1 | 54.9 | 39.8 | 31.7 | 55.8 |
| L73-6084 | 31.8 | 43.8 | 39.4 | 60.2 | 43.7 | 32.5 | 56.2 |
| L75-3674 | 30.2 | 41.5 | 43.0 | 46.2 | 26.3 | 33.0 | 54.4 |
| M68-333 | 24.7 | 35.3 | 40.9 | 47.7 | 28.9 | 36.2 | 53.0 |
| U11406 | 24.0 | 40.5 | 41.9 | 48.7 | 28.5 | 34.7 | 56.4 |
| U11532 | 24.4 | 44.7 | 37.8 | 48.1 | 30.5 | 34.3 | 53.0 |
| C.V. (%) | 16.7 | 12.7 | 15.9 | 8.7 | 17.4 | 9.4 | 4.2 |
| L.S.D. (5%) | 7.1 | 9.1 | 10.5 | 7.2 | 9.2 | 5.0 | 4.8 |
| Row sp (in.) | - | - | 30" | 30" | 30" | 30" | 30" |
| Rows/plot | - | - | 3 | 4 | 3 | 4 | 4 |
| Reps | - | - | 3 | 3 | 3 | 3 | 2 |

UNIFORM TEST II, 1978

| Ill. Girard | Minn. | | Iowa | | Neb. | | S.D. Brook- ings |
|---------------------|--------|----------------|---------------|-------|------|---------|------------------------|
| | Waseca | Lamber- ton | Key- stone | Ames | Mead | Concord | |
| <u>YIELD (bu/a)</u> | | | | | | | |
| 40.8 | 49.1 | 42.3 | 56.6 | 54.3 | 48.5 | 47.9 | 36.2 |
| 42.9 | 53.3 | 55.6 | 54.9 | 61.8 | 50.0 | 43.1 | 41.4 |
| 44.4 | 56.9 | 60.0 | 54.9 | 64.1 | 52.3 | 50.1 | 38.7 |
| 42.4 | 58.8 | 54.1 | 54.2 | 66.8 | 46.7 | 51.2 | 42.8 |
| 47.4 | 52.4 | 42.8 | 54.3 | 58.0 | 44.4 | 46.3 | 42.3 |
| 46.7 | 57.3 | 58.4 | 51.3 | 67.8 | 50.1 | 52.3 | 46.7 |
| 43.7 | 53.1 | 49.9 | 54.9 | 53.1 | 52.3 | 48.2 | 39.7 |
| 44.6 | 54.8 | 48.6 | 54.9 | 55.8 | 52.6 | 47.9 | 39.0 |
| 44.4 | 52.5 | 44.0 | 54.7 | 55.5 | 48.3 | 46.7 | 35.7 |
| 45.9 | 38.0 | 47.4 | 53.6 | 55.2 | 52.2 | 49.8 | 40.5 |
| 44.5 | 53.9 | 48.2 | 53.0 | 68.9 | 48.9 | 43.6 | 40.5 |
| 41.7 | 49.1 | 48.9 | 57.1 | 64.9 | 51.7 | 42.6 | 42.5 |
| 45.6 | 55.2 | 47.0 | 55.8 | 62.2 | 54.9 | 46.6 | 36.1 |
| 46.5 | 55.8 | 48.5 | 57.7 | 56.7 | 53.0 | 52.2 | 41.4 |
| 43.0 | 52.2 | 51.7 | 55.8 | 62.2 | 58.4 | 50.2 | 42.4 |
| 44.4 | 51.0 | 49.9 | 59.2 | 63.5 | 47.7 | 48.4 | 37.4 |
| 40.4 | 47.4 | 42.7 | 50.3 | 60.9 | 57.0 | 41.8 | 40.3 |
| 47.2 | 53.9 | 50.4 | 54.2 | 62.7 | 51.0 | 50.3 | 37.4 |
| 47.8 | 51.7 | 46.8 | 52.8 | 63.5 | 49.4 | 46.9 | 38.8 |
| 47.5 | 60.9 | 57.1 | 53.6 | 66.5 | 52.9 | 53.1 | 42.0 |
| 39.5 | 56.5 | 55.4 | 49.5 | 56.3 | 48.4 | 48.0 | 34.8 |
| 42.8 | 48.7 | 46.0 | 52.6 | 56.1 | 50.4 | 49.4 | 40.1 |
| 43.9 | 49.3 | 48.5 | 50.3 | 51.5 | 43.0 | 44.1 | 40.6 |
| 5.1 | 9.2 | 7.5 | 5.7 | 6.7 | 7.6 | 7.3 | 12.6 |
| 4.7 | 8.0 | 6.9 | 4.3 | 5.8 | 6.4 | 5.8 | N.S |
| 36" | 30" | 30" | 27" | 13.5" | 30" | 30" | 30" |
| 4 | 4 | 4 | 4 | 5 | 4 | 4 | 3 |
| 2 | 3 | 3 | 4 | 4 | 3 | 3 | 4 |

UNIFORM TEST II, 1978

| Strain | Mean 21 Tests | N.J. | Penn. | Ont. | | Ohio | |
|--------------------------|------------------|---------------|------------------|----------------|-------------|---------|----------------|
| | | Adel- phia | Landis- ville | Ridge- town | Har- row | Wooster | Hoyt- ville |
| <u>YIELD RANK</u> | | | | | | | |
| Beeson | 21 | 16 | 15 | 20 | 16 | 17 | 12 |
| Coles (I) | 18 | 10 | 23 | 15 | 6 | 6 | 19 |
| Corsoy (II) | 9 | 23 | 3 | 2 | 13 | 11 | 18 |
| Harcor | 3 | 3 | 2 | 6 | 7 | 7 | 15 |
| Sloan | 22 | 22 | 12 | 13 | 22 | 13 | 20 |
| Vickery | 9 | 7 | 17 | 9 | 8 | 19 | 23 |
| Wells | 15 | 20 | 18 | 3 | 4 | 21 | 3 |
| Wells II | 15 | 21 | 14 | 5 | 2 | 23 | 6 |
| Woodworth (III) | 18 | 11 | 7 | 17 | 23 | 16 | 17 |
| A76-201009 | 23 | 16 | 16 | 4 | 5 | 22 | 2 |
| A76-201010 | 8 | 18 | 10 | 19 | 19 | 3 | 9 |
| A76-202015 | 9 | 4 | 13 | 22 | 14 | 1 | 1 |
| C Beeson PR ₃ | 4 | 15 | 8 | 8 | 16 | 8 | 4 |
| C1545 | 4 | 12 | 11 | 11 | 10 | 4 | 12 |
| C1553 | 7 | 13 | 21 | 10 | 15 | 18 | 5 |
| HW6942-15-6 | 9 | 6 | 5 | 18 | 16 | 15 | 7 |
| HW74-618 | 13 | 2 | 4 | 23 | 20 | 10 | 10 |
| L73D-195 | 1 | 1 | 1 | 12 | 11 | 2 | 16 |
| L73-6084 | 2 | 5 | 6 | 14 | 8 | 8 | 8 |
| L75-3674 | 4 | 8 | 8 | 7 | 20 | 12 | 22 |
| M68-333 | 17 | 9 | 19 | 1 | 1 | 13 | 21 |
| U11406 | 20 | 19 | 22 | 16 | 3 | 20 | 11 |
| U11532 | 13 | 13 | 20 | 21 | 11 | 4 | 14 |

UNIFORM TEST II, 1978

| | Mich. | | Ind. | | Wisc. | | Ill. |
|-------------------|-----------------|---------------|----------------|-----------------|----------------|--------|--------|
| Dundee | E. Lan- sing | Bluff- ton | Lafay- ette | Green- field | Arling- ton | Urbana | Girard |
| <u>YIELD RANK</u> | | | | | | | |
| 21 | 2 | 17 | 13 | 10 | 14 | 16 | 21 |
| 20 | 23 | 19 | 15 | 9 | 23 | 12 | 17 |
| 22 | 20 | 12 | 7 | 23 | 4 | 8 | 11 |
| 1 | 14 | 20 | 14 | 16 | 5 | 6 | 9 |
| 19 | 13 | 22 | 11 | 11 | 12 | 22 | 3 |
| 14 | 10 | 8 | 23 | 22 | 18 | 12 | 5 |
| 11 | 15 | 23 | 5 | 8 | 3 | 4 | 15 |
| 18 | 21 | 4 | 3 | 5 | 8 | 23 | 9 |
| 7 | 7 | 6 | 2 | 18 | 19 | 21 | 11 |
| 23 | 19 | 21 | 8 | 20 | 7 | 15 | 7 |
| 11 | 5 | 3 | 19 | 3 | 11 | 10 | 10 |
| 6 | 1 | 2 | 12 | 21 | 22 | 11 | 20 |
| 3 | 3 | 1 | 21 | 7 | 10 | 17 | 8 |
| 9 | 4 | 15 | 10 | 4 | 21 | 2 | 6 |
| 13 | 10 | 13 | 6 | 13 | 1 | 2 | 16 |
| 4 | 17 | 5 | 9 | 6 | 14 | 18 | 11 |
| 8 | 8 | 11 | 20 | 16 | 20 | 1 | 22 |
| 10 | 6 | 16 | 4 | 2 | 17 | 9 | 4 |
| 2 | 12 | 14 | 1 | 1 | 14 | 6 | 1 |
| 5 | 16 | 6 | 22 | 19 | 12 | 14 | 2 |
| 15 | 22 | 10 | 18 | 14 | 2 | 19 | 23 |
| 17 | 18 | 9 | 16 | 15 | 6 | 5 | 18 |
| 16 | 9 | 18 | 17 | 12 | 9 | 19 | 14 |

UNIFORM TEST II, 1978

| Strain | Minn. | | Iowa | | Neb. | | S.D. |
|--------------------------|-------------------|----------------|---------------|------|------|---------|----------------|
| | Waseca | Lamber- ton | Key- stone | Ames | Mead | Concord | Brook- ings |
| | <u>YIELD RANK</u> | | | | | | |
| Beeson | 19 | 23 | 4 | 21 | 17 | 13 | 20 |
| Coles (I) | 11 | 4 | 7 | 12 | 14 | 21 | 7 |
| Corsoy (II) | 4 | 1 | 7 | 6 | 7 | 7 | 17 |
| Harcor | 2 | 6 | 13 | 3 | 21 | 4 | 2 |
| Sloan | 14 | 21 | 12 | 14 | 22 | 18 | 5 |
| Vickery | 3 | 2 | 20 | 2 | 13 | 2 | 1 |
| Wells | 12 | 9 | 7 | 22 | 7 | 11 | 14 |
| Wells II | 8 | 12 | 7 | 18 | 6 | 13 | 15 |
| Woodworth (III) | 13 | 20 | 11 | 19 | 19 | 16 | 22 |
| A76-201009 | 23 | 16 | 15 | 20 | 9 | 8 | 10 |
| A76-201010 | 9 | 15 | 17 | 1 | 16 | 20 | 11 |
| A76-202015 | 19 | 11 | 3 | 5 | 10 | 22 | 3 |
| C Beeson PR ₃ | 7 | 17 | 5 | 10 | 3 | 17 | 21 |
| C1545 | 6 | 13 | 2 | 15 | 4 | 3 | 8 |
| C1553 | 15 | 7 | 5 | 10 | 1 | 6 | 4 |
| HW6942-15-6 | 17 | 9 | 1 | 7 | 20 | 10 | 19 |
| HW74-618 | 22 | 22 | 21 | 13 | 2 | 23 | 12 |
| L73D-195 | 9 | 8 | 13 | 9 | 11 | 5 | 18 |
| L73-6084 | 16 | 18 | 18 | 7 | 15 | 15 | 16 |
| L75-3674 | 1 | 3 | 15 | 4 | 5 | 1 | 6 |
| M68-333 | 5 | 5 | 23 | 16 | 18 | 12 | 23 |
| U11406 | 21 | 19 | 19 | 17 | 12 | 9 | 13 |
| U11532 | 18 | 13 | 21 | 23 | 23 | 19 | 19 |

UNIFORM TEST II, 1978

| Strain | Mean 20 Tests | N.J. | Penn. | Ont. | | Ohio | |
|---------------------------------|------------------|---------------|------------------|----------------|-------------|---------|----------------|
| | | Adel- phia | Landis- ville | Ridge- town | Har- row | Wooster | Hoyt- ville |
| <u>MATURITY (relative date)</u> | | | | | | | |
| Beeson | +3.0 | 0 | -1 | -2 | -3 | +4 | +2 |
| Coles (I) | -0.6 | 0 | -1 | -1 | -2 | +1 | -2 |
| Corsoy* (II) | 9-22 | 9-25 | 9-26 | 10-1 | 9-26 | 9-13 | 9-13 |
| Harcor | +0.9 | 0 | 0 | 0 | -2 | +2 | +3 |
| Sloan | +3.5 | +1 | +4 | +1 | 0 | +4 | +1 |
| Vickery | -0.4 | 0 | 0 | +1 | -3 | 0 | -1 |
| Wells | +0.2 | -2 | -4 | -1 | 0 | +2 | 0 |
| Wells II | +0.2 | -4 | -4 | 0 | 0 | 0 | +1 |
| Woodworth (III) | +7.2 | +2 | +6 | +7 | +2 | +7 | +6 |
| A76-201009 | -1.4 | -1 | 0 | -3 | -6 | 0 | -2 |
| A76-201010 | +2.0 | 0 | 0 | 0 | -8 | +3 | +2 |
| A76-202015 | +2.8 | +1 | 0 | +3 | +1 | +4 | +2 |
| C Beeson PR ₃ | +2.0 | -1 | 0 | -2 | -3 | +3 | +2 |
| C1545 | +4.0 | +2 | +6 | 0 | +1 | +5 | +3 |
| C1553 | -0.3 | +1 | -1 | -1 | -10 | +2 | -2 |
| HW6942-15-6 | +3.2 | +2 | +3 | +2 | 0 | +5 | +3 |
| HW74-618 | +4.0 | +3 | +3 | +4 | +2 | +5 | +5 |
| L73D-195 | +4.5 | +2 | +8 | +4 | +1 | +4 | +2 |
| L73-6084 | +3.2 | +2 | +2 | +3 | -1 | +5 | +3 |
| L75-3674 | -0.4 | 0 | 0 | -1 | -1 | 0 | +1 |
| M68-333 | -3.7 | -2 | -1 | -3 | -7 | -2 | -3 |
| U11406 | +1.2 | -4 | -1 | 0 | +1 | +2 | +1 |
| U11532 | +2.2 | +1 | -1 | +3 | 0 | +3 | 0 |
| Date planted | 5-26 | 6-6 | 6-8 | 5-19 | 5-29 | 5-26 | 5-10 |
| * Days to mature | 118 | 112 | 110 | 135 | 120 | 110 | 126 |

UNIFORM TEST II, 1978

| Strain | Mich. | | Ind. | | Wisc. | Ill. | |
|---------------------------------|--------|------------|-----------|-----------|------------|-----------|--------|
| | Dundee | E. Lansing | Bluff-ton | Lafayette | Greenfield | Arlington | Urbana |
| <u>MATURITY (relative date)</u> | | | | | | | |
| Beeson | +4 | +5 | +2 | +1 | +6 | +3 | +2 |
| Coles (I) | -1 | -9 | -1 | -1 | +4 | -1 | 0 |
| Corsoy* (II) | 9-22 | 10-5 | 9-20 | 9-14 | 9-19 | 9-23 | 9-14 |
| Harcor | -1 | 0 | +1 | -1 | +2 | +1 | +3 |
| Sloan | +3 | -3 | +2 | +3 | +5 | +7 | +5 |
| Vickery | -1 | -4 | 0 | -1 | -3 | 0 | -1 |
| Wells | +1 | -1 | -1 | +1 | +1 | +1 | -1 |
| Wells II | +3 | -3 | +1 | +1 | +2 | 0 | 0 |
| Woodworth (III) | +6 | +7 | +4 | +3 | +9 | +11 | +9 |
| A76-201009 | +1 | -12 | 0 | 0 | +2 | -1 | -3 |
| A76-201010 | 0 | -3 | +2 | +3 | +8 | +4 | +4 |
| A76-202015 | +3 | -1 | +2 | +3 | +3 | +4 | +4 |
| C Beeson PR ₃ | +3 | +3 | +2 | +2 | +2 | +3 | +1 |
| C1545 | +4 | +4 | +3 | +2 | +8 | +12 | +3 |
| C1553 | -1 | -2 | +1 | +1 | +2 | +1 | -2 |
| HW6942-15-6 | +3 | +4 | +3 | +3 | +6 | +3 | +3 |
| HW74-618 | 0 | +2 | +2 | +2 | +8 | +5 | +6 |
| L73-195 | 0 | +5 | +2 | +3 | +8 | +8 | +7 |
| L73-6084 | -1 | -3 | +1 | +2 | +4 | +5 | +6 |
| L75-3674 | -2 | -3 | +1 | -3 | 0 | +1 | -1 |
| M68-333 | -3 | -10 | -1 | -1 | 0 | -3 | -4 |
| U11406 | 0 | -1 | +1 | 0 | +5 | 0 | 0 |
| U11532 | -1 | +1 | +2 | 0 | +5 | +3 | +2 |
| Date planted | - | - | 6-2 | 5-27 | 6-5 | 5-23 | 5-27 |
| * Days to mature | - | - | 110 | 110 | 106 | 123 | 110 |

UNIFORM TEST II, 1978

| <u>Ill.</u> | <u>Minn.</u> | | <u>Iowa</u> | | <u>Neb.</u> | | <u>S.D.</u> |
|---------------------------------|---------------|------------------------------|-----------------------------|-------------|-------------|----------------|------------------------------|
| <u>Girard</u> | <u>Waseca</u> | <u>Lamber-</u> <u>ton</u> | <u>Key-</u> <u>stone</u> | <u>Ames</u> | <u>Mead</u> | <u>Concord</u> | <u>Brook-</u> <u>ings</u> |
| <u>MATURITY (relative date)</u> | | | | | | | |
| +1 | +11 | +3 | | +8 | +1 | +6 | +6 |
| 0 | 0 | -1 | | +2 | 0 | 0 | +2 |
| 9-14 | 9-22 | 9-20 | | 9-14 | 9-23 | 9-19 | 10-10 |
| +1 | +1 | -1 | | +3 | +2 | +2 | +2 |
| +2 | +10 | +2 | | +8 | +2 | +6 | +7 |
| +1 | +1 | -1 | | +1 | +1 | +2 | 0 |
| 0 | +1 | -1 | | 0 | 0 | +3 | +4 |
| 0 | +1 | -2 | | +2 | 0 | +4 | +3 |
| +7 | +14 | +7 | | +13 | +4 | +10 | +9 |
| +1 | -4 | -4 | | 0 | 0 | +2 | +2 |
| +2 | +4 | +1 | | +5 | +3 | +4 | +6 |
| +1 | +8 | +2 | | +7 | +2 | +5 | +3 |
| +1 | +2 | +2 | | +6 | 0 | +6 | +7 |
| +1 | -1 | +3 | | +7 | +2 | +6 | +8 |
| 0 | -5 | -1 | | +3 | 0 | +5 | +3 |
| 0 | 0 | +2 | | +6 | +1 | +7 | +8 |
| +1 | +9 | +2 | | +7 | +2 | +4 | +7 |
| +2 | +5 | +3 | | +9 | +3 | +6 | +8 |
| +1 | +5 | +3 | | +6 | +3 | +10 | +8 |
| 0 | 0 | -2 | | 0 | -1 | +1 | +2 |
| -5 | -2 | -9 | | -6 | -6 | -4 | -2 |
| -1 | +5 | +3 | | +2 | +1 | +6 | +5 |
| +1 | +5 | +3 | | +5 | +1 | +5 | +6 |
| 6-4 | 5-15 | 5-11 | 5-18 | 5-25 | 5-22 | 5-25 | 6-5 |
| 102 | 130 | 132 | - | 112 | 124 | 117 | 127 |

UNIFORM TEST II, 1978

| Strain | Mean 21 Tests | N.S. | Penn. | Ont. | | Ohio | |
|--------------------------|------------------|---------------|------------------|----------------|-------------|---------|----------------|
| | | Adel- phia | Landis- ville | Ridge- town | Har- row | Wooster | Hoyt- ville |
| <u>LODGING (score)</u> | | | | | | | |
| Beeson | 2.2 | 4.4 | 1.5 | 2.0 | 1.5 | 1.1 | 1.5 |
| Coles (I) | 2.5 | 3.5 | 2.0 | 2.8 | 1.5 | 1.3 | 2.4 |
| Corsoy (II) | 2.4 | 3.6 | 2.3 | 3.0 | 1.5 | 1.3 | 2.0 |
| Harcor | 2.5 | 4.0 | 2.7 | 3.5 | 1.5 | 1.3 | 2.5 |
| Sloan | 2.6 | 3.9 | 3.0 | 3.0 | 2.0 | 1.3 | 1.5 |
| Vickery | 2.4 | 3.4 | 2.5 | 2.8 | 1.5 | 1.2 | 1.7 |
| Wells | 1.7 | 2.9 | 1.0 | 1.3 | 1.0 | 1.1 | 1.2 |
| Wells II | 1.7 | 2.5 | 1.3 | 1.3 | 1.0 | 1.0 | 1.2 |
| Woodworth (III) | 2.2 | 3.6 | 1.5 | 2.8 | 1.0 | 1.3 | 1.5 |
| A76-201009 | 2.0 | 3.4 | 1.3 | 1.3 | 1.0 | 1.1 | 1.4 |
| A76-201010 | 3.1 | 4.4 | 3.7 | 4.0 | 2.5 | 1.6 | 3.3 |
| A76-202015 | 3.0 | 4.4 | 3.5 | 3.3 | 2.5 | 1.6 | 2.2 |
| C Beeson PR ₃ | 2.0 | 3.0 | 1.7 | 1.8 | 1.5 | 1.1 | 1.3 |
| C1545 | 1.8 | 3.1 | 1.0 | 1.5 | 1.0 | 1.3 | 1.4 |
| C1553 | 1.8 | 2.9 | 1.0 | 1.3 | 1.0 | 1.2 | 1.3 |
| HW6942-15-6 | 2.1 | 3.1 | 1.7 | 2.3 | 1.5 | 1.4 | 1.5 |
| HW74-618 | 1.7 | 2.3 | 1.3 | 3.3 | 2.0 | 1.4 | 1.5 |
| L73D-195 | 2.6 | 3.9 | 2.3 | 2.5 | 2.0 | 1.3 | 1.9 |
| L73-6084 | 2.3 | 3.9 | 1.7 | 2.5 | 1.5 | 1.3 | 2.2 |
| L75-3674 | 2.3 | 3.9 | 2.7 | 2.5 | 1.5 | 1.2 | 1.6 |
| M68-333 | 2.4 | 4.4 | 3.2 | 2.8 | 2.0 | 1.2 | 1.4 |
| U11406 | 1.6 | 2.4 | 1.0 | 1.3 | 1.0 | 1.0 | 1.4 |
| U11532 | 2.1 | 3.4 | 3.0 | 2.5 | 1.5 | 1.2 | 1.4 |

UNIFORM TEST II, 1978

| Mich. | | Ind. | | | Wisc. | Ill. | |
|------------------------|-----------------|---------------|----------------|-----------------|----------------|--------|--------|
| Dundee | E. Lan- sing | Bluff- ton | Lafay- ette | Green- field | Arling- ton | Urbana | Girard |
| <u>LODGING (score)</u> | | | | | | | |
| 1.5 | 2.9 | 1.3 | 2.8 | 3.3 | 2.7 | 2.7 | 1.8 |
| 1.0 | 3.3 | 1.3 | 3.8 | 3.2 | 3.0 | 3.2 | 2.1 |
| 1.1 | 2.0 | 1.7 | 3.7 | 2.7 | 2.7 | 3.0 | 2.3 |
| 1.1 | 2.5 | 1.3 | 3.7 | 3.3 | 3.0 | 3.2 | 2.7 |
| 1.5 | 2.7 | 1.3 | 3.2 | 3.5 | 3.3 | 3.6 | 2.9 |
| 1.2 | 2.0 | 1.7 | 3.3 | 2.5 | 2.7 | 3.5 | 2.5 |
| 1.2 | 1.5 | 1.0 | 2.8 | 2.5 | 2.0 | 2.9 | 1.0 |
| 1.1 | 1.5 | 1.2 | 2.5 | 2.0 | 2.0 | 3.0 | 1.2 |
| 1.9 | 2.9 | 1.5 | 4.2 | 2.5 | 2.3 | 2.0 | 1.3 |
| 1.1 | 1.5 | 1.2 | 4.2 | 1.5 | 2.3 | 4.3 | 1.4 |
| 1.7 | 3.8 | 1.8 | 2.6 | 3.5 | 4.0 | 3.6 | 3.4 |
| 1.7 | 4.9 | 1.3 | 3.3 | 3.3 | 3.3 | 3.8 | 3.6 |
| 1.5 | 2.7 | 1.2 | 1.8 | 2.2 | 2.3 | 2.7 | 1.5 |
| 1.5 | 2.0 | 1.5 | 2.2 | 2.0 | 2.0 | 2.5 | 1.1 |
| 1.5 | 2.2 | 1.5 | 2.2 | 2.5 | 2.0 | 2.5 | 1.3 |
| 1.5 | 3.0 | 1.3 | 2.2 | 2.0 | 3.3 | 2.3 | 1.2 |
| 1.5 | 1.9 | 1.2 | 2.7 | 1.7 | 2.0 | 1.8 | 1.0 |
| 1.5 | 3.6 | 1.7 | 3.3 | 2.5 | 3.3 | 2.9 | 2.4 |
| 1.5 | 2.8 | 1.3 | 3.5 | 2.0 | 2.7 | 2.5 | 1.4 |
| 1.2 | 1.9 | 1.7 | 3.5 | 2.5 | 3.0 | 2.8 | 2.0 |
| 1.3 | 1.7 | 1.7 | 2.7 | 3.2 | 2.3 | 3.4 | 2.1 |
| 1.2 | 1.5 | 1.3 | 2.7 | 2.3 | 2.0 | 2.4 | 1.0 |
| 1.2 | 2.6 | 1.2 | 3.3 | 2.2 | 2.6 | 2.5 | 2.0 |

UNIFORM TEST II, 1978

| Strain | Minn. | | Iowa | | Neb. | | S.D. |
|--------------------------|------------------------|----------------|---------------|------|------|---------|----------------|
| | Waseca | Lamber- ton | Key- stone | Ames | Mead | Concord | Brook- ings |
| | <u>LODGING (score)</u> | | | | | | |
| Beeson | 3.0 | 3.0 | 2.5 | 2.8 | 1.2 | 2.4 | 1.0 |
| Coles (I) | 2.8 | 3.7 | 3.1 | 3.2 | 1.5 | 3.4 | 1.0 |
| Corsoy (II) | 2.0 | 3.3 | 2.9 | 2.8 | 1.7 | 2.8 | 1.0 |
| Harcor | 2.3 | 3.3 | 3.4 | 3.0 | 1.5 | 2.6 | 1.0 |
| Sloan | 2.3 | 3.3 | 3.2 | 3.5 | 1.7 | 3.0 | 1.0 |
| Vickery | 2.0 | 3.7 | 3.3 | 3.4 | 1.8 | 3.0 | 1.0 |
| Wells | 1.5 | 2.3 | 1.8 | 2.8 | 1.0 | 2.3 | 1.0 |
| Wells II | 1.3 | 3.0 | 1.5 | 2.9 | 1.0 | 1.5 | 1.0 |
| Woodworth (III) | 2.7 | 2.7 | 2.4 | 3.1 | 1.3 | 2.0 | 1.0 |
| A76-201009 | 1.7 | 3.0 | 2.1 | 2.9 | 1.0 | 2.2 | 1.0 |
| A76-201010 | 3.3 | 4.3 | 3.6 | 3.9 | 1.8 | 2.5 | 1.0 |
| A76-202015 | 2.0 | 4.0 | 3.4 | 3.5 | 2.0 | 3.3 | 1.0 |
| C Beeson PR ₃ | 2.0 | 3.0 | 1.8 | 3.0 | 1.0 | 2.8 | 1.0 |
| C1545 | 2.0 | 2.3 | 2.0 | 2.5 | 1.0 | 2.2 | 1.0 |
| C1553 | 1.0 | 2.7 | 1.6 | 2.8 | 1.0 | 2.2 | 1.0 |
| HW6942-15-6 | 2.0 | 3.3 | 2.4 | 2.9 | 1.3 | 2.0 | 1.0 |
| HW74-618 | 2.0 | 3.0 | 1.2 | 1.3 | 1.2 | 1.0 | 1.0 |
| L73D-195 | 2.7 | 4.0 | 3.4 | 3.2 | 1.7 | 2.5 | 1.0 |
| L73-6084 | 2.7 | 3.3 | 3.1 | 3.0 | 1.5 | 3.2 | 1.0 |
| L75-3674 | 2.0 | 3.0 | 3.0 | 2.9 | 1.7 | 2.5 | 1.0 |
| M68-333 | 2.0 | 3.7 | 3.0 | 3.7 | 1.3 | 2.4 | 1.0 |
| U11406 | 2.0 | 2.3 | 1.9 | 2.1 | 1.0 | 1.9 | 1.0 |
| U11532 | 2.0 | 2.3 | 2.8 | 3.0 | 1.3 | 2.0 | 1.0 |

UNIFORM TEST II, 1978

| Strain | Mean 20 Tests | N.J. | Penn. | Ont. | | Ohio | |
|--------------------------|------------------|---------------|------------------|----------------|-------------|---------|----------------|
| | | Adel- phia | Landis- ville | Ridge- town | Har- row | Wooster | Hoyt- ville |
| <u>HEIGHT (inches)</u> | | | | | | | |
| Beeson | 37 | 36 | 32 | 40 | 36 | 24 | 33 |
| Coles (I) | 38 | 36 | 32 | 45 | 40 | 26 | 35 |
| Corsoy (II) | 37 | 34 | 34 | 40 | 37 | 24 | 36 |
| Harcor | 38 | 37 | 36 | 41 | 38 | 26 | 36 |
| Sloan | 37 | 39 | 36 | 45 | 38 | 23 | 32 |
| Vickery | 37 | 36 | 32 | 42 | 38 | 23 | 33 |
| Wells | 37 | 36 | 29 | 39 | 35 | 23 | 34 |
| Wells II | 37 | 33 | 31 | 41 | 35 | 22 | 34 |
| Woodworth (III) | 38 | 36 | 32 | 41 | 38 | 29 | 34 |
| A76-201009 | 34 | 35 | 29 | 37 | 32 | 19 | 32 |
| A76-201010 | 35 | 34 | 31 | 38 | 34 | 22 | 37 |
| A76-202015 | 36 | 35 | 32 | 36 | 34 | 28 | 32 |
| C Beeson PR ₃ | 36 | 34 | 34 | 36 | 34 | 25 | 32 |
| C1545 | 36 | 36 | 31 | 41 | 35 | 26 | 35 |
| C1553 | 34 | 32 | 27 | 35 | 32 | 21 | 31 |
| HW6942-15-6 | 37 | 38 | 34 | 40 | 36 | 27 | 32 |
| HW74-618 | 26 | 24 | 24 | 27 | 28 | 18 | 25 |
| L73D-195 | 41 | 40 | 39 | 46 | 40 | 28 | 36 |
| L73-6084 | 42 | 42 | 36 | 44 | 41 | 27 | 39 |
| L75-3674 | 38 | 36 | 37 | 42 | 37 | 23 | 35 |
| M68-333 | 36 | 35 | 31 | 36 | 39 | 23 | 29 |
| U11406 | 35 | 35 | 28 | 34 | 34 | 20 | 34 |
| U11532 | 37 | 36 | 33 | 38 | 38 | 26 | 36 |

UNIFORM TEST II, 1978

| Strain | Mich. | | Ind. | | | Wisc. | Ill. |
|--------------------------|------------------------|-----------------|---------------|------------------|-----------------|----------------|--------|
| | Dundee | E. Lan- sing | Bluff- ton | Lafay- ette | Green- field | Arling- ton | Urbana |
| | <u>HEIGHT (inches)</u> | | | | | | |
| Beeson | 32 | 40 | 30 | 37 | 30 | 41 | 45 |
| Coles (I) | 30 | 38 | 28 | 36 | 34 | 41 | 48 |
| Corsoy (II) | 31 | 37 | 25 | 35 | 29 | 41 | 44 |
| Harcor | 31 | 40 | 28 | 35 | 30 | 40 | 48 |
| Sloan | 30 | 38 | 25 | 34 | 32 | 42 | 45 |
| Vickery | 30 | 38 | 31 | 33 | 29 | 41 | 46 |
| Wells | 30 | 38 | 25 | 37 | 30 | 39 | 45 |
| Wells II | 26 | 38 | 29 | 36 | 32 | 38 | 44 |
| Woodworth (III) | 33 | 41 | 32 | 40 | 34 | 40 | 45 |
| A76-201009 | 27 | 31 | 25 | 36 | 26 | 37 | 41 |
| A76-201010 | 28 | 37 | 29 | 31 | 32 | 38 | 42 |
| A76-202015 | 31 | 40 | 30 | 35 | 31 | 39 | 42 |
| C Beeson PR ₃ | 30 | 40 | 29 | 33 | 30 | 38 | 43 |
| C1545 | 30 | 39 | 28 | 33 | 28 | 39 | 42 |
| C1553 | 26 | 37 | 28 | 32 | 28 | 37 | 40 |
| HW6942-15-6 | 34 | 38 | 29 | 29 | 33 | 42 | 45 |
| HW74-618 | 26 | 31 | 22 | 30 22 | 18 | 35 | 24 |
| L73D-195 | 34 | 41 | 33 | 40 | 35 | 46 | 49 |
| L73-6084 | 36 | 42 | 33 | 44 | 38 | 42 | 51 |
| L75-3674 | 34 | 38 | 31 | 35 | 33 | 43 | 46 |
| M68-333 | 33 | 35 | 28 | 31 | 27 | 40 | 42 |
| U11406 | 28 | 31 | 28 | 33 | 28 | 37 | 42 |
| U11532 | 33 | 39 | 29 | 36 | 29 | 38 | 45 |

UNIFORM TEST II, 1978

| Ill. | Minn. | | Iowa | | Neb. | | S.D. | |
|------------------------|--------|--------|----------------|---------------|------|------|---------|----------------|
| | Girard | Waseca | Lamber- ton | Key- stone | Ames | Mead | Concord | Brook- ings |
| <u>HEIGHT (inches)</u> | | | | | | | | |
| 37 | | | 40 | 48 | 46 | 40 | 44 | 37 |
| 42 | | | 40 | 47 | 47 | 40 | 44 | 41 |
| 38 | | | 40 | 46 | 44 | 38 | 41 | 40 |
| 39 | | | 40 | 48 | 48 | 38 | 43 | 41 |
| 37 | | | 37 | 47 | 46 | 35 | 41 | 42 |
| 39 | | | 39 | 45 | 44 | 39 | 41 | 39 |
| 38 | | | 44 | 46 | 46 | 38 | 42 | 42 |
| 40 | | | 42 | 46 | 46 | 38 | 42 | 41 |
| 39 | | | 41 | 49 | 47 | 40 | 40 | 40 |
| 35 | | | 37 | 43 | 44 | 34 | 38 | 37 |
| 35 | | | 36 | 43 | 45 | 36 | 37 | 40 |
| 35 | | | 35 | 44 | 43 | 35 | 39 | 38 |
| 38 | | | 39 | 44 | 44 | 36 | 42 | 41 |
| 37 | | | 37 | 46 | 46 | 34 | 40 | 42 |
| 35 | | | 36 | 44 | 43 | 34 | 37 | 36 |
| 39 | | | 40 | 45 | 46 | 38 | 42 | 39 |
| 22 | | | 29 | 26 | 28 | 23 | 24 | 27 |
| 44 | | | 39 | 50 | 48 | 42 | 46 | 44 |
| 44 | | | 40 | 50 | 50 | 41 | 46 | 44 |
| 40 | | | 41 | 46 | 46 | 38 | 42 | 42 |
| 37 | | | 38 | 43 | 44 | 35 | 42 | 41 |
| 36 | | | 41 | 44 | 44 | 33 | 40 | 41 |
| 40 | | | 41 | 47 | 46 | 36 | 40 | 41 |

UNIFORM TEST II, 1978

| Strain | Mean 17 Tests | N.J. | Penn. | Ont. | Ohio | | |
|-----------------------------|------------------|---------------|------------------|----------------|-------------|---------|----------------|
| | | Adel- phia | Landis- ville | Ridge- town | Har- row | Wooster | Hoyt- ville |
| <u>SEED QUALITY (score)</u> | | | | | | | |
| Beeson | 2.5 | 2.0 | 2.4 | 2.0 | 3.0 | 2.0 | 3.0 |
| Coles (I) | 2.1 | 2.5 | 2.2 | 2.0 | 2.0 | 3.0 | 3.0 |
| Corsoy (II) | 2.1 | 2.0 | 2.2 | 2.0 | 2.0 | 2.0 | 3.0 |
| Harcor | 2.1 | 1.8 | 2.2 | 3.0 | 2.0 | 2.0 | 3.0 |
| Sloan | 2.3 | 2.0 | 2.4 | 2.0 | 4.0 | 2.0 | 3.0 |
| Vickery | 2.1 | 2.0 | 2.2 | 2.0 | 2.0 | 2.0 | 2.0 |
| Wells | 2.7 | 3.0 | 3.0 | 2.0 | 3.0 | 4.0 | 3.0 |
| Wells II | 2.6 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Woodworth (III) | 1.8 | 2.0 | 2.8 | 2.0 | 1.0 | 1.0 | 1.0 |
| A76-201009 | 2.2 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 | 2.0 |
| A76-201010 | 2.4 | 1.8 | 2.2 | 3.0 | 2.0 | 2.0 | 2.0 |
| A76-202015 | 2.1 | 2.0 | 2.4 | 3.0 | 1.0 | 2.0 | 2.0 |
| C Beeson PR ₃ | 2.1 | 2.0 | 2.3 | 2.0 | 1.0 | 2.0 | 3.0 |
| C1545 | 2.3 | 2.0 | 3.0 | 2.0 | 2.0 | 4.0 | 3.0 |
| C1553 | 2.2 | 2.3 | 2.4 | 2.0 | 1.0 | 2.0 | 3.0 |
| HW6942-15-6 | 2.3 | 2.0 | 2.7 | 2.0 | 1.0 | 3.0 | 3.0 |
| HW74-618 | 1.6 | 1.0 | 1.4 | 2.0 | 1.0 | 1.0 | 2.0 |
| L73D-195 | 2.3 | 2.0 | 2.8 | 3.0 | 2.0 | 1.0 | 3.0 |
| L73-6084 | 2.3 | 2.3 | 2.5 | 2.0 | 2.0 | 2.0 | 3.0 |
| L75-3674 | 2.1 | 2.3 | 2.2 | 2.0 | 2.0 | 2.0 | 3.0 |
| M68-333 | 2.2 | 2.0 | 2.0 | 3.0 | 1.0 | 2.0 | 2.0 |
| U11406 | 2.4 | 2.0 | 2.2 | 2.0 | 2.0 | 2.0 | 4.0 |
| U11532 | 2.3 | 2.0 | 2.1 | 2.0 | 2.0 | 3.0 | 3.0 |

UNIFORM TEST II, 1978

| Mich. | | Ind. | | | Wisc. | Ill. | |
|---------------------|------------|----------|-----------|------------|-----------|--------|--------|
| Dundee | E. Lansing | Bluffton | Lafayette | Greenfield | Arlington | Urbana | Girard |
| <u>SEED QUALITY</u> | | | | | | | |
| | | 1.5 | 1.5 | 2.0 | 2.3 | 3.3 | 4.0 |
| | | 1.0 | 1.5 | 1.5 | 2.7 | 2.5 | 2.8 |
| | | 1.5 | 2.0 | 1.5 | 2.7 | 1.5 | 2.8 |
| | | 1.5 | 1.0 | 1.5 | 3.0 | 1.8 | 3.0 |
| | | 2.0 | 1.0 | 1.5 | 2.3 | 2.3 | 2.8 |
| | | 1.5 | 1.5 | 1.5 | 2.7 | 2.0 | 2.5 |
| | | 2.0 | 2.0 | 2.5 | 2.7 | 3.0 | 4.0 |
| | | 1.5 | 2.0 | 1.5 | 2.7 | 3.0 | 3.8 |
| | | 1.0 | 1.0 | 2.0 | 3.0 | 1.8 | 2.0 |
| | | 1.5 | 1.5 | 1.5 | 2.3 | 2.3 | 3.5 |
| | | 1.5 | 2.0 | 1.5 | 2.7 | 2.8 | 4.0 |
| | | 1.0 | 1.5 | 1.5 | 3.0 | 2.0 | 3.3 |
| | | 1.5 | 1.0 | 1.5 | 2.7 | 2.8 | 3.0 |
| | | 1.5 | 1.5 | 1.5 | 3.0 | 2.3 | 3.0 |
| | | 2.0 | 1.5 | 2.0 | 2.3 | 2.5 | 3.0 |
| | | 1.5 | 1.5 | 2.0 | 3.0 | 3.0 | 3.3 |
| | | 1.0 | 1.5 | 1.0 | 2.3 | 1.8 | 2.0 |
| | | 1.5 | 1.5 | 1.5 | 3.3 | 2.0 | 3.5 |
| | | 1.0 | 1.5 | 2.0 | 3.0 | 2.8 | 2.8 |
| | | 1.5 | 1.5 | 1.0 | 2.7 | 1.8 | 2.5 |
| | | 1.5 | 1.5 | 2.5 | 2.0 | 2.5 | 3.0 |
| | | 1.5 | 3.0 | 2.0 | 2.3 | 3.0 | 3.0 |
| | | 1.5 | 2.5 | 1.5 | 2.3 | 2.5 | 2.8 |

UNIFORM TEST II, 1978

| Strain | Minn. | | Iowa | | Neb. | | S.D. |
|--------------------------|--------|----------------|---------------|------|------|---------|----------------|
| | Waseca | Lamber- ton | Key- stone | Ames | Mead | Concord | Brook- ings |
| <u>QUALITY (score)</u> | | | | | | | |
| Beeson | 2.7 | 2.7 | | 1.3 | 3.8 | 2.3 | |
| Coles (I) | 1.7 | 1.7 | | 1.3 | 2.8 | 2.0 | |
| Corsoy (II) | 2.3 | 2.3 | | 1.4 | 2.7 | 2.1 | |
| Harcor | 2.0 | 2.0 | | 1.2 | 3.3 | 2.1 | |
| Sloan | 2.7 | 2.3 | | 1.3 | 3.5 | 2.0 | |
| Vickery | 2.7 | 2.0 | | 1.3 | 3.2 | 2.0 | |
| Wells | 2.3 | 2.7 | | 1.7 | 3.2 | 2.3 | |
| Wells II | 2.7 | 2.7 | | 1.6 | 3.3 | 2.3 | |
| Woodworth (III) | 2.0 | 2.0 | | 1.3 | 3.7 | 1.9 | |
| A76-201009 | 2.0 | 2.7 | | 1.3 | 3.2 | 2.0 | |
| A76-201010 | 2.7 | 2.3 | | 1.5 | 4.1 | 2.0 | |
| A76-202015 | 2.3 | 2.0 | | 1.5 | 3.1 | 2.0 | |
| C Beeson PR ₃ | 2.0 | 2.3 | | 1.8 | 3.5 | 2.0 | |
| C1545 | 1.7 | 2.0 | | 1.5 | 3.7 | 1.8 | |
| C1553 | 2.3 | 2.3 | | 1.9 | 2.8 | 2.2 | |
| HW6942-15-6 | 2.7 | 2.3 | | 1.4 | 3.3 | 2.0 | |
| HW74-618 | 1.7 | 1.7 | | 1.3 | 1.6 | 2.0 | |
| L73D-195 | 2.7 | 2.0 | | 1.4 | 3.3 | 2.3 | |
| L73-6084 | 2.7 | 2.3 | | 1.5 | 4.0 | 2.2 | |
| L75-3674 | 2.3 | 2.7 | | 1.3 | 2.5 | 2.0 | |
| M68-333 | 2.7 | 2.7 | | 1.9 | 2.8 | 2.0 | |
| U11406 | 2.0 | 2.7 | | 1.8 | 3.5 | 2.1 | |
| U11532 | 2.7 | 2.3 | | 1.5 | 3.8 | 1.9 | |

UNIFORM TEST II, 1978

| Strain | Mean 19 Tests | N.J. | Penn- | Ont. | | Ohio | |
|--------------------------|------------------|---------------|------------------|----------------|--------------|---------|----------------|
| | | Adel- phia | Landis- ville | Ridge- town | Harc- row | Wooster | Hoyt- ville |
| <u>SEED SIZE (g/100)</u> | | | | | | | |
| Beeson | 19.2 | 16 | 20.8 | 18.9 | 19.1 | 18.3 | 19.1 |
| Coles (I) | 19.1 | 16 | 19.6 | 21.8 | 20.4 | 17.8 | 19.8 |
| Corsoy (II) | 16.3 | 14 | 15.8 | 18.7 | 16.9 | 14.5 | 17.0 |
| Harcor | 15.9 | 12 | 16.1 | 17.5 | 16.0 | 14.4 | 17.1 |
| Sloan | 17.2 | 14 | 17.8 | 17.5 | 17.5 | 15.1 | 17.4 |
| Vickery | 16.1 | 13 | 15.3 | 18.8 | 16.7 | 13.5 | 16.8 |
| Wells | 17.1 | 15 | 15.8 | 17.4 | 17.8 | 15.6 | 17.6 |
| Wells II | 17.1 | 15 | 16.0 | 19.9 | 17.7 | 15.2 | 17.9 |
| Woodworth (III) | 16.0 | 14 | 16.1 | 18.2 | 15.5 | 13.8 | 15.8 |
| A76-201009 | 17.4 | 16 | 19.4 | 20.3 | 18.9 | 15.3 | 18.3 |
| A76-201010 | 17.1 | 15 | 16.8 | 16.5 | 16.3 | 14.6 | 16.9 |
| A76-202015 | 17.4 | 15 | 17.8 | 16.7 | 18.0 | 14.7 | 17.2 |
| C Beeson PR ₃ | 19.6 | 16 | 20.6 | 19.5 | 19.3 | 18.3 | 20.1 |
| C1545 | 19.1 | 16 | 20.8 | 19.5 | 19.6 | 17.2 | 19.1 |
| C1553 | 20.6 | 18 | 20.1 | 20.7 | 20.8 | 19.1 | 20.5 |
| HW6942-15-6 | 19.4 | 18 | 21.1 | 19.7 | 19.9 | 16.4 | 19.2 |
| HW74-618 | 16.2 | 16 | 18.0 | 15.3 | 15.6 | 14.7 | 16.4 |
| L73D-195 | 17.1 | 15 | 18.9 | 17.5 | 17.3 | 15.7 | 17.7 |
| L73-6084 | 18.8 | 17 | 20.4 | 20.7 | 18.9 | 14.7 | 18.4 |
| L75-3674 | 16.2 | 14 | 15.4 | 17.5 | 16.3 | 14.3 | 17.4 |
| M68-333 | 18.0 | 17 | 18.1 | 18.8 | 17.9 | 16.8 | 18.0 |
| U11406 | 17.6 | 14 | 18.1 | 18.2 | 17.0 | 16.7 | 17.3 |
| U11532 | 18.0 | 15 | 17.9 | 18.1 | 17.0 | 16.0 | 18.6 |

UNIFORM TEST II, 1978

| Strain | Mich. | | Ind. | | Wisc. | Ill. | |
|--------------------------|--------------------------|---------------|---------------|----------------|-----------------|----------------|--------|
| | Dun- dee | E. Lansing | Bluff- ton | Lafay- ette | Green- field | Arling- ton | Urbana |
| | <u>SEED SIZE (g/100)</u> | | | | | | |
| Beeson | 18.5 | 23.5 | 22.0 | 20.0 | 19.9 | 17.7 | 20.0 |
| Coles (I) | 18.5 | 24.6 | 19.4 | 18.0 | 19.4 | 17.6 | 19.0 |
| Corsoy (II) | 15.5 | 20.0 | 17.8 | 17.8 | 15.0 | 15.2 | 16.4 |
| Harcor | 16.0 | 19.2 | 17.4 | 16.5 | 15.7 | 15.3 | 16.5 |
| Sloan | 16.9 | 21.0 | 18.2 | 17.7 | 17.1 | 16.4 | 19.3 |
| Vickery | 16.0 | 19.5 | 17.1 | 16.1 | 14.4 | 15.0 | 16.0 |
| Wells | 17.5 | 22.0 | 18.1 | 18.1 | 17.3 | 16.3 | 16.6 |
| Wells II | 17.0 | 20.5 | 18.6 | 18.2 | 16.6 | 16.4 | 17.6 |
| Woodworth (III) | 17.0 | 18.0 | 16.7 | 17.1 | 16.0 | 14.8 | 17.8 |
| A76-201009 | 17.0 | 21.5 | 19.3 | 17.2 | 17.5 | 16.8 | 16.3 |
| A76-201010 | 16.0 | 20.0 | 19.2 | 17.9 | 18.4 | 14.6 | 19.4 |
| A76-202015 | 17.5 | 23.0 | 20.0 | 19.1 | 16.9 | 16.5 | 17.9 |
| C Beeson PR ₃ | 20.0 | 24.6 | 22.8 | 20.3 | 19.2 | 18.1 | 20.2 |
| C1545 | 19.4 | 23.9 | 21.5 | 19.7 | 19.4 | 18.3 | 18.8 |
| C1553 | 19.5 | 25.5 | 22.5 | 22.2 | 21.8 | 19.0 | 21.1 |
| HW6942-15-6 | 20.0 | 25.0 | 20.9 | 19.7 | 20.8 | 18.4 | 19.2 |
| HW74-618 | 16.0 | 19.5 | 17.8 | 16.3 | 16.3 | 15.1 | 18.3 |
| L73D-195 | 11.8 | 21.5 | 20.4 | 18.2 | 19.0 | 16.5 | 16.8 |
| L73-6084 | 19.0 | 22.2 | 19.6 | 19.8 | 18.1 | 16.5 | 21.1 |
| L75-3674 | 15.5 | 20.0 | 17.6 | 17.1 | 14.5 | 15.2 | 16.3 |
| M68-333 | 17.5 | 22.5 | 20.7 | 19.0 | 17.5 | 17.6 | 19.2 |
| U11406 | 17.5 | 20.5 | 19.3 | 19.5 | 18.2 | 15.7 | 17.8 |
| U11532 | 17.0 | 21.5 | 19.9 | 20.1 | 17.7 | 16.6 | 19.3 |

UNIFORM TEST II, 1978

| <u>Ill.</u> | <u>Minn.</u> | | <u>Iowa</u> | | <u>Neb.</u> | | <u>S.D.</u> |
|--------------------------|---------------|------------------------------|-----------------------------|-------------|-------------|----------------|------------------------------|
| <u>Girard</u> | <u>Waseca</u> | <u>Lamber-</u> <u>ton</u> | <u>Key-</u> <u>stone</u> | <u>Ames</u> | <u>Mead</u> | <u>Concord</u> | <u>Brook-</u> <u>ings</u> |
| <u>SEED SIZE (g/100)</u> | | | | | | | |
| | 20.0 | 18.8 | | 21.6 | 17.6 | 15.7 | 16.9 |
| | 18.5 | 18.9 | | 18.8 | 18.6 | 16.8 | 18.9 |
| | 16.8 | 17.2 | | 16.4 | 15.5 | 15.3 | 14.5 |
| | 16.7 | 15.2 | | 16.0 | 14.6 | 14.8 | 15.0 |
| | 18.2 | 16.3 | | 18.8 | 16.2 | 15.7 | 15.9 |
| | 17.2 | 16.8 | | 16.8 | 15.6 | 14.8 | 15.9 |
| | 17.0 | 16.9 | | 17.8 | 17.5 | 15.4 | 15.3 |
| | 17.3 | 16.3 | | 17.8 | 16.9 | 15.2 | 15.0 |
| | 16.7 | 15.7 | | 17.6 | 15.6 | 14.4 | 12.9 |
| | 17.0 | 15.5 | | 17.0 | 15.9 | 14.7 | 15.7 |
| | 18.1 | 17.5 | | 19.0 | 16.5 | 15.0 | 16.9 |
| | 16.7 | 17.3 | | 19.5 | 16.0 | 15.9 | 15.8 |
| | 20.0 | 18.8 | | 21.4 | 19.8 | 16.2 | 16.9 |
| | 19.4 | 19.0 | | 18.9 | 18.3 | 16.3 | 17.1 |
| | 20.0 | 20.0 | | 23.0 | 22.3 | 17.6 | 18.1 |
| | 18.2 | 19.0 | | 19.9 | 18.2 | 16.3 | 18.6 |
| | 16.0 | 14.5 | | 16.7 | 15.9 | 13.8 | 15.4 |
| | 16.4 | 17.2 | | 18.6 | 15.2 | 14.9 | 15.8 |
| | 19.5 | 18.5 | | 19.8 | 17.9 | 17.5 | 17.5 |
| | 17.5 | 16.4 | | 16.4 | 15.5 | 14.9 | 15.1 |
| | 17.7 | 17.8 | | 16.6 | 17.7 | 15.4 | 16.5 |
| | 16.0 | 18.4 | | 19.0 | 17.4 | 16.3 | 17.1 |
| | 17.7 | 18.0 | | 19.0 | 17.8 | 18.1 | 16.5 |

UNIFORM TEST II, 1978

| Strain | Mean 8 Tests | N.J. | | Penn. | | Ont. | | Ohio | | Mich. | | Ind. |
|--------------------------|-----------------|---------------|------------------|----------------|-------------|--------------|----------------|-------------|-----------------|---------------|--|------|
| | | Adel- phia | Landis- ville | Ridge- town | Har- row | Woo- ster | Hoyt- ville | Dun- dee | E. Lan- sing | Bluff- ton | | |
| <u>PROTIEN (%)</u> | | | | | | | | | | | | |
| Beeson | 42.3 | | | | 42.2 | | | 40.9 | | | | 43.3 |
| Coles (I) | 43.0 | | | | 44.7 | | | 42.3 | | | | 42.9 |
| Corsoy (II) | 41.0 | | | | 42.3 | | | 40.9 | | | | 41.1 |
| Harcor | 41.2 | | | | 42.1 | | | 40.8 | | | | 41.7 |
| Sloan | 41.2 | | | | 41.9 | | | 40.2 | | | | 38.1 |
| Vickery | 41.1 | | | | 42.0 | | | 40.5 | | | | 41.6 |
| Wells | 42.7 | | | | 44.3 | | | 41.9 | | | | 43.6 |
| Wells II | 42.9 | | | | 43.6 | | | 43.3 | | | | 43.8 |
| Woodworth (III) | 41.4 | | | | 41.7 | | | 40.6 | | | | 41.2 |
| A76-201009 | 41.8 | | | | 43.6 | | | 40.7 | | | | 40.8 |
| A76-201010 | 40.4 | | | | 41.9 | | | 38.9 | | | | 40.0 |
| A76-202015 | 41.3 | | | | 42.6 | | | 40.1 | | | | 41.3 |
| C Beeson PR ₃ | 42.3 | | | | 43.0 | | | 39.6 | | | | 43.8 |
| C1545 | 43.5 | | | | 44.7 | | | 41.7 | | | | 43.4 |
| C1553 | 41.2 | | | | 41.1 | | | 40.5 | | | | 42.1 |
| HW6942-15-6 | 41.5 | | | | 43.2 | | | 39.0 | | | | 41.2 |
| HW74-618 | 43.3 | | | | 44.8 | | | 42.0 | | | | 42.7 |
| L73D-195 | 40.0 | | | | 40.2 | | | 37.6 | | | | 40.2 |
| L73-6084 | 41.5 | | | | 42.4 | | | 39.1 | | | | 41.3 |
| L75-3674 | 41.2 | | | | 42.6 | | | 40.2 | | | | 41.3 |
| M68-333 | 41.9 | | | | 41.9 | | | 41.6 | | | | 41.8 |
| U11406 | 41.5 | | | | 42.9 | | | 40.5 | | | | 42.0 |
| U11532 | 42.0 | | | | 43.3 | | | 40.5 | | | | 43.0 |

UNIFORM TEST II, 1978

| Ind. | Wisc. | Ill. | Minn. | Iowa | Neb. | S.D. | | |
|--------------------|------------|-----------|---------------|--------|-----------|---------------|------|-----------|
| Lafayette | Greenfield | Arlington | Urbana Girard | Waseca | Lamberton | Keystone Ames | Mead | Brookings |
| <u>PROTEIN (%)</u> | | | | | | | | |
| 42.5 | | 43.2 | | 41.2 | | 42.4 | 42.8 | |
| 43.2 | | 43.7 | | 42.3 | | 42.4 | 42.6 | |
| 40.1 | | 41.5 | | 39.9 | | 41.4 | 40.6 | |
| 40.2 | | 41.3 | | 40.2 | | 41.0 | 41.9 | |
| 41.5 | | 42.7 | | 40.6 | | 42.7 | 42.1 | |
| 40.0 | | 42.2 | | 40.9 | | 41.1 | 40.8 | |
| 41.3 | | 44.1 | | 41.1 | | 43.3 | 42.2 | |
| 41.8 | | 43.3 | | 42.2 | | 42.8 | 42.2 | |
| 42.2 | | 43.2 | | 39.7 | | 41.5 | 41.4 | |
| 41.4 | | 42.2 | | 41.4 | | 42.0 | 42.6 | |
| 39.7 | | 41.1 | | 39.8 | | 40.3 | 41.9 | |
| 41.4 | | 41.4 | | 40.9 | | 41.3 | 41.2 | |
| 41.6 | | 44.0 | | 41.8 | | 43.0 | 41.8 | |
| 43.6 | | 44.6 | | 41.7 | | 43.6 | 44.4 | |
| 40.7 | | 41.7 | | 41.1 | | 41.5 | 41.3 | |
| 42.3 | | 42.2 | | 39.7 | | 42.1 | 42.4 | |
| 44.2 | | 43.6 | | 43.7 | | 43.7 | 41.7 | |
| 40.3 | | 41.6 | | 38.8 | | 40.5 | 40.9 | |
| 41.6 | | 42.7 | | 40.6 | | 41.8 | 42.4 | |
| 41.6 | | 42.5 | | 40.8 | | 40.8 | 40.3 | |
| 43.3 | | 43.3 | | 41.2 | | 41.0 | 41.4 | |
| 40.0 | | 43.8 | | 40.5 | | 42.5 | 40.1 | |
| 41.4 | | 42.9 | | 40.7 | | 41.6 | 42.6 | |

UNIFORM TEST II, 1978

| Strain | Mean 8 Tests | N.J. | | Penn. | | Ont. | | Ohio | | Mich. | | Ind. |
|--------------------------|-----------------|---------------|------------------|----------------|-------------|--------------|----------------|-------------|-----------------|---------------|--|------|
| | | Adel- phia | Landis- ville | Ridge- town | Har- row | Woo- ster | Hoyt- ville | Dun- dee | E. Lan- sing | Bluff- ton | | |
| <u>OIL (%)</u> | | | | | | | | | | | | |
| Beeson | 20.4 | | | | 20.7 | | | 21.2 | | | | 20.3 |
| Coles (I) | 20.2 | | | | 19.4 | | | 20.3 | | | | 20.3 |
| Corsoy (II) | 21.3 | | | | 21.1 | | | 20.6 | | | | 22.3 |
| Harcor | 20.8 | | | | 20.1 | | | 20.7 | | | | 20.5 |
| Sloan | 22.2 | | | | 21.7 | | | 23.2 | | | | 22.8 |
| Vickery | 21.0 | | | | 21.0 | | | 20.6 | | | | 20.7 |
| Wells | 21.0 | | | | 20.2 | | | 21.3 | | | | 20.7 |
| Wells II | 20.8 | | | | 20.4 | | | 20.4 | | | | 20.1 |
| Woodworth (III) | 20.9 | | | | 20.4 | | | 21.2 | | | | 21.4 |
| A76-201009 | 21.4 | | | | 20.1 | | | 22.3 | | | | 21.6 |
| A76-201010 | 20.7 | | | | 19.7 | | | 21.6 | | | | 20.9 |
| A76-202015 | 20.2 | | | | 20.0 | | | 20.2 | | | | 19.8 |
| C Beeson PR ₃ | 20.5 | | | | 20.3 | | | 21.9 | | | | 19.2 |
| C1545 | 19.8 | | | | 19.1 | | | 20.3 | | | | 19.9 |
| C1553 | 21.7 | | | | 22.0 | | | 21.8 | | | | 22.3 |
| HW6942-15-6 | 20.8 | | | | 19.8 | | | 21.7 | | | | 21.2 |
| HW74-618 | 20.4 | | | | 19.4 | | | 21.1 | | | | 20.2 |
| L73D-195 | 20.9 | | | | 21.3 | | | 21.4 | | | | 21.2 |
| L73-6084 | 21.5 | | | | 21.0 | | | 22.8 | | | | 21.8 |
| L75-3674 | 21.2 | | | | 20.6 | | | 21.4 | | | | 21.3 |
| M68-333 | 21.0 | | | | 21.5 | | | 20.5 | | | | 22.2 |
| U11406 | 20.3 | | | | 19.5 | | | 20.2 | | | | 20.8 |
| U11532 | 20.3 | | | | 19.5 | | | 21.1 | | | | 19.6 |

UNIFORM TEST II, 1978

| Ind. | Green- Lafayette field | Wisc. Arlington ton | Ill. Urbana Girard | Minn. Lambert- Waseca ton | Iowa Key- stone Ames | Neb. Mead | S.D. Brook- ings |
|----------------|------------------------------|---------------------------|--------------------------|------------------------------------|-------------------------------|--------------|------------------------|
| <u>OIL (%)</u> | | | | | | | |
| 20.0 | | | 19.7 | | 20.7 | 20.0 | 20.6 |
| 19.9 | | | 20.3 | | 20.1 | 20.6 | 20.7 |
| 21.7 | | | 20.9 | | 21.0 | 20.8 | 22.2 |
| 21.7 | | | 21.0 | | 20.9 | 20.5 | 21.0 |
| 22.5 | | | 21.5 | | 21.8 | 21.4 | 22.5 |
| 22.2 | | | 20.5 | | 20.6 | 21.4 | 21.1 |
| 22.1 | | | 20.2 | | 21.5 | 20.6 | 21.2 |
| 21.4 | | | 20.8 | | 20.6 | 21.1 | 21.3 |
| 21.1 | | | 19.6 | | 20.8 | 20.9 | 21.5 |
| 22.2 | | | 20.9 | | 21.3 | 21.2 | 21.3 |
| 21.1 | | | 20.3 | | 20.6 | 20.8 | 20.3 |
| 20.9 | | | 20.2 | | 19.4 | 20.8 | 20.6 |
| 21.2 | | | 19.6 | | 20.4 | 20.4 | 20.9 |
| 20.2 | | | 19.1 | | 20.2 | 19.7 | 19.9 |
| 21.8 | | | 21.1 | | 21.2 | 21.4 | 21.8 |
| 21.0 | | | 20.6 | | 21.1 | 20.8 | 20.6 |
| 20.3 | | | 21.2 | | 19.8 | 20.1 | 20.8 |
| 20.7 | | | 20.2 | | 20.8 | 21.0 | 20.9 |
| 21.6 | | | 20.9 | | 21.3 | 21.4 | 21.2 |
| 21.1 | | | 20.8 | | 20.9 | 21.8 | 22.0 |
| 20.3 | | | 20.1 | | 20.8 | 20.9 | 21.3 |
| 21.1 | | | 19.2 | | 20.6 | 19.8 | 21.5 |
| 20.5 | | | 20.2 | | 20.7 | 20.5 | 20.4 |

PRELIMINARY TEST II, 1978

| Strain | Parentage | Generation Compositd |
|--------------------|--------------------------------------|----------------------|
| 1. Beeson | C1253 x Kent | F ₇ |
| 2. Coles (I) | Hark x (Provar x (Magna x Disoy)) | F ₅ |
| 3. Corsoy (II) | Harosoy x Capital | F ₉ |
| 4. Woodworth (III) | Wayne x L57-0034 (Clark x Adams) | F ₆ |
| 5. A77-116012 | AX990 | S ₃ |
| 6. A77-211021 | Beeson x A72-507 | F ₄ |
| 7. A77-212006 | Hodgson x M65-69 | F ₄ |
| 8. A77-212008 | Hodgson x A72-511 | F ₄ |
| 9. A77-214005 | AP6M (S1) C1 | S ₄ |
| 10. A77-214015 | AP6M (S1) C1 | S ₄ |
| 11. A77-214019 | A73-25088 x Woodworth | F ₄ |
| 12. A77-214022 | L70T-543 x Harcor | F ₄ |
| 13. A77-214035 | AP6 | S ₄ |
| 14. A77-215009 | L69D-133 x C1515 | F ₄ |
| 15. A77-215030 | AP61YT (F ₄) C1 | F ₄ |
| 16. A77-216006 | AX1390 | S ₃ |
| 17. A77-312017 | Coles x A72-507 | F ₄ |
| 18. C1566 | Beeson x P.I. 68788 | F ₇ |
| 19. C1568 | Williams x Beeson | F ₆ |
| 20. C1574 | C1421 x Williams | F ₈ |
| 21. C1576 | Williams x Bonus | F ₇ |
| 22. C1579 | Williams x CX407BC ₇ -255 | F ₆ |
| 23. H75-729 | L66-531 x Williams | F ₅ |
| 24. H75-796 | L66-531 x Williams | F ₅ |
| 25. H7703 | Beeson x Wells | F ₅ |
| 26. L73-4673 | Corsoy x L66L-154 | F ₅ |
| 27. L76-129 | Beeson x L70-2283 | F ₅ |
| 28. L76-141 | Beeson x L70-2283 | F ₅ |
| 29. M70-203 | Evans x 5565-5701 | F ₅ |
| 30. M70-341 | Steele x AP68-1016 | F ₅ |
| 31. U11239 | Amsoy x Wayne | F ₄ |
| 32. U11632 | C1432 x C1430 | F ₇ |
| 33. U20325 | C1371-71 x C1253 | F ₅ |
| 34. U20439 | C1371-71 x C1253 | F ₅ |
| 35. U36344 | C1266 x C1264 | F ₅ |
| 36. U46734 | Merit x C1474 | F ₅ |

Three strains L73-4673, A77-212006, and A77-211021 were about two bushels higher in yield than the check variety Corsoy. The strain L73-4673 has excellent shattering resistance but was rated either heterogeneous or susceptible in its reaction to phytophthora races 1 and 2. The two cyst nematode race 3 resistant strains, L76-129 and L76-141, did not perform as well as the check varieties. The determinate strains H75-729 and H75-796 did not perform as well as the check varieties and are too late in average maturity to be included in the Group II Tests.

PRELIMINARY TEST II, 1978

Descriptive and Other Data

| Strain | Descriptive Code | | Chlorosis | Shattering |
|-----------------|------------------|--------|----------------------|----------------------|
| | | | <u>Score</u> Ames | Manhattan 2 weeks |
| Beeson | PGBr | SYIb | 3 | 4 |
| Coles (I) | PGBr | DYY | 2 | 5 |
| Corsoy (II) | PGBr | DYY | 4 | 3 |
| Woodworth (III) | WTTn | DYB1 | 4 | 2 |
| A77-116012 | PTBr | DYBr | 3 | 1 |
| A77-211021 | WGBr | DYBf | 4 | 4 |
| A77-212006 | WGBr | DYBf | 3 | 2 |
| A77-212008 | PGBr | SYIb | 4 | 3 |
| A77-214005 | PGBr | SYIb | 2 | 3 |
| A77-214015 | PGBr | SYIb | 3 | 3 |
| A77-214019 | WTTn | SYBr | 3 | 2 |
| A77-214022 | P+WT+GBr | SYIb | 3 | 3 |
| A77-214035 | WGBr | DYY | 3 | 5 |
| A77-215009 | PTBr | DYBr | 4 | 3 |
| A77-215030 | PTBr | SYB1 | 4 | 2 |
| A77-216006 | PTBr | DYB1 | 2 | 1 |
| A77-312017 | WGBr | DYY | 4 | 4 |
| C1566 | PGBr | SYIb | 3 | 2 |
| C1568 | WGBr | SYBf | 2 | 3 |
| C1574 | WTTn | SYB1 | 2 | 2 |
| C1576 | PT+GTn | DYB1 | 2 | 3 |
| C1579 | WGTn | SYBf | 3 | 3 |
| H75-729 | WGBr | DYBf | 3 | 2 |
| H75-796 | PGTn | DYIb | 4 | 2 |
| H7703 | PGBr | DYY | 3 | 3 |
| L73-4673 | PGTn | DYY | 4 | 1 |
| L76-129 | PGBr | SYBf | 1 | 5 |
| L76-141 | PGBr | SYBf | 2 | 5 |
| M70-203 | WGBr | DYY+Bf | 2 | 5 |
| M70-341 | PGBr | DYY+Bf | 2 | 2 |
| U11239 | PTBr | DYB1 | 4 | 5 |
| U11632 | WGBr | SYBf | 4 | 3 |
| U20325 | PGBr | SYIb | 2 | 3 |
| U20439 | PGBr | SYIb | 4 | 4 |
| U36344 | PGBr | DYBf+Y | 3 | 5 |
| U46734 | WGTn | DYBf | 2 | 1 |

PRELIMINARY TEST II, 1978

Disease Data

| Strain | FE ₂ | | BSR | | SMV | PSB | PS | PR | PR race 1 | |
|-----------------|-----------------|------|------|-----------|-------|------|------|--------------------|-----------|------|
| | Laf. | Ind. | Laf. | Ames, Ia. | Laf. | Laf. | Laf. | Vickery | Laf. | Ames |
| | a | n | n | Plants | a | d | a | Ohio | Ind. | Ia. |
| | Score | % | % | % | Score | % | % | -----Reaction----- | | |
| Beeson | 1 | 100 | 67 | 100 | 3M | 4 | 3 | 4.0 | R | R |
| Coles (I) | 4 | 0 | 55 | 100 | 5E | 4 | 2 | 4.0 | S | S |
| Corsoy (II) | 5 | 20 | 60 | 100 | 5E | 4 | 1 | 3.5 | S | S |
| Woodworth (III) | 4 | 0 | 94 | 100 | 4E | 5 | 2 | 3.5 | S | S |
| A77-116012 | 3 | 20 | 39 | 100 | 5E | 0 | 3 | 3.5 | R | R |
| A77-211021 | 4 | 20 | 65 | 100 | 4E | 0 | 1 | 3.5 | R | R |
| A77-212006 | 5 | 20 | 49 | 100 | 3E | 22 | 4 | 4.0 | S | S |
| A77-212008 | 1 | 80 | 67 | 100 | 2E | 5 | 4 | 4.0 | S | S |
| A77-214005 | 5 | 20 | 58 | 100 | 3E | 1 | 2 | 3.0 | R | R |
| A77-214015 | 3 | 0 | 58 | 100 | 4E | 1 | 1 | 3.0 | S | S |
| A77-214019 | 4 | 20 | 73 | 100 | 3E | 0 | 1 | 4.5 | S | S |
| A77-214022 | 4 | 0 | 89 | 100 | 5E | 2 | 2 | 4.0 | R | R |
| A77-214035 | 2 | 0 | 59 | 100 | 3E | 3 | 3 | 2.5 | S | S |
| A77-215009 | 3 | 100 | 62 | 100 | 5E | 3 | 5 | 3.0 | R | R |
| A77-215030 | 5 | 60 | 88 | 100 | 4E | 1 | 0 | 4.0 | S | S |
| A77-216006 | 4 | 80 | 45 | 80 | 3E | 1 | 1 | 3.5 | S | S |
| A77-312017 | 4 | 0 | 97 | 100 | 5E | 2 | 5 | 4.5 | S | S |
| C1566 | 2 | 40 | 79 | 100 | 4E | 2 | 1 | 3.5 | R | R |
| C1568 | 1 | 0 | 80 | 100 | 3M | 0 | 5 | 3.0 | S | S |
| C1574 | 5 | 0 | 88 | 100 | 3E | 2 | 1 | 3.5 | S | S |
| C1576 | 5 | 80 | 94 | 100 | 5E | 1 | 2 | 4.5 | R | S |
| C1579 | 5 | 0 | 81 | 100 | 5E | 5 | 4 | 3.5 | H | S |
| H75-729 | 5 | 40 | 98 | 100 | 2M | 1 | 0 | 3.0 | S | S |
| H75-796 | 5 | 0 | 95 | 100 | 4M | 10 | 0 | 3.0 | S | S |
| H7703 | 4 | 40 | 77 | 100 | 5E | 4 | 1 | 3.5 | R | R |
| L73-4673 | 5 | 20 | 76 | 90 | 5M | 11 | 5 | 4.5 | H | S |
| L76-129 | 4 | 0 | 79 | 100 | 1 | 1 | 0 | 4.0 | R | R |
| L76-141 | 1 | 100 | 70 | 100 | 3M | 0 | 0 | 4.0 | R | H |
| M70-203 | 5 | 30 | 74 | 100 | 1 | 0 | 1 | 4.0 | H | H |
| M70-341 | 5 | 0 | 50 | 100 | 1 | 0 | 0 | 3.5 | R | R |
| U11239 | 4 | 20 | 71 | 100 | 5E | 2 | 3 | 4.0 | R | R |
| U11632 | 3 | 0 | 89 | 100 | 3M | 0 | 2 | 3.0 | R | R |
| U20325 | 4 | 60 | 90 | 100 | 1 | 3 | 2 | 3.5 | R | R |
| U20439 | 4 | 0 | 71 | 100 | 3M | 2 | 0 | 4.0 | R | R |
| U36344 | 1 | 0 | 67 | 100 | 5S | 0 | 1 | 3.5 | S | S |
| U46734 | 4 | 100 | 81 | 100 | 3M | 2 | 2 | 4.5 | R | R |

PRELIMINARY TEST II, 1978

Regional Summary

| Strain | Yield | Rank | Matu- rity | Lodg- ing | Height | Seed Quality | Seed Size | Seed Composition | |
|-----------------|-------|------|---------------|--------------|--------|-----------------|--------------|------------------|------|
| | | | | | | | | Protein | Oil |
| No. of Tests | 11 | 11 | 10 | 11 | 11 | 8 | | | |
| | bu/a | No. | Date | Score | In. | Score | g/100 | % | % |
| Beeson | 43.2 | 21 | +3.3 | 2.4 | 39 | 2.3 | 19.5 | 42.2 | 20.6 |
| Coles (I) | 44.2 | 13 | -0.6 | 2.9 | 40 | 2.0 | 19.2 | 42.7 | 20.6 |
| Corsoy (II) | 45.1 | 7 | 9-20* | 2.6 | 38 | 2.1 | 16.3 | 41.4 | 21.2 |
| Woodworth (III) | 44.9 | 9 | +8.2 | 2.5 | 40 | 1.8 | 15.8 | 41.2 | 21.1 |
| A77-116012 | 43.4 | 19 | -0.3 | 2.7 | 38 | 2.2 | 19.3 | 41.1 | 21.7 |
| A77-211021 | 47.0 | 3 | +1.1 | 2.7 | 39 | 2.6 | 19.6 | 42.0 | 20.4 |
| A77-212006 | 47.2 | 2 | +3.0 | 3.1 | 43 | 2.3 | 17.3 | 40.6 | 21.8 |
| A77-212008 | 43.9 | 17 | +4.2 | 3.0 | 42 | 2.2 | 15.9 | 41.0 | 22.0 |
| A77-214005 | 44.0 | 15 | +0.3 | 2.2 | 38 | 2.7 | 16.2 | 41.2 | 20.8 |
| A77-214015 | 43.2 | 21 | -1.7 | 2.7 | 36 | 2.1 | 15.5 | 43.7 | 20.1 |
| A77-214019 | 43.3 | 20 | +6.8 | 2.8 | 41 | 2.2 | 16.3 | 40.3 | 20.9 |
| A77-214022 | 45.7 | 5 | +6.1 | 3.1 | 45 | 2.3 | 14.6 | 40.6 | 20.8 |
| A77-214035 | 45.8 | 4 | +6.6 | 3.1 | 40 | 2.1 | 18.0 | 41.9 | 20.3 |
| A77-215009 | 44.8 | 10 | +4.9 | 3.0 | 43 | 2.2 | 17.3 | 41.8 | 20.7 |
| A77-215030 | 41.8 | 29 | +5.6 | 2.8 | 39 | 2.0 | 16.7 | 43.3 | 19.6 |
| A77-216006 | 44.0 | 15 | +4.4 | 2.1 | 35 | 2.3 | 18.8 | 43.8 | 21.2 |
| A77-312017 | 41.0 | 33 | +7.7 | 2.8 | 41 | 2.7 | 18.4 | 41.4 | 20.4 |
| C1566 | 45.1 | 7 | +6.4 | 2.9 | 37 | 2.2 | 18.4 | 41.9 | 20.8 |
| C1568 | 42.5 | 26 | +7.7 | 2.5 | 41 | 2.3 | 18.9 | 43.2 | 20.8 |
| C1574 | 44.2 | 13 | +5.5 | 2.1 | 39 | 2.2 | 17.5 | 42.5 | 20.7 |
| C1576 | 41.7 | 30 | +9.0 | 2.0 | 39 | 2.0 | 18.6 | 44.1 | 19.8 |
| C1579 | 44.3 | 12 | +3.8 | 2.1 | 36 | 2.3 | 18.3 | 42.4 | 20.8 |
| H75-729 | 41.2 | 32 | +9.4 | 1.9 | 32 | 1.9 | 16.2 | 43.4 | 20.2 |
| H75-796 | 42.9 | 23 | +10.7 | 1.7 | 32 | 1.9 | 18.5 | 44.3 | 20.0 |
| H7703 | 45.3 | 6 | +2.6 | 3.0 | 39 | 2.7 | 18.2 | 41.0 | 20.5 |
| L73-4673 | 47.7 | 1 | +4.0 | 2.6 | 38 | 1.8 | 17.5 | 42.9 | 20.2 |
| L76-129 | 41.3 | 31 | +2.6 | 2.4 | 39 | 2.3 | 16.6 | 40.8 | 20.2 |
| L76-141 | 40.3 | 36 | -1.6 | 2.1 | 37 | 2.5 | 18.1 | 39.2 | 22.2 |
| M70-203 | 40.7 | 34 | -2.5 | 2.1 | 35 | 2.1 | 16.0 | 40.4 | 21.4 |
| M70-341 | 40.4 | 35 | +0.4 | 2.5 | 38 | 2.3 | 17.0 | 42.8 | 20.5 |
| U11239 | 42.4 | 27 | +1.1 | 2.2 | 37 | 2.5 | 19.5 | 44.2 | 21.0 |
| U11632 | 43.5 | 18 | +4.2 | 2.0 | 38 | 2.5 | 17.8 | 41.0 | 21.1 |
| U20325 | 44.4 | 11 | +4.3 | 2.0 | 39 | 2.3 | 18.8 | 41.8 | 20.4 |
| U20439 | 42.2 | 28 | +4.3 | 1.9 | 39 | 1.9 | 17.5 | 41.6 | 21.2 |
| U36344 | 42.8 | 24 | +3.0 | 1.9 | 39 | 2.7 | 17.1 | 42.2 | 20.9 |
| U46734 | 42.7 | 25 | +7.9 | 2.0 | 39 | 2.1 | 16.3 | 42.9 | 21.6 |

* 119 Days after planting.

PRELIMINARY TEST II, 1978

| Strain | Mean 11 Tests | MN | NJ | Mich. | |
|-----------------|------------------|----------------|---------------|--------|-----------------|
| | | Lamber- ton | Adel- phia | Dundee | E. Lan- sing |
| | | YIELD (bu/a) | | | |
| Beeson | 43.2 | 42.0 | 27.7 | 25.8 | 36.2 |
| Coles (I) | 44.2 | 47.8 | 34.2 | 27.0 | 38.8 |
| Corsoy (II) | 45.1 | 51.4 | 30.8 | 27.9 | 36.2 |
| Woodworth (III) | 44.9 | 47.6 | 28.8 | 26.8 | 51.4 |
| A77-116012 | 43.4 | 46.6 | 34.2 | 32.1 | 37.8 |
| A77-211021 | 47.0 | 48.0 | 30.1 | 29.9 | 42.6 |
| A77-212006 | 47.2 | 51.0 | 35.8 | 26.6 | 40.7 |
| A77-212008 | 43.9 | 48.8 | 28.3 | 23.5 | 42.2 |
| A77-214005 | 44.0 | 44.4 | 34.2 | 31.2 | 41.7 |
| A77-214015 | 43.2 | 45.5 | 25.2 | 36.5 | 36.7 |
| A77-214019 | 43.3 | 46.0 | 33.8 | 27.8 | 46.2 |
| A77-214022 | 45.7 | 48.0 | 38.3 | 32.4 | 34.8 |
| A77-214035 | 45.8 | 49.8 | 39.0 | 28.0 | 43.4 |
| A77-215009 | 44.8 | 45.4 | 35.8 | 25.9 | 41.2 |
| A77-215030 | 41.8 | 44.5 | 25.0 | 28.6 | 42.9 |
| A77-216006 | 44.0 | 48.0 | 33.3 | 21.8 | 39.5 |
| A77-312017 | 41.0 | 43.9 | 28.2 | 20.6 | 41.5 |
| C1566 | 45.1 | 42.9 | 34.7 | 31.6 | 44.5 |
| C1568 | 42.5 | 45.5 | 32.5 | 32.8 | 40.0 |
| C1574 | 44.2 | 47.5 | 30.3 | 27.5 | 47.0 |
| C1576 | 41.7 | 42.0 | 31.0 | 25.3 | 44.7 |
| C1579 | 44.3 | 49.7 | 28.4 | 23.5 | 39.5 |
| H75-729 | 41.2 | 41.8 | 27.1 | 24.0 | 46.4 |
| H75-796 | 42.9 | 36.0 | 28.1 | 26.7 | 48.0 |
| H7703 | 45.3 | 42.2 | 27.7 | 31.5 | 42.0 |
| L73-4673 | 47.7 | 53.4 | 36.1 | 30.6 | 38.6 |
| L76-129 | 41.3 | 41.0 | 36.4 | 16.4 | 38.3 |
| L76-141 | 40.3 | 43.9 | 29.6 | 22.9 | 30.6 |
| M70-203 | 40.7 | 50.6 | 31.1 | 22.9 | 36.9 |
| M70-341 | 40.4 | 46.3 | 29.6 | 21.7 | 30.1 |
| U11239 | 42.4 | 50.3 | 26.1 | 20.5 | 32.2 |
| U11632 | 43.5 | 50.4 | 24.5 | 27.5 | 43.1 |
| U20325 | 44.4 | 44.0 | 27.4 | 30.0 | 38.1 |
| U20439 | 42.2 | 47.4 | 28.3 | 23.6 | 38.9 |
| U36344 | 42.8 | 42.0 | 31.9 | 25.3 | 43.6 |
| U46734 | 42.7 | 44.4 | 27.1 | 20.4 | 41.3 |
| C.V. (%) | | 7.4 | 16.0 | 17.0 | 12.4 |
| L.S.D. (5%) | | 7.0 | 10.05 | 7.5 | 8.3 |
| Row sp (in.) | | 30" | 30" | | |
| Rows/plot | | 2 | 3 | | |
| Reps | | 2 | 2 | | |

PRELIMINARY TEST II, 1978

| Ohio | Ind. | Wisc. | Ill. | Iowa | | Neb. |
|--------------|-----------|-----------|--------|-----------|-------|------|
| Hoyt-ville | Lafayette | Arlington | Urbana | Key-stone | Ames | Mead |
| YIELD (bu/a) | | | | | | |
| 46.5 | 45.7 | 30.5 | 53.9 | 53.9 | 62.2 | 50.9 |
| 45.2 | 42.8 | 26.8 | 52.5 | 55.9 | 65.7 | 50.0 |
| 39.9 | 51.2 | 35.6 | 56.6 | 51.7 | 62.2 | 52.2 |
| 44.1 | 53.0 | 30.2 | 52.1 | 51.6 | 62.6 | 45.7 |
| 41.3 | 47.2 | 23.0 | 51.5 | 49.4 | 62.2 | 52.6 |
| 47.4 | 51.1 | 30.3 | 61.1 | 59.7 | 59.8 | 56.9 |
| 46.4 | 54.2 | 27.2 | 56.8 | 55.8 | 70.0 | 54.4 |
| 43.5 | 44.9 | 28.5 | 51.4 | 55.9 | 65.7 | 50.5 |
| 43.3 | 48.6 | 30.2 | 52.6 | 52.0 | 51.6 | 53.9 |
| 46.9 | 42.3 | 30.7 | 48.5 | 50.3 | 58.2 | 54.1 |
| 47.2 | 53.6 | 26.5 | 51.8 | 50.3 | 49.4 | 44.2 |
| 43.8 | 52.1 | 33.6 | 56.5 | 54.2 | 64.2 | 45.1 |
| 45.0 | 37.0 | 25.5 | 59.7 | 57.1 | 65.4 | 54.0 |
| 47.5 | 47.7 | 28.5 | 56.7 | 50.3 | 61.1 | 53.0 |
| 43.7 | 46.5 | 30.7 | 46.2 | 49.6 | 58.9 | 43.5 |
| 47.0 | 46.2 | 30.7 | 54.8 | 55.1 | 56.2 | 51.3 |
| 47.1 | 41.9 | 20.8 | 52.3 | 52.1 | 53.1 | 49.8 |
| 47.4 | 39.4 | 26.2 | 56.7 | 59.6 | 65.2 | 47.8 |
| 47.3 | 49.2 | 24.3 | 48.9 | 46.3 | 50.5 | 50.3 |
| 48.8 | 50.2 | 30.7 | 49.6 | 51.9 | 54.9 | 48.0 |
| 43.2 | 49.8 | 22.1 | 47.4 | 51.1 | 56.3 | 46.0 |
| 46.3 | 51.5 | 26.4 | 54.3 | 51.5 | 58.9 | 56.8 |
| 46.2 | 48.0 | 18.6 | 48.3 | 49.5 | 52.8 | 50.1 |
| 45.5 | 50.6 | 21.8 | 47.3 | 56.1 | 59.7 | 52.5 |
| 49.7 | 46.7 | 28.4 | 56.6 | 60.5 | 62.9 | 50.6 |
| 48.2 | 53.4 | 33.3 | 58.2 | 56.4 | 58.4 | 57.9 |
| 41.8 | 46.2 | 29.4 | 49.5 | 46.5 | 60.5 | 48.6 |
| 38.2 | 47.9 | 30.2 | 49.1 | 48.7 | 52.7 | 49.7 |
| 38.8 | 44.7 | 31.7 | 47.3 | 48.6 | 52.1 | 43.4 |
| 42.6 | 46.0 | 25.8 | 50.4 | 46.7 | 51.4 | 53.8 |
| 48.6 | 44.8 | 26.0 | 49.4 | 52.1 | 63.4 | 52.5 |
| 49.0 | 49.6 | 32.9 | 52.1 | 48.3 | 54.6 | 46.6 |
| 49.6 | 51.1 | 28.3 | 51.0 | 54.6 | 61.7 | 52.4 |
| 49.7 | 49.0 | 29.0 | 48.8 | 49.5 | 52.6 | 47.5 |
| 48.5 | 47.1 | 30.9 | 51.7 | 52.6 | 54.1 | 43.3 |
| 45.9 | 50.7 | 30.5 | 55.7 | 49.0 | 55.0 | 49.4 |
| 60.0 | 8.2 | 16.0 | 6.0 | 6.8 | 7.2 | 7.6 |
| 5.5 | 7.9 | 9.0 | 6.4 | 7.2 | 8.6 | 6.3 |
| 30" | 30" | 30" | 30" | 27" | 13.5" | 30" |
| 4 | 4 | 4 | 4 | 4 | 5 | 4 |
| 2 | 2 | 2 | 2 | 2 | 2 | 2 |

PRELIMINARY TEST II, 1978

| Strain | Mean 11 Tests | MN | NJ | Mich. | |
|-----------------|------------------|-------------------|---------------|--------|-----------------|
| | | Lamber- ton | Adel- phia | Dundee | E. Lan- sing |
| | | <u>YIELD RANK</u> | | | |
| Beeson | 21 | 31 | 28 | 22 | 31 |
| Coles (I) | 13 | 13 | 8 | 17 | 24 |
| Corsoy (II) | 7 | 2 | 17 | 13 | 31 |
| Woodworth (III) | 9 | 14 | 22 | 18 | 1 |
| A77-116012 | 19 | 17 | 8 | 4 | 28 |
| A77-211021 | 3 | 10 | 19 | 10 | 12 |
| A77-212006 | 2 | 3 | 5 | 20 | 19 |
| A77-212008 | 17 | 9 | 24 | 27 | 13 |
| A77-214005 | 15 | 24 | 8 | 7 | 15 |
| A77-214015 | 21 | 20 | 34 | 1 | 30 |
| A77-214019 | 20 | 19 | 11 | 14 | 5 |
| A77-214022 | 5 | 10 | 2 | 3 | 33 |
| A77-214035 | 4 | 7 | 1 | 12 | 9 |
| A77-215009 | 10 | 22 | 5 | 21 | 18 |
| A77-215030 | 29 | 23 | 35 | 11 | 11 |
| A77-216006 | 15 | 10 | 12 | 31 | 21 |
| A77-312017 | 33 | 27 | 26 | 33 | 16 |
| C1566 | 7 | 29 | 7 | 5 | 7 |
| C1568 | 26 | 20 | 13 | 2 | 20 |
| C1574 | 13 | 15 | 18 | 15 | 3 |
| C1576 | 30 | 31 | 16 | 23 | 6 |
| C1579 | 12 | 8 | 23 | 27 | 21 |
| H75-729 | 32 | 34 | 31 | 25 | 4 |
| H75-796 | 23 | 36 | 27 | 19 | 2 |
| H7703 | 6 | 30 | 28 | 6 | 14 |
| L73-4673 | 1 | 1 | 4 | 8 | 25 |
| L76-129 | 31 | 35 | 3 | 36 | 26 |
| L76-141 | 36 | 27 | 20 | 29 | 35 |
| M70-203 | 34 | 4 | 15 | 29 | 29 |
| M70-341 | 35 | 18 | 20 | 32 | 36 |
| U11239 | 27 | 6 | 33 | 34 | 34 |
| U11632 | 18 | 5 | 36 | 15 | 10 |
| U20325 | 11 | 26 | 30 | 9 | 27 |
| U20439 | 28 | 16 | 24 | 26 | 23 |
| U36344 | 24 | 31 | 14 | 23 | 8 |
| U46734 | 25 | 24 | 31 | 35 | 17 |

PRELIMINARY TEST II. 1978

| Ohio | Ind. | Wisc. | Ill. | Iowa | | Neb. |
|----------------|----------------|----------------|--------|---------------|------|------|
| Hoyt- ville | Lafay- ette | Arling- ton | Urbana | Key- stone | Ames | Mead |
| YIELD RANK | | | | | | |
| 17 | 28 | 11 | 13 | 13 | 10 | 16 |
| 23 | 32 | 24 | 15 | 7 | 2 | 21 |
| 34 | 7 | 1 | 7 | 19 | 10 | 14 |
| 25 | 4 | 14 | 17 | 20 | 9 | 31 |
| 33 | 21 | 32 | 21 | 29 | 10 | 10 |
| 10 | 8 | 13 | 1 | 2 | 16 | 2 |
| 18 | 1 | 23 | 4 | 9 | 1 | 4 |
| 28 | 29 | 19 | 22 | 7 | 2 | 18 |
| 29 | 17 | 14 | 14 | 17 | 33 | 7 |
| 16 | 33 | 7 | 31 | 23 | 21 | 5 |
| 13 | 2 | 25 | 19 | 23 | 36 | 33 |
| 26 | 5 | 2 | 9 | 12 | 6 | 32 |
| 24 | 36 | 30 | 2 | 4 | 4 | 6 |
| 9 | 20 | 19 | 5 | 23 | 14 | 9 |
| 27 | 24 | 7 | 36 | 26 | 18 | 34 |
| 15 | 25 | 7 | 11 | 10 | 23 | 15 |
| 14 | 34 | 35 | 16 | 15 | 28 | 22 |
| 10 | 35 | 27 | 5 | 3 | 5 | 27 |
| 12 | 15 | 31 | 29 | 36 | 35 | 19 |
| 5 | 12 | 7 | 25 | 18 | 25 | 26 |
| 30 | 13 | 33 | 33 | 22 | 22 | 30 |
| 19 | 6 | 26 | 12 | 21 | 18 | 3 |
| 20 | 18 | 36 | 32 | 27 | 29 | 20 |
| 22 | 11 | 34 | 34 | 6 | 17 | 11 |
| 1 | 23 | 21 | 7 | 1 | 8 | 17 |
| 8 | 3 | 3 | 3 | 5 | 20 | 1 |
| 32 | 25 | 17 | 26 | 35 | 15 | 25 |
| 36 | 19 | 14 | 28 | 31 | 30 | 23 |
| 35 | 31 | 5 | 34 | 32 | 32 | 35 |
| 31 | 27 | 29 | 24 | 34 | 34 | 8 |
| 6 | 30 | 28 | 27 | 15 | 7 | 12 |
| 4 | 14 | 4 | 17 | 33 | 26 | 29 |
| 3 | 8 | 22 | 23 | 11 | 13 | 13 |
| 1 | 16 | 18 | 30 | 27 | 31 | 28 |
| 7 | 22 | 6 | 20 | 14 | 27 | 36 |
| 21 | 10 | 11 | 10 | 30 | 24 | 24 |

PRELIMINARY TEST II. 1978

| Strain | Mean 10 Tests | MN | NJ | Mich. | |
|-----------------|------------------|----------------|--------------------------|--------|-----------------|
| | | Lamber- ton | Adel- phia | Dundee | E. Lan- sing |
| | | | MATURITY (relative data) | | |
| Beeson | +3.3 | +3 | +3 | +8 | +1 |
| Coles * (I) | -0.6 | +1 | -3 | +3 | -10 |
| Corsoy (II) | 9-20 | 9-19 | 9-22 | 9-19 | 10-8 |
| Woodworth (III) | +8.2 | +8 | +10 | +8 | +2 |
| A77-116012 | -0.3 | +1 | +2 | 0 | -3 |
| A77-211021 | +1.1 | +1 | -1 | +2 | +1 |
| A77-212006 | +3.0 | +3 | +1 | +6 | -2 |
| A77-212008 | +4.2 | +5 | +4 | +3 | -2 |
| A77-214005 | +0.3 | +1 | +1 | +3 | -11 |
| A77-214015 | -1.7 | 0 | -3 | +1 | -10 |
| A77-214019 | +6.8 | +9 | +6 | +4 | -2 |
| A77-214022 | +6.1 | +9 | +10 | +2 | +1 |
| A77-214035 | +6.6 | +7 | +10 | +2 | -3 |
| A77-215009 | +4.9 | +4 | +8 | +9 | +3 |
| A77-215030 | +5.6 | +4 | +5 | +5 | +2 |
| A77-216006 | +4.4 | +3 | +4 | +6 | +1 |
| A77-312017 | +7.7 | +5 | +6 | +13 | +2 |
| C1566 | +6.4 | +7 | +5 | +10 | 0 |
| C1568 | +7.7 | +5 | +5 | +12 | +4 |
| C1574 | +5.5 | +6 | +6 | +7 | +1 |
| C1576 | +9.0 | +7 | +11 | +8 | +2 |
| C1579 | +3.8 | +3 | +8 | +7 | -3 |
| H75-729 | +9.4 | +11 | +6 | +18 | -2 |
| H75-796 | +10.7 | +11 | +7 | +18 | +9 |
| H7703 | +2.6 | +5 | -1 | +5 | +1 |
| L73-4673 | +4.0 | +5 | +5 | +5 | +2 |
| L76-129 | +2.6 | +2 | +3 | +3 | 0 |
| L76-141 | -1.6 | -1 | -5 | 0 | -1 |
| M70-203 | -2.5 | -1 | -6 | -1 | -9 |
| M70-341 | +0.4 | +3 | +8 | +1 | -7 |
| U11239 | +1.1 | +5 | +3 | +3 | -6 |
| U11632 | +4.2 | +9 | +2 | +6 | 0 |
| U20325 | +4.3 | +3 | +1 | +10 | +3 |
| U20439 | +4.3 | +3 | +3 | +7 | +4 |
| U36344 | +3.0 | +3 | +2 | +6 | +1 |
| U46734 | +7.9 | +9 | +6 | +10 | +1 |
| Date planted | 5-23 | 5-11 | 6-6 | - | - |
| *Days to mat. | 119 | 131 | 108 | - | - |

PRELIMINARY TEST II, 1978

| Ohio Hoyt- Ville | Ind. Lafay- ette | Wisc. Arling- ton | Ill. Urbana | Iowa Key- stone | Ames | Neb. Mead |
|--------------------------|------------------------|-------------------------|----------------|-----------------------|------|--------------|
| MATURITY (relative data) | | | | | | |
| +3 | +2 | +4 | +2 | | +6 | +1 |
| -1 | 0 | +3 | 0 | | +2 | -1 |
| 9-12 | 9-15 | 9-21 | 9-15 | | 9-15 | 9-24 |
| +7 | +5 | +16 | +9 | | +12 | +5 |
| -1 | 0 | +2 | -2 | | -1 | -1 |
| 0 | 0 | +4 | 0 | | +4 | 0 |
| +3 | +1 | +6 | +4 | | +6 | +2 |
| +4 | +3 | +6 | +6 | | +12 | +1 |
| 0 | 0 | +9 | -2 | | +3 | -1 |
| -1 | 0 | +3 | -3 | | +2 | -6 |
| +2 | +5 | +24 | +6 | | +10 | +4 |
| +4 | +5 | +12 | +8 | | +8 | +2 |
| +4 | +7 | +14 | +8 | | +12 | +5 |
| +3 | +3 | +8 | +6 | | +5 | 0 |
| +3 | +3 | +14 | +6 | | +12 | +2 |
| +4 | +3 | +12 | +3 | | +5 | +3 |
| +5 | +6 | +15 | +8 | | +12 | +5 |
| +5 | +3 | +18 | +3 | | +11 | +2 |
| +6 | +5 | +21 | +5 | | +10 | +4 |
| +4 | +4 | +11 | +6 | | +8 | +2 |
| +5 | +5 | +28 | +8 | | +12 | +4 |
| +1 | +1 | +14 | +2 | | +3 | +2 |
| +12 | +5 | +26 | +6 | | +10 | +2 |
| +11 | +5 | +29 | +6 | | +8 | +3 |
| +1 | +1 | +3 | +3 | | +5 | +3 |
| 0 | +3 | +7 | +4 | | +6 | +3 |
| 0 | +1 | +7 | +5 | | +5 | 0 |
| -2 | 0 | 0 | -3 | | -3 | -1 |
| +1 | -2 | 0 | -5 | | -6 | -6 |
| -1 | 0 | +2 | -2 | | +1 | -1 |
| -1 | +2 | +2 | +2 | | +2 | -1 |
| +4 | +3 | +10 | +1 | | +4 | +3 |
| +4 | +3 | +6 | +4 | | +8 | +1 |
| +4 | +3 | +11 | +2 | | +5 | +1 |
| +2 | +3 | +5 | +2 | | +4 | +2 |
| +4 | +5 | +24 | +6 | | +12 | +2 |
| 5-10 | 5-27 | 5-23 | 5-27 | | 5-25 | 5-24 |
| 125 | 123 | 121 | 111 | | 113 | 123 |

PRELIMINARY TEST II, 1978

| Strain | Mean 11 Tests | MN | NJ | Mich. | |
|-----------------|------------------|-----------------|---------------|--------|-----------------|
| | | Lamber- ton | Adel- phia | Dundee | E. Lan- sing |
| | | LODGING (score) | | | |
| Beeson | 2.4 | 3.0 | 3.5 | 1.5 | 2.1 |
| Coles (I) | 2.9 | 4.0 | 3.5 | 1.6 | 2.4 |
| Corsoy (II) | 2.6 | 3.5 | 3.8 | 1.1 | 2.1 |
| Woodworth (III) | 2.5 | 3.0 | 3.3 | 2.0 | 3.0 |
| A77-116012 | 2.7 | 4.0 | 3.8 | 1.5 | 2.7 |
| A77-211021 | 2.7 | 3.5 | 3.8 | 1.0 | 2.1 |
| A77-212006 | 3.1 | 3.5 | 4.3 | 1.8 | 3.0 |
| A77-212008 | 3.0 | 3.5 | 4.3 | 1.1 | 2.5 |
| A77-214005 | 2.2 | 2.5 | 3.3 | 1.3 | 2.1 |
| A77-214015 | 2.7 | 4.0 | 4.0 | 1.3 | 1.4 |
| A77-214019 | 2.8 | 3.5 | 3.5 | 1.6 | 2.4 |
| A77-214022 | 3.1 | 4.0 | 4.0 | 1.7 | 3.3 |
| A77-214035 | 3.1 | 3.5 | 4.5 | 1.7 | 2.4 |
| A77-215009 | 3.0 | 4.0 | 4.5 | 1.7 | 3.4 |
| A77-215030 | 2.8 | 3.0 | 3.5 | 1.8 | 2.2 |
| A77-216006 | 2.1 | 2.5 | 2.8 | 1.5 | 2.0 |
| A77-312017 | 2.8 | 3.5 | 3.8 | 1.6 | 2.3 |
| C1566 | 2.9 | 4.0 | 3.5 | 1.5 | 3.5 |
| C1568 | 2.5 | 2.5 | 3.5 | 1.7 | 2.1 |
| C1574 | 2.1 | 2.5 | 2.8 | 1.8 | 2.5 |
| C1576 | 2.0 | 2.0 | 2.3 | 1.7 | 2.1 |
| C1579 | 2.1 | 3.0 | 1.8 | 1.7 | 1.8 |
| H75-729 | 1.9 | 2.5 | 2.3 | 1.8 | 3.0 |
| H75-796 | 1.7 | 2.0 | 2.0 | 1.8 | - |
| H7703 | 3.0 | 4.0 | 4.5 | 1.4 | 3.2 |
| L73-4673 | 2.6 | 4.0 | 4.0 | 1.6 | 2.3 |
| L76-129 | 2.4 | 3.5 | 3.3 | 1.4 | 2.4 |
| L76-141 | 2.1 | 3.0 | 2.8 | 1.0 | 2.7 |
| M70-203 | 2.1 | 2.5 | 2.5 | 1.1 | 1.4 |
| M70-341 | 2.5 | 3.5 | 3.0 | 1.0 | 1.5 |
| U11239 | 2.2 | 3.0 | 3.3 | 1.6 | 1.9 |
| U11632 | 2.0 | 3.5 | 2.5 | 1.4 | 1.5 |
| U20325 | 2.0 | 3.0 | 2.5 | 1.4 | 1.5 |
| U20439 | 1.9 | 2.5 | 2.3 | 1.1 | 2.0 |
| U36344 | 1.9 | 2.5 | 2.3 | 1.5 | 1.5 |
| U46734 | 2.0 | 3.0 | 2.8 | 1.0 | 1.4 |

PRELIMINARY TEST II, 1978

| <u>Ohio</u> | <u>Ind.</u> | <u>Wisc.</u> | <u>Ill.</u> | <u>Iowa</u> | | <u>Neb.</u> |
|-----------------|----------------|----------------|-------------|---------------|------|-------------|
| Hoyt- ville | Lafay- ette | Arling- ton | Urbana | Key- stone | Ames | Mead |
| LODGING (score) | | | | | | |
| 1.4 | 2.5 | 3.0 | 2.6 | 3.0 | 2.2 | 1.5 |
| 1.7 | 3.8 | 3.0 | 3.4 | 3.6 | 3.1 | 2.3 |
| 1.7 | 3.3 | 2.5 | 2.8 | 3.3 | 2.4 | 2.0 |
| 1.4 | 3.3 | 2.0 | 2.7 | 2.8 | 2.9 | 1.5 |
| 1.4 | 3.0 | 2.5 | 2.9 | 3.4 | 3.4 | 1.3 |
| 1.5 | 3.3 | 2.5 | 3.5 | 3.5 | 3.6 | 1.8 |
| 1.8 | 3.8 | 3.5 | 2.5 | 4.0 | 3.4 | 2.3 |
| 2.2 | 4.0 | 3.0 | 2.9 | 3.4 | 3.7 | 2.3 |
| 1.2 | 2.0 | 2.5 | 3.2 | 2.6 | 2.8 | 1.0 |
| 1.3 | 3.8 | 2.0 | 3.4 | 3.8 | 3.8 | 1.3 |
| 1.7 | 3.5 | 3.5 | 3.0 | 3.4 | 3.2 | 1.5 |
| 2.0 | 3.3 | 3.5 | 3.2 | 3.5 | 3.0 | 2.5 |
| 2.1 | 3.8 | 4.0 | 2.9 | 3.8 | 3.4 | 2.5 |
| 2.2 | 3.3 | 3.0 | 2.4 | 3.4 | 3.0 | 2.0 |
| 1.6 | 3.8 | 3.5 | 2.7 | 3.0 | 3.6 | 1.8 |
| 1.4 | 2.5 | 2.0 | 2.3 | 2.9 | 2.2 | 1.0 |
| 1.5 | 3.3 | 3.5 | 3.3 | 2.6 | 3.4 | 2.3 |
| 1.4 | 3.8 | 3.0 | 3.4 | 3.2 | 3.6 | 1.5 |
| 1.5 | 2.8 | 4.0 | 2.6 | 2.6 | 3.0 | 1.5 |
| 1.5 | 2.8 | 2.0 | 2.4 | 1.8 | 2.2 | 1.3 |
| 1.5 | 2.5 | 2.0 | 2.1 | 2.0 | 2.0 | 1.5 |
| 1.4 | 2.3 | 2.5 | 2.3 | 2.3 | 2.6 | 1.3 |
| 1.5 | 2.3 | 2.0 | 2.0 | 1.4 | 1.6 | 1.0 |
| 1.4 | 1.5 | 2.0 | 2.0 | 1.3 | 1.6 | 1.0 |
| 1.9 | 3.8 | 3.0 | 2.9 | 3.1 | 3.0 | 2.5 |
| 2.1 | 3.3 | 2.0 | 2.5 | 2.8 | 2.6 | 1.8 |
| 1.7 | 2.3 | 3.0 | 2.3 | 2.8 | 2.2 | 1.5 |
| 1.4 | 2.5 | 2.0 | 2.2 | 2.4 | 2.0 | 1.0 |
| 1.5 | 1.8 | 2.0 | 3.5 | 3.4 | 2.0 | 1.0 |
| 2.6 | 3.0 | 2.5 | 2.7 | 3.0 | 3.1 | 1.3 |
| 1.6 | 2.8 | 2.5 | 2.2 | 2.1 | 2.0 | 1.3 |
| 1.4 | 2.5 | 2.0 | 2.4 | 2.0 | 2.0 | 1.3 |
| 1.6 | 2.3 | 2.0 | 2.1 | 2.7 | 2.0 | 1.5 |
| 1.5 | 1.8 | 1.5 | 2.4 | 2.2 | 1.9 | 1.5 |
| 1.3 | 1.8 | 2.0 | 2.6 | 2.1 | 2.0 | 1.0 |
| 1.2 | 2.3 | 3.0 | 2.6 | 2.0 | 2.2 | 1.0 |

PRELIMINARY TEST II. 1978

| Strain | Mean 11 Tests | MN | NJ | Mich. | |
|-----------------------|------------------|----------------|---------------|--------|-----------------|
| | | Lamber- ton | Adel- phia | Dundee | E. Lan- sing |
| PLANT HEIGHT (inches) | | | | | |
| Beeson | 39 | 42 | 36 | 33 | 35 |
| Coles (I) | 40 | 43 | 34 | 33 | 33 |
| Corsoy (II) | 38 | 42 | 38 | 31 | 35 |
| Woodworth (III) | 40 | 44 | 34 | 35 | 39 |
| A77-116012 | 38 | 39 | 35 | 34 | 34 |
| A77-211021 | 39 | 40 | 33 | 33 | 36 |
| A77-212006 | 43 | 42 | 44 | 33 | 36 |
| A77-212008 | 42 | 42 | 38 | 33 | 35 |
| A77-214005 | 38 | 42 | 34 | 33 | 36 |
| A77-214015 | 36 | 38 | 32 | 30 | 30 |
| A77-214019 | 41 | 42 | 37 | 34 | 38 |
| A77-214022 | 45 | 44 | 44 | 41 | 42 |
| A77-214035 | 40 | 40 | 41 | 35 | 35 |
| A77-215009 | 43 | 38 | 49 | 34 | 44 |
| A77-215030 | 39 | 42 | 36 | 30 | 35 |
| A77-216006 | 35 | 36 | 34 | 24 | 31 |
| A77-312017 | 41 | 41 | 36 | 32 | 37 |
| C1566 | 37 | 40 | 32 | 33 | 36 |
| C1568 | 41 | 41 | 36 | 34 | 38 |
| C1574 | 39 | 39 | 36 | 31 | 38 |
| C1576 | 39 | 40 | 34 | 32 | 38 |
| C1579 | 36 | 40 | 31 | 27 | 30 |
| H75-729 | 32 | 35 | 30 | 31 | 36 |
| H75-796 | 32 | 36 | 26 | 33 | - |
| H7703 | 39 | 36 | 30 | 32 | 43 |
| L73-4673 | 38 | 42 | 32 | 32 | 36 |
| L76-129 | 39 | 42 | 36 | 31 | 36 |
| L76-141 | 37 | 38 | 36 | 32 | 36 |
| M70-203 | 35 | 38 | 28 | 28 | 33 |
| M70-341 | 38 | 42 | 32 | 30 | 32 |
| U11239 | 37 | 40 | 32 | 28 | 31 |
| U11632 | 38 | 40 | 32 | 32 | 35 |
| U20325 | 39 | 44 | 34 | 31 | 30 |
| U20439 | 39 | 44 | 34 | 28 | 34 |
| U36344 | 39 | 42 | 37 | 29 | 32 |
| U46734 | 39 | 42 | 36 | 26 | 37 |

PRELIMINARY TEST II, 1978

| Ohio | Ind. | Wisc. | Ill. | Iowa | Neb. | |
|-----------------------|----------------|----------------|--------|---------------|------|------|
| Hoyt- ville | Lafay- ette | Arling- ton | Urbana | Key- stone | Ames | Mead |
| PLANT HEIGHT (Inches) | | | | | | |
| 34 | 36 | 40 | 46 | 50 | 44 | 38 |
| 36 | 36 | 40 | 49 | 50 | 47 | 42 |
| 30 | 34 | 38 | 46 | 47 | 44 | 38 |
| 30 | 40 | 39 | 44 | 51 | 46 | 39 |
| 30 | 36 | 38 | 45 | 44 | 46 | 38 |
| 33 | 34 | 42 | 45 | 49 | 46 | 40 |
| 36 | 38 | 44 | 49 | 53 | 54 | 42 |
| 36 | 42 | 42 | 47 | 51 | 53 | 43 |
| 30 | 36 | 41 | 45 | 44 | 46 | 34 |
| 32 | 33 | 36 | 41 | 48 | 43 | 33 |
| 34 | 42 | 42 | 47 | 49 | 46 | 39 |
| 37 | 43 | 47 | 50 | 52 | 48 | 44 |
| 32 | 40 | 38 | 44 | 47 | 44 | 39 |
| 37 | 38 | 40 | 53 | 50 | 46 | 42 |
| 34 | 36 | 38 | 44 | 49 | 46 | 37 |
| 28 | 32 | 34 | 42 | 44 | 43 | 34 |
| 34 | 40 | 40 | 51 | 52 | 48 | 42 |
| 35 | 34 | 41 | 40 | 42 | 42 | 36 |
| 36 | 36 | 41 | 49 | 53 | 48 | 41 |
| 34 | 36 | 38 | 47 | 50 | 44 | 37 |
| 35 | 38 | 40 | 42 | 52 | 44 | 37 |
| 31 | 34 | 35 | 41 | 46 | 42 | 36 |
| 31 | 27 | 36 | 30 | 36 | 34 | 29 |
| 30 | 27 | 40 | 30 | 38 | 35 | 30 |
| 36 | 34 | 39 | 45 | 48 | 46 | 40 |
| 35 | 35 | 38 | 44 | 46 | 44 | 36 |
| 32 | 32 | 42 | 46 | 47 | 42 | 39 |
| 33 | 28 | 38 | 44 | 46 | 42 | 38 |
| 32 | 30 | 37 | 38 | 46 | 42 | 33 |
| 36 | 35 | 38 | 42 | 50 | 44 | 38 |
| 33 | 34 | 37 | 42 | 50 | 44 | 34 |
| 36 | 34 | 40 | 43 | 50 | 45 | 36 |
| 32 | 38 | 40 | 46 | 47 | 46 | 38 |
| 37 | 33 | 40 | 44 | 50 | 48 | 39 |
| 36 | 36 | 40 | 44 | 48 | 44 | 36 |
| 37 | 32 | 42 | 47 | 50 | 46 | 38 |

PRELIMINARY TEST II. 1978

| Strain | Mean 8 Tests | MN | NJ | Mich. | |
|-----------------|-----------------|----------------|----------------------|--------|-----------------|
| | | Lamber- ton | Adel- phia | Dundee | E. Lan- sing |
| | | | SEED QUALITY (score) | | |
| Beeson | 2.3 | 2.5 | 1.5 | | |
| Coles (I) | 2.0 | 2.0 | 1.5 | | |
| Corsoy (II) | 2.1 | 3.0 | 1.5 | | |
| Woodworth (III) | 1.8 | 2.0 | 1.0 | | |
| A77-116012 | 2.2 | 2.5 | 2.0 | | |
| A77-211021 | 2.6 | 3.0 | 3.0 | | |
| A77-212006 | 2.3 | 2.5 | 2.0 | | |
| A77-212008 | 2.2 | 3.0 | 1.0 | | |
| A77-214005 | 2.7 | 3.0 | 2.5 | | |
| A77-214015 | 2.1 | 2.0 | 1.5 | | |
| A77-214019 | 2.2 | 3.0 | 1.5 | | |
| A77-214022 | 2.3 | 3.0 | 2.0 | | |
| A77-214035 | 2.1 | 3.0 | 1.5 | | |
| A77-215009 | 2.2 | 3.0 | 1.5 | | |
| A77-215030 | 2.0 | 2.0 | 1.0 | | |
| A77-216006 | 2.3 | 3.0 | 1.5 | | |
| A77-212017 | 2.7 | 3.0 | 2.0 | | |
| C1566 | 2.2 | 3.0 | 1.0 | | |
| C1568 | 2.3 | 3.0 | 1.5 | | |
| C1574 | 2.2 | 2.0 | 2.0 | | |
| C1576 | 2.0 | 2.0 | 1.5 | | |
| C1579 | 2.3 | 3.0 | 2.0 | | |
| H75-729 | 1.9 | 2.0 | 1.0 | | |
| H75-796 | 1.9 | 2.0 | 1.0 | | |
| H7703 | 2.7 | 3.0 | 2.0 | | |
| L73-4673 | 1.8 | 2.0 | 1.5 | | |
| L76-129 | 2.3 | 3.0 | 1.0 | | |
| L76-141 | 2.5 | 3.0 | 1.5 | | |
| M70-203 | 2.1 | 3.0 | 1.5 | | |
| M70-341 | 2.3 | 3.0 | 2.0 | | |
| U11239 | 2.5 | 3.0 | 1.5 | | |
| U11632 | 2.5 | 3.0 | 2.0 | | |
| U20325 | 2.3 | 2.5 | 2.0 | | |
| U20439 | 1.9 | 2.5 | 1.5 | | |
| U36344 | 2.7 | 2.5 | 2.0 | | |
| U46734 | 2.1 | 3.0 | 2.0 | | |

II
PRELIMINARY TEST, 1978

| Ohio Hoyt- ville | Ind. Lafay- ette | Wisc. Arling- ton | Ill. Urbana | Iowa Key- stone | Ames | Neb. Mead |
|------------------------|------------------------|-------------------------|----------------|-----------------------|------|--------------|
| SEED QUALITY (score) | | | | | | |
| 3.0 | 1.5 | 2.0 | 3.0 | | 1.3 | 3.8 |
| 2.0 | 1.5 | 3.5 | 2.5 | | 1.3 | 2.0 |
| 2.0 | 1.5 | 3.0 | 1.8 | | 1.3 | 2.8 |
| 1.0 | 1.0 | 3.0 | 1.8 | | 1.4 | 3.0 |
| 2.0 | 2.0 | 2.5 | 2.3 | | 1.5 | 2.5 |
| 3.0 | 2.0 | 1.5 | 3.0 | | 1.7 | 3.3 |
| 2.0 | 2.0 | 3.0 | 2.8 | | 1.5 | 2.8 |
| 2.0 | 1.5 | 3.5 | 2.3 | | 1.3 | 2.8 |
| 3.0 | 2.5 | 3.5 | 2.5 | | 1.7 | 3.0 |
| 2.0 | 1.5 | 3.0 | 2.8 | | 1.3 | 2.8 |
| 2.0 | 1.5 | 3.0 | 1.8 | | 1.3 | 3.5 |
| 2.0 | 1.0 | 3.0 | 1.8 | | 1.9 | 3.5 |
| 2.0 | 1.5 | 3.0 | 1.5 | | 1.5 | 3.0 |
| 3.0 | 1.5 | 2.5 | 1.5 | | 1.3 | 3.0 |
| 2.0 | 1.0 | 3.0 | 2.5 | | 1.3 | 3.0 |
| 3.0 | 2.0 | 2.0 | 1.8 | | 1.8 | 3.3 |
| 2.0 | 1.5 | 5.0 | 2.8 | | 1.5 | 3.5 |
| 2.0 | 1.5 | 4.0 | 2.5 | | 1.4 | 2.3 |
| 3.0 | 1.0 | 3.5 | 1.8 | | 2.1 | 2.8 |
| 2.0 | 1.0 | 3.5 | 1.8 | | 1.8 | 3.3 |
| 2.0 | 1.5 | 3.0 | 1.5 | | 1.5 | 3.3 |
| 3.0 | 1.5 | 3.0 | 2.0 | | 1.3 | 2.8 |
| 2.0 | 1.0 | 4.5 | 1.3 | | 1.3 | 2.0 |
| 2.0 | 1.0 | 4.5 | 1.3 | | 1.3 | 2.3 |
| 3.0 | 3.0 | 2.5 | 2.8 | | 2.0 | 3.5 |
| 2.0 | 1.0 | 2.0 | 1.5 | | 2.0 | 2.8 |
| 4.0 | 2.0 | 2.0 | 2.8 | | 1.5 | 2.3 |
| 3.0 | 3.0 | 2.0 | 3.3 | | 1.9 | 2.5 |
| 3.0 | 1.5 | 2.0 | 2.3 | | 1.5 | 2.0 |
| 3.0 | 2.0 | 1.5 | 2.3 | | 2.1 | 2.8 |
| 3.0 | 2.0 | 2.5 | 2.5 | | 2.2 | 3.0 |
| 3.0 | 2.0 | 2.5 | 2.0 | | 2.0 | 3.5 |
| 2.0 | 1.5 | 3.0 | 2.5 | | 2.4 | 2.5 |
| 2.0 | 1.5 | 1.5 | 2.5 | | 1.4 | 2.5 |
| 3.0 | 2.0 | 3.0 | 3.0 | | 2.0 | 4.0 |
| 2.0 | 2.0 | 2.0 | 1.5 | | 1.4 | 2.8 |

PRELIMINARY TEST II, 1978

| Strain | Mean 10 Tests | MN | NJ | Mich. | |
|-----------------|------------------|----------------|---------------|-------------------|-----------------|
| | | Lamber- ton | Adel- phia | Dundee | E. Lan- sing |
| | | | | SEED SIZE (g/100) | |
| Beeson | 19.5 | 17.6 | 17 | 19.5 | 23.9 |
| Coles (I) | 19.5 | 18.5 | 15 | 21.5 | 25.0 |
| Corsoy (II) | 16.3 | 16.1 | 13 | 16.0 | 19.5 |
| Woodworth (III) | 15.8 | 15.4 | 13 | 15.0 | 18.5 |
| A77-116012 | 19.3 | 17.3 | 17 | 21.0 | 24.3 |
| A77-211031 | 19.6 | 18.4 | 16 | 19.5 | 25.0 |
| A77-212006 | 17.3 | 16.2 | 14 | 18.1 | 21.0 |
| A77-212008 | 15.9 | 15.3 | 12 | 16.0 | 20.5 |
| A77-214005 | 16.2 | 16.5 | 14 | 16.9 | 19.2 |
| A77-214015 | 15.5 | 16.4 | 11 | 15.0 | 18.2 |
| A77-214019 | 16.3 | 16.6 | 14 | 16.0 | 18.5 |
| A77-214022 | 14.6 | 14.1 | 12 | 15.5 | 17.1 |
| A77-214035 | 18.0 | 18.4 | 16 | 17.0 | 20.0 |
| A77-215009 | 17.3 | 16.6 | 14 | 18.0 | 20.0 |
| A77-215030 | 16.7 | 17.1 | 15 | 11.8 | 20.0 |
| A77-216006 | 18.8 | 17.7 | 16 | 20.0 | 21.8 |
| A77-312017 | 18.4 | 17.5 | 13 | 18.0 | 22.5 |
| C1566 | 18.4 | 18.5 | 16 | 16.5 | 21.0 |
| C1568 | 18.9 | 17.2 | 16 | 19.5 | 24.0 |
| C1574 | 17.5 | 17.1 | 15 | 17.5 | 21.0 |
| C1576 | 18.6 | 17.8 | 17 | 18.0 | 20.0 |
| C1579 | 18.3 | 17.3 | 15 | 18.0 | 21.9 |
| H75-729 | 16.2 | 14.7 | 13 | 16.0 | 18.0 |
| H75-796 | 18.5 | 17.3 | 16 | 19.0 | 20.0 |
| H7703 | 18.2 | 16.8 | 15 | 17.0 | 24.0 |
| L73-4673 | 17.5 | 16.7 | 15 | 17.0 | 20.5 |
| L76-129 | 16.6 | 15.7 | 14 | 16.0 | 19.5 |
| L76-141 | 18.1 | 16.0 | 16 | 17.7 | 22.0 |
| M70-203 | 16.0 | 15.7 | 13 | 16.1 | 19.0 |
| M70-341 | 17.0 | 15.7 | 14 | 17.3 | 21.9 |
| U11239 | 19.5 | 18.7 | 18 | 19.0 | 24.0 |
| U11632 | 17.8 | 17.6 | 15 | 17.9 | 22.0 |
| U20325 | 18.8 | 17.1 | 15 | 20.1 | 21.8 |
| U20439 | 17.5 | 17.8 | 14 | 18.0 | 22.8 |
| U36344 | 17.1 | 16.3 | 16 | 17.2 | 21.1 |
| U46734 | 16.3 | 16.1 | 14 | 16.1 | 19.0 |

PRELIMINARY TEST II, 1978

| Ohio | Ind. | Wisc. | Ill. | Iowa | | Neb. |
|-------------------|-----------|-----------|--------|-----------|------|------|
| Hoyt-ville | Lafayette | Arlington | Urbana | Key-stone | Ames | Mead |
| SEED SIZE (g/100) | | | | | | |
| 18.7 | 21.3 | 17.0 | 20.6 | | 20.2 | 19.6 |
| 19.8 | 18.2 | 17.5 | 19.7 | | 18.8 | 17.8 |
| 17.3 | 17.1 | 14.7 | 17.0 | | 16.0 | 15.9 |
| 14.9 | 16.5 | 14.3 | 18.1 | | 17.6 | 15.0 |
| 18.7 | 18.8 | 16.9 | 20.0 | | 18.8 | 20.3 |
| 19.2 | 19.8 | 17.5 | 21.1 | | 20.4 | 19.3 |
| 17.4 | 18.7 | 16.0 | 17.8 | | 16.6 | 17.4 |
| 16.0 | 16.8 | 14.1 | 16.3 | | 16.8 | 15.3 |
| 16.8 | 16.1 | 14.9 | 15.6 | | 16.2 | 15.6 |
| 15.3 | 18.0 | 13.0 | 15.4 | | 16.0 | 16.6 |
| 15.1 | 17.3 | 15.0 | 18.1 | | 17.4 | 15.1 |
| 14.3 | 14.6 | 15.2 | 15.3 | | 15.0 | 13.2 |
| 16.7 | 19.0 | 16.8 | 19.7 | | 19.2 | 16.8 |
| 18.0 | 18.9 | 14.7 | 18.1 | | 17.5 | 17.4 |
| 16.5 | 15.7 | 16.5 | 18.2 | | 19.7 | 16.1 |
| 18.3 | 18.7 | 16.6 | 18.7 | | 19.2 | 20.6 |
| 18.5 | 18.6 | 17.9 | 19.8 | | 20.4 | 17.9 |
| 18.3 | 19.6 | 16.5 | 20.2 | | 20.8 | 16.9 |
| 17.8 | 19.0 | 17.5 | 20.2 | | 20.2 | 18.0 |
| 16.6 | 18.9 | 16.1 | 19.2 | | 17.7 | 16.3 |
| 18.3 | 20.4 | 17.0 | 20.8 | | 20.5 | 16.3 |
| 18.3 | 18.7 | 18.0 | 18.6 | | 18.4 | 18.5 |
| 16.4 | 17.7 | 15.0 | 18.4 | | 16.8 | 15.8 |
| 17.6 | 19.8 | 17.1 | 21.1 | | 19.0 | 18.3 |
| 17.6 | 19.9 | 15.5 | 18.9 | | 19.3 | 17.9 |
| 18.3 | 17.8 | 15.7 | 18.3 | | 17.6 | 18.1 |
| 16.3 | 16.3 | 15.4 | 17.5 | | 17.8 | 17.4 |
| 16.8 | 19.3 | 17.4 | 19.0 | | 16.4 | 20.1 |
| 16.4 | 16.8 | 16.4 | 15.6 | | 15.0 | 16.2 |
| 17.3 | 17.0 | 15.5 | 17.3 | | 17.4 | 16.7 |
| 18.8 | 19.1 | 18.0 | 18.7 | | 21.5 | 19.5 |
| 17.8 | 18.0 | 16.5 | 17.8 | | 18.6 | 16.5 |
| 18.9 | 20.2 | 16.1 | 20.1 | | 19.7 | 18.6 |
| 18.1 | 18.1 | 15.0 | 16.7 | | 17.8 | 17.0 |
| 16.6 | 17.9 | 16.3 | 17.5 | | 16.4 | 15.7 |
| 15.7 | 18.4 | 15.3 | 16.4 | | 17.6 | 14.8 |

PRELIMINARY TEST II, 1978

| Strain | Mean 4 Tests | Ohio | Ind. | Ill. | Iowa |
|--------------------|-----------------|----------------|----------------|--------|------|
| | | Hoyt- ville | Lafay- ette | Urbana | Ames |
| <u>PROTEIN (%)</u> | | | | | |
| Beeson | 42.2 | 40.5 | 43.1 | 43.6 | 41.6 |
| Coles (I) | 42.7 | 42.5 | 42.7 | 43.6 | 42.2 |
| Corsoy (II) | 41.4 | 41.4 | 41.6 | 42.3 | 40.1 |
| Woodworth (III) | 41.2 | 40.6 | 40.7 | 42.9 | 40.4 |
| A77-116012 | 41.1 | 41.0 | 40.7 | 43.2 | 39.6 |
| A77-211021 | 42.0 | 41.8 | 41.6 | 42.4 | 42.4 |
| A77-212006 | 40.6 | 39.8 | 41.1 | 41.1 | 40.5 |
| A77-212008 | 41.0 | 40.5 | 41.5 | 41.7 | 40.5 |
| A77-214005 | 41.2 | 40.3 | 40.1 | 42.5 | 41.7 |
| A77-214015 | 43.7 | 42.0 | 43.1 | 45.5 | 44.3 |
| A77-214019 | 40.3 | 39.3 | 40.5 | 40.9 | 40.5 |
| A77-214022 | 40.6 | 38.9 | 41.6 | 41.1 | 40.9 |
| A77-214035 | 41.9 | 40.7 | 41.7 | 43.5 | 41.8 |
| A77-215009 | 41.8 | 42.2 | 41.7 | 42.2 | 41.0 |
| A77-215030 | 43.3 | 42.9 | 43.1 | 44.1 | 43.1 |
| A77-216006 | 43.8 | 43.7 | 42.8 | 44.6 | 44.1 |
| A77-312017 | 41.4 | 40.6 | 40.6 | 42.8 | 41.7 |
| C1566 | 41.9 | 41.8 | 41.6 | 42.1 | 42.0 |
| C1568 | 43.2 | 42.2 | 43.2 | 44.0 | 43.4 |
| C1574 | 42.5 | 41.6 | 42.6 | 43.3 | 42.6 |
| C1576 | 44.1 | 43.8 | 44.0 | 44.7 | 43.9 |
| C1579 | 42.4 | 41.3 | 41.6 | 43.7 | 42.9 |
| H75-729 | 43.4 | 43.4 | 42.9 | 44.1 | 43.1 |
| H75-796 | 44.3 | 43.7 | 44.3 | 45.8 | 43.4 |
| H7703 | 41.0 | 39.2 | 41.5 | 42.2 | 41.3 |
| L73-4673 | 42.9 | 41.5 | 43.1 | 43.3 | 43.6 |
| L76-129 | 40.8 | 38.5 | 40.4 | 43.3 | 40.9 |
| L76-141 | 39.2 | 37.6 | 39.1 | 41.2 | 38.7 |
| M70-203 | 40.4 | 40.9 | 39.4 | 41.6 | 39.7 |
| M70-341 | 42.8 | 42.9 | 42.9 | 42.6 | 42.9 |
| U11239 | 44.2 | 43.6 | 44.3 | 44.4 | 44.5 |
| U11632 | 41.0 | 40.5 | 40.8 | 42.2 | 40.6 |
| U20325 | 41.8 | 42.5 | 40.9 | 42.6 | 41.0 |
| U20439 | 41.6 | 40.6 | 41.9 | 42.2 | 41.5 |
| U36344 | 42.2 | 42.4 | 41.8 | 42.7 | 42.0 |
| U46734 | 42.9 | 42.5 | 42.7 | 43.5 | 43.0 |

PRELIMINARY TEST II, 1978

| Strain | Mean 4 Tests | Ohio Hoyt- ville | Ind. Lafay- ette | Ill. Urbana | Iowa Ames |
|-----------------|-----------------|------------------------|------------------------|----------------|--------------|
| <u>OIL (%)</u> | | | | | |
| Beeson | 20.6 | 22.0 | 20.3 | 19.8 | 20.5 |
| Coles (I) | 20.6 | 20.3 | 20.5 | 20.2 | 21.2 |
| Corsoy (II) | 21.2 | 21.2 | 21.4 | 20.4 | 21.9 |
| Woodworth (III) | 21.1 | 21.2 | 21.5 | 19.8 | 21.8 |
| A77-116012 | 21.7 | 21.8 | 22.3 | 20.7 | 22.1 |
| A77-211021 | 20.4 | 20.6 | 20.3 | 20.2 | 20.6 |
| A77-212006 | 21.8 | 23.0 | 22.2 | 20.5 | 21.3 |
| A77-212008 | 22.0 | 22.2 | 21.7 | 21.6 | 22.3 |
| A77-214005 | 20.8 | 21.3 | 21.6 | 19.7 | 20.6 |
| A77-214015 | 20.1 | 20.9 | 20.9 | 19.0 | 19.5 |
| A77-214019 | 20.9 | 21.5 | 21.0 | 20.0 | 21.1 |
| A77-214022 | 20.8 | 21.4 | 20.4 | 20.1 | 21.3 |
| A77-214035 | 20.3 | 21.1 | 20.4 | 19.3 | 20.5 |
| A77-215009 | 20.7 | 20.1 | 20.5 | 20.6 | 21.7 |
| A77-215030 | 19.6 | 19.9 | 19.5 | 19.5 | 19.6 |
| A77-216006 | 21.2 | 21.5 | 21.9 | 20.4 | 21.0 |
| A77-312017 | 20.4 | 21.1 | 20.7 | 19.5 | 20.3 |
| C1566 | 20.8 | 20.4 | 20.8 | 21.0 | 21.0 |
| C1568 | 20.8 | 21.3 | 21.2 | 20.2 | 20.4 |
| C1574 | 20.7 | 20.5 | 20.6 | 20.4 | 21.3 |
| C1576 | 19.8 | 19.8 | 20.0 | 19.1 | 20.1 |
| C1579 | 20.8 | 21.1 | 22.1 | 19.6 | 20.3 |
| H75-729 | 20.2 | 20.2 | 20.7 | 19.5 | 20.6 |
| H75-796 | 20.0 | 19.5 | 19.8 | 19.5 | 21.0 |
| H7703 | 20.5 | 21.6 | 20.5 | 19.9 | 19.9 |
| L73-4673 | 20.2 | 20.6 | 20.2 | 20.1 | 19.9 |
| L76-129 | 20.2 | 20.9 | 21.0 | 18.8 | 20.3 |
| L76-141 | 22.2 | 23.3 | 22.3 | 20.9 | 22.3 |
| M70-203 | 21.4 | 21.6 | 22.1 | 20.0 | 21.7 |
| M70-341 | 20.5 | 19.5 | 20.7 | 20.9 | 20.9 |
| U11239 | 21.0 | 21.8 | 21.1 | 20.1 | 21.0 |
| U11632 | 21.1 | 20.7 | 21.1 | 20.8 | 21.9 |
| U20325 | 20.4 | 19.5 | 21.0 | 20.0 | 21.0 |
| U20439 | 21.2 | 21.8 | 21.2 | 20.7 | 20.9 |
| U36344 | 20.9 | 21.1 | 20.9 | 20.6 | 21.0 |
| U46734 | 21.6 | 21.5 | 21.4 | 21.2 | 22.1 |

UNIFORM TEST III, 1978

| Strain | Parentage | Previous Generation | |
|----------------------------|--|---------------------|------------------|
| | | Testing* | Composited |
| 1. Beeson (II) | C1253 x Kent | 1 | F ₇ |
| 2. Cumberland ¹ | Corsoy x Williams | 2 | F ₄ |
| 3. Elf | Williams x Ransom | 2 | F ₄ |
| 4. Oakland ² | L66L-137 x Calland | 2 | F ₄ |
| 5. Union (IV) | Williams ⁵ x SL11 (Wayne <u>Rpm</u> <u>Rps</u>) | 0 | F ₃ |
| 6. Williams | Wayne x L57-0034 (Clark x Adams) | 9 | F ₆ |
| 7. Woodworth (III) | Wayne x L57-0034 (Clark x Adams) | 8 | F ₆ |
| 8. A74-302012 | L66L-137 x Calland | 2 | F ₄ |
| 9. A75-302005 | L15 x AP68-1016 | 1 | F ₄ |
| 10. A75-305022 | Wye x IVR Ex 4731 | 1 | F ₄ |
| 11. A76-303035 | M60-92 x IVR Ex 4428 | P III | F ₄ |
| 12. A76-304002 | AP6 | P II | F ₆ |
| 13. A76-304019 | (Beeson x AP68-1016) x (L15 x Calland) | P III | F ₄ |
| 14. A76-304020 | (Beeson x AP68-1016) x (L15 x Calland) | P III | F ₄ |
| 15. C1558 | Williams x L69L-6-1 | P III | F ₈ |
| 16. C1559 | Williams x L69L-6-1 | P III | F ₈ |
| 17. HW74-3384 | Williams x Ransom | P III | F ₄ |
| 18. HW74-3385 | Williams x Ransom | P III | F ₄ |
| 19. L22 | Williams ⁶ x (Clark ⁶ x T117) Williams Dt ₂ | 1 | 4F ₃ |
| 20. L23 | Williams ⁶ x Lee 68 | 1 | 10F ₃ |
| 21. L69U37-17-5 | Calland x Corsoy | 3 | F ₅ |
| 22. L74L-71 | Calland x Williams | P III | F ₆ |
| 23. L75-6857 | Williams ⁶ x L69-5343 (Clark <u>Im</u>) | P III | F ₃ |
| 24. U10727 | Wayne x C1317-71 | P III | F ₄ |

* Number of years in this test, or name of 1977 test.

¹ A74-303012 in 1977 UT III

² A74-303013 in 1977 UT III

UNIFORM TEST III, 1978

Descriptive and Other Data

| Strain | Descriptive Code | | Chlorosis | Hypocotyl | Shattering |
|-----------------|------------------|------|----------------------|----------------------|----------------------|
| | | | <u>Score</u> Ames | <u>Score</u> Ames | Manhattan 2 weeks |
| Beeson (II) | PGBr | SYIb | 3 | 5 | 5 |
| Cumberland | PGBr | SYIb | 5 | 2 | 2 |
| Elf | PTTn | SYB1 | 3 | 1 | 1 |
| Oakland | PTBr | DYB1 | 5 | 1 | 2 |
| Union (IV) | WTTn | SYB1 | 4 | 5 | 2 |
| Williams | WTTn | SYB1 | 4 | 5 | 1 |
| Woodworth (III) | WTTn | DYB1 | 4 | 5 | 2 |
| A74-302012 | PTTn | DYB1 | 5 | 3 | 2 |
| A75-302005 | WTBr | DYBr | 4 | 5 | 1 |
| A75-305022 | WTBr | SYBr | 2 | 5 | 3 |
| A76-303035 | PGBr | DYY | 4 | 5 | 2 |
| A76-304002 | WTBr | DYBr | 2 | 3 | 4 |
| A76-304019 | PTBr | DYB1 | 4 | 1 | 5 |
| A76-304020 | PTBr | DYB1 | 4 | 1 | 5 |
| C1558 | PTTn | DYB1 | 4 | 5 | 1 |
| C1559 | WTBr | DYBr | 5 | 5 | 2 |
| HW74-3384 | WTTn | DYB1 | 3 | 1 | 1 |
| HW74-3385 | P+WTTn | DYB1 | 3 | 1 | 1 |
| L22 | WTTn | SYB1 | 4 | 5 | 1 |
| L23 | WTTn | DYB1 | 4 | 5 | 2 |
| L69U37-17-5 | PGBr | DYBf | 4 | 2 | 5 |
| L74L-71 | PTBr | DYB1 | 3 | 4 | 2 |
| L75-6857 | WTTn | SYB1 | 3 | 5 | 2 |
| U10727 | WGTn | SYBf | 5 | 1 | 4 |

UNIFORM TEST III, 1978

Disease Data

| Strain | FE2 | BP | BSR | | | DM | | PSB | PS | PR | PR | race 1 |
|-----------------|-----------|-------------|-----------|----------------|------------|------------------|---------------|-----------|-----------|--------------------|-----------|----------|
| | Laf. Ind. | Girard Ill. | Laf. Ind. | Ames, Ia. Stem | Ia. Plants | Belle-ville Ill. | SMV Laf. Ind. | Laf. Ind. | Laf. Ind. | Vic-kery Ohio | Laf. Ind. | Ames Ia. |
| | a | n | n | n | n | n | a | d | a | n | a | a |
| | Score | Score | % | % | % | Score | Score | % | % | -----Reaction----- | | |
| Beeson (II) | 1 | 3 | 100 | 73 | 100 | 2.3 | 3M | 4 | 3 | 3.0 | R | R |
| Cumberland | 4 | 1 | 0 | 91 | 100 | 2.8 | 5E | 9 | 8 | 3.0 | S | S |
| Elf | 1 | 1 | 20 | 100 | 100 | 3.5 | 5E | 0 | 0 | 3.5 | S | S |
| Oakland | 5 | 3 | 100 | 89 | 100 | 2.3 | 5E | 0 | 3 | 3.5 | R | R |
| Union (IV) | 4 | 1 | 40 | 91 | 100 | 1.0 | 5E | 3 | 1 | 4.0 | R | R |
| Williams | 5 | 1 | 100 | 87 | 100 | 3.5 | 5E | 3 | 2 | 2.5 | S | S |
| Woodworth (III) | 4 | 1 | 0 | 97 | 100 | 3.3 | 5E | 5 | 2 | 3.5 | S | S |
| A74-302012 | 3 | 2 | 40 | 91 | 100 | 3.0 | 5E | 0 | 0 | 3.0 | R | R |
| A75-302005 | 1 | 3 | 80 | 60 | 100 | 4.0 | 5E | 3 | 2 | 3.0 | R | R |
| A75-305022 | 1 | 1 | 60 | 96 | 100 | 1.5 | 1 | 1 | 1 | 3.0 | S | S |
| A76-303035 | 4 | 1 | 60 | 92 | 100 | 2.8 | 5E | 5 | 0 | 4.0 | S | S |
| A76-304002 | 1 | 1 | 40 | 97 | 100 | 4.0 | 1 | 1 | 0 | 3.5 | S | S |
| A76-304019 | 5 | 1 | 80 | 59 | 100 | 2.3 | 5E | 1 | 2 | 2.5 | R | H |
| A76-304020 | 5 | 1 | 80 | 48 | 100 | 1.8 | 5E | 1 | 5 | 2.5 | R | H |
| C1558 | 4 | 1 | 0 | 87 | 100 | 2.3 | 3M | 1 | 0 | 4.5 | H | S |
| C1559 | 4 | 4 | 60 | 98 | 100 | 2.0 | 5M | 1 | 4 | 3.0 | H | S |
| HW74-3384 | 3 | 1 | 100 | 96 | 100 | 2.0 | 1 | 0 | 2 | 4.5 | H | S |
| HW74-3385 | 4 | 1 | 100 | 97 | 100 | 2.0 | 1 | 0 | 0 | 3.0 | S | S |
| L22 | 5 | 1 | 100 | 100 | 100 | 4.0 | 5E | 0 | 0 | 3.0 | S | S |
| L23 | 5 | 1 | 100 | 91 | 100 | 3.5 | 4E | 1 | 1 | 2.0 | R | R |
| L69U37-17-5 | 5 | 3 | 100 | 89 | 100 | 2.3 | 5E | 4 | 2 | 3.0 | S | S |
| L74L-71 | 4 | 1 | 60 | 96 | 100 | 3.0 | 4E | 4 | 0 | 2.5 | S | S |
| L75-6857 | 3 | 1 | 40 | 91 | 100 | 3.3 | 2E | 1 | 1 | 2.5 | S | S |
| U10727 | 3 | 1 | 40 | 95 | 100 | 4.0 | 3M | 2 | 2 | 3.0 | R | R |

UNIFORM TEST III, 1978

Regional Summary

| Strain | Yield bu/a | Rank No. | Matu- rity Date | Lodg- ing Score | Height In. | Seed Quality Score | Seed Size g/100 | Seed Composition | |
|---|---------------|-------------|-----------------------|-----------------------|---------------|--------------------------|-----------------------|------------------|----------|
| | | | | | | | | Protien % | Oil % |
| No. of Tests | 26 | 26 | 23 | 23 | 26 | 25 | 20 | 15 | 15 |
| Beeson (II) | 37.3 | 24 | -6.2 | 2.2 | 35 | 2.8 | 17.6 | 42.2 | 20.5 |
| Cumberland | 42.1 | 12 | +1.6 | 2.1 | 35 | 2.1 | 17.7 | 41.7 | 21.6 |
| Elf | 42.5 | 10 | +5.0 | 1.4 | 22 | 1.8 | 15.7 | 42.9 | 20.1 |
| Oakland | 40.8 | 19 | +0.6 | 1.8 | 37 | 2.1 | 17.3 | 41.2 | 20.9 |
| Union (IV) | 42.9 | 6 | +6.3 | 2.4 | 42 | 1.8 | 18.2 | 42.6 | 20.5 |
| Williams | 42.3 | 11 | +4.0 | 2.0 | 39 | 1.7 | 16.8 | 42.7 | 20.7 |
| Woodworth (III) | 41.3 | 16 | 9-21* | 2.0 | 37 | 1.9 | 14.7 | 41.4 | 21.1 |
| <i>Pella</i> <i>BSR 301</i> A74-302012 | 42.6 | 8 | -0.1 | 1.8 | 37 | 2.2 | 18.9 | 40.6 | 21.2 |
| A75-302005 | 41.0 | 18 | +2.7 | 2.1 | 39 | 2.2 | 16.6 | 41.9 | 20.4 |
| A75-305022 | 43.2 | 4 | +2.9 | 2.1 | 38 | 1.9 | 14.5 | 41.7 | 21.4 |
| A76-303035 | 41.3 | 16 | +0.9 | 3.3 | 34 | 2.0 | 14.5 | 41.4 | 20.8 |
| A76-304002 | 40.7 | 20 | -1.7 | 2.5 | 36 | 2.3 | 15.9 | 42.2 | 20.7 |
| A76-304019 | 40.7 | 20 | +3.1 | 3.0 | 41 | 2.2 | 16.5 | 42.5 | 19.8 |
| A76-304020 | 39.9 | 22 | +2.7 | 2.9 | 40 | 2.4 | 15.9 | 42.5 | 20.0 |
| C1558 | 42.8 | 7 | +4.2 | 2.4 | 38 | 2.3 | 16.7 | 41.7 | 20.6 |
| C1559 | 42.0 | 13 | +2.3 | 2.1 | 40 | 1.8 | 16.4 | 41.8 | 21.3 |
| HW74-3384 | 43.3 | 3 | +1.0 | 1.4 | 22 | 2.0 | 17.1 | 40.6 | 22.6 |
| HW74-3385 | 45.0 | 1 | +0.9 | 1.3 | 23 | 1.8 | 15.7 | 39.8 | 22.2 |
| <i>Will</i> <i>Williams 79</i> L22 | 41.7 | 14 | -1.0 | 1.6 | 32 | 1.8 | 15.9 | 42.5 | 20.8 |
| L23 | 42.6 | 8 | +2.9 | 1.9 | 39 | 1.7 | 16.6 | 42.5 | 20.6 |
| L69U37-17-5 | 43.9 | 2 | +1.7 | 2.4 | 39 | 2.7 | 16.8 | 41.0 | 20.7 |
| L74L-71 | 43.0 | 5 | +0.4 | 1.7 | 40 | 2.1 | 17.9 | 41.9 | 21.2 |
| L75-6857 | 41.6 | 15 | +3.8 | 1.9 | 39 | 1.7 | 16.7 | 42.5 | 20.9 |
| U10727 | 39.4 | 23 | -1.4 | 1.7 | 34 | 2.2 | 15.6 | 41.6 | 20.5 |

*118 days after planting

Both the 4-year and 3-year means show that the experimental strains L69U37-17-5 and A74-302012 are not superior in performance to the check varieties Williams or Cumberland.

The 2-year summary has the mean yield of A75-305022 about 1 bushel higher than that of Cumberland. In other characteristics these two entries are very similar.

In the 1978 regional summary the two determinate strains HW74-3385 and HW74-3384 ranked 1 and 3 in yield, averaging 0.5 to 2.5 bushels above the Group III check varieties. The strains L69U-17-5 ranked second in yield, about 1 bushel above that of the highest yielding check variety. The semi-determinate strains L22 was similar in performance to the check varieties. L23, with resistance to races 1, 2,3,6,7,8, and 9 of phytophthora also had the best phytophthora tolerance score of any of the Group III strains. This strain was very similar in performance to Williams, its recurrent parent.

UNIFORM TEST III, 1978

Regional Summary

| Strain | Yield bu/a | Rank No. | Matu- rity Date | Lodg- ing Score | Height In. | Seed Quality Score | Seed Size g/100 | Seed Protien % | Oil % |
|-------------------------------|---------------|-------------|-----------------------|-----------------------|---------------|--------------------------|-----------------------|----------------------|----------|
| <u>1977-1978, 2-Year Mean</u> | | | | | | | | | |
| No. of Tests | 47 | 47 | 41 | 45 | 48 | 45 | 37 | 26 | 26 |
| Beeson (II) | 38.1 | 12 | -6.4 | 2.2 | 35 | 2.8 | 18.3 | 41.1 | 21.0 |
| Cumberland | 44.8 | 2 | +1.3 | 2.1 | 36 | 2.2 | 18.3 | 40.4 | 22.2 |
| Elf | 43.6 | 8 | +4.2 | 1.4 | 22 | 1.8 | 16.2 | 41.6 | 20.3 |
| Oakland | 43.3 | 9 | +0.7 | 1.8 | 37 | 2.2 | 18.1 | 40.1 | 21.1 |
| Williams | 44.3 | 6 | +3.5 | 2.0 | 39 | 1.9 | 17.4 | 41.4 | 21.0 |
| Woodworth (III) | 43.0 | 10 | 9-22.3* | 2.0 | 37 | 2.1 | 15.1 | 40.3 | 21.5 |
| A74-302012 <i>Pella</i> | 44.8 | 2 | -0.6 | 1.9 | 37 | 2.3 | 19.7 | 39.3 | 21.7 |
| A75-302005 | 42.8 | 11 | +2.1 | 2.2 | 39 | 2.3 | 17.4 | 41.0 | 20.7 |
| A75-305022 | 45.9 | 1 | +2.0 | 2.1 | 38 | 2.0 | 14.8 | 40.3 | 21.8 |
| L22 <i>Will</i> | 43.8 | 7 | -1.3 | 1.6 | 32 | 1.8 | 16.4 | 41.2 | 21.1 |
| L23 <i>Williams</i> | 44.4 | 5 | +2.3 | 2.0 | 39 | 1.9 | 17.3 | 41.2 | 21.0 |
| L69U37-17-5 | 44.7 | 4 | +1.5 | 2.4 | 39 | 2.9 | 17.4 | 39.9 | 21.0 |

*123 days after planting

| | | | | | | | | | |
|-------------------------------|------|----|---------|-----|----|-----|------|------|------|
| <u>1976-1978, 3-Year Mean</u> | | | | | | | | | |
| No. of Tests | 68 | 68 | 61 | 67 | 71 | 67 | 51 | 40 | 40 |
| Cumberland | 44.5 | 1 | +1.1 | 2.0 | 34 | 2.1 | 18.2 | 40.3 | 22.0 |
| Elf | 42.7 | 6 | +4.3 | 1.6 | 22 | 1.9 | 16.1 | 41.5 | 20.2 |
| Oakland | 43.1 | 5 | +1.1 | 1.8 | 35 | 2.1 | 17.9 | 40.1 | 21.0 |
| Williams | 43.6 | 4 | +3.6 | 2.0 | 37 | 1.9 | 17.2 | 41.2 | 21.0 |
| Woodworth (III) | 42.6 | 7 | 9-21.4* | 2.0 | 36 | 2.0 | 15.0 | 40.1 | 21.4 |
| A74-302012 | 44.3 | 2 | -0.5 | 1.8 | 36 | 2.2 | 19.5 | 39.3 | 21.7 |
| L69U37-17-5 | 44.3 | 2 | +1.6 | 2.4 | 38 | 2.8 | 17.1 | 39.9 | 20.8 |

*124 days after planting

| | | | | | | | | | |
|-------------------------------|------|----|---------|-----|----|-----|------|------|------|
| <u>1975-1977, 4-Year Mean</u> | | | | | | | | | |
| No. of Tests | 96 | 96 | 85 | 94 | 99 | 93 | 75 | 54 | 54 |
| Williams | 45.4 | 1 | +3.8 | 1.9 | 37 | 1.8 | 17.4 | 41.1 | 21.2 |
| Woodworth (III) | 43.9 | 3 | 0-21.7* | 2.0 | 36 | 2.0 | 15.3 | 40.2 | 21.4 |
| L69U37-17-5 | 45.4 | 1 | +1.7 | 2.4 | 37 | 2.9 | 17.6 | 39.9 | 20.9 |

*124 days after planting

UNIFORM TEST III, 1978

| Strain | Mean 26 Tests | N.J. | Del. | Penn. | Md. | Ohio | | | |
|---------------------|------------------|---------------|-----------------|------------------|-----------------|--------------|----------------|--------------------|-------------------|
| | | Adel- phia | George- town | Landis- ville | Clark- ville | Woos- ter | Hoyt- ville | S. Charles- ton | Wheeler- sburg |
| <u>YIELD (bu/a)</u> | | | | | | | | | |
| Beeson (II) | 37.3 | 32.1 | 30.6 | 43.1 | 47.4 | 31.9 | 47.3 | 64.4 | 40.2 |
| Cumberland | 42.1 | 29.5 | 33.4 | 45.6 | 48.4 | 27.8 | 46.6 | 61.9 | 56.0 |
| Elf | 42.5 | 38.2 | 36.1 | 49.1 | 46.9 | 31.5 | 45.1 | 63.1 | 57.0 |
| Oakland | 40.8 | 26.9 | 40.4 | 42.9 | 48.5 | 30.2 | 43.6 | 56.0 | 52.4 |
| Union (IV) | 42.9 | 35.4 | 42.4 | 46.6 | 57.5 | 32.0 | 44.0 | 60.1 | 55.3 |
| Williams | 42.3 | 28.9 | 43.9 | 44.8 | 50.1 | 28.9 | 43.7 | 61.8 | 49.3 |
| Woodworth (III) | 41.3 | 31.8 | 41.2 | 45.0 | 45.3 | 32.6 | 45.8 | 56.3 | 49.5 |
| A74-302012 | 42.6 | 32.5 | 34.8 | 46.5 | 49.7 | 29.2 | 48.4 | 65.8 | 54.8 |
| A75-302005 | 41.0 | 34.4 | 36.9 | 45.8 | 46.7 | 34.1 | 43.7 | 56.8 | 47.8 |
| A75-305022 | 43.2 | 30.8 | 38.0 | 48.4 | 51.2 | 31.8 | 48.0 | 63.3 | 55.5 |
| A76-303035 | 41.3 | 27.3 | 35.8 | 47.4 | 45.7 | 29.2 | 50.4 | 59.7 | 38.2 |
| A76-304002 | 40.7 | 29.9 | 31.1 | 43.3 | 44.9 | 35.9 | 47.5 | 60.1 | 45.7 |
| A76-304019 | 40.7 | 41.0 | 28.1 | 45.9 | 47.8 | 30.9 | 43.8 | 58.0 | 58.5 |
| A76-304020 | 39.9 | 38.5 | 34.5 | 47.2 | 43.5 | 31.9 | 43.3 | 55.2 | 50.8 |
| C1558 | 42.8 | 33.0 | 43.3 | 45.4 | 51.6 | 30.9 | 46.3 | 61.4 | 55.0 |
| C1559 | 42.0 | 33.3 | 37.9 | 47.8 | 50.2 | 30.9 | 46.6 | 63.6 | 51.2 |
| HW74-3384 | 43.3 | 39.4 | 39.6 | 51.5 | 50.1 | 30.1 | 46.0 | 68.2 | 54.2 |
| HW74-3385 | 45.0 | 42.1 | 40.6 | 56.8 | 52.6 | 29.8 | 47.7 | 63.3 | 52.6 |
| L22 | 41.7 | 30.9 | 39.2 | 44.5 | 43.5 | 31.0 | 45.2 | 59.9 | 52.8 |
| L23 | 42.6 | 29.2 | 44.1 | 41.7 | 51.6 | 33.2 | 46.4 | 62.5 | 51.0 |
| L69U37-17-5 | 43.9 | 34.4 | 34.4 | 49.2 | 48.5 | 34.6 | 45.5 | 63.9 | 54.0 |
| L74L-71 | 43.0 | 33.4 | 34.1 | 48.9 | 43.6 | 32.5 | 48.0 | 65.2 | 57.2 |
| L75-6857 | 41.6 | 36.4 | 36.2 | 45.7 | 43.3 | 30.8 | 46.5 | 57.1 | 44.8 |
| U10727 | 39.4 | 25.0 | 36.8 | 43.5 | 45.5 | 29.9 | 47.8 | 56.3 | 46.2 |
| C.V. (%) | | 12.0 | 15.6 | 6.3 | 7.93 | 11.16 | 5.0 | 8.5 | 9.6 |
| L.S.D. (5%) | | 7.9 | NS | 4.8 | 6.27 | NS | 3.8 | NS | 10.1 |
| Row sp (in.) | | 30" | 30" | 30" | 30" | 30" | 30" | 30" | 30" |
| Rows/plot | | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Reps | | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 2 |

UNIFORM TEST III, 1978

| Strain | Mean 26 Tests | Ken | | Ind. | | | Ill. | | | |
|-----------------|------------------|----------------|----------------|-----------------|---------------|------------------|-----------------|-----------------|---------------|------|
| | | Lexing- ton | Lafay- ette | Green- field | Sull- ivan | Urbana Girard | Browns- town | Belle- ville | Eld- orado | |
| YIELD (bu/a) | | | | | | | | | | |
| Beeson (II) | 37.3 | 47.5 | 50.6 | 31.0 | 20.8 | 53.8 | 40.8 | 13.4 | 34.9 | 18.5 |
| Cumberland | 42.1 | 54.2 | 49.8 | 38.0 | 37.8 | 53.9 | 47.9 | 23.5 | 48.2 | 41.2 |
| Elf | 42.5 | 54.7 | 49.3 | 40.6 | 41.8 | 55.0 | 43.4 | 17.6 | 43.4 | 44.8 |
| Oakland | 40.8 | 46.0 | 51.1 | 37.2 | 38.8 | 51.8 | 43.7 | 25.2 | 45.8 | 36.9 |
| Union (IV) | 42.9 | 51.7 | 49.0 | 36.1 | 41.7 | 59.1 | 45.3 | 30.2 | 51.8 | 41.2 |
| Williams | 42.3 | 52.8 | 48.6 | 39.5 | 43.9 | 54.0 | 46.6 | 26.7 | 44.7 | 43.1 |
| Woodworth (III) | 41.3 | 51.9 | 49.2 | 37.9 | 39.2 | 52.4 | 44.4 | 24.4 | 50.3 | 36.4 |
| A74-302012 | 42.6 | 50.7 | 51.3 | 41.9 | 39.4 | 52.9 | 41.9 | 22.6 | 50.3 | 38.8 |
| A75-302005 | 41.0 | 46.7 | 50.5 | 43.9 | 39.0 | 46.6 | 44.5 | 24.1 | 48.6 | 37.9 |
| A75-305022 | 43.2 | 57.1 | 52.5 | 41.6 | 42.4 | 50.1 | 45.0 | 25.6 | 45.7 | 39.4 |
| A76-303035 | 41.3 | 52.2 | 53.3 | 37.4 | 35.7 | 57.8 | 40.2 | 18.7 | 51.5 | 34.2 |
| A76-304002 | 40.7 | 51.0 | 54.7 | 38.4 | 36.1 | 55.0 | 44.1 | 18.0 | 40.0 | 31.9 |
| A76-304019 | 40.7 | 49.5 | 51.8 | 39.4 | 32.7 | 59.9 | 40.5 | 24.9 | 49.7 | 32.8 |
| A76-304020 | 39.9 | 47.0 | 54.0 | 39.3 | 38.1 | 55.8 | 43.5 | 25.0 | 42.6 | 30.9 |
| C1558 | 42.8 | 49.9 | 52.9 | 37.9 | 37.5 | 51.9 | 46.9 | 25.9 | 46.4 | 40.9 |
| C1559 | 42.0 | 50.4 | 52.7 | 40.8 | 44.9 | 53.8 | 44.5 | 19.6 | 46.2 | 33.7 |
| HW74-3384 | 43.3 | 51.4 | 46.6 | 35.2 | 45.3 | 65.4 | 45.9 | 28.9 | 54.4 | 36.6 |
| HW74-3385 | 45.0 | 57.0 | 51.9 | 34.1 | 44.9 | 62.9 | 48.9 | 25.6 | 46.1 | 42.8 |
| L22 | 41.7 | 51.4 | 47.7 | 40.5 | 43.1 | 51.6 | 41.7 | 22.9 | 48.3 | 35.9 |
| L23 | 42.6 | 47.0 | 52.6 | 40.1 | 40.3 | 53.1 | 46.1 | 33.7 | 47.7 | 41.2 |
| L69U37-17-5 | 43.9 | 53.1 | 52.6 | 38.8 | 39.4 | 54.9 | 47.9 | 29.3 | 52.9 | 40.3 |
| L74L-71 | 43.0 | 50.9 | 54.9 | 48.1 | 36.5 | 56.8 | 47.4 | 15.3 | 54.0 | 34.6 |
| L75-6857 | 41.6 | 53.6 | 51.5 | 43.1 | 36.9 | 52.8 | 48.6 | 29.2 | 48.1 | 41.1 |
| U10727 | 39.4 | 51.4 | 48.4 | 35.3 | 35.5 | 47.5 | 41.7 | 17.7 | 45.1 | 27.8 |
| C.V. (%) | - | 5.9 | 16.1 | 13.0 | 5.8 | 4.4 | 13.6 | 7.8 | 9.0 | |
| L.S.D. (5%) | 5.6 | 4.9 | NS | 8.2 | 6.6 | 4.1 | 6.7 | 7.7 | 6.9 | |
| Rows Sp. (in.) | 30" | 30" | 30" | 28" | 30" | 36" | 30" | 30" | 30" | 30" |
| Rows/Plot | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| Reps. | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |

UNIFORM TEST III, 1978

| Iowa | | Mo. | | S.D. | Kans. | | | Neb. |
|---------------------|------------------|-------|---------------|--------------|----------------|----------------|-------------|------|
| Stuart | Martins- burg | Edina | Colum- bia | Elk Point | Man- hatten | Pow- hatten | Ott- awa | Mead |
| <u>YIELD (bu/a)</u> | | | | | | | | |
| 45.5 | 52.6 | 34.4 | 22.9 | 35.7 | 47.3 | 24.8 | 3.1 | 56.1 |
| 44.6 | 46.4 | 35.1 | 30.5 | 30.6 | 60.2 | 34.4 | 14.2 | 53.8 |
| 39.2 | 60.6 | 37.8 | 29.3 | 34.0 | 40.4 | 30.8 | 14.2 | 61.1 |
| 45.6 | 53.9 | 37.7 | 26.3 | 34.0 | 51.6 | 28.6 | 13.8 | 51.5 |
| 39.8 | 55.1 | 36.9 | 28.8 | 26.7 | 52.7 | 28.6 | 20.6 | 47.5 |
| 40.5 | 53.3 | 38.4 | 28.6 | 26.6 | 53.9 | 33.5 | 21.9 | 52.1 |
| 42.5 | 54.2 | 30.2 | 25.4 | 31.4 | 53.3 | 31.7 | 14.6 | 57.8 |
| 46.8 | 57.4 | 41.0 | 26.9 | 33.6 | 51.8 | 31.0 | 13.6 | 54.6 |
| 45.2 | 58.6 | 34.7 | 27.2 | 26.5 | 47.3 | 29.5 | 22.1 | 48.2 |
| 41.6 | 55.3 | 37.9 | 27.4 | 37.6 | 56.1 | 32.5 | 12.8 | 54.3 |
| 48.6 | 60.1 | 38.3 | 23.3 | 32.8 | 52.7 | 35.1 | 15.8 | 53.2 |
| 44.3 | 51.4 | 42.3 | 25.9 | 38.0 | 54.2 | 29.1 | 13.2 | 51.9 |
| 43.1 | 56.2 | 36.1 | 27.0 | 32.2 | 50.7 | 21.8 | 5.2 | 49.7 |
| 40.4 | 57.6 | 38.1 | 24.8 | 29.1 | 52.6 | 21.1 | 4.4 | 47.4 |
| 40.9 | 58.8 | 33.1 | 26.2 | 33.7 | 61.0 | 31.4 | 17.4 | 54.3 |
| 41.4 | 55.7 | 36.1 | 27.6 | 31.4 | 52.4 | 32.0 | 16.4 | 51.5 |
| 46.1 | 55.1 | 31.6 | 31.4 | 34.0 | 31.7 | 28.6 | 17.4 | 60.4 |
| 43.0 | 54.3 | 36.0 | 34.0 | 39.9 | 47.2 | 31.4 | 21.2 | 62.7 |
| 43.3 | 50.8 | 36.5 | 28.3 | 32.6 | 57.2 | 32.5 | 15.2 | 56.6 |
| 40.4 | 55.4 | 35.8 | 29.6 | 27.8 | 53.8 | 32.1 | 20.7 | 51.7 |
| 46.6 | 63.3 | 38.1 | 30.9 | 45.0 | 46.6 | 30.6 | 15.0 | 52.7 |
| 44.2 | 56.8 | 40.1 | 26.8 | 34.9 | 56.1 | 32.2 | 15.0 | 51.5 |
| 39.1 | 49.9 | 35.0 | 29.0 | 24.9 | 51.8 | 31.8 | 23.7 | 50.1 |
| 47.3 | 48.4 | 37.4 | 28.6 | 33.4 | 50.9 | 32.3 | 11.3 | 52.0 |
| 6.1 | 6.1 | 11.2 | 7.7 | 13.2 | 5.4 | 6.9 | 15.7 | 6.1 |
| 3.7 | 7.9 | 5.8 | 3.0 | 6.1 | 4.6 | 3.4 | 3.9 | 5.0 |
| 27" | 13.5" | 30" | 30" | 30" | 30" | 30" | 30" | 30" |
| 4 | 5 | 2 | 2 | 3 | 4 | 4 | 4 | 4 |
| 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 |

UNIFORM TEST III, 1978

| Strain | Mean 26 Tests | Ohio | | | | | | | |
|-------------------|------------------|-----------------------|-------------------------|---------------------------|------------------------|--------------|----------------|--------------------|-------------------|
| | | N.J. Adel- phia | Del. George- town | Penn. Landis- ville | Md. Clark- ville | Woos- ter | Hoyt- ville | S. Charles- ton | Wheeler- sburg |
| <u>YIELD RANK</u> | | | | | | | | | |
| Beeson (II) | 24 | 14 | 14 | 22 | 14 | 8 | 8 | 4 | 23 |
| Cumberland | 12 | 19 | 22 | 15 | 12 | 24 | 9 | 11 | 4 |
| Elf | 10 | 5 | 16 | 4 | 15 | 11 | 18 | 9 | 3 |
| Oalkand | 19 | 23 | 7 | 23 | 10 | 17 | 23 | 23 | 13 |
| Union (IV) | 6 | 7 | 4 | 10 | 1 | 7 | 19 | 14 | 6 |
| Williams | 11 | 21 | 2 | 18 | 7 | 23 | 21 | 12 | 18 |
| Woodworth (III) | 16 | 15 | 5 | 17 | 19 | 5 | 15 | 21 | 17 |
| A74-302012 | 8 | 13 | 18 | 11 | 9 | 21 | 2 | 2 | 8 |
| A75-202005 | 18 | 8 | 12 | 13 | 16 | 3 | 21 | 20 | 19 |
| A75-305022 | 4 | 17 | 10 | 6 | 5 | 10 | 3 | 7 | 5 |
| A76-303035 | 16 | 22 | 17 | 8 | 17 | 21 | 1 | 17 | 24 |
| A76-304002 | 20 | 18 | 23 | 21 | 20 | 1 | 7 | 14 | 21 |
| A76-304019 | 20 | 2 | 24 | 12 | 13 | 13 | 20 | 18 | 1 |
| A76-304020 | 22 | 4 | 19 | 9 | 22 | 8 | 24 | 24 | 16 |
| C1558 | 7 | 12 | 3 | 16 | 3 | 13 | 13 | 13 | 7 |
| C1559 | 13 | 11 | 11 | 7 | 6 | 13 | 9 | 6 | 14 |
| HW74-3384 | 3 | 3 | 8 | 2 | 7 | 18 | 14 | 1 | 9 |
| HW74-3385 | 1 | 1 | 6 | 1 | 2 | 20 | 6 | 7 | 12 |
| L22 | 14 | 16 | 9 | 19 | 22 | 12 | 17 | 16 | 11 |
| L23 | 8 | 20 | 1 | 24 | 3 | 4 | 12 | 10 | 15 |
| L69U37-17-5 | 2 | 8 | 20 | 3 | 10 | 2 | 16 | 5 | 10 |
| L74L-71 | 5 | 10 | 21 | 5 | 21 | 6 | 3 | 3 | 2 |
| L75-6857 | 15 | 6 | 15 | 14 | 24 | 16 | 11 | 19 | 22 |
| U10727 | 23 | 24 | 13 | 20 | 18 | 19 | 5 | 21 | 20 |

UNIFORM TEST III, 1978

| Ken. | Ind. | Ill. | | | | | | |
|-------------------|----------------|-----------------|---------------|--------|--------|-----------------|----------------|---------------|
| Lexing- ton | Lafay- ette | Green- field | Sull- ivan | Urbana | Girard | Browns- town | Bell- ville | Eld- orado |
| <u>YIELD RANK</u> | | | | | | | | |
| 20 | 15 | 24 | 24 | 13 | 22 | 24 | 24 | 24 |
| 4 | 17 | 15 | 16 | 12 | 3 | 15 | 11 | 4 |
| 3 | 18 | 7 | 7 | 8 | 18 | 22 | 21 | 1 |
| 24 | 14 | 19 | 14 | 20 | 16 | 10 | 17 | 13 |
| 10 | 20 | 20 | 8 | 4 | 10 | 2 | 4 | 4 |
| 7 | 21 | 10 | 4 | 11 | 7 | 6 | 20 | 2 |
| 9 | 19 | 16 | 12 | 18 | 14 | 13 | 6 | 15 |
| 16 | 13 | 4 | 10 | 16 | 19 | 17 | 6 | 11 |
| 23 | 16 | 2 | 13 | 24 | 12 | 14 | 9 | 12 |
| 1 | 9 | 5 | 6 | 22 | 11 | 8 | 18 | 10 |
| 8 | 4 | 18 | 21 | 5 | 24 | 19 | 5 | 18 |
| 14 | 2 | 14 | 20 | 8 | 15 | 20 | 23 | 21 |
| 19 | 11 | 12 | 23 | 3 | 23 | 12 | 8 | 20 |
| 21 | 3 | 11 | 15 | 7 | 17 | 11 | 22 | 22 |
| 18 | 5 | 16 | 17 | 19 | 6 | 7 | 14 | 8 |
| 17 | 6 | 6 | 2 | 13 | 12 | 18 | 15 | 19 |
| 11 | 24 | 22 | 1 | 1 | 9 | 5 | 1 | 14 |
| 2 | 10 | 23 | 2 | 2 | 1 | 8 | 16 | 3 |
| 11 | 23 | 8 | 5 | 21 | 20 | 16 | 10 | 16 |
| 21 | 7 | 9 | 9 | 15 | 8 | 1 | 13 | 4 |
| 6 | 7 | 13 | 10 | 10 | 3 | 3 | 3 | 9 |
| 15 | 1 | 1 | 19 | 6 | 5 | 23 | 2 | 17 |
| 5 | 12 | 3 | 18 | 17 | 2 | 4 | 12 | 7 |
| 11 | 22 | 21 | 22 | 23 | 20 | 21 | 19 | 23 |

UNIFORM TEST III, 1978

| Strain | Mean 26 Tests | Iowa | | Mo. | | S.D. | Kans. | | | Neb. |
|-------------------|------------------|--------|------------------|-------|---------------|--------------|----------------|----------------|-------------|------|
| | | Stuart | Martins- burg | Edina | Colum- bia | Elk Point | Man- hatten | Pow- hatten | Ott- awa | Mead |
| <u>YIELD RANK</u> | | | | | | | | | | |
| Beeson (II) | 24 | 7 | 19 | 21 | 24 | 5 | 19 | 22 | 24 | 6 |
| Cumberland | 12 | 9 | 24 | 18 | 4 | 18 | 2 | 2 | 15 | 10 |
| Elf | 10 | 23 | 2 | 9 | 6 | 7 | 23 | 15 | 15 | 2 |
| Oakland | 19 | 6 | 17 | 10 | 18 | 9 | 16 | 19 | 17 | 17 |
| Union (IV) | 6 | 22 | 13 | 12 | 8 | 21 | 10 | 19 | 6 | 23 |
| Williams | 11 | 19 | 18 | 4 | 9 | 22 | 7 | 3 | 3 | 13 |
| Woodworth (III) | 16 | 15 | 16 | 24 | 21 | 17 | 9 | 11 | 14 | 4 |
| A74-302012 | 8 | 3 | 7 | 2 | 16 | 11 | 14 | 14 | 18 | 7 |
| A75-302005 | 18 | 8 | 5 | 20 | 14 | 23 | 19 | 17 | 2 | 22 |
| A75-305022 | 4 | 16 | 12 | 8 | 13 | 4 | 4 | 4 | 20 | 8 |
| A76-303035 | 16 | 1 | 3 | 5 | 23 | 13 | 11 | 1 | 10 | 11 |
| A76-304002 | 20 | 10 | 20 | 1 | 20 | 3 | 6 | 18 | 19 | 15 |
| A76-304019 | 20 | 13 | 9 | 14 | 15 | 15 | 18 | 23 | 22 | 21 |
| A76-304020 | 22 | 20 | 6 | 6 | 22 | 19 | 12 | 24 | 23 | 24 |
| C1558 | 7 | 18 | 4 | 22 | 19 | 10 | 1 | 12 | 7 | 8 |
| C1559 | 13 | 17 | 10 | 14 | 12 | 16 | 13 | 9 | 9 | 17 |
| HW74-3384 | 3 | 5 | 13 | 23 | 2 | 8 | 24 | 19 | 7 | 3 |
| HW74-3385 | 1 | 14 | 15 | 16 | 1 | 2 | 21 | 12 | 4 | 1 |
| L22 | 14 | 12 | 21 | 13 | 11 | 14 | 3 | 4 | 11 | 5 |
| L23 | 8 | 20 | 11 | 17 | 5 | 20 | 8 | 8 | 5 | 16 |
| L69U37-17-5 | 2 | 4 | 1 | 6 | 3 | 1 | 22 | 16 | 12 | 12 |
| L74L-71 | 5 | 11 | 8 | 3 | 17 | 6 | 4 | 7 | 12 | 17 |
| L75-6857 | 15 | 24 | 22 | 19 | 7 | 24 | 15 | 10 | 1 | 20 |
| U10727 | 23 | 2 | 23 | 11 | 9 | 12 | 17 | 6 | 21 | 14 |

UNIFORM TEST III, 1978

| Strain | Mean 23 Tests | N.J. | Del. | Penn. | Md. | Ohio | | | |
|---------------------------------|------------------|---------------|-----------------|------------------|-----------------|--------------|----------------|--------------------|-------------------|
| | | Adel- phia | George- town | Landis- ville | Clark- ville | Woo- ster | Hoyt- ville | S. Charles- ton | Wheeler- sburg |
| <u>MATURITY (relative date)</u> | | | | | | | | | |
| Beeson (II) | -6.2 | -2 | -6 | -7 | -3 | -3 | -3 | -7 | -5 |
| Cumberland | +1.6 | 0 | -1 | 0 | +7 | +1 | +3 | +2 | +2 |
| Elf | +5.0 | +7 | +3 | +3 | +3 | +3 | +6 | +8 | +4 |
| Oakland | +0.6 | -2 | 0 | 0 | +4 | +1 | +3 | +1 | -1 |
| Union (IV) | +6.3 | +7 | +6 | +8 | +7 | +4 | +5 | +8 | +3 |
| Williams | +4.0 | +3 | +2 | +6 | +6 | +3 | +4 | +5 | +1 |
| Woodworth* (III) | 9-21 | 9-29 | 9-21 | 10-3 | 9-19 | 9-22 | 9-18 | 9-19 | 9-13 |
| A74-302012 | -0.1 | +1 | -2 | +1 | +7 | -1 | 0 | 0 | +1 |
| A75-302005 | +2.7 | +7 | +2 | +6 | +2 | +3 | +4 | +4 | 0 |
| A75-305022 | +2.9 | +2 | +2 | -1 | +6 | +1 | +3 | +3 | +3 |
| A76-303035 | +0.9 | +2 | -1 | +1 | +1 | +1 | +3 | +3 | -1 |
| A76-304002 | -1.7 | -1 | -2 | -3 | -2 | -2 | 0 | -3 | +1 |
| A76-304019 | +3.1 | +6 | +1 | +6 | +9 | +4 | +5 | +6 | +2 |
| A76-304020 | +2.7 | +7 | -1 | +6 | +7 | +3 | +4 | +4 | +1 |
| C1558 | +4.2 | +5 | +2 | +6 | +7 | +3 | +5 | +4 | +3 |
| C1559 | +2.3 | +2 | +1 | +4 | +3 | +2 | +1 | +2 | +4 |
| HW74-3384 | +1.0 | -1 | -1 | -1 | +4 | -1 | +4 | +3 | +1 |
| HW74-3385 | +0.9 | 0 | -2 | -1 | +3 | 0 | +5 | +3 | +1 |
| L22 | -1.0 | +2 | -2 | 0 | 0 | 0 | 0 | 0 | -1 |
| L23 | +2.9 | +4 | +2 | +6 | +3 | +2 | +2 | +3 | +1 |
| H69U37-17-5 | +1.7 | +3 | 0 | +6 | +6 | -1 | +2 | +3 | +1 |
| L74L-71 | +0.4 | +1 | -1 | +7 | +4 | +2 | +1 | +1 | -1 |
| L75-6857 | +3.8 | +5 | +2 | +6 | +5 | +4 | +4 | +4 | +1 |
| U10727 | -1.4 | -2 | -2 | 0 | 0 | -1 | +3 | -1 | -3 |
| Date planted | 5-26 | 6-6 | 6-1 | 6-8 | 5-26 | 5-26 | 5-10 | 5-1 | 5-3 |
| *Days to mature | 118 | 115 | 112 | 117 | 116 | 119 | 131 | 141 | 133 |

UNIFORM TEST III, 1978

| Strain | Ken. | Ind. | | | Ill. | | | | |
|-----------------|---------------------------------|----------------|-----------------|---------------|--------|--------|-----------------|-----------------|---------------|
| | Lexing- ton | Lafay- ette | Green- field | Sull- ivan | Urbana | Girard | Browns- town | Belle- ville | Eld- orado |
| | <u>MATURITY (relative date)</u> | | | | | | | | |
| Beeson (II) | -5 | -3 | -5 | -10 | -7 | -6 | -9 | -8 | -4 |
| Cumberland | +3 | +1 | +5 | +2 | +2 | 0 | +1 | 0 | +5 |
| Elf | +3 | +6 | +9 | +5 | +7 | +1 | +7 | +5 | +4 |
| Oakland | -5 | 0 | +2 | +2 | -2 | -1 | +2 | 0 | +5 |
| Union (IV) | +3 | +4 | +9 | +5 | +6 | +5 | +8 | +6 | +9 |
| Williams | +2 | +1 | +7 | +4 | +5 | +2 | +6 | +3 | +6 |
| Woodworth (III) | 9-26 | 9-18 | 9-30 | 9-13 | 9-23 | 9-21 | 9-14 | 9-18 | 9-10 |
| A74-302012 | -4 | -1 | 0 | -1 | -2 | -3 | -1 | -2 | +3 |
| A75-302005 | -4 | +4 | +4 | +3 | +2 | 0 | +5 | +1 | +3 |
| A75-305022 | +3 | +4 | +7 | +3 | +2 | 0 | +7 | +2 | +5 |
| A76-303035 | -5 | +3 | +3 | +2 | +1 | 0 | -1 | +1 | -4 |
| A76-304002 | -5 | +1 | +1 | -3 | -2 | -5 | -2 | -4 | -3 |
| A76-304019 | +1 | +4 | +6 | +3 | +3 | +1 | +3 | +2 | +5 |
| A76-304020 | +2 | +4 | +3 | +3 | +3 | +1 | +5 | +3 | +3 |
| C1558 | +3 | +3 | +7 | +4 | +5 | +3 | +6 | +4 | +6 |
| C1559 | +3 | +2 | +3 | +1 | +2 | -1 | +4 | +2 | +2 |
| HW74-3384 | -5 | 0 | 0 | -1 | 0 | -3 | +6 | +1 | +11 |
| HW74-3385 | -5 | +1 | +4 | -2 | +1 | -3 | +3 | -1 | +6 |
| L22 | +2 | -1 | -3 | 0 | -2 | -3 | -1 | -3 | 0 |
| L23 | +3 | +1 | +5 | +1 | +4 | +1 | +6 | +2 | +4 |
| L69U37-17-5 | +3 | +2 | +3 | -3 | +2 | -3 | +7 | 0 | +3 |
| L74L-71 | +1 | +1 | -1 | -1 | +1 | 0 | +1 | +1 | +2 |
| L75-6857 | +3 | +2 | +3 | +2 | +5 | +2 | +7 | +2 | +5 |
| U10727 | -5 | +1 | +1 | -4 | -2 | -5 | -5 | -4 | -4 |
| Date planted | 6-2 | 5-27 | 6-5 | 5-30 | 5-27 | 6-4 | 6-10 | 5-28 | 5-24 |
| *Days to mature | 116 | 114 | 117 | 106 | 119 | 109 | 96 | 113 | 109 |

UNIFORM TEST III, 1978

| Iowa | | Mo. | S.D. | Kans. | | Neb. | | |
|---------------------------------|------------------|-------|---------------|--------------|----------------|----------------|-------------|------|
| Stuart | Martins- burg | Edina | Colum- bia | Elk Point | Man- hatten | Pow- hatten | Ott- awa | Mead |
| <u>MATURITY (relative date)</u> | | | | | | | | |
| | -10 | | -8 | -6 | -12 | -12 | | -2 |
| | +2 | | +2 | -3 | +1 | -2 | | +4 |
| | +7 | | +3 | -1 | +8 | +6 | | +8 |
| | 0 | | -1 | 0 | +1 | +1 | | +3 |
| | +10 | | +6 | +6 | +6 | +4 | | +9 |
| | +6 | | +5 | +1 | +6 | +3 | | +5 |
| | 9-28 | | 9-17 | 10-1 | 9-18 | 9-21 | | 9-27 |
| | -2 | | +2 | -1 | 0 | 0 | | +2 |
| | +3 | | +3 | -1 | +2 | +4 | | +5 |
| | +2 | | 0 | 0 | +7 | +3 | | +2 |
| | +3 | | +5 | -3 | +1 | -1 | | +6 |
| | -2 | | -5 | -7 | +4 | 0 | | +5 |
| | +2 | | 0 | 0 | 0 | -2 | | +4 |
| | +3 | | 0 | -2 | +1 | -2 | | +4 |
| | +5 | | +5 | 0 | +3 | +3 | | +4 |
| | +2 | | +4 | -2 | +4 | +3 | | +5 |
| | +2 | | +2 | -6 | +3 | +2 | | +3 |
| | +2 | | +3 | -5 | +3 | +2 | | +3 |
| | +1 | | 0 | -4 | -6 | -2 | | 0 |
| | +2 | | +5 | 0 | +3 | +1 | | +5 |
| | +1 | | +2 | -4 | +2 | +1 | | +4 |
| | -1 | | +2 | -2 | -3 | -6 | | 0 |
| | +7 | | +4 | 0 | +6 | +4 | | +5 |
| | 0 | | -5 | -2 | +3 | +2 | | +4 |
| 5-19 | 5-28 | | 6-16 | 5-22 | 5-3 | 5-27 | | 5-24 |
| - | 123 | | 94 | 141 | 138 | 117 | | 126 |

UNIFORM TEST III, 1978

| Strain | Mean 23 Tests | N.J. | Del. | Penn. | Md. | Ohio | | | | |
|------------------------|------------------|---------------|-----------------|------------------|-----------------|--------------|----------------|--------------------|-------------------|--|
| | | Adel- phia | George- town | Landis- ville | Clark- ville | Woo- ster | Hoyt- ville | S. Charles- ton | Wheeler- sburg | |
| <u>LODGING (score)</u> | | | | | | | | | | |
| Beeson (II) | 2.2 | 3.6 | 1.7 | 1.7 | 3.0 | 1.3 | 1.4 | 2.3 | 3.8 | |
| Cumberland | 2.1 | 3.1 | 1.2 | 1.2 | 2.0 | 1.3 | 1.4 | 3.2 | 3.0 | |
| Elf | 1.4 | 1.6 | 1.3 | 1.5 | 1.7 | 1.4 | 1.6 | 2.3 | 1.2 | |
| Oakland | 1.8 | 2.3 | 1.5 | 1.2 | 2.0 | 1.5 | 1.6 | 2.0 | 2.5 | |
| Union (IV) | 2.4 | 3.6 | 2.2 | 2.8 | 3.0 | 1.8 | 2.1 | 3.8 | 3.0 | |
| Williams | 2.0 | 3.3 | 1.7 | 1.8 | 2.0 | 1.4 | 1.7 | 2.5 | 3.0 | |
| Woodworth (III) | 2.0 | 3.6 | 1.8 | 2.2 | 2.0 | 1.4 | 1.6 | 2.3 | 3.5 | |
| A74-302012 | 1.8 | 2.6 | 1.3 | 1.7 | 2.3 | 1.4 | 1.4 | 2.0 | 2.8 | |
| A75-302005 | 2.1 | 3.3 | 1.3 | 2.0 | 3.0 | 1.5 | 1.9 | 3.3 | 3.5 | |
| A75-305022 | 2.1 | 3.1 | 1.3 | 2.3 | 2.0 | 1.4 | 1.5 | 2.8 | 3.0 | |
| A76-303035 | 3.3 | 3.8 | 2.0 | 3.5 | 3.7 | 1.6 | 2.5 | 4.3 | 4.5 | |
| A76-304002 | 2.5 | 3.9 | 1.7 | 3.3 | 3.0 | 1.3 | 1.7 | 2.7 | 4.5 | |
| A76-304019 | 3.0 | 3.8 | 2.2 | 3.3 | 4.0 | 1.6 | 3.5 | 4.3 | 4.5 | |
| A76-304020 | 2.9 | 3.8 | 2.3 | 3.2 | 3.7 | 1.7 | 3.1 | 4.2 | 4.5 | |
| C1558 | 2.4 | 3.3 | 1.8 | 3.2 | 2.7 | 1.5 | 2.1 | 3.2 | 3.8 | |
| C1559 | 2.1 | 3.3 | 1.5 | 2.3 | 2.3 | 1.4 | 2.1 | 2.5 | 3.2 | |
| HW74-3384 | 1.4 | 2.5 | 1.8 | 1.5 | 1.3 | 1.4 | 1.5 | 2.8 | 1.2 | |
| HW74-3385 | 1.3 | 2.0 | 1.5 | 1.3 | 1.3 | 1.5 | 1.4 | 2.0 | 1.2 | |
| L22 | 1.6 | 2.9 | 1.3 | 1.5 | 2.0 | 1.4 | 1.4 | 2.3 | 1.2 | |
| L23 | 1.9 | 3.1 | 1.7 | 1.8 | 2.7 | 1.5 | 1.5 | 3.2 | 2.0 | |
| L69U37-17-5 | 2.4 | 4.1 | 1.2 | 2.5 | 2.7 | 1.8 | 2.2 | 3.8 | 3.5 | |
| L74L-71 | 1.7 | 2.8 | 1.5 | 1.7 | 2.0 | 1.5 | 1.5 | 2.0 | 2.0 | |
| L75-6857 | 1.9 | 3.3 | 1.5 | 2.0 | 2.0 | 1.4 | 1.6 | 2.7 | 2.5 | |
| U10727 | 1.7 | 2.6 | 1.3 | 1.7 | 2.3 | 1.3 | 1.6 | 2.2 | 1.5 | |

UNIFORM TEST III, 1978

| Ken. Lexington | Ind. | | | Ill. | | | | |
|------------------------|-----------|------------|----------|--------|--------|------------|------------|----------|
| | Lafayette | Greenfield | Sullivan | Urbana | Girard | Brownstown | Belleville | Eldorado |
| <u>LODGING (score)</u> | | | | | | | | |
| 3.2 | 2.8 | 3.3 | 2.7 | 2.7 | 1.8 | 1.0 | 2.0 | 1.4 |
| 2.2 | 3.2 | 2.5 | 3.8 | 3.7 | 1.3 | 1.0 | 2.8 | 1.2 |
| 1.3 | 1.0 | 2.2 | 1.3 | 1.4 | 1.0 | 1.0 | 1.0 | 1.1 |
| 1.5 | 2.5 | 2.0 | 3.7 | 1.9 | 1.6 | 1.0 | 2.0 | 1.1 |
| 3.0 | 2.3 | 2.8 | 3.7 | 2.9 | 1.5 | 1.0 | 2.4 | 1.8 |
| 2.2 | 2.7 | 2.8 | 3.7 | 2.1 | 1.3 | 1.0 | 2.1 | 1.1 |
| 2.5 | 3.2 | 2.5 | 3.5 | 2.0 | 1.3 | 1.0 | 1.8 | 1.3 |
| 1.5 | 2.0 | 2.3 | 2.3 | 1.8 | 1.2 | 1.0 | 1.3 | 1.1 |
| 1.7 | 2.8 | 2.7 | 3.7 | 2.3 | 1.4 | 1.0 | 2.0 | 1.4 |
| 2.2 | 3.0 | 3.3 | 3.2 | 2.9 | 1.3 | 1.0 | 2.5 | 1.4 |
| 4.3 | 4.3 | 3.0 | 5.0 | 4.5 | 3.1 | 1.0 | 3.3 | 4.0 |
| 2.5 | 3.8 | 3.0 | 4.2 | 2.9 | 2.0 | 1.0 | 2.8 | 1.3 |
| 3.8 | 3.3 | 3.7 | 4.3 | 3.8 | 2.9 | 1.0 | 3.3 | 3.0 |
| 3.5 | 3.5 | 3.0 | 4.0 | 3.0 | 2.6 | 1.0 | 3.3 | 3.0 |
| 2.2 | 3.2 | 3.2 | 4.5 | 3.5 | 1.5 | 1.0 | 2.5 | 1.6 |
| 2.2 | 2.8 | 2.7 | 3.7 | 1.9 | 1.3 | 1.0 | 2.3 | 1.4 |
| 1.5 | 1.0 | 1.5 | 1.7 | 1.7 | 1.0 | 1.0 | 1.0 | 1.1 |
| 1.7 | 1.2 | 1.5 | 1.2 | 1.4 | 1.0 | 1.0 | 1.3 | 1.1 |
| 1.8 | 2.0 | 1.7 | 3.0 | 2.4 | 1.2 | 1.0 | 1.5 | 1.2 |
| 2.2 | 2.3 | 2.5 | 3.0 | 2.6 | 1.3 | 1.0 | 2.0 | 1.2 |
| 2.2 | 3.7 | 2.7 | 3.0 | 2.7 | 1.9 | 1.0 | 2.7 | 1.5 |
| 1.5 | 2.2 | 1.7 | 3.0 | 1.8 | 1.2 | 1.0 | 1.8 | 1.1 |
| 2.2 | 2.5 | 1.8 | 2.8 | 2.7 | 1.2 | 1.0 | 2.0 | 1.2 |
| 2.0 | 1.7 | 2.2 | 3.0 | 1.9 | 1.3 | 1.0 | 1.8 | 1.1 |

UNIFORM TEST III, 1978

| Strain | Iowa | | Mo. | | S.D. | Kans. | | Neb. | |
|------------------------|--------|------------------|-------|---------------|--------------|----------------|----------------|-------------|------|
| | Stuart | Martins- burg | Edina | Colum- bia | Elk Point | Man- hatten | Pow- hatten | Ott- awa | Mead |
| <u>LODGING (score)</u> | | | | | | | | | |
| Beeson (II) | 2.4 | 2.4 | | | 1.0 | 2.0 | 1.0 | | 1.0 |
| Cumberland | 1.9 | 2.4 | | | 1.0 | 1.8 | 1.0 | | 1.2 |
| Elf | 1.3 | 1.8 | | | 1.0 | 1.0 | 1.0 | | 1.0 |
| Oakland | 1.8 | 2.4 | | | 1.0 | 1.7 | 1.0 | | 1.3 |
| Union (IV) | 1.9 | 2.7 | | | 3.0 | 1.8 | 1.0 | | 1.7 |
| Williams | 1.6 | 2.5 | | | 1.0 | 1.5 | 1.0 | | 1.3 |
| Woodworth (III) | 1.5 | 2.2 | | | 1.0 | 1.5 | 1.0 | | 1.5 |
| A74-302012 | 1.6 | 2.2 | | | 3.0 | 1.4 | 1.0 | | 1.2 |
| A75-302005 | 1.8 | 2.5 | | | 2.0 | 1.6 | 1.0 | | 1.5 |
| A75-305022 | 1.8 | 2.6 | | | 2.0 | 1.7 | 1.0 | | 1.2 |
| A76-303035 | 3.1 | 3.6 | | | 3.0 | 3.2 | 1.0 | | 3.0 |
| A76-304002 | 2.5 | 2.8 | | | 2.0 | 1.9 | 1.0 | | 1.7 |
| A76-304019 | 1.9 | 2.9 | | | 3.0 | 2.8 | 1.0 | | 1.8 |
| A76-304020 | 1.8 | 2.7 | | | 3.0 | 2.2 | 1.0 | | 1.8 |
| C1558 | 2.0 | 2.6 | | | 2.0 | 1.7 | 1.0 | | 1.5 |
| C1559 | 1.8 | 2.4 | | | 1.0 | 1.8 | 1.0 | | 1.5 |
| HW74-3384 | 1.4 | 1.7 | | | 1.0 | 1.0 | 1.0 | | 1.0 |
| HW 74-3385 | 1.3 | 1.4 | | | 1.0 | 1.0 | 1.0 | | 1.0 |
| L22 | 1.5 | 2.3 | | | 1.0 | 1.0 | 1.0 | | 1.2 |
| L23 | 1.6 | 2.3 | | | 1.0 | 1.2 | 1.0 | | 1.2 |
| L69U37-17-5 | 2.2 | 2.6 | | | 3.0 | 2.3 | 1.0 | | 2.1 |
| L74L-71 | 1.7 | 2.1 | | | 1.0 | 1.4 | 1.0 | | 1.2 |
| L75-6857 | 1.6 | 2.4 | | | 1.0 | 1.2 | 1.0 | | 1.3 |
| U10727 | 1.9 | 2.3 | | | 1.0 | 1.7 | 1.0 | | 1.3 |

UNIFORM TEST III, 1978

| Strain | Mean 28 Tests | N.J. | Del. | Penn. | Md. | Ohio | | | |
|------------------------|------------------|---------------|-----------------|------------------|-----------------|--------------|----------------|--------------------|-------------------|
| | | Adel- phia | George- town | Landis- ville | Clark- ville | Woo- ster | Hoyt- ville | S. Charles- ton | Wheeler- sburg |
| <u>HEIGHT (inches)</u> | | | | | | | | | |
| Beeson (II) | 35 | 36 | 26 | 32 | 43 | 27 | 35 | 36 | 24 |
| Cumberland | 35 | 33 | 26 | 30 | 40 | 26 | 34 | 35 | 34 |
| Elf | 22 | 22 | 19 | 24 | 27 | 20 | 25 | 25 | 22 |
| Oakland | 37 | 36 | 32 | 33 | 43 | 29 | 33 | 40 | 36 |
| Union (IV) | 42 | 41 | 38 | 36 | 51 | 33 | 38 | 50 | 44 |
| Williams | 39 | 36 | 35 | 32 | 45 | 31 | 35 | 41 | 39 |
| Woodworth (III) | 37 | 36 | 33 | 33 | 44 | 31 | 36 | 38 | 36 |
| A74-302012 | 37 | 34 | 30 | 32 | 44 | 27 | 34 | 39 | 36 |
| A75-302005 | 39 | 35 | 34 | 34 | 45 | 31 | 37 | 43 | 41 |
| A75-305022 | 38 | 35 | 31 | 33 | 44 | 30 | 35 | 41 | 39 |
| A76-303035 | 34 | 32 | 28 | 29 | 40 | 24 | 31 | 38 | 33 |
| A76-304002 | 36 | 37 | 27 | 34 | 42 | 32 | 31 | 37 | 35 |
| A76-304019 | 41 | 40 | 34 | 35 | 50 | 33 | 42 | 43 | 38 |
| A76-304020 | 40 | 40 | 36 | 34 | 48 | 31 | 37 | 43 | 34 |
| C1558 | 38 | 36 | 31 | 32 | 43 | 29 | 33 | 41 | 38 |
| C1559 | 40 | 38 | 31 | 34 | 46 | 30 | 36 | 44 | 36 |
| HW74-3384 | 22 | 22 | 19 | 26 | 26 | 19 | 24 | 26 | 26 |
| HW74-3385 | 23 | 21 | 21 | 25 | 27 | 17 | 28 | 26 | 24 |
| L22 | 32 | 31 | 27 | 30 | 36 | 27 | 32 | 34 | 27 |
| L23 | 39 | 34 | 34 | 32 | 42 | 29 | 37 | 41 | 38 |
| L69U37-17-5 | 39 | 39 | 26 | 36 | 47 | 32 | 32 | 39 | 41 |
| L74L-71 | 40 | 37 | 32 | 35 | 44 | 32 | 38 | 43 | 37 |
| L75-6857 | 39 | 37 | 31 | 34 | 41 | 31 | 37 | 41 | 39 |
| U10727 | 34 | 33 | 26 | 31 | 40 | 26 | 34 | 39 | 31 |

UNIFORM TEST III, 1978

| Strain | Ken. | Ind. | | | Ill. | | | | |
|------------------------|----------------|----------------|-----------------|---------------|--------|--------|-----------------|----------------|---------------|
| | Lexing- ton | Lafay- ette | Green- field | Sull- ivan | Urbana | Girard | Browns- town | Bell- ville | Eld- orado |
| <u>HEIGHT (inches)</u> | | | | | | | | | |
| Beeson (II) | 33 | 37 | 30 | 42 | 45 | 37 | 26 | 37 | 35 |
| Cumberland | 34 | 41 | 33 | 40 | 45 | 39 | 25 | 40 | 38 |
| Elf | 24 | 22 | 19 | 24 | 25 | 21 | 18 | 21 | 21 |
| Oakland | 37 | 41 | 36 | 43 | 47 | 41 | 26 | 40 | 36 |
| Union (IV) | 36 | 45 | 40 | 49 | 51 | 45 | 33 | 46 | 44 |
| Williams | 34 | 45 | 36 | 44 | 51 | 43 | 28 | 42 | 40 |
| Woodworth (III) | 36 | 42 | 31 | 44 | 45 | 39 | 28 | 40 | 39 |
| A74-302012 | 38 | 41 | 35 | 44 | 46 | 38 | 28 | 42 | 37 |
| A75-302005 | 38 | 43 | 36 | 44 | 49 | 43 | 29 | 44 | 38 |
| A75-305022 | 36 | 41 | 33 | 43 | 46 | 40 | 25 | 42 | 38 |
| A76-303035 | 33 | 42 | 29 | 40 | 43 | 36 | 26 | 39 | 37 |
| A76-304002 | 36 | 42 | 32 | 43 | 45 | 39 | 25 | 39 | 35 |
| A76-304019 | 38 | 47 | 42 | 40 | 51 | 42 | 31 | 49 | 42 |
| A76-304020 | 40 | 43 | 35 | 45 | 51 | 43 | 31 | 43 | 40 |
| C1558 | 36 | 41 | 34 | 44 | 49 | 41 | 28 | 41 | 40 |
| C1559 | 38 | 44 | 35 | 45 | 50 | 45 | 27 | 46 | 40 |
| HW74-3384 | 21 | 21 | 17 | 25 | 23 | 20 | 20 | 23 | 22 |
| HW74-3385 | 22 | 23 | 19 | 25 | 25 | 22 | 21 | 20 | 19 |
| L22 | 38 | 32 | 30 | 34 | 40 | 34 | 24 | 33 | 34 |
| L23 | 37 | 43 | 34 | 44 | 51 | 42 | 29 | 43 | 40 |
| L69U37-17-5 | 37 | 44 | 36 | 47 | 50 | 43 | 29 | 44 | 40 |
| L74L-71 | 41 | 43 | 36 | 47 | 50 | 44 | 28 | 44 | 37 |
| L75-6857 | 37 | 47 | 34 | 45 | 51 | 41 | 29 | 42 | 38 |
| U10727 | 32 | 38 | 30 | 39 | 45 | 37 | 24 | 39 | 31 |

UNIFORM TEST III, 1978

| Iowa | | Mo. | | S.D. | Kans. | | | Neb. |
|------------------------|------------------|-------|---------------|--------------|----------------|----------------|-------------|------|
| Stuart | Martins- burg | Edina | Colum- bia | Elk Point | Man- hatten | Pow- hatten | Ott- awa | Mead |
| <u>HEIGHT (inches)</u> | | | | | | | | |
| 43 | 42 | 31 | 28 | 40 | 42 | 36 | 27 | 38 |
| 40 | 40 | 30 | 30 | 42 | 43 | 36 | 26 | 36 |
| 25 | 28 | 19 | 19 | 28 | 17 | 22 | 16 | 22 |
| 42 | 43 | 32 | 29 | 43 | 44 | 38 | 29 | 37 |
| 45 | 50 | 35 | 31 | 47 | 50 | 44 | 31 | 44 |
| 41 | 45 | 32 | 30 | 46 | 49 | 40 | 30 | 40 |
| 41 | 42 | 31 | 28 | 43 | 46 | 37 | 33 | 40 |
| 41 | 43 | 30 | 26 | 43 | 43 | 35 | 27 | 38 |
| 43 | 47 | 31 | 31 | 44 | 49 | 39 | 32 | 42 |
| 42 | 43 | 33 | 30 | 44 | 46 | 37 | 31 | 38 |
| 38 | 38 | 30 | 26 | 40 | 42 | 36 | 28 | 38 |
| 41 | 42 | 34 | 30 | 40 | 44 | 36 | 29 | 38 |
| 45 | 50 | 36 | 33 | 44 | 49 | 43 | 33 | 43 |
| 44 | 50 | 36 | 32 | 45 | 48 | 41 | 30 | 41 |
| 42 | 45 | 31 | 29 | 44 | 47 | 37 | 29 | 40 |
| 45 | 50 | 34 | 31 | 45 | 50 | 42 | 33 | 42 |
| 28 | 27 | 21 | 20 | 30 | 13 | 23 | 15 | 24 |
| 25 | 27 | 20 | 24 | 29 | 15 | 23 | 17 | 25 |
| 35 | 40 | 29 | 27 | 40 | 31 | 37 | 23 | 34 |
| 43 | 46 | 34 | 31 | 44 | 48 | 39 | 31 | 41 |
| 43 | 46 | 35 | 32 | 44 | 46 | 38 | 29 | 42 |
| 44 | 46 | 36 | 31 | 46 | 46 | 39 | 31 | 41 |
| 42 | 46 | 34 | 32 | 45 | 49 | 40 | 33 | 43 |
| 41 | 40 | 30 | 28 | 40 | 43 | 34 | 26 | 36 |

UNIFORM TEST III, 1978

| Strain | Mean 25 Tests | N.J. | Del. | Penn. | Md. | Ohio | | | |
|-----------------------------|------------------|---------------|-----------------|------------------|-----------------|--------------|----------------|--------------------|-------------------|
| | | Adel- phia | George- town | Landis- ville | Clark- ville | Woo- ster | Hoyt- ville | S. Charles- ton | Wheeler- sburg |
| <u>SEED QUALITY (score)</u> | | | | | | | | | |
| Beeson (II) | 2.8 | 2.0 | 2.3 | 2.3 | 2.5 | 3.0 | 3.0 | 2.0 | 4.0 |
| Cumberland | 2.1 | 1.5 | 2.3 | 1.8 | 2.0 | 2.0 | 2.0 | 1.2 | 2.0 |
| Elf | 1.8 | 1.0 | 2.0 | 1.7 | 2.0 | 1.0 | 2.0 | 1.0 | 1.0 |
| Oakland | 2.1 | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 | 3.0 | 2.0 | 1.2 |
| Union (IV) | 1.8 | 1.3 | 2.3 | 2.0 | 2.0 | 1.0 | 2.0 | 1.3 | 1.0 |
| Williams | 1.7 | 1.5 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.3 | 1.0 |
| Woodworth (III) | 1.9 | 1.8 | 2.2 | 2.1 | 2.0 | 1.0 | 1.0 | 1.5 | 1.8 |
| A74-302012 | 2.2 | 2.3 | 2.2 | 2.2 | 2.0 | 2.0 | 2.0 | 1.3 | 2.5 |
| A75-302005 | 2.2 | 1.5 | 3.0 | 2.4 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| A75-305022 | 1.9 | 1.3 | 2.2 | 1.8 | 2.0 | 1.0 | 2.0 | 1.7 | 2.0 |
| A76-303035 | 2.0 | 1.8 | 2.2 | 2.0 | 2.2 | 2.0 | 2.0 | 2.0 | 1.0 |
| A76-304002 | 2.3 | 1.8 | 2.2 | 1.7 | 2.5 | 2.0 | 2.0 | 1.2 | 1.5 |
| A76-304019 | 2.2 | 1.5 | 2.2 | 1.8 | 2.0 | 2.0 | 2.0 | 1.3 | 1.5 |
| A76-304020 | 2.4 | 1.8 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | 1.5 | 2.0 |
| C1558 | 2.3 | 2.0 | 2.7 | 2.1 | 2.0 | 3.0 | 3.0 | 1.7 | 1.8 |
| C1559 | 1.8 | 1.5 | 2.5 | 2.1 | 2.0 | 2.0 | 2.0 | 1.5 | 1.2 |
| HW74-3384 | 2.0 | 1.0 | 2.2 | 1.5 | 2.0 | 2.0 | 1.0 | 1.2 | 1.2 |
| HW74-3385 | 1.8 | 1.3 | 2.0 | 1.7 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 |
| L22 | 1.8 | 1.5 | 2.0 | 1.7 | 2.0 | 2.0 | 2.0 | 1.0 | 1.2 |
| L23 | 1.7 | 2.0 | 2.0 | 1.5 | 2.0 | 1.0 | 2.0 | 1.2 | 1.0 |
| L69U37-17-5 | 2.7 | 2.3 | 3.5 | 2.5 | 2.7 | 3.0 | 3.0 | 2.2 | 3.0 |
| L74L-71 | 2.1 | 1.5 | 2.3 | 2.1 | 2.0 | 2.0 | 2.0 | 1.0 | 1.8 |
| L75-6857 | 1.7 | 1.3 | 2.2 | 1.5 | 2.0 | 1.0 | 2.0 | 1.0 | 1.0 |
| U10727 | 2.2 | 1.8 | 2.3 | 2.1 | 2.3 | 1.0 | 2.0 | 1.5 | 2.0 |

UNIFORM TEST III, 1978

| <u>Ken.</u> | <u>Ind.</u> | | | <u>Ill.</u> | | | | |
|------------------------------|------------------------------|-------------------------------|-----------------------------|---------------|---------------|-------------------------------|-------------------------------|-----------------------------|
| <u>Lexing-</u> <u>ton</u> | <u>Lafay-</u> <u>ette</u> | <u>Green-</u> <u>field</u> | <u>Sull-</u> <u>ivan</u> | <u>Urbana</u> | <u>Girard</u> | <u>Browns-</u> <u>town</u> | <u>Belle-</u> <u>ville</u> | <u>Eld-</u> <u>orado</u> |
| <u>SEED QUALITY (score)</u> | | | | | | | | |
| 3.0 | 1.5 | 1.5 | 3.0 | 3.3 | 4.0 | 4.0 | 3.5 | 4.3 |
| 2.0 | 1.5 | 1.0 | 2.0 | 2.2 | 2.0 | 3.5 | 2.3 | 3.5 |
| 2.0 | 2.0 | 1.0 | 2.0 | 1.5 | 1.8 | 3.3 | 1.3 | 3.3 |
| 2.0 | 1.5 | 1.0 | 2.0 | 1.8 | 2.0 | 3.5 | 2.0 | 3.8 |
| 2.0 | 1.5 | 1.0 | 1.5 | 1.8 | 1.8 | 2.3 | 2.5 | 2.5 |
| 2.0 | 1.5 | 1.0 | 2.0 | 1.5 | 2.0 | 2.0 | 1.5 | 2.5 |
| 2.0 | 1.5 | 1.5 | 2.0 | 1.8 | 2.0 | 2.8 | 1.5 | 3.0 |
| 3.0 | 1.5 | 1.0 | 2.0 | 2.0 | 2.3 | 3.5 | 2.5 | 3.8 |
| 2.0 | 1.5 | 1.5 | 2.0 | 1.8 | 2.0 | 3.3 | 2.3 | 3.3 |
| 3.0 | 1.0 | 1.5 | 1.5 | 1.8 | 2.0 | 2.8 | 2.0 | 2.8 |
| 2.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 3.3 | 1.8 | 3.3 |
| 3.0 | 1.5 | 1.5 | 3.0 | 2.0 | 2.8 | 3.8 | 2.5 | 3.5 |
| 4.0 | 1.0 | 1.0 | 2.5 | 2.3 | 2.5 | 3.3 | 2.5 | 3.8 |
| 3.0 | 1.5 | 1.0 | 3.5 | 2.0 | 2.5 | 3.8 | 2.5 | 3.5 |
| 4.0 | 1.5 | 1.5 | 2.5 | 2.0 | 2.3 | 3.3 | 2.0 | 3.3 |
| 3.0 | 1.0 | 1.0 | 1.5 | 1.8 | 2.0 | 2.3 | 1.8 | 2.0 |
| 2.0 | 1.5 | 1.0 | 2.0 | 2.3 | 2.5 | 3.5 | 2.0 | 4.0 |
| 1.0 | 1.5 | 1.0 | 2.5 | 1.8 | 2.0 | 4.0 | 2.0 | 3.0 |
| 1.0 | 1.0 | 1.0 | 1.5 | 2.3 | 2.0 | 3.3 | 1.5 | 3.0 |
| 1.0 | 1.0 | 1.0 | 1.5 | 2.3 | 2.0 | 2.0 | 1.3 | 2.8 |
| 2.0 | 2.0 | 1.5 | 2.5 | 2.5 | 2.8 | 3.5 | 2.8 | 4.3 |
| 3.0 | 1.5 | 1.5 | 2.0 | 2.3 | 2.3 | 3.3 | 2.5 | 3.0 |
| 1.0 | 1.5 | 1.0 | 3.0 | 1.5 | 2.0 | 2.0 | 1.8 | 2.3 |
| 2.0 | 1.5 | 1.0 | 3.0 | 1.8 | 2.5 | 3.5 | 2.5 | 3.3 |

UNIFORM TEST III, 1978

| Strain | Iowa | | Mo. | | S.D. | Kans. | | | Neb. |
|-----------------------------|--------|------------------|-------|---------------|--------------|----------------|----------------|-------------|------|
| | Stuart | Martins- burg | Edina | Colum- bia | Elk Point | Man- hatten | Pow- hatten | Ott- awa | Mead |
| <u>SEED QUALITY (score)</u> | | | | | | | | | |
| Beeson (II) | 1.3 | | 2.0 | 3.0 | 3.0 | 2.0 | 2.1 | 3.2 | 3.0 |
| Cumberland | 1.2 | | 1.8 | 2.0 | 3.0 | 1.8 | 1.7 | 2.1 | 3.2 |
| Elf | 1.8 | | 1.5 | 2.3 | 3.0 | 1.7 | 1.5 | 1.9 | 1.5 |
| Oakland | 2.0 | | 2.0 | 2.0 | 3.0 | 1.9 | 1.6 | 1.9 | 3.2 |
| Union (IV) | 1.7 | | 1.5 | 2.0 | 3.0 | 1.7 | 1.5 | 1.9 | 2.3 |
| Williams | 1.2 | | 1.5 | 1.8 | 3.0 | 1.4 | 1.4 | 1.9 | 3.0 |
| Woodworth (III) | 1.3 | | 1.8 | 2.3 | 3.0 | 1.7 | 1.5 | 2.1 | 2.5 |
| A74-302012 | 1.9 | | 2.0 | 2.5 | 2.0 | 1.9 | 1.7 | 2.3 | 3.2 |
| A75-302005 | 1.5 | | 1.8 | 1.8 | 3.0 | 1.9 | 1.7 | 2.3 | 3.2 |
| A75-305022 | 1.5 | | 1.5 | 2.3 | 3.0 | 1.5 | 1.8 | 2.2 | 2.2 |
| A76-303035 | 1.3 | | 1.5 | 2.0 | 3.0 | 1.9 | 1.9 | 2.4 | 3.2 |
| A76-304002 | 2.1 | | 1.8 | 2.5 | 4.0 | 2.4 | 1.8 | 2.0 | 2.7 |
| A76-304019 | 1.5 | | 1.5 | 2.3 | 3.0 | 2.3 | 1.9 | 3.5 | 2.7 |
| A76-304020 | 1.6 | | 2.0 | 2.5 | 4.0 | 2.2 | 1.9 | 3.3 | 2.8 |
| C1558 | 1.3 | | 1.8 | 2.0 | 2.0 | 1.4 | 1.7 | 2.2 | 3.3 |
| C1559 | 1.2 | | 1.3 | 1.5 | 3.0 | 1.5 | 1.5 | 1.7 | 2.3 |
| HW74-3384 | 1.7 | | 2.0 | 2.5 | 3.0 | 1.5 | 1.9 | 2.2 | 1.7 |
| HW74-3385 | 1.4 | | 2.0 | 2.0 | 2.0 | 1.3 | 1.6 | 1.9 | 1.7 |
| L22 | 1.2 | | 1.8 | 2.0 | 2.0 | 1.3 | 1.5 | 1.7 | 2.3 |
| L23 | 1.2 | | 1.8 | 2.0 | 2.0 | 1.5 | 1.4 | 1.9 | 2.3 |
| L69U37-17-5 | 2.5 | | 2.0 | 3.0 | 3.0 | 2.8 | 2.0 | 2.9 | 3.3 |
| L74L-71 | 1.3 | | 1.3 | 2.3 | 2.0 | 2.2 | 1.6 | 2.1 | 2.8 |
| L75-6857 | 1.3 | | 1.5 | 2.0 | 2.0 | 1.5 | 1.5 | 1.6 | 3.0 |
| U10727 | 1.4 | | 2.0 | 1.8 | 3.0 | 2.1 | 1.9 | 2.2 | 3.3 |

UNIFORM TEST III, 1978

| Strain | Mean 20 Tests | N.J. | Del. | Penn. | Md. | Ohio | | | |
|--------------------------|------------------|---------------|-----------------|------------------|-----------------|--------------|----------------|--------------------|-------------------|
| | | Adel- phia | George- town | Landis- ville | Clark- ville | Woo- ster | Hoyt- ville | S. Charles- ton | Wheeler- sburg |
| <u>SEED SIZE (g/100)</u> | | | | | | | | | |
| Beeson (II) | 17.6 | 17.0 | | 21.8 | 17.5 | 17.7 | 18.6 | 22.0 | 19.0 |
| Cumberland | 17.7 | 18.0 | | 20.5 | 17.2 | 17.2 | 18.0 | 19.0 | 17.0 |
| Elf | 15.7 | 17.0 | | 19.6 | 16.5 | 16.9 | 16.3 | 18.0 | 15.0 |
| Oakland | 17.3 | 17.0 | | 18.9 | 17.6 | 15.9 | 18.8 | 20.0 | 16.0 |
| Union (IV) | 18.2 | 21.0 | | 21.2 | 19.7 | 17.1 | 18.9 | 20.0 | 17.0 |
| Williams | 16.8 | 17.0 | | 19.1 | 16.9 | 15.7 | 17.1 | 18.0 | 14.0 |
| Woodworth (III) | 14.7 | 14.0 | | 16.7 | 13.8 | 14.3 | 14.9 | 16.0 | 15.0 |
| A74-302012 | 18.9 | 19.0 | | 21.8 | 19.0 | 17.6 | 20.4 | 21.0 | 21.0 |
| A75-302005 | 16.6 | 18.0 | | 18.0 | 17.2 | 16.2 | 17.1 | 19.0 | 16.0 |
| A75-305022 | 14.5 | 14.0 | | 16.2 | 14.3 | 12.1 | 14.9 | 17.0 | 14.0 |
| A76-303035 | 14.5 | 18.0 | | 17.7 | 14.3 | 13.0 | 14.9 | 17.0 | 13.0 |
| A76-304002 | 15.9 | 16.0 | | 18.4 | 15.2 | 15.4 | 16.5 | 18.0 | 16.0 |
| A76-304019 | 16.5 | 18.0 | | 21.4 | 18.0 | 16.0 | 16.9 | 18.0 | 16.0 |
| A76-304020 | 15.9 | 18.0 | | 21.1 | 16.9 | 14.8 | 15.9 | 18.0 | 16.0 |
| C1558 | 16.7 | 20.0 | | 19.9 | 16.7 | 15.1 | 16.7 | 20.0 | 16.0 |
| C1559 | 16.4 | 17.0 | | 20.4 | 16.4 | 16.0 | 16.9 | 19.0 | 16.0 |
| HW74-3384 | 17.1 | 17.0 | | 20.4 | 17.7 | 16.4 | 17.8 | 20.0 | 18.0 |
| HW74-3385 | 15.7 | 17.0 | | 18.5 | 16.2 | 15.7 | 15.2 | 17.0 | 15.0 |
| L22 | 15.9 | 16.0 | | 18.0 | 14.6 | 15.1 | 16.9 | 18.0 | 15.0 |
| L23 | 16.6 | 17.0 | | 18.5 | 16.3 | 15.8 | 17.2 | 18.0 | 15.0 |
| L69U37-17-5 | 16.8 | 18.0 | | 19.0 | 16.6 | 14.7 | 18.6 | 19.0 | 16.0 |
| L74L-71 | 17.9 | 18.0 | | 23.5 | 17.0 | 16.4 | 18.5 | 19.0 | 17.0 |
| L75-6857 | 16.7 | 17.0 | | 19.6 | 16.3 | 15.5 | 17.8 | 18.0 | 15.0 |
| U10727 | 15.6 | 13.0 | | 17.7 | 15.5 | 15.2 | 17.0 | 18.0 | 14.0 |

UNIFORM TEST III, 1978

| Strain | Ken. | Ind. | | | Ill. | | | |
|-----------------|--------------------------|----------------|-----------------|---------------|--------|----------------|-----------------|---------------|
| | Lexing- ton | Lafay- ette | Green- field | Sull- ivan | Urbana | Girard town | Belle- ville | Eld- orado |
| | <u>SEED SIZE (g/100)</u> | | | | | | | |
| Beeson (II) | 18.9 | 20.0 | 14.0 | 14.6 | 20.0 | | 16.1 | 14.4 |
| Cumberland | 20.7 | 20.8 | 20.1 | 14.2 | 22.8 | | 16.5 | 16.9 |
| Elf | 19.0 | 17.3 | 17.3 | 16.0 | 18.7 | | 16.1 | 16.1 |
| Oakland | 17.3 | 20.0 | 19.8 | 14.0 | 19.2 | | 16.7 | 16.6 |
| Union (IV) | 19.6 | 20.8 | 19.8 | 17.1 | 21.3 | | 18.2 | 16.1 |
| Williams | 19.0 | 18.3 | 19.9 | 16.4 | 20.9 | | 16.3 | 15.6 |
| Woodworth (III) | 16.8 | 16.2 | 16.5 | 13.8 | 17.8 | | 14.6 | 12.8 |
| A74-302012 | 20.3 | 20.8 | 22.2 | 17.3 | 21.5 | | 18.2 | 16.9 |
| A75-302005 | 18.6 | 18.7 | 18.0 | 16.0 | 19.2 | | 15.7 | 14.9 |
| A75-305022 | 16.2 | 17.1 | 17.4 | 13.6 | 17.7 | | 13.7 | 12.0 |
| A76-303035 | 16.6 | 16.9 | 15.9 | 13.1 | 17.5 | | 13.2 | 10.8 |
| A76-304002 | 17.6 | 18.3 | 19.5 | 12.9 | 18.5 | | 14.4 | 13.1 |
| A76-304019 | 19.9 | 17.9 | 17.9 | 13.5 | 18.6 | | 16.5 | 14.8 |
| A76-304020 | 17.9 | 17.6 | 17.2 | 13.3 | 18.3 | | 16.1 | 14.0 |
| C1558 | 19.0 | 19.7 | 19.4 | 13.9 | 20.6 | | 15.8 | 14.3 |
| C1559 | 16.7 | 19.3 | 19.3 | 14.8 | 19.1 | | 16.2 | 12.4 |
| HW74-3384 | 20.6 | 19.4 | 18.4 | 15.8 | 19.8 | | 17.0 | 18.4 |
| HW74-3385 | 18.4 | 18.1 | 17.7 | 13.0 | 17.6 | | 13.5 | 16.4 |
| L22 | 18.8 | 17.3 | 17.7 | 14.7 | 19.7 | | 14.5 | 13.1 |
| L23 | 18.8 | 18.4 | 18.7 | 15.5 | 21.2 | | 15.8 | 14.9 |
| L69U37-17-5 | 18.4 | 20.1 | 18.4 | 14.2 | 18.6 | | 15.8 | 15.5 |
| L74L-71 | 21.2 | 20.2 | 22.7 | 14.0 | 22.0 | | 18.9 | 13.9 |
| 75-6857 | 20.1 | 19.0 | 19.3 | 14.8 | 21.2 | | 15.3 | 15.1 |
| U10727 | 17.1 | 18.2 | 17.5 | 13.7 | 17.9 | | 15.4 | 13.9 |

UNIFORM TEST III, 1978

| Iowa | | Mo. | | S.D. | Kans. | | Neb. | |
|--------------------------|------------------|-------|---------------|--------------|----------------|----------------|-------------|------|
| Stuart | Martins- burg | Edina | Colum- bia | Elk Point | Man- hatten | Pow- hatten | Ott- awa | Mead |
| <u>SEED SIZE (g/100)</u> | | | | | | | | |
| 17.6 | | | | 15.0 | 17.6 | 16.4 | 13.8 | 20.4 |
| 17.4 | | | | 13.9 | 16.5 | 15.4 | 13.3 | 18.4 |
| 14.8 | | | | 12.9 | 19.6 | 13.2 | 13.2 | 16.4 |
| 17.2 | | | | 15.2 | 17.8 | 14.7 | 14.4 | 18.4 |
| 17.7 | | | | 15.4 | 17.5 | 14.2 | 13.2 | 18.5 |
| 17.0 | | | | 13.6 | 16.5 | 14.1 | 13.3 | 17.4 |
| 14.4 | | | | 11.3 | 14.4 | 12.8 | 12.0 | 15.7 |
| 18.8 | | | | 15.2 | 18.4 | 15.9 | 14.6 | 18.9 |
| 16.2 | | | | 12.3 | 15.4 | 14.2 | 14.1 | 16.5 |
| 14.4 | | | | 12.2 | 15.2 | 11.7 | 10.9 | 15.3 |
| 14.3 | | | | 11.2 | 15.1 | 11.5 | 10.7 | 15.6 |
| 15.6 | | | | 13.1 | 16.9 | 12.5 | 12.8 | 16.9 |
| 15.7 | | | | 14.7 | 16.1 | 13.3 | 12.2 | 15.3 |
| 15.2 | | | | 12.9 | 15.9 | 13.0 | 10.8 | 15.2 |
| 16.0 | | | | 12.9 | 16.6 | 12.9 | 12.5 | 16.7 |
| 16.2 | | | | 14.2 | 16.0 | 13.1 | 11.8 | 16.9 |
| 16.6 | | | | 13.6 | 19.2 | 13.7 | 15.4 | 17.9 |
| 14.0 | | | | 11.9 | 17.4 | 12.2 | 12.9 | 16.2 |
| 16.1 | | | | 13.3 | 16.1 | 14.2 | 12.4 | 17.3 |
| 16.5 | | | | 13.5 | 16.0 | 14.7 | 13.0 | 17.4 |
| 14.9 | | | | 14.8 | 16.9 | 14.1 | 13.9 | 17.8 |
| 17.5 | | | | 14.1 | 17.1 | 14.2 | 14.3 | 18.8 |
| 16.8 | | | | 12.8 | 15.7 | 14.1 | 13.8 | 16.7 |
| 16.2 | | | | 11.8 | 16.6 | 13.8 | 13.2 | 16.1 |

UNIFORM TEST III, 1978

| Strain | Mean 15 Tests | N.J. | Md. | Ohio | | Ken. | Ind. | Ill. |
|--------------------|------------------|---------------|-----------------|----------------|--------------------|----------------|----------------|--------|
| | | Adel- phia | Clark- ville | Hoyt- ville | S. Charles- ton | Lexing- ton | Lafay- ette | Urbana |
| <u>PROTEIN (%)</u> | | | | | | | | |
| Beeson (II) | 42.2 | 43.0 | 40.2 | 41.3 | 41.9 | 43.6 | 42.5 | 43.2 |
| Cumberland | 41.7 | 42.1 | 39.5 | 41.9 | 41.0 | 41.9 | 41.8 | 44.5 |
| Elf | 42.9 | 42.5 | 42.2 | 41.0 | 42.6 | 43.6 | 44.1 | 44.8 |
| Oakland | 41.2 | 42.5 | 40.9 | 40.2 | 39.3 | 42.9 | 41.7 | 42.1 |
| Union (IV) | 42.6 | 42.4 | 42.2 | 42.5 | 41.6 | 44.1 | 43.0 | 44.3 |
| Williams | 42.7 | 41.9 | 42.3 | 42.4 | 41.7 | 43.1 | 42.7 | 44.2 |
| Woodworth (III) | 41.4 | 42.1 | 41.8 | 41.1 | 40.4 | 41.8 | 41.1 | 43.2 |
| A74-302012 | 40.6 | 41.0 | 39.5 | 40.8 | 38.6 | 40.8 | 41.8 | 41.7 |
| A75-302005 | 41.9 | 42.0 | 42.1 | 42.1 | 41.0 | 43.1 | 42.3 | 43.8 |
| A75-305022 | 41.7 | 42.7 | 40.2 | 41.5 | 41.5 | 39.7 | 42.3 | 43.5 |
| A76-303035 | 41.4 | 41.2 | 40.6 | 40.9 | 41.0 | 40.8 | 42.1 | 43.1 |
| A76-304002 | 42.2 | 43.2 | 41.0 | 41.5 | 41.6 | 40.5 | 42.9 | 43.0 |
| A76-304019 | 42.5 | 42.5 | 42.5 | 41.7 | 41.3 | 43.7 | 42.7 | 43.3 |
| A76-304020 | 42.5 | 43.0 | 42.2 | 42.2 | 41.2 | 43.0 | 42.1 | 43.6 |
| C1558 | 41.7 | 41.5 | 40.7 | 41.7 | 41.5 | 42.9 | 42.2 | 43.7 |
| C1159 | 41.8 | 42.0 | 41.1 | 40.8 | 42.1 | 42.4 | 42.3 | 43.6 |
| HW74-3384 | 40.6 | 39.3 | 40.6 | 40.1 | 39.6 | 41.3 | 40.7 | 42.3 |
| HW74-3385 | 39.8 | 40.3 | 39.2 | 40.3 | 39.5 | 39.7 | 41.0 | 41.1 |
| L22 | 42.5 | 42.4 | 41.4 | 41.9 | 41.0 | 43.2 | 42.0 | 44.8 |
| L23 | 42.5 | 42.9 | 42.7 | 42.5 | 41.3 | 43.5 | 42.8 | 44.6 |
| L69U37-17-5 | 41.0 | 41.8 | 39.3 | 40.7 | 40.3 | 40.3 | 41.9 | 42.9 |
| L74L-71 | 41.9 | 42.6 | 43.0 | 41.5 | 40.9 | 43.6 | 42.6 | 44.3 |
| L75-6857 | 42.5 | 41.5 | 43.2 | 42.8 | 40.5 | 42.8 | 43.6 | 44.1 |
| U10727 | 41.6 | 41.2 | 40.6 | 42.8 | 40.2 | 40.9 | 41.8 | 43.1 |

UNIFORM TEST III, 1978

| Ill. | | Iowa | Mo. | S.D. | Kans. | | Neb. |
|--------------------|---------------|--------|---------------|--------------|----------------|----------------|------|
| Bell- ville | Eld- orado | Stuart | Colum- bia | Elk Point | Man- hatten | Pow- hatten | Mead |
| <u>PROTEIN (%)</u> | | | | | | | |
| 42.4 | 43.0 | 40.4 | 44.1 | 43.6 | 41.3 | 42.3 | 41.5 |
| 41.0 | 41.1 | 41.1 | 42.9 | 43.3 | 38.1 | 42.6 | 42.5 |
| 44.8 | 41.8 | 43.1 | 44.0 | 43.8 | 40.6 | 43.5 | 41.8 |
| 41.4 | 39.9 | 40.5 | 42.4 | 42.1 | 40.6 | 42.4 | 41.0 |
| 42.8 | 41.6 | 42.4 | 43.6 | 42.2 | 41.3 | 44.2 | 42.9 |
| 43.6 | 41.1 | 42.5 | 44.4 | 43.3 | 40.3 | 44.4 | 42.5 |
| 40.9 | 40.2 | 41.1 | 42.6 | 41.5 | 39.7 | 42.5 | 40.9 |
| 40.2 | 38.9 | 39.6 | 43.4 | 41.8 | 39.2 | 40.5 | 40.8 |
| 42.9 | 40.1 | 41.5 | 42.7 | 42.3 | 41.0 | 42.2 | 41.2 |
| 41.5 | 39.5 | 41.9 | 43.2 | 42.3 | 40.7 | 43.1 | 40.3 |
| 41.8 | 40.3 | 40.5 | 42.1 | 42.1 | 40.2 | 42.1 | 41.4 |
| 42.5 | 41.3 | 40.6 | 43.6 | 42.4 | 40.3 | 43.6 | 42.8 |
| 44.1 | 42.0 | 41.1 | 44.9 | 42.4 | 41.3 | 43.1 | 42.0 |
| 43.5 | 41.8 | 41.0 | 44.9 | 42.5 | 41.3 | 43.7 | 41.7 |
| 41.9 | 40.8 | 41.0 | 43.4 | 41.7 | 39.6 | 42.2 | 41.4 |
| 42.9 | 41.0 | 41.4 | 42.4 | 42.6 | 39.6 | 41.2 | 42.4 |
| 41.7 | 41.4 | 40.0 | 42.5 | 41.4 | 38.5 | 41.9 | 38.4 |
| 40.9 | 39.5 | 38.4 | 41.7 | 39.4 | 36.9 | 41.4 | 37.6 |
| 42.5 | 42.6 | 42.9 | 44.2 | 43.2 | 39.2 | 43.9 | 42.8 |
| 42.9 | 40.7 | 42.7 | 44.0 | 43.1 | 40.3 | 42.0 | 42.0 |
| 41.9 | 39.4 | 39.4 | 40.9 | 42.1 | 41.6 | 40.5 | 41.1 |
| 42.1 | 40.7 | 40.9 | 43.4 | 42.7 | 39.6 | 41.5 | 40.7 |
| 42.6 | 41.5 | 42.7 | 43.9 | 42.9 | 40.5 | 42.9 | 42.4 |
| 40.9 | 42.8 | 40.6 | 42.2 | 41.9 | 41.3 | 40.8 | 41.6 |

UNIFORM TEST III, 1978

| Strain | Mean 15 Tests | N.J. | Md. | Ohio | | Ken. | Ind. | Ill. |
|-----------------|------------------|---------------|-----------------|----------------|--------------------|----------------|----------------|--------|
| | | Adel- phia | Clark- ville | Hoyt- ville | S. Charles- ton | Lexing- ton | Lafay- ette | Urbana |
| <u>OIL (%)</u> | | | | | | | | |
| Beeson (II) | 20.5 | 19.8 | 21.4 | 21.3 | 21.2 | 19.9 | 20.0 | 19.7 |
| Cumberland | 21.6 | 20.4 | 23.4 | 20.9 | 22.4 | 21.6 | 21.6 | 19.9 |
| Elf | 20.1 | 19.6 | 21.6 | 20.0 | 20.3 | 20.2 | 19.8 | 19.4 |
| Oakland | 20.9 | 19.5 | 21.5 | 21.6 | 20.9 | 20.2 | 20.6 | 20.3 |
| Union (IV) | 20.5 | 19.8 | 21.5 | 20.3 | 21.1 | 20.3 | 20.2 | 19.8 |
| Williams | 20.7 | 20.2 | 21.4 | 19.8 | 21.1 | 21.0 | 20.7 | 19.2 |
| Woodworth (III) | 21.1 | 19.5 | 20.3 | 21.3 | 21.4 | 20.9 | 21.7 | 19.6 |
| A74-302012 | 21.2 | 20.1 | 21.7 | 20.6 | 21.7 | 20.9 | 20.2 | 20.6 |
| A75-302005 | 20.4 | 19.7 | 21.0 | 19.9 | 20.7 | 20.9 | 19.9 | 19.8 |
| A75-305022 | 21.4 | 19.9 | 22.5 | 21.6 | 20.5 | 22.9 | 20.8 | 20.0 |
| A76-303035 | 20.8 | 19.6 | 21.3 | 20.9 | 20.8 | 21.4 | 20.8 | 20.8 |
| A76-304002 | 20.7 | 19.2 | 21.0 | 20.2 | 20.3 | 21.1 | 19.8 | 20.0 |
| A76-304019 | 19.8 | 18.6 | 19.6 | 20.6 | 21.0 | 19.6 | 20.6 | 19.7 |
| A76-304020 | 20.0 | 18.5 | 20.3 | 19.3 | 20.7 | 19.9 | 20.3 | 19.8 |
| C1558 | 20.6 | 19.8 | 21.3 | 20.1 | 20.5 | 20.4 | 20.8 | 20.3 |
| C1559 | 21.3 | 20.5 | 22.1 | 21.8 | 20.0 | 21.2 | 21.1 | 20.4 |
| HW74-3384 | 22.6 | 22.4 | 22.6 | 22.8 | 23.0 | 22.7 | 23.2 | 21.4 |
| HW74-3385 | 22.2 | 21.3 | 22.4 | 20.9 | 22.0 | 23.0 | 21.3 | 21.6 |
| L22 | 20.8 | 19.4 | 21.3 | 21.5 | 21.7 | 20.2 | 21.1 | 19.4 |
| L23 | 20.6 | 19.4 | 20.5 | 20.2 | 21.2 | 20.1 | 20.3 | 19.2 |
| L69U37-17-5 | 20.7 | 19.2 | 21.7 | 20.7 | 20.6 | 21.2 | 20.2 | 19.7 |
| L74L-71 | 21.2 | 20.4 | 20.7 | 21.6 | 21.6 | 20.8 | 21.3 | 20.1 |
| L75-6857 | 20.9 | 20.3 | 20.6 | 20.1 | 21.5 | 21.2 | 20.6 | 20.4 |
| U10727 | 20.5 | 19.8 | 20.9 | 19.7 | 20.9 | 21.1 | 19.9 | 19.2 |

UNIFORM TEST III, 1978

| <u>Iowa</u> | <u>Mo.</u> | <u>S.D.</u> | <u>Kans.</u> | | <u>Neb.</u> | <u>Ill.</u> | |
|----------------|---------------|--------------|----------------|----------------|-------------|-----------------|---------------|
| Stuart | Colum- bia | Elk Point | Man- hatten | Pow- hatten | Mead | Belle- ville | Eld- orado |
| <u>OIL (%)</u> | | | | | | | |
| 21.0 | 18.8 | 19.0 | 22.1 | 20.9 | 20.8 | 21.6 | 20.5 |
| 22.6 | 22.0 | 19.2 | 24.0 | 21.2 | 20.7 | 22.3 | 21.8 |
| 19.7 | 19.2 | 19.4 | 21.9 | 19.7 | 20.7 | 19.8 | 20.7 |
| 21.3 | 20.6 | 19.2 | 22.5 | 20.8 | 21.0 | 21.6 | 22.3 |
| 20.5 | 19.7 | 19.5 | 21.9 | 20.2 | 20.2 | 20.8 | 21.8 |
| 21.3 | 19.7 | 19.5 | 22.7 | 20.0 | 20.5 | 21.1 | 22.5 |
| 20.9 | 20.4 | 19.6 | 23.5 | 21.3 | 21.4 | 22.3 | 22.6 |
| 22.1 | 20.1 | 19.5 | 22.5 | 21.3 | 20.9 | 22.6 | 23.0 |
| 20.4 | 19.9 | 19.0 | 21.6 | 19.9 | 21.0 | 20.5 | 21.3 |
| 21.3 | 20.7 | 20.1 | 22.6 | 21.6 | 22.4 | 21.4 | 23.2 |
| 21.2 | 19.5 | 19.4 | 22.4 | 20.5 | 20.6 | 21.1 | 21.9 |
| 22.0 | 21.0 | 19.6 | 22.0 | 21.5 | 20.0 | 21.3 | 22.1 |
| 19.4 | 18.5 | 19.5 | 20.8 | 19.2 | 20.1 | 19.9 | 20.6 |
| 20.8 | 18.7 | 18.7 | 21.1 | 18.8 | 20.1 | 21.0 | 21.3 |
| 20.9 | 20.3 | 19.6 | 22.6 | 20.1 | 20.8 | 20.5 | 21.6 |
| 21.3 | 21.5 | 19.4 | 23.6 | 21.9 | 21.3 | 21.1 | 22.5 |
| 22.8 | 20.6 | 21.1 | 24.8 | 21.6 | 24.3 | 22.9 | 22.8 |
| 23.2 | 22.2 | 21.2 | 24.4 | 21.3 | 23.0 | 22.2 | 23.8 |
| 20.4 | 20.2 | 18.8 | 23.5 | 20.7 | 20.5 | 21.0 | 21.6 |
| 21.0 | 19.7 | 18.5 | 22.4 | 21.0 | 21.0 | 21.9 | 22.6 |
| 21.2 | 20.9 | 19.5 | 21.6 | 20.9 | 21.2 | 20.8 | 21.7 |
| 21.7 | 20.0 | 19.5 | 23.0 | 21.2 | 22.7 | 21.2 | 21.4 |
| 20.8 | 19.8 | 19.2 | 23.1 | 21.1 | 21.0 | 21.6 | 22.3 |
| 21.2 | 21.1 | 18.9 | 21.5 | 21.2 | 20.0 | 21.1 | 20.9 |

PRELIMINARY TEST III, 1978

| Strain | Parentage | Generation Compositd |
|--------------------|---|----------------------|
| 1. Beeson (II) | C1253 x Kent | F7 |
| 2. Union (IV) | Williams ⁵ x SL11 (Wayne <u>Rpm</u> <u>Rps</u>) | F3 |
| 3. Williams | Wayne x 157-0034 (Clark x Adams) | F6 |
| 4. Woodworth (III) | Wayne x 157-0034 (Clark x Adams) | F6 |
| 5. A77-311031 | AP6 | S4 |
| 6. A77-313012 | AP61YT(F ₄)C1 | F4 |
| 7. A77-313032 | AP6 | S4 |
| 8. A77-314013 | A73-21030 x Williams | F4 |
| 9. A77-314017 | Coles x A72-507 | F4 |
| 10. A77-315012 | L70T543 x A73-25088 | F4 |
| 11. A77-315024 | A72-512 x Agripro Ex 50734 | F4 |
| 12. C1567 | Williams x Beeson | F6 |
| 13. C1570 | C1421 x Williams | F7 |
| 14. C1571 | C1421 x Williams | F7 |
| 15. C1575 | C1421 x Williams | F7 |
| 16. C1577 | Williams x Bonus | F6 |
| 17. H74-620 | Williams x Ransom | F5 |
| 18. H74-3382 | Williams x Ransom | F5 |
| 19. H74-3398 | Williams x Ransom | F5 |
| 20. H75-9 | Williams x Ransom | F5 |
| 21. H75-5605 | L67L-172 x V68-1034 | F5 |
| 22. H7751 | Beeson x Md66-1258 | F5 |
| 23. K1039 | L66L-144 x Calland | F3 |
| 24. K1041 | Williams x Calland | F6 |
| 25. L74-3534 | Williams x L2-Dt ₂ | F7 |
| 26. L75-8221 | Williams x L70-2450 | F4 |
| 27. L75-8234 | Williams x L70-2450 | F4 |
| 28. L75-8291 | Williams x L70-2450 | F4 |
| 29. L75-8388 | Williams x L70-2450 | F4 |
| 30. L76-0022 | Williams ⁴ x PI171451 | F5 |
| 31. U21408 | C1371-71 x Amsoy | F5 |
| 32. U36276 | Bonus x Wayne | F4 |
| 33. U37219 | C1430 x Calland | F5 |
| 34. U37710 | L15 x C1517 | F4 |
| 35. U37729 | L15 x C1517 | F4 |
| 36. U46484 | Merit x Bonus | F5 |

Four strains in this test, L75-8221, -8234, -8291, and -8388 are resistant to race 3 of the soybean cyst nematode. Yields of two of these, L75-8221 and L75-8388 were only slightly below the yields of the Group III check varieties. Yield of the Mexican bean beetle resistant strain L76-0022, was slightly below those of the check varieties. All five of the determinate strains, H74-620, -3382, -3398, H75-9, and -5605 have excellent shattering resistance. Yields of three of these, H74-620, -3382, and -3398 are equal to that of the check variety Woodworth.

PRELIMINARY TEST III, 1978

Descriptive and Other Data

| Strain | Descriptive Code | | Chlorosis Score Ames | Shattering Manhattan 2 weeks |
|-----------------|------------------|-------|-------------------------|------------------------------------|
| Beeson (II) | PGBr | SYIb | 3 | 4 |
| Union (V) | WTTn | SYB1 | 4 | 1 |
| Williams | WTTn | SYB1 | 4 | 1 |
| Woodworth (III) | WTTn | DYB1 | 4 | 2 |
| A77-311031 | WTBr | DYG+Y | 3 | 4 |
| A77-313012 | PGBr | DYIb | 5 | 3 |
| A77-313032 | WTTn+Br | DYB1 | 4 | 2 |
| A77-314013 | WTBr | SYB1 | 3 | 3 |
| A77-314017 | P+WGBr | SYB1 | 3 | 2 |
| A77-315012 | WTTn+Br | SYBf | 1 | 2 |
| A77-315024 | WTBr | SYB1 | 3 | 2 |
| C1567 | WTBr | SYB1 | 3 | 2 |
| C1570 | WTTn | SYB1 | 4 | 2 |
| C1571 | WGTn | SYBf | 3 | 1 |
| C1575 | WTTn | SYB1 | 2 | 4 |
| C1577 | WTBr | SYB1 | 2 | 4 |
| H74-620 | P+WTTn | SYB1 | 2 | 1 |
| H74-3382 | PTTn | SYB1 | 3 | 1 |
| H74-3398 | WTTn | SYB1 | 2 | 1 |
| H75-9 | PTTn | SYB1 | 2 | 1 |
| H75-5605 | WTTn | DYB1 | 3 | 1 |
| H7751 | PTBr | SYB1 | 4 | 2 |
| K1039 | WTBr | SYB1 | 4 | 2 |
| K1041 | WTTn | SYB1 | 2 | 2 |
| L74-3534 | PGBr | SYBf | 3 | 1 |
| L75-8221 | PTBr | SYB1 | 3 | 4 |
| L75-8234 | WTTn+Br | SYB1 | 4 | 4 |
| L75-8291 | WTBr | SYB1 | 3 | 4 |
| L75-8388 | P+WTTn | SYB1 | 4 | 4 |
| L76-0022 | WTTn | SYB1 | 4 | 2 |
| U21408 | PGTn | SYBf | 4 | 5 |
| U36276 | PTBr | SYB1 | 3 | 4 |
| U37219 | PTBr | DYB1 | 3 | 5 |
| U37710 | WTTn | SYB1 | 4 | 2 |
| U37729 | WTBr | SYB1 | 5 | 2 |
| U46484 | WGBr | DYBf | 3 | 4 |

PRELIMINARY TEST III, 1978

Disease Data

| Strain | FE ₂ | | BSR | | DM | | PSB | PS | SMV | PR | | race 1 |
|-----------------|-----------------|-----------|----------------|------------------|------------------|-----------|-----|-------|-------|-----------|-----------|--------|
| | Laf. Ind. | Laf. Ind. | Ames, Ia. Stem | Ames, Ia. Plants | Belle-ville Ill. | Laf. Ind. | | | | Laf. Ind. | Laf. Ind. | |
| | a | n | n | n | n | d | a | a | a | n | a | a |
| | Score | % | % | % | Score | % | % | Score | Score | Reaction | | |
| Beeson (II) | 1 | 100 | 69 | 100 | 3.0 | 4 | 3 | 3M | 4.0 | R | R | |
| Union (IV) | 4 | 40 | 91 | 100 | 1.0 | 1 | 1 | 5E | 3.5 | R | R | |
| Williams | 5 | 100 | 87 | 100 | 3.5 | 4 | 2 | 5E | 3.0 | S | S | |
| Woodworth (III) | 4 | 0 | 90 | 100 | 3.0 | 5 | 2 | 5E | 4.0 | S | S | |
| A77-311031 | 5 | 40 | 87 | 100 | 3.0 | 2 | 1 | 5S | 3.0 | H | S | |
| A77-313012 | 3 | 100 | 65 | 100 | 4.0 | 5 | 4 | 5E | 4.5 | R | R | |
| A77-313032 | 1 | 100 | 95 | 100 | 4.0 | 4 | 4 | 5S | 3.0 | S | S | |
| A77-314013 | 4 | 20 | 81 | 100 | 5.0 | 1 | 1 | 5E | 3.5 | H | H | |
| A77-314017 | 3 | 20 | 78 | 100 | 3.0 | 0 | 1 | 5S | 3.5 | S | S | |
| A77-315012 | 5 | 0 | 64 | 100 | 3.5 | 0 | 1 | 5E | 2.5 | R | H | |
| A77-315024 | 1 | 40 | 100 | 100 | 2.5 | 2 | 1 | 5E | 3.0 | H | S | |
| C1567 | 4 | 20 | 78 | 100 | 4.5 | 1 | 0 | 3M | 4.0 | R | R | |
| C1570 | 4 | 60 | 83 | 100 | 4.0 | 1 | 0 | 5E | 2.5 | R | R | |
| C1571 | 3 | 20 | 97 | 100 | 5.0 | 0 | 2 | 3M | 3.0 | R | R | |
| C1575 | 5 | 80 | 97 | 100 | 3.0 | 0 | 1 | 5E | 3.0 | R | R | |
| C1577 | 4 | 40 | 90 | 100 | 3.5 | 0 | 0 | 5E | 2.5 | R | R | |
| H74-620 | 5 | 60 | 100 | 100 | 1.5 | 1 | 0 | 1 | 3.0 | H | S | |
| H74-3382 | 5 | 0 | 100 | 100 | 2.5 | 0 | 0 | 2E | 3.5 | H | S | |
| H74-3398 | 5 | 20 | 96 | 100 | 1.0 | 1 | 0 | 1 | 3.5 | S | S | |
| H75-9 | 5 | 40 | 98 | 100 | 1.0 | 0 | 0 | 5E | 4.0 | S | S | |
| H75-5605 | 1 | 60 | 97 | 100 | 1.0 | 2 | 0 | 5E | 3.5 | S | S | |
| H7751 | 1 | 80 | 92 | 100 | 3.0 | 0 | 2 | 4E | 5.0 | S | S | |
| K1039 | 5 | 20 | 98 | 100 | 3.0 | 9 | 1 | 5E | 3.0 | R | R | |
| K1041 | 4 | 40 | 74 | 100 | 3.0 | 3 | 1 | 5E | 2.5 | R | H | |
| L74-3534 | 4 | 40 | 100 | 100 | 2.5 | 1 | 1 | 5E | 4.0 | R | R | |
| L75-8221 | 4 | 20 | 89 | 100 | 4.0 | 0 | 2 | 5E | 4.0 | R | H | |
| L75-8234 | 4 | 60 | 95 | 100 | 4.0 | 2 | 1 | 5E | 2.5 | S | H | |
| L75-8291 | 5 | 80 | 87 | 100 | 3.5 | 0 | 1 | 5E | 3.5 | S | S | |
| L75-8388 | 5 | 80 | 94 | 100 | 4.5 | 0 | 0 | 5E | 3.5 | S | S | |
| L76-0022 | 4 | 80 | 95 | 100 | 3.5 | 1 | 2 | 4M | 2.5 | H | S | |
| U21408 | 4 | 40 | 96 | 100 | 3.5 | 0 | 3 | 4M | 2.5 | R | H | |
| U36276 | 4 | 20 | 95 | 100 | 4.0 | 11 | 3 | 5M | 3.0 | H | H | |
| U37219 | 5 | 0 | 75 | 100 | 1.0 | 4 | 1 | 5E | 3.0 | R | R | |
| U37710 | 3 | 80 | 100 | 100 | 4.0 | 4 | 0 | 5E | 3.0 | R | H | |
| U37729 | 1 | 60 | 89 | 100 | 4.0 | 1 | 0 | 4M | 3.0 | R | H | |
| U46484 | 5 | 20 | 88 | 100 | 3.5 | 0 | 1 | 2M | 2.5 | R | H | |

PRELIMINARY TEST III, 1978

Regional Summary

| Strain No. of Tests | Yield 9 | Rank 9 | Maturity 8 | Lodging 9 | Height 9 | Seed Quality 7 | Seed Size 8 | Seed Composition | |
|------------------------|------------|-----------|---------------|--------------|-------------|----------------------|-------------------|------------------|----------|
| | | | | | | | | Protein 4 | Oil 4 |
| | bu/a | No. | Date | Score | In. | Score | g/100 | % | % |
| Beeson (II) | 49.5 | 12 | -7.8 | 2.1 | 40 | 2.5 | 18.7 | 41.7 | 20.5 |
| Union (IV) | 47.2 | 27 | +6.4 | 2.5 | 48 | 1.7 | 18.3 | 42.7 | 20.8 |
| Williams | 48.6 | 20 | +3.9 | 2.0 | 44 | 1.7 | 17.6 | 42.4 | 21.0 |
| Woodworth (III) | 50.3 | 9 | 9-26* | 1.9 | 43 | 1.6 | 15.0 | 40.8 | 21.3 |
| A77-311031 | 51.4 | 4 | -2.9 | 2.4 | 39 | 2.2 | 15.0 | 42.2 | 21.6 |
| A77-313012 | 48.9 | 15 | +0.4 | 2.9 | 42 | 2.0 | 15.9 | 41.7 | 21.0 |
| A77-313032 | 48.8 | 18 | +1.2 | 2.3 | 38 | 2.2 | 16.7 | 42.5 | 20.1 |
| A77-314013 | 52.3 | 1 | +2.1 | 2.0 | 45 | 1.8 | 18.3 | 42.3 | 21.3 |
| A77-314017 | 50.9 | 6 | +2.6 | 3.1 | 48 | 1.9 | 16.6 | 41.9 | 21.1 |
| A77-315012 | 48.9 | 15 | +4.0 | 3.4 | 50 | 2.0 | 15.6 | 42.4 | 20.4 |
| A77-315024 | 51.6 | 3 | +4.2 | 2.9 | 45 | 1.8 | 15.3 | 41.6 | 21.1 |
| C1567 | 47.2 | 27 | +1.0 | 2.0 | 42 | 2.3 | 17.8 | 42.0 | 20.6 |
| C1570 | 48.1 | 22 | +5.4 | 2.1 | 45 | 1.5 | 16.4 | 41.9 | 20.7 |
| C1571 | 49.4 | 13 | +0.1 | 1.4 | 40 | 1.9 | 17.0 | 41.1 | 21.7 |
| C1575 | 47.3 | 26 | -2.2 | 2.0 | 42 | 2.0 | 16.0 | 40.3 | 20.6 |
| C1577 | 46.2 | 31 | +3.2 | 2.1 | 48 | 1.8 | 16.8 | 44.2 | 20.3 |
| H74-620 | 50.2 | 10 | +5.0 | 1.5 | 26 | 1.5 | 18.0 | 40.9 | 22.7 |
| H74-3382 | 50.5 | 8 | +1.8 | 1.3 | 25 | 1.3 | 15.7 | 39.9 | 22.4 |
| H74-3398 | 50.2 | 10 | +2.6 | 1.4 | 24 | 1.3 | 16.5 | 40.9 | 21.8 |
| H75-9 | 36.3 | 36 | +2.4 | 1.2 | 19 | 1.8 | 17.4 | 43.8 | 21.5 |
| H75-5605 | 48.7 | 19 | -3.9 | 1.4 | 26 | 1.5 | 13.3 | 40.4 | 21.0 |
| H7751 | 47.9 | 23 | +3.1 | 2.2 | 44 | 2.1 | 17.0 | 40.9 | 21.2 |
| K1039 | 45.7 | 33 | +3.5 | 3.0 | 48 | 2.3 | 18.9 | 41.7 | 20.6 |
| K1041 | 51.1 | 5 | +8.4 | 2.9 | 48 | 2.0 | 17.1 | 40.0 | 21.7 |
| L74-3534 | 46.8 | 29 | +3.9 | 2.1 | 41 | 2.0 | 17.2 | 42.6 | 20.7 |
| L75-8221 | 46.3 | 30 | -3.2 | 2.3 | 43 | 1.8 | 15.7 | 41.2 | 21.3 |
| L75-8234 | 42.5 | 35 | +4.8 | 2.2 | 50 | 2.0 | 18.3 | 41.1 | 21.0 |
| L75-8291 | 43.1 | 34 | +3.9 | 2.3 | 46 | 1.8 | 17.7 | 42.5 | 20.4 |
| L75-8388 | 48.9 | 15 | -0.2 | 2.2 | 42 | 1.7 | 17.6 | 41.9 | 20.6 |
| L76-0022 | 46.2 | 31 | +5.1 | 2.4 | 45 | 1.6 | 17.1 | 43.6 | 20.4 |
| U21408 | 47.5 | 24 | -0.8 | 2.5 | 45 | 2.1 | 15.5 | 40.2 | 21.3 |
| U36276 | 50.7 | 7 | -2.0 | 1.6 | 37 | 2.1 | 15.1 | 42.9 | 20.4 |
| U37219 | 51.8 | 2 | +1.9 | 1.7 | 42 | 2.1 | 18.3 | 44.1 | 19.3 |
| U37710 | 49.3 | 14 | +3.8 | 1.8 | 41 | 1.9 | 14.6 | 41.3 | 20.2 |
| U37729 | 48.3 | 21 | -0.4 | 2.1 | 46 | 1.9 | 17.4 | 42.0 | 21.1 |
| U46484 | 47.5 | 24 | +1.2 | 2.2 | 45 | 1.7 | 15.5 | 41.5 | 22.7 |

PRELIMINARY TEST III, 1978

| Strain | Mean 9 Tests | Ohio | Ind. | Ill. | |
|-----------------|-----------------|--------------------|----------------|--------|-----------------|
| | | S. Charles- ton | Lafay- ette | Urbana | Belle- ville |
| YIELD (bu/a) | | | | | |
| Beeson (II) | 49.5 | 67.0 | 47.9 | 50.6 | 39.7 |
| Union (IV) | 47.2 | 56.6 | 51.2 | 50.8 | 50.5 |
| Williams | 48.6 | 63.0 | 52.7 | 49.9 | 53.0 |
| Woodworth (III) | 50.3 | 67.6 | 50.5 | 48.5 | 48.4 |
| A77-311031 | 51.4 | 63.6 | 50.3 | 51.8 | 52.3 |
| A77-313012 | 48.9 | 54.6 | 48.2 | 51.0 | 53.0 |
| A77-313032 | 48.8 | 63.1 | 46.1 | 45.0 | 47.9 |
| A77-314013 | 52.3 | 59.6 | 52.2 | 56.5 | 52.8 |
| A77-314017 | 50.9 | 61.8 | 53.1 | 50.8 | 45.6 |
| A77-315012 | 48.9 | 56.9 | 53.4 | 50.5 | 44.6 |
| A77-315024 | 51.6 | 60.6 | 52.3 | 48.5 | 50.5 |
| C1567 | 47.2 | 60.0 | 45.0 | 47.4 | 47.2 |
| C1570 | 48.1 | 57.2 | 49.1 | 45.0 | 52.7 |
| C1571 | 49.4 | 59.4 | 48.1 | 47.7 | 42.9 |
| C1575 | 47.3 | 59.5 | 51.7 | 48.1 | 47.2 |
| C1577 | 46.2 | 57.4 | 47.4 | 47.1 | 48.8 |
| H74-620 | 50.2 | 60.4 | 44.4 | 51.2 | 52.9 |
| H74-3382 | 50.5 | 64.1 | 46.3 | 52.2 | 52.7 |
| H74-3398 | 50.2 | 64.9 | 46.4 | 53.1 | 52.9 |
| H75-9 | 36.3 | 60.4 | 35.8 | 41.0 | 35.6 |
| H75-5605 | 48.7 | 64.2 | 48.3 | 52.0 | 44.3 |
| H7751 | 47.9 | 59.5 | 35.6 | 51.6 | 53.2 |
| K1039 | 45.7 | 56.0 | 45.8 | 49.6 | 37.5 |
| K1041 | 51.1 | 66.8 | 56.9 | 54.3 | 49.8 |
| L74-3534 | 46.8 | 63.0 | 48.4 | 48.1 | 49.1 |
| L75-8221 | 46.3 | 55.2 | 45.0 | 52.0 | 44.1 |
| L75-8234 | 42.5 | 49.2 | 45.9 | 44.3 | 44.4 |
| L75-8291 | 43.1 | 55.5 | 49.2 | 40.9 | 46.9 |
| L75-8388 | 48.9 | 58.4 | 51.1 | 45.2 | 46.8 |
| L76-0022 | 46.2 | 60.8 | 47.7 | 47.7 | 42.5 |
| U21408 | 47.5 | 61.6 | 46.6 | 44.7 | 49.1 |
| U36276 | 50.7 | 67.8 | 45.2 | 44.2 | 51.4 |
| U37219 | 51.8 | 63.3 | 52.8 | 51.6 | 52.5 |
| U37710 | 49.3 | 60.6 | 51.9 | 45.3 | 50.8 |
| U37729 | 48.3 | 60.4 | 52.6 | 46.9 | 44.8 |
| U46484 | 47.5 | 57.8 | 51.7 | 41.2 | 43.5 |
| C.V. (%) | | 7.7 | 7.4 | 5.6 | 8.3 |
| L.S.D. (5%) | | NS | 7.2 | 5.6 | 8.1 |
| Row Sp. (in.) | | 30" | 30" | 30" | 30" |
| Rows/Plot | | 4 | 4 | 4 | 4 |
| Reps. | | 2 | 2 | 2 | 2 |

PRELIMINARY TEST III, 1978

| Iowa | | S.D. | Neb. | Kans |
|--------------|------------------|--------------|------|----------------|
| Stuart | Martins- burg | Elk Point | Mead | Man- hatten |
| YIELD (bu/a) | | | | |
| 44.9 | 57.3 | 40.4 | 52.3 | 45.3 |
| 39.0 | 51.1 | 35.1 | 41.8 | 48.9 |
| 40.4 | 54.3 | 31.1 | 46.6 | 46.2 |
| 40.6 | 56.2 | 37.7 | 52.1 | 51.3 |
| 46.5 | 54.0 | 43.9 | 52.4 | 47.4 |
| 43.3 | 54.6 | 34.2 | 52.3 | 48.8 |
| 40.3 | 52.2 | 39.1 | 56.2 | 49.0 |
| 45.8 | 62.7 | 44.1 | 46.1 | 51.0 |
| 45.2 | 60.3 | 38.4 | 51.8 | 51.0 |
| 36.4 | 57.4 | 32.4 | 53.3 | 55.6 |
| 45.4 | 57.8 | 44.3 | 53.1 | 51.5 |
| 41.4 | 52.2 | 32.7 | 44.7 | 54.3 |
| 41.8 | 56.1 | 33.5 | 42.0 | 55.4 |
| 44.7 | 55.1 | 42.5 | 51.1 | 52.9 |
| 43.0 | 54.4 | 30.4 | 46.2 | 45.1 |
| 38.2 | 50.9 | 35.4 | 41.9 | 49.1 |
| 44.4 | 51.4 | 47.5 | 62.4 | 36.9 |
| 41.4 | 60.7 | 35.7 | 60.8 | 40.7 |
| 45.0 | 53.9 | 42.8 | 55.3 | 37.3 |
| 23.5 | 38.4 | 40.0 | 42.5 | 9.5 |
| 43.4 | 48.0 | 42.3 | 55.4 | 40.6 |
| 41.8 | 58.4 | 37.0 | 41.6 | 52.2 |
| 43.5 | 52.3 | 33.4 | 40.4 | 52.6 |
| 45.1 | 50.6 | 37.9 | 44.3 | 54.6 |
| 39.1 | 48.3 | 32.0 | 40.0 | 53.5 |
| 39.1 | 54.8 | 34.3 | 45.9 | 46.2 |
| 37.6 | 46.5 | 35.1 | 38.1 | 41.8 |
| 37.4 | 43.8 | 25.7 | 45.2 | 43.7 |
| 41.7 | 48.3 | 39.9 | 59.4 | 49.2 |
| 40.7 | 48.7 | 37.0 | 40.1 | 50.8 |
| 42.3 | 58.1 | 36.4 | 45.1 | 43.8 |
| 49.2 | 54.3 | 42.7 | 55.4 | 46.3 |
| 47.3 | 65.1 | 42.1 | 46.9 | 45.0 |
| 39.6 | 57.0 | 35.8 | 48.0 | 54.3 |
| 42.9 | 56.4 | 38.8 | 47.9 | 43.2 |
| 43.3 | 53.1 | 44.3 | 44.4 | 48.6 |
| 6.7 | 7.6 | 14.8 | 8.6 | 6.9 |
| 5.7 | 8.1 | 9.0 | 6.9 | 6.6 |
| 27" | 13.5" | 30" | 30" | 30" |
| 4 | 5 | 3 | 4 | 4 |
| 2 | 2 | 3 | 2 | 3 |

PRELIMINARY TEST III, 1978

| Strain | Mean 9 Tests | Ohio | Ind. | Ill. | |
|-----------------|-----------------|--------------------|----------------|--------|-----------------|
| | | S. Charles- ton | Lafay- ette | Urbana | Belle- ville |
| YIELD RANK | | | | | |
| Beeson (II) | 12 | 3 | 22 | 14 | 34 |
| Union (IV) | 27 | 31 | 12 | 12 | 13 |
| Williams | 20 | 11 | 5 | 16 | 2 |
| Woodworth (III) | 9 | 2 | 14 | 18 | 19 |
| A77-311031 | 4 | 8 | 15 | 7 | 10 |
| A77-313012 | 15 | 35 | 20 | 11 | 2 |
| A77-313032 | 18 | 10 | 28 | 29 | 20 |
| A77-314013 | 1 | 22 | 8 | 1 | 6 |
| A77-314017 | 6 | 13 | 3 | 12 | 25 |
| A77-315012 | 15 | 30 | 2 | 15 | 27 |
| A77-315024 | 3 | 16 | 7 | 18 | 13 |
| C1567 | 27 | 21 | 32 | 24 | 21 |
| C1570 | 22 | 29 | 17 | 29 | 7 |
| C1571 | 13 | 25 | 21 | 22 | 32 |
| C1575 | 26 | 23 | 10 | 20 | 21 |
| C1577 | 31 | 28 | 24 | 25 | 18 |
| H74-620 | 10 | 18 | 34 | 10 | 4 |
| H74-3382 | 8 | 7 | 27 | 4 | 7 |
| H74-3398 | 10 | 5 | 26 | 3 | 4 |
| H75-9 | 36 | 18 | 35 | 35 | 36 |
| H75-5605 | 19 | 6 | 19 | 5 | 29 |
| H7751 | 23 | 23 | 36 | 8 | 1 |
| K1039 | 33 | 32 | 30 | 17 | 35 |
| K1041 | 5 | 4 | 1 | 2 | 15 |
| L74-3534 | 29 | 11 | 18 | 20 | 16 |
| L75-8221 | 30 | 34 | 32 | 5 | 30 |
| L75-8234 | 35 | 36 | 29 | 32 | 28 |
| L75-8291 | 34 | 33 | 16 | 36 | 23 |
| L75-8388 | 15 | 26 | 13 | 28 | 24 |
| L76-0022 | 31 | 15 | 23 | 22 | 33 |
| U21408 | 24 | 14 | 25 | 31 | 16 |
| U36276 | 7 | 1 | 31 | 33 | 11 |
| U37219 | 2 | 9 | 4 | 8 | 9 |
| U37710 | 14 | 16 | 9 | 27 | 12 |
| U37729 | 21 | 18 | 6 | 26 | 26 |
| U46484 | 24 | 27 | 10 | 34 | 31 |

PRELIMINARY TEST III, 1978

| Iowa | S.D. | Neb. | Kans. |
|--------|------------|------|-----------|
| Stuart | Elk Point | Mead | Manhatten |
| | YIELD RANK | | |
| 9 | 11 | 12 | 25 |
| 31 | 25 | 31 | 18 |
| 26 | 34 | 19 | 23 |
| 25 | 18 | 13 | 11 |
| 3 | 5 | 10 | 21 |
| 14 | 28 | 11 | 19 |
| 27 | 14 | 4 | 17 |
| 4 | 4 | 21 | 12 |
| 6 | 16 | 14 | 12 |
| 35 | 32 | 8 | 1 |
| 5 | 3 | 9 | 10 |
| 22 | 31 | 25 | 4 |
| 19 | 29 | 29 | 2 |
| 10 | 8 | 15 | 7 |
| 16 | 35 | 20 | 26 |
| 32 | 24 | 30 | 16 |
| 11 | 1 | 1 | 35 |
| 22 | 23 | 2 | 32 |
| 8 | 6 | 7 | 34 |
| 36 | 12 | 28 | 36 |
| 13 | 9 | 5 | 33 |
| 19 | 19 | 32 | 9 |
| 12 | 30 | 33 | 8 |
| 7 | 17 | 27 | 3 |
| 29 | 33 | 35 | 6 |
| 29 | 27 | 22 | 23 |
| 33 | 26 | 36 | 31 |
| 34 | 36 | 23 | 29 |
| 21 | 13 | 3 | 15 |
| 24 | 20 | 34 | 14 |
| 18 | 21 | 24 | 28 |
| 1 | 7 | 5 | 22 |
| 2 | 10 | 18 | 27 |
| 28 | 22 | 16 | 4 |
| 17 | 15 | 17 | 30 |
| 14 | 2 | 26 | 20 |

PRELIMINARY TEST III, 1978

| Strain | Mean 8 Tests | Ohio | Ind. | Ill. | |
|---------------------------------|-----------------|--------------------|----------------|--------|-----------------|
| | | S. Charles- ton | Lafay- ette | Urbana | Belle- ville |
| <u>MATURITY (relative date)</u> | | | | | |
| Beeson (II) | -7.8 | -3 | -2 | -6 | -11 |
| Union (IV) | +6.4 | +8 | +6 | +3 | +5 |
| Williams | +3.9 | +6 | +6 | +2 | +3 |
| Woodworth (III) | 9-26 | 9-18 | 9-18 | 9-23 | 9-17 |
| A77-311031 | -2.9 | 0 | +1 | -4 | -3 |
| A77-313012 | +0.4 | +3 | +2 | 0 | -1 |
| A77-313032 | +1.2 | +4 | +3 | -1 | -1 |
| A77-314013 | +2.1 | +2 | +6 | +1 | +2 |
| A77-314017 | +2.6 | +3 | +6 | 0 | +2 |
| A77-315012 | +4.0 | +6 | +6 | +2 | +3 |
| A77-315024 | +4.2 | +4 | +5 | +3 | +4 |
| C1567 | +1.0 | +2 | +4 | 0 | 0 |
| C1570 | +5.4 | +8 | +2 | +3 | +3 |
| C1571 | +0.1 | 0 | +2 | -1 | -4 |
| C1575 | -2.2 | +2 | 0 | -2 | -6 |
| C1577 | +3.2 | +3 | +4 | +1 | +4 |
| H74-620 | +5.0 | +10 | +6 | +4 | +5 |
| H74-3382 | +1.8 | +4 | +4 | +1 | +4 |
| H74-3398 | +2.6 | +6 | +4 | +3 | +4 |
| H75-9 | +2.4 | +3 | +5 | +4 | +5 |
| H75-5605 | -3.9 | 0 | -2 | -2 | -4 |
| H7751 | +3.1 | +6 | +5 | +3 | +3 |
| K1039 | +3.5 | +4 | +4 | +1 | +2 |
| K1041 | +8.4 | +12 | +8 | +9 | +5 |
| L74-3534 | +3.9 | +4 | +2 | +3 | +2 |
| L75-8221 | -3.2 | 0 | -1 | -2 | -3 |
| L75-8234 | +4.8 | +4 | +6 | +5 | +3 |
| L75-8291 | +3.9 | +5 | +6 | +1 | +2 |
| L75-8388 | -0.2 | 0 | +2 | 0 | -2 |
| L76-0022 | +5.1 | +8 | +2 | +3 | +3 |
| U21408 | -0.8 | +4 | +2 | -1 | -4 |
| U36276 | -2.0 | 0 | +2 | -1 | -3 |
| U37219 | +1.9 | +2 | +3 | +3 | +3 |
| U37710 | +3.8 | +4 | +4 | +2 | +3 |
| U37729 | -0.4 | +3 | +2 | -2 | -3 |
| U46484 | +1.2 | +3 | +5 | +1 | +1 |
| Date planted | 5-11 | 5-1 | 5-27 | 5-27 | 5-28 |
| *Days to mat. | 126 | 140 | 114 | 119 | 112 |

PRELIMINARY TEST III, 1978

| Iowa | | S.D. | Neb. | Kans. |
|--------|------------------|---------------------------------|------|----------------|
| Stuart | Martins- burg | Elk Point | Mead | Man- hatten |
| | | <u>MATURITY (relative date)</u> | | |
| | -10 | -7 | -7 | -16 |
| | +10 | +5 | +9 | +5 |
| | +6 | +4 | +2 | +2 |
| | 9-28 | 10-1 | 10-2 | 9/20 |
| | -6 | -6 | -3 | -2 |
| | +2 | -2 | -1 | 0 |
| | 0 | -1 | -1 | +7 |
| | +2 | +3 | 0 | +1 |
| | +2 | +3 | +1 | +4 |
| | +2 | +2 | +4 | +7 |
| | +4 | +6 | +1 | +7 |
| | 0 | +2 | 0 | 0 |
| | +8 | +5 | +6 | +8 |
| | -2 | +5 | -1 | +2 |
| | -4 | -4 | -1 | -3 |
| | +2 | +3 | +3 | +6 |
| | +4 | -1 | +7 | +5 |
| | 0 | -2 | +2 | +1 |
| | +2 | -2 | 0 | +4 |
| | +2 | -1 | 0 | +1 |
| | -6 | -7 | -7 | -3 |
| | +1 | +1 | +2 | +4 |
| | +2 | +7 | +7 | +1 |
| | +10 | +11 | +10 | +2 |
| | +8 | +2 | +7 | +3 |
| | -5 | -4 | -4 | -7 |
| | +4 | +3 | +7 | +6 |
| | +2 | +4 | +4 | +7 |
| | 0 | -3 | 0 | +1 |
| | +10 | +8 | +3 | +4 |
| | -1 | -3 | +3 | -6 |
| | -2 | +1 | -6 | -7 |
| | +2 | +4 | +1 | -3 |
| | +4 | +2 | +4 | +7 |
| | 0 | -1 | -2 | 0 |
| | 0 | +1 | -2 | +1 |
| 5-19 | 5-28 | 5-22 | 5-24 | 5-3 |
| | 123 | 131 | 131 | 141 |

PRELIMINARY TEST III, 1978

| Strain | Mean 9 Tests | Ohio | Ind. | Ill. | |
|------------------------|-----------------|--------------------|----------------|--------|-----------------|
| | | S. Charles- ton | Lafay- ette | Urbana | Belle- ville |
| <u>LODGING (score)</u> | | | | | |
| Beeson (II) | 2.1 | 2.0 | 1.8 | 2.4 | 3.3 |
| Union (IV) | 2.5 | 4.0 | 2.8 | 2.6 | 2.5 |
| Williams | 2.0 | 2.8 | 2.0 | 2.4 | 2.1 |
| Woodworth (III) | 1.9 | 2.2 | 3.0 | 2.3 | 2.0 |
| A77-311031 | 2.4 | 2.8 | 2.8 | 3.2 | 2.0 |
| A77-313012 | 2.9 | 4.0 | 3.8 | 3.4 | 2.8 |
| A77-313032 | 2.3 | 2.5 | 3.3 | 2.7 | 1.5 |
| A77-314013 | 2.0 | 2.2 | 2.3 | 2.1 | 2.3 |
| A77-314017 | 3.1 | 3.8 | 4.0 | 3.0 | 3.0 |
| A77-315012 | 3.4 | 4.5 | 3.5 | 3.6 | 4.0 |
| A77-315024 | 2.9 | 3.8 | 3.5 | 2.8 | 2.8 |
| C1567 | 2.0 | 2.2 | 2.3 | 3.0 | 2.2 |
| C1570 | 2.1 | 3.8 | 2.5 | 2.4 | 1.8 |
| C1571 | 1.4 | 1.8 | 1.5 | 1.5 | 1.8 |
| C1575 | 2.0 | 2.2 | 2.5 | 2.1 | 2.3 |
| C1577 | 2.1 | 2.5 | 2.3 | 1.9 | 1.8 |
| H74-620 | 1.5 | 3.2 | 1.3 | 2.0 | 1.0 |
| H74-3382 | 1.3 | 2.0 | 1.3 | 1.8 | 1.0 |
| H74-3398 | 1.4 | 2.5 | 1.3 | 1.8 | 1.3 |
| H75-9 | 1.2 | 1.8 | 1.0 | 1.2 | 1.0 |
| H75-5605 | 1.4 | 2.0 | 1.0 | 1.6 | 2.5 |
| H7751 | 2.2 | 3.5 | 2.3 | 2.4 | 1.8 |
| K1039 | 3.0 | 4.0 | 2.0 | 3.8 | 3.3 |
| K1041 | 2.9 | 4.2 | 2.8 | 3.0 | 3.0 |
| L74-3534 | 2.1 | 2.8 | 2.3 | 2.6 | 2.5 |
| L75-8221 | 2.3 | 3.0 | 2.3 | 2.7 | 3.3 |
| L75-8234 | 2.2 | 3.5 | 2.0 | 2.7 | 2.8 |
| L75-8291 | 2.3 | 3.5 | 2.5 | 2.6 | 2.0 |
| L75-8388 | 2.2 | 3.0 | 2.0 | 2.6 | 3.0 |
| L76-0022 | 2.4 | 3.0 | 2.8 | 2.8 | 2.4 |
| U21408 | 2.5 | 2.8 | 2.5 | 3.4 | 3.0 |
| U36276 | 1.6 | 1.8 | 1.8 | 2.1 | 1.0 |
| U37219 | 1.7 | 2.2 | 1.5 | 1.7 | 2.0 |
| U37710 | 1.8 | 2.2 | 2.0 | 2.0 | 1.5 |
| U37729 | 2.1 | 3.0 | 2.0 | 2.1 | 2.8 |
| U46484 | 2.2 | 2.0 | 2.0 | 2.8 | 2.8 |

PRELIMINARY TEST III, 1978

| Iowa | Martins- | S.D. | Neb. | Kan. |
|------------------------|----------|--------------|------|----------------|
| Stuart | burg | Elk Point | Mead | Man- hattan |
| <u>LODGING (score)</u> | | | | |
| 1.7 | 2.4 | 1 | 2.0 | 2.0 |
| 2.0 | 2.8 | 2 | 1.8 | 1.7 |
| 1.4 | 2.4 | 2 | 1.8 | 1.5 |
| 1.5 | 2.4 | 1 | 1.5 | 1.4 |
| 1.7 | 2.5 | 2 | 2.3 | 2.3 |
| 2.2 | 3.0 | 2 | 1.8 | 3.0 |
| 1.9 | 2.2 | 2 | 1.8 | 2.8 |
| 1.5 | 2.3 | 2 | 1.5 | 1.5 |
| 2.3 | 2.9 | 3 | 2.5 | 3.3 |
| 2.5 | 2.8 | 3 | 3.5 | 2.8 |
| 2.4 | 2.6 | 2 | 3.3 | 3.0 |
| 1.9 | 2.4 | 1 | 1.5 | 1.9 |
| 1.6 | 2.6 | 1 | 1.5 | 1.7 |
| 1.3 | 1.6 | 1 | 1.3 | 1.0 |
| 1.7 | 2.3 | 2 | 1.5 | 1.8 |
| 1.7 | 2.4 | 3 | 1.5 | 1.9 |
| 1.3 | 1.4 | 1 | 1.0 | 1.0 |
| 1.4 | 1.5 | 1 | 1.0 | 1.0 |
| 1.4 | 1.5 | 1 | 1.0 | 1.0 |
| 1.2 | 1.4 | 1 | 1.0 | 1.0 |
| 1.3 | 1.6 | 1 | 1.0 | 1.0 |
| 1.8 | 2.4 | 2 | 2.0 | 1.9 |
| 2.4 | 2.6 | 4 | 2.5 | 2.0 |
| 2.4 | 2.7 | 4 | 2.0 | 1.8 |
| 1.5 | 2.6 | 1 | 2.5 | 1.1 |
| 1.8 | 2.4 | 1 | 2.0 | 1.8 |
| 1.9 | 2.4 | 1 | 1.5 | 1.7 |
| 1.9 | 2.5 | 2 | 2.0 | 2.0 |
| 1.8 | 2.3 | 2 | 2.0 | 1.5 |
| 1.9 | 2.7 | 2 | 2.0 | 1.7 |
| 1.8 | 2.4 | 2 | 1.8 | 2.4 |
| 1.4 | 2.0 | 1 | 1.3 | 1.9 |
| 1.6 | 1.8 | 1 | 1.5 | 1.8 |
| 1.6 | 2.4 | 1 | 1.8 | 2.0 |
| 1.9 | 2.2 | 2 | 1.5 | 1.8 |
| 2.1 | 2.2 | 2 | 1.8 | 2.3 |

PRELIMINARY TEST III, 1978

| Strain | Mean 9 Tests | Ohio | Ind. | Ill. | |
|-----------------|-----------------|--------------------|------------------------------|--------|-----------------|
| | | S. Charles- ton | Lafay- ette | Urbana | Belle- ville |
| | | | <u>PLANT HEIGHT (inches)</u> | | |
| Beeson (II) | 40 | 34 | 36 | 41 | 42 |
| Union (IV) | 48 | 47 | 48 | 51 | 47 |
| Williams | 44 | 40 | 42 | 48 | 46 |
| Woodworth (III) | 43 | 42 | 40 | 45 | 43 |
| A77-311031 | 39 | 37 | 38 | 42 | 41 |
| A77-313012 | 42 | 39 | 40 | 44 | 40 |
| A77-313032 | 38 | 36 | 36 | 40 | 39 |
| A77-314013 | 45 | 42 | 41 | 50 | 47 |
| A77-314017 | 48 | 42 | 51 | 49 | 49 |
| A77-315012 | 50 | 50 | 52 | 54 | 50 |
| A77-315024 | 45 | 43 | 46 | 42 | 46 |
| C1567 | 42 | 40 | 38 | 45 | 45 |
| C1570 | 45 | 44 | 44 | 49 | 46 |
| C1571 | 40 | 38 | 38 | 42 | 40 |
| C1575 | 42 | 40 | 40 | 45 | 45 |
| C1577 | 48 | 42 | 48 | 54 | 48 |
| H74-620 | 26 | 29 | 28 | 26 | 20 |
| H74-3382 | 25 | 27 | 28 | 26 | 18 |
| H74-3398 | 24 | 26 | 24 | 25 | 22 |
| H75-9 | 19 | 24 | 19 | 17 | 14 |
| H75-5605 | 26 | 30 | 24 | 28 | 22 |
| H7751 | 44 | 42 | 43 | 48 | 42 |
| K1039 | 48 | 50 | 45 | 52 | 51 |
| K1041 | 48 | 45 | 50 | 55 | 51 |
| L74-3534 | 41 | 39 | 40 | 45 | 42 |
| L75-8221 | 43 | 42 | 41 | 48 | 44 |
| L75-8234 | 50 | 50 | 46 | 53 | 47 |
| L75-8291 | 46 | 42 | 46 | 49 | 47 |
| L75-8388 | 42 | 37 | 44 | 48 | 40 |
| L76-0022 | 45 | 42 | 46 | 49 | 46 |
| U21408 | 45 | 42 | 42 | 50 | 44 |
| U36276 | 37 | 37 | 34 | 39 | 38 |
| U37219 | 42 | 40 | 41 | 43 | 42 |
| U37710 | 41 | 38 | 40 | 43 | 41 |
| U37729 | 46 | 45 | 42 | 49 | 49 |
| U46484 | 45 | 42 | 44 | 52 | 47 |

PRELIMINARY TEST III, 1978

| <u>Iowa</u> | <u>S.D.</u> | <u>Neb.</u> | <u>Kans.</u> |
|------------------|--------------|-----------------------|----------------|
| Stuart | Elk Point | Mead | Man- hatten |
| Martins- burg | | PLANT HEIGHT (inches) | |
| 39 | 41 | 42 | 42 |
| 42 | 51 | 51 | 47 |
| 40 | 44 | 47 | 46 |
| 40 | 43 | 46 | 44 |
| 34 | 36 | 39 | 41 |
| 38 | 42 | 41 | 47 |
| 36 | 38 | 37 | 43 |
| 41 | 48 | 44 | 49 |
| 44 | 50 | 52 | 52 |
| 47 | 50 | 51 | 53 |
| 44 | 44 | 46 | 52 |
| 38 | 42 | 40 | 46 |
| 41 | 47 | 47 | 46 |
| 38 | 40 | 40 | 44 |
| 38 | 46 | 41 | 44 |
| 42 | 54 | 48 | 52 |
| 26 | 28 | 28 | 17 |
| 26 | 30 | 28 | 15 |
| 23 | 24 | 27 | 17 |
| 14 | 22 | 24 | 10 |
| 28 | 30 | 26 | 20 |
| 40 | 44 | 44 | 46 |
| 44 | 48 | 48 | 49 |
| 43 | 48 | 43 | 45 |
| 40 | 42 | 43 | 35 |
| 42 | 44 | 41 | 45 |
| 48 | 56 | 50 | 50 |
| 44 | 43 | 48 | 49 |
| 43 | 45 | 41 | 42 |
| 40 | 46 | 44 | 50 |
| 43 | 50 | 42 | 47 |
| 35 | 36 | 34 | 39 |
| 40 | 44 | 41 | 45 |
| 40 | 44 | 42 | 42 |
| 44 | 50 | 46 | 49 |
| 44 | 44 | 47 | 44 |

PRELIMINARY TEST III, 1978

| Strain | Mean 7 Tests | Ohio | Ind. | Ill. | |
|---------------------|-----------------|--------------------|----------------|--------|-----------------|
| | | S. Charles- ton | Lafay- ette | Urbana | Belle- ville |
| <u>SEED QUALITY</u> | | | | | |
| Beeson (II) | 2.5 | 2.0 | 1.5 | 3.3 | 3.5 |
| Union (IV) | 1.7 | 1.0 | 1.5 | 1.8 | 2.0 |
| Williams | 1.7 | 1.8 | 1.0 | 1.8 | 2.0 |
| Woodworth (III) | 1.6 | 1.2 | 1.0 | 1.3 | 1.8 |
| A77-311031 | 2.2 | 1.8 | 1.5 | 2.0 | 2.8 |
| A77-313012 | 2.0 | 1.8 | 1.5 | 2.3 | 2.3 |
| A77-313032 | 2.2 | 1.8 | 2.0 | 2.8 | 2.0 |
| A77-314013 | 1.8 | 1.2 | 2.0 | 1.8 | 2.0 |
| A77-314017 | 1.9 | 2.0 | 2.0 | 1.8 | 2.0 |
| A77-315012 | 2.0 | 1.0 | 2.0 | 2.0 | 2.5 |
| A77-315024 | 1.8 | 1.0 | 1.0 | 2.3 | 2.3 |
| C1567 | 2.3 | 2.0 | 1.5 | 2.3 | 3.0 |
| C1570 | 1.5 | 1.0 | 1.0 | 1.5 | 1.8 |
| C1571 | 1.9 | 1.2 | 1.5 | 2.0 | 2.5 |
| C1575 | 2.0 | 2.0 | 1.0 | 2.3 | 2.8 |
| C1577 | 1.8 | 1.0 | 1.5 | 1.5 | 2.3 |
| H74-620 | 1.5 | 1.0 | 1.5 | 1.5 | 2.3 |
| H74-3382 | 1.3 | 1.0 | 1.0 | 1.3 | 1.5 |
| H74-3398 | 1.3 | 1.2 | 1.0 | 1.3 | 1.8 |
| H75-9 | 1.8 | 1.2 | 1.5 | 1.8 | 2.5 |
| H75-5605 | 1.5 | 1.0 | 1.5 | 1.5 | 2.0 |
| H7751 | 2.1 | 1.2 | 1.5 | 2.5 | 3.0 |
| K1039 | 2.3 | 2.0 | 2.0 | 2.3 | 3.0 |
| K1041 | 2.0 | 1.0 | 2.0 | 2.0 | 2.5 |
| L74-3534 | 2.0 | 2.0 | 1.0 | 1.8 | 2.8 |
| L75-8221 | 1.8 | 1.5 | 1.0 | 2.0 | 2.5 |
| L75-8234 | 2.0 | 1.5 | 1.0 | 2.5 | 2.8 |
| L75-8291 | 1.8 | 1.5 | 1.0 | 2.5 | 2.3 |
| L75-8388 | 1.7 | 1.0 | 1.0 | 2.0 | 2.5 |
| L76-0022 | 1.6 | 1.0 | 1.0 | 1.8 | 1.8 |
| U21408 | 2.1 | 2.0 | 1.5 | 2.3 | 2.5 |
| U36276 | 2.1 | 2.0 | 1.0 | 2.5 | 2.8 |
| U37219 | 2.1 | 2.0 | 1.0 | 2.0 | 2.5 |
| U37710 | 1.9 | 1.5 | 1.5 | 2.0 | 2.0 |
| U37729 | 1.9 | 1.2 | 1.5 | 2.0 | 2.8 |
| U46484 | 1.7 | 1.0 | 2.0 | 1.5 | 2.3 |

PRELIMINARY TEST III, 1978

| <u>Iowa</u> | <u>S.D.</u> | <u>Neb.</u> | <u>Kans.</u> |
|---------------------|--------------|-------------|---------------|
| <u>Stuart</u> | <u>Elk</u> | <u>Mead</u> | <u>Man-</u> |
| <u>Martins-</u> | <u>Point</u> | | <u>hatten</u> |
| <u>burg</u> | | | |
| <u>SEED QUALITY</u> | | | |
| 1.8 | | 3.3 | 2.4 |
| 1.4 | | 2.8 | 1.7 |
| 1.5 | | 2.5 | 1.4 |
| 1.6 | | 2.8 | 1.4 |
| 1.9 | | 3.3 | 2.0 |
| 1.3 | | 3.3 | 1.8 |
| 1.8 | | 3.3 | 2.0 |
| 1.3 | | 2.8 | 1.4 |
| 1.2 | | 2.8 | 1.7 |
| 1.7 | | 3.0 | 1.7 |
| 1.5 | | 2.8 | 1.5 |
| 1.6 | | 3.8 | 1.8 |
| 1.2 | | 2.8 | 1.5 |
| 1.3 | | 3.0 | 1.7 |
| 1.4 | | 2.8 | 1.8 |
| 1.3 | | 3.5 | 1.6 |
| 1.4 | | 1.8 | 1.4 |
| 1.4 | | 1.5 | 1.4 |
| 1.2 | | 1.5 | 1.4 |
| 1.6 | | 2.3 | 1.4 |
| 1.4 | | 1.5 | 1.4 |
| 1.7 | | 3.0 | 1.6 |
| 1.7 | | 3.5 | 1.9 |
| 1.6 | | 3.0 | 1.8 |
| 1.9 | | 3.0 | 1.6 |
| 1.2 | | 2.8 | 1.5 |
| 1.2 | | 3.0 | 1.7 |
| 1.3 | | 2.5 | 1.6 |
| 1.6 | | 2.3 | 1.8 |
| 1.4 | | 2.8 | 1.6 |
| 1.6 | | 3.0 | 1.9 |
| 1.3 | | 3.0 | 1.8 |
| 1.7 | | 3.5 | 1.7 |
| 1.3 | | 3.3 | 1.9 |
| 1.3 | | 3.0 | 1.6 |
| 1.4 | | 2.5 | 1.5 |

PRELIMINARY TEST III, 1978

| Strain | Mean 8 Tests | Ohio | Ind. | Ill. | |
|-------------------|-----------------|--------------------|----------------|--------|-----------------|
| | | S. Charles- ton | Lafay- ette | Urbana | Belle- ville |
| SEED SIZE (g/100) | | | | | |
| Beeson (II) | 18.7 | 20.0 | 22.1 | 20.6 | 16.4 |
| Union (IV) | 18.3 | 19.0 | 19.9 | 21.1 | 17.9 |
| Williams | 17.6 | 18.0 | 19.3 | 20.8 | 16.1 |
| Woodworth (III) | 15.0 | 16.0 | 15.8 | 17.9 | 13.8 |
| A77-311031 | 15.0 | 17.0 | 16.5 | 17.8 | 13.7 |
| A77-313012 | 15.9 | 17.0 | 17.2 | 18.8 | 14.1 |
| A77-313032 | 16.7 | 18.0 | 17.7 | 18.4 | 14.8 |
| A77-314013 | 18.3 | 19.0 | 19.2 | 22.9 | 16.9 |
| A77-314017 | 16.6 | 19.0 | 18.4 | 18.0 | 14.8 |
| A77-315012 | 15.6 | 16.0 | 16.7 | 18.1 | 14.4 |
| A77-315024 | 15.3 | 16.0 | 17.3 | 17.7 | 13.6 |
| C1567 | 17.8 | 18.0 | 19.4 | 21.3 | 17.8 |
| C1570 | 16.4 | 17.0 | 17.5 | 18.8 | 16.4 |
| C1571 | 17.0 | 16.0 | 19.4 | 19.9 | 14.7 |
| C1575 | 16.0 | 18.0 | 18.2 | 19.1 | 15.0 |
| C1577 | 16.8 | 18.0 | 18.5 | 18.7 | 16.9 |
| H74-620 | 18.0 | 20.0 | 18.2 | 19.9 | 16.9 |
| H74-3382 | 15.7 | 18.0 | 16.0 | 17.2 | 14.1 |
| H74-3398 | 16.5 | 18.0 | 17.2 | 19.2 | 15.6 |
| H75-9 | 17.4 | 19.0 | 18.8 | 19.9 | 17.0 |
| H75-5605 | 13.3 | 14.0 | 14.3 | 14.2 | 11.3 |
| H7751 | 17.0 | 18.0 | 18.7 | 20.1 | 16.6 |
| K1039 | 18.9 | 21.0 | 20.3 | 20.9 | 17.7 |
| K1041 | 17.1 | 18.0 | 19.1 | 19.6 | 15.5 |
| L74-3534 | 17.2 | 19.0 | 18.5 | 19.5 | 16.3 |
| L75-8221 | 15.7 | 17.0 | 16.6 | 18.0 | 14.1 |
| L75-8234 | 18.3 | 19.0 | 19.7 | 21.7 | 16.4 |
| L75-8291 | 17.7 | 19.0 | 19.1 | 19.7 | 16.3 |
| L75-8388 | 17.6 | 18.0 | 19.4 | 19.0 | 15.3 |
| L76-0022 | 17.1 | 18.0 | 18.6 | 20.3 | 15.5 |
| U21408 | 15.5 | 18.0 | 17.4 | 17.5 | 13.7 |
| U36276 | 15.1 | 17.0 | 17.0 | 16.1 | 14.5 |
| U37219 | 18.3 | 20.0 | 19.9 | 20.9 | 18.5 |
| U37710 | 14.6 | 16.0 | 16.4 | 16.0 | 13.8 |
| U37729 | 17.4 | 20.0 | 20.0 | 19.0 | 14.8 |
| U46484 | 15.5 | 16.0 | 17.0 | 15.5 | 14.7 |

PRELIMINARY TEST III, 1978

157

| Iowa | S.D. | Neb. | Kans. |
|--------|-------------------|------|-----------|
| Stuart | Elk Point | Mead | Manhattan |
| | SEED SIZE (g/100) | | |
| 17.4 | 14.7 | 20.0 | 16.8 |
| 17.6 | 16.0 | 18.4 | 16.6 |
| 17.8 | 14.7 | 19.0 | 15.0 |
| 14.2 | 12.4 | 15.8 | 13.7 |
| 14.2 | 12.5 | 16.1 | 12.5 |
| 14.8 | 11.6 | 15.9 | 17.5 |
| 16.4 | 14.4 | 17.8 | 16.0 |
| 18.4 | 16.9 | 17.6 | 15.8 |
| 16.5 | 14.3 | 16.2 | 15.9 |
| 15.0 | 12.7 | 16.1 | 15.9 |
| 14.3 | 12.5 | 16.3 | 14.7 |
| 18.2 | 15.1 | 16.2 | 16.2 |
| 16.8 | 14.2 | 15.3 | 15.4 |
| 17.3 | 13.4 | 18.9 | 16.2 |
| 16.0 | 12.1 | 15.9 | 14.1 |
| 17.4 | 13.6 | 15.4 | 16.2 |
| 17.6 | 14.8 | 18.5 | 18.0 |
| 15.2 | 12.4 | 16.2 | 16.8 |
| 16.0 | 13.4 | 16.2 | 16.3 |
| 15.8 | 15.0 | 16.8 | 17.1 |
| 14.6 | 10.5 | 14.3 | 13.3 |
| 17.7 | 13.8 | 15.7 | 15.8 |
| 18.0 | 15.1 | 19.6 | 18.7 |
| 16.9 | 14.8 | 17.0 | 15.9 |
| 16.0 | 13.7 | 16.8 | 17.5 |
| 14.7 | 13.0 | 17.4 | 14.9 |
| 18.8 | 16.5 | 17.9 | 16.6 |
| 17.2 | 15.3 | 18.8 | 15.9 |
| 17.0 | 14.8 | 20.8 | 16.7 |
| 17.4 | 15.2 | 16.0 | 15.9 |
| 15.2 | 13.0 | 15.0 | 14.3 |
| 15.2 | 13.0 | 15.5 | 12.2 |
| 18.5 | 16.1 | 16.8 | 15.9 |
| 14.6 | 11.7 | 14.1 | 14.1 |
| 16.2 | 15.0 | 18.3 | 16.0 |
| 15.8 | 15.2 | 15.4 | 14.6 |

PRELIMINARY TEST III, 1978

| Strain | Mean 4 Tests | Ind. Lafay- ette | Ill. Urbana | Iowa Stuart | Kans. Man- hatten |
|--------------------|-----------------|------------------------|----------------|----------------|-------------------------|
| <u>PROTEIN (%)</u> | | | | | |
| Beeson (II) | 41.7 | 42.8 | 43.1 | 39.3 | 41.5 |
| Union (IV) | 42.7 | 43.5 | 43.6 | 42.8 | 40.8 |
| Williams | 42.4 | 42.5 | 43.8 | 43.1 | 40.3 |
| Woodworth (III) | 40.8 | 41.4 | 41.6 | 40.4 | 40.0 |
| A77-311031 | 42.2 | 43.7 | 44.5 | 39.9 | 40.7 |
| A77-313012 | 41.7 | 42.6 | 43.2 | 40.2 | 40.7 |
| A77-313032 | 42.5 | 43.2 | 43.2 | 41.7 | 41.8 |
| A77-314013 | 42.3 | 43.2 | 44.0 | 41.8 | 40.3 |
| A77-314017 | 41.9 | 43.4 | 42.5 | 42.1 | 39.5 |
| A77-315012 | 42.4 | 42.9 | 42.8 | 43.2 | 40.5 |
| A77-315024 | 41.6 | 43.2 | 43.2 | 40.6 | 39.6 |
| C1567 | 42.0 | 42.8 | 43.9 | 41.7 | 39.8 |
| C1570 | 41.9 | 42.5 | 43.3 | 41.9 | 39.9 |
| C1571 | 41.1 | 43.3 | 42.4 | 40.4 | 38.2 |
| C1575 | 40.3 | 41.4 | 42.2 | 38.8 | 38.9 |
| C1577 | 44.2 | 45.2 | 46.1 | 43.6 | 42.0 |
| H74-620 | 40.9 | 41.9 | 43.0 | 39.4 | 39.2 |
| H74-3382 | 39.9 | 41.1 | 41.5 | 38.9 | 38.1 |
| H74-3398 | 40.9 | 41.7 | 42.4 | 40.5 | 39.1 |
| H75-9 | 43.8 | 45.1 | 44.3 | 42.8 | 42.8 |
| H75-5605 | 40.4 | 41.6 | 42.6 | 38.5 | 39.1 |
| H7751 | 40.9 | 42.7 | 42.4 | 40.5 | 38.1 |
| K1039 | 41.7 | 41.7 | 43.9 | 40.2 | 41.0 |
| K1041 | 40.0 | 40.2 | 41.8 | 39.7 | 38.3 |
| L74-3534 | 42.6 | 42.6 | 44.9 | 42.1 | 40.9 |
| L75-8221 | 41.2 | 42.2 | 42.6 | 39.7 | 40.1 |
| L75-8234 | 41.1 | 40.3 | 42.5 | 41.8 | 39.9 |
| L75-8291 | 42.5 | 42.8 | 44.6 | 42.2 | 40.4 |
| L75-8388 | 41.9 | 42.7 | 43.9 | 40.3 | 40.8 |
| L76-0022 | 43.6 | 43.7 | 45.7 | 42.6 | 42.3 |
| U21408 | 40.2 | 40.8 | 42.7 | 39.5 | 37.8 |
| U36276 | 42.9 | 44.1 | 45.1 | 41.4 | 41.0 |
| U37219 | 44.1 | 45.5 | 47.0 | 42.4 | 41.5 |
| U37710 | 41.3 | 42.7 | 43.0 | 40.9 | 38.5 |
| U37729 | 42.0 | 43.6 | 43.4 | 40.4 | 40.5 |
| U46484 | 41.5 | 42.9 | 43.7 | 39.0 | 40.4 |

PRELIMINARY TEST III, 1978

| Strain | Mean 4 Tests | Ind. Lafay- ette | Ill. Urbana | Iowa Stuart | Kans. Man- hatten |
|-----------------|-----------------|------------------------|----------------|----------------|-------------------------|
| | | <u>Oil (%)</u> | | | |
| Beeson (II) | 20.5 | 20.5 | 19.4 | 21.0 | 21.2 |
| Union (IV) | 20.8 | 20.0 | 20.3 | 20.6 | 22.4 |
| Williams | 21.0 | 20.9 | 20.6 | 20.0 | 22.7 |
| Woodworth (III) | 21.3 | 20.7 | 20.6 | 21.1 | 22.9 |
| A77-311031 | 21.6 | 20.0 | 21.3 | 21.6 | 23.5 |
| A77-313012 | 21.0 | 20.3 | 20.3 | 21.7 | 21.9 |
| A77-313032 | 20.1 | 19.9 | 19.4 | 19.9 | 21.3 |
| A77-314013 | 21.3 | 20.3 | 20.6 | 21.9 | 22.4 |
| A77-314017 | 21.1 | 20.1 | 20.7 | 20.6 | 23.1 |
| A77-315012 | 20.4 | 20.1 | 20.3 | 19.1 | 21.9 |
| A77-315024 | 21.1 | 20.5 | 20.2 | 21.1 | 22.7 |
| C1567 | 20.6 | 20.4 | 19.7 | 20.6 | 21.6 |
| C1570 | 20.7 | 20.6 | 19.9 | 20.5 | 21.8 |
| C1571 | 21.7 | 19.5 | 20.5 | 22.7 | 24.0 |
| C1575 | 20.6 | 20.1 | 19.8 | 21.1 | 21.5 |
| C1577 | 20.3 | 19.7 | 19.5 | 20.3 | 21.6 |
| H74-620 | 22.7 | 22.0 | 21.3 | 23.2 | 24.3 |
| H74-3382 | 22.4 | 21.9 | 21.5 | 22.6 | 23.6 |
| H74-3398 | 21.8 | 22.2 | 20.8 | 21.0 | 23.3 |
| H75-9 | 21.5 | 19.7 | 21.7 | 22.5 | 22.1 |
| H75-5605 | 21.0 | 19.9 | 20.1 | 21.9 | 21.9 |
| H7751 | 21.2 | 20.3 | 20.4 | 20.8 | 23.2 |
| K1039 | 20.6 | 20.5 | 19.4 | 21.0 | 21.4 |
| K1041 | 21.7 | 21.5 | 20.6 | 22.1 | 22.5 |
| L74-3534 | 20.7 | 20.8 | 19.4 | 20.1 | 22.4 |
| L75-8221 | 21.3 | 19.8 | 20.8 | 22.2 | 22.5 |
| L75-8234 | 21.0 | 21.1 | 19.5 | 20.6 | 22.7 |
| L75-8291 | 20.4 | 20.0 | 19.2 | 20.2 | 22.1 |
| L75-8388 | 20.6 | 19.6 | 19.2 | 21.2 | 22.5 |
| L76-0022 | 20.4 | 19.8 | 19.2 | 21.0 | 21.7 |
| U21408 | 21.3 | 21.3 | 20.1 | 21.2 | 22.7 |
| U36276 | 20.4 | 19.4 | 19.3 | 21.3 | 21.4 |
| U37219 | 19.3 | 18.4 | 18.3 | 19.5 | 21.1 |
| U37710 | 20.2 | 19.7 | 19.0 | 20.0 | 22.2 |
| U37729 | 21.1 | 20.3 | 20.3 | 21.7 | 22.2 |
| U46484 | 22.7 | 21.9 | 20.9 | 23.9 | 24.0 |

| Strain | Parentage | Previous Testing* | Generation Compositd |
|----------------------|--|-------------------|----------------------|
| 1. Essex (V) | Lee x S5-7075 | 1 | F ₆ |
| 2. Union (IV) | Williams ⁵ x SL11 (Wayne <u>Rpm Rps</u>) | 2 | F ₃ |
| 3. Williams (III) | Wayne x L57-0034 (Clark & Adams) | 1 | F ₆ |
| 4. K1024 | L66L-140 x Columbus | 1 | F ₄ |
| 5. K1033 | Williams x Calland | PIV | F ₅ |
| 6. K1035 | Williams x Calland | PIV | F ₅ |
| 7. K1036 | Williams x Calland | PIV | F ₅ |
| 8. L70L-3048 | L15 x D64-3146 | 3 | F ₇ |
| 9. L74D-609 | Williams x Ransom | 1 | F ₅ |
| 10. L74D-634 | Williams x Ransom | 1 | F ₅ |
| 11. L74D-674 | Amsoy 71 x Ransom | 1 | F ₅ |
| 12. L74L-125 | Calland x Williams | PIV | F ₆ |
| 13. L74L-228 | L68-4096 (Wayne <u>Rpm Rps</u>) x Williams | PIV | F ₆ |
| 14. Miles (Md71-407) | Clark x D64-4731 | 2 | F ₆ |

*Number of years in this test, or name of 1977 test.

The three-year summary shows the similarity in performance of Union and L70L-3048, both of which yield about two bushels more than Miles. Union is resistant to race 1 of phytophthora and to downy mildew and L70L-3048 is susceptible to both these diseases.

The two-year summary has the three determinate strains L74D-609, -634, and -674 lower in yield than Union, K1024, and L707-3048 but superior to these strains in lodging resistance.

In 1978 the highest yielding strain in the test was K1033, which was about one bushel higher in yield than Union but matured eight days later than Union. K1033 is resistant to race 1 of phytophthora but is susceptible to downy mildew.

Descriptive and Other Data

| Strain | Descriptive Code | | Chlorosis | Hypocotyl | Shattering |
|------------------|------------------|------|-----------|-----------|------------|
| | | | Score | Score | Manhattan |
| | | | Ames | Ames | 2 weeks |
| Essex (V) | PGTn | SYBf | 3 | 2 | 1.0 |
| Union (IV) | WTTn | SYB1 | 4 | 5 | 2.0 |
| Williams (III) | WTTn | SYB1 | 4 | 5 | 2.0 |
| K1024 | PTBr | DYB1 | 4 | 5 | 2.0 |
| K1033 | WTBr | SYB1 | 3 | 4 | 1.0 |
| K1035 | WTBr | DYG | 3 | 1 | 1.5 |
| K1036 | WTBr | DYB1 | 3 | 2 | 1.0 |
| L70L-3048 | WG:Tn | SYBf | 4 | 5 | 2.5 |
| L74D-609 | PTTn | DYB1 | 3 | 1 | 3.0 |
| L74D-634 | WTBr | SYB1 | 3 | 1 | 1.0 |
| L74D-674 | PTBr | SYG | 2 | 1 | 2.5 |
| L74L-125 | PTTn | SYB1 | 2 | 4 | 2.0 |
| L74L-228 | WTBr | SYG | 4 | 5 | 3.0 |
| Miles (Md71-407) | PTTn | SYB1 | 3 | 1 | 3.0 |

Disease Data

| Strain | FEZ | BSR | | DM | PSB | PS | SMV | PR race 1 | | |
|------------------|-----------|-----------|-----------|-----|------------------|-----------|-----------|--------------------|-----------|----------|
| | Laf. Ind. | Laf. Ind. | Ames, Ia. | | Belle-ville Ill. | Laf. Ind. | Laf. Ind. | Laf. Ind. | Laf. Ind. | Ames Ia. |
| | a | n | n | n | n | d | a | a | a | a |
| | score | % | % | % | score | % | % | -----reaction----- | | |
| Essex (V) | 4 | 100 | 92 | 100 | 1.3 | 1 | 0 | 5E | S | S |
| Union (IV) | 4 | 40 | 92 | 100 | 1.0 | 1 | 1 | 5E | R | R |
| Williams (III) | 5 | 100 | 97 | 100 | 3.5 | 4 | 2 | 5E | S | S |
| K1024 | 3 | 80 | 100 | 100 | 3.3 | 3 | 1 | 5E | S | S |
| K1033 | 4 | 0 | 100 | 100 | 3.5 | 9 | 1 | 4E | R | R |
| K1035 | 5 | 40 | 98 | 100 | 3.0 | 4 | 1 | 4E | R | R |
| K1036 | 4 | 40 | 100 | 100 | 3.8 | 0 | 0 | 5M | R | R |
| L70L-3048 | 2 | 100 | 86 | 100 | 2.3 | 1 | 3 | 3M | S | S |
| L74D-609 | 1 | 60 | 85 | 100 | 1.0 | 0 | 0 | 5E | S | S |
| L74D-634 | 3 | 100 | 100 | 100 | 1.5 | 0 | 0 | 1 | S | S |
| L74D-674 | 1 | 40 | 98 | 100 | 2.5 | 0 | 2 | 1 | S | S |
| L74L-125 | 4 | 40 | 100 | 100 | 3.0 | 0 | 0 | 5E | S | S |
| L74L-228 | 5 | 100 | 99 | 100 | 1.0 | 3 | 0 | 5E | R | R |
| Miles (Md71-407) | 5 | 100 | 91 | 100 | 1.0 | 3 | 0 | 4E | S | S |

Regional Summary

| Strain | Yield Bu/A | Rank No. | Matu- rity Date | Lodg- ing Score | Height In. | Seed Quality Score | Seed Size g/100 | Seed Composition | |
|---------------------|---------------|-------------|-----------------------|-----------------------|---------------|--------------------------|-----------------------|------------------|----------|
| | | | | | | | | Protein % | Oil % |
| <u>1978</u> | | | | | | | | | |
| No. of Tests | 23 | 23 | 20 | 20 | 23 | 23 | 20 | 9 | 9 |
| Essex (V) | 38.1 | 14 | +19.0 | 2.4 | 33 | 1.8 | 12.7 | 42.6 | 20.3 |
| Union (IV) | 41.7 | 3 | 9-24* | 2.5 | 40 | 2.0 | 17.9 | 42.4 | 21.0 |
| Williams (III) | 39.1 | 12 | -2.4 | 2.0 | 37 | 1.8 | 16.8 | 42.4 | 21.3 |
| K1024 <i>Desoto</i> | 40.1 | 10 | +2.4 | 2.2 | 38 | 2.0 | 16.2 | 41.5 | 20.9 |
| K1033 | 42.9 | 1 | +7.9 | 2.2 | 38 | 2.5 | 18.0 | 42.2 | 20.9 |
| K1035 | 40.3 | 8 | +5.4 | 2.4 | 37 | 2.4 | 16.2 | 41.0 | 21.3 |
| K1036 | 39.5 | 11 | +9.5 | 2.2 | 39 | 2.1 | 16.0 | 41.0 | 21.0 |
| L70L-3048 | 41.6 | 4 | +3.1 | 2.4 | 39 | 2.3 | 15.5 | 42.0 | 21.4 |
| L74D-609 | 41.6 | 4 | +1.2 | 1.4 | 21 | 1.8 | 16.5 | 42.8 | 21.2 |
| L74D-634 | 40.2 | 9 | +9.2 | 1.2 | 22 | 1.8 | 18.5 | 43.4 | 20.8 |
| L74D-674 | 41.3 | 6 | -0.9 | 1.5 | 28 | 2.2 | 15.8 | 39.8 | 22.3 |
| L74L-125 | 41.9 | 2 | +0.4 | 1.6 | 37 | 2.2 | 17.1 | 42.2 | 20.8 |
| L74L-228 | 40.9 | 7 | +1.2 | 2.2 | 37 | 2.1 | 17.9 | 43.1 | 20.6 |
| Miles (Md71-407) | 38.4 | 13 | +6.1 | 2.5 | 39 | 1.7 | 14.4 | 42.8 | 20.3 |

* 121 days after planting

1977-1978, 2-YEAR MEAN

| No. of Tests | 43 | 43 | 39 | 43 | 46 | 44 | 38 | 19 | 19 |
|------------------|------|----|--------|-----|----|-----|------|------|------|
| Essex (V) | 39.2 | 9 | +18.4 | 2.3 | 33 | 2.0 | 13.2 | 41.8 | 20.5 |
| Union (IV) | 41.8 | 2 | 9-24.6 | 2.4 | 39 | 2.3 | 18.5 | 41.7 | 20.9 |
| Williams (III) | 40.1 | 7 | -2.2 | 1.9 | 36 | 2.1 | 17.3 | 41.5 | 21.4 |
| K1024 | 41.6 | 3 | +2.9 | 2.0 | 37 | 2.2 | 16.9 | 40.7 | 20.8 |
| L70L-3048 | 42.0 | 1 | +2.7 | 2.2 | 38 | 2.6 | 15.8 | 41.2 | 21.6 |
| L74D-609 | 40.8 | 5 | +0.9 | 1.3 | 20 | 1.9 | 16.8 | 41.7 | 21.4 |
| L74D-634 | 39.8 | 8 | +9.7 | 1.2 | 21 | 2.1 | 18.9 | 41.9 | 21.2 |
| L74D-674 | 41.4 | 4 | -1.6 | 1.5 | 27 | 2.4 | 16.1 | 39.3 | 22.6 |
| Miles (Md71-407) | 40.2 | 6 | +6.6 | 2.3 | 38 | 2.0 | 14.9 | 41.7 | 20.5 |

* 125 days after planting

1976-1978, 3-YEAR MEAN

| No. of Tests | 66 | 66 | 60 | 67 | 71 | 68 | 56 | 30 | 30 |
|------------------|------|----|-------|-----|----|-----|------|------|------|
| Union | 41.1 | 1 | 9-23* | 2.3 | 38 | 2.2 | 18.3 | 41.4 | 20.8 |
| L70L-3048 | 41.0 | 2 | +3.1 | 2.1 | 37 | 2.5 | 15.5 | 41.0 | 21.2 |
| Miles (Md71-407) | 39.0 | 3 | +6.7 | 2.2 | 37 | 1.9 | 14.6 | 41.4 | 20.4 |

* 125 days after planting

| Strain | Mean | DeL. | N.J. | Md. | Pa. | Ohio | | |
|------------------|----------|---------------------|----------|-----------------|------------------|------------------|------------------|-------------------|
| | | George- town | Adelphia | Queens- town | Clarks- ville | Landis- ville | S. Charleston | Wheelers- burg |
| | 23 Tests | <u>YIELD (bu/a)</u> | | | | | | |
| Essex (V) | 38.1 | 38.9 | 28.2 | 46.3 | 42.8 | 38.7 | 59.7 | 29.3 |
| Union (IV) | 41.7 | 42.8 | 34.9 | 54.7 | 51.4 | 45.0 | 58.0 | 58.1 |
| Williams (III) | 39.1 | 42.2 | 31.0 | 52.2 | 50.0 | 39.5 | 61.2 | 52.9 |
| K1024 | 40.1 | 40.7 | 23.7 | 47.9 | 48.5 | 45.7 | 65.0 | 46.2 |
| K1033 | 42.9 | 45.5 | 30.7 | 56.1 | 50.8 | 42.9 | 69.5 | 49.7 |
| K1035 | 40.3 | 39.7 | 30.0 | 48.9 | 47.0 | 45.1 | 62.7 | 49.7 |
| K1036 | 39.5 | 35.9 | 30.0 | 47.0 | 44.8 | 41.0 | 59.8 | 40.7 |
| L70L-3048 | 41.6 | 42.4 | 30.3 | 52.1 | 49.2 | 43.2 | 66.6 | 53.8 |
| L74D-609 | 41.6 | 38.1 | 40.3 | 53.8 | 49.9 | 51.0 | 65.1 | 59.4 |
| L74D-634 | 40.2 | 38.5 | 34.3 | 49.7 | 54.3 | 48.9 | 67.5 | 51.1 |
| L74D-674 | 41.3 | 40.0 | 37.1 | 58.4 | 50.1 | 47.3 | 59.5 | 52.5 |
| L74L-125 | 41.9 | 42.4 | 28.1 | 55.7 | 50.3 | 44.8 | 64.2 | 56.3 |
| L74L-228 | 40.9 | 43.1 | 30.9 | 51.3 | 52.5 | 41.7 | 61.6 | 49.8 |
| Miles (Md71-407) | 38.4 | 36.6 | 33.0 | 44.0 | 53.8 | 36.1 | 63.7 | 40.3 |
| C.V. (%) | | 10.4 | 9.00 | 5.87 | 8.65 | 8.25 | 8.2 | 8.8 |
| L.S.D. (5%) | | 5.8 | 5.47 | 5.06 | N.S. | 6.0 | N.S. | 7.3 |
| Row Sp. (in.) | | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Rows/plot | | 4 | 3 | 4 | 4 | 4 | 4 | 4 |
| Reps. | | 3 | 4 | 3 | 3 | 3 | 3 | 3 |
| | 23 Tests | <u>YIELD RANK</u> | | | | | | |
| Essex (V) | 14 | 10 | 12 | 13 | 14 | 13 | 12 | 14 |
| Union (IV) | 3 | 3 | 3 | 4 | 4 | 6 | 14 | 2 |
| Williams (III) | 12 | 6 | 6 | 6 | 8 | 12 | 10 | 5 |
| K1024 | 10 | 7 | 14 | 11 | 11 | 4 | 5 | 11 |
| K1033 | 1 | 1 | 8 | 2 | 5 | 9 | 1 | 9 |
| K1035 | 8 | 9 | 10 | 10 | 12 | 5 | 8 | 9 |
| K1036 | 11 | 14 | 10 | 12 | 13 | 11 | 11 | 12 |
| L70L-3048 | 4 | 4 | 9 | 7 | 10 | 8 | 3 | 4 |
| L74D-609 | 4 | 12 | 1 | 5 | 9 | 1 | 4 | 1 |
| L74D-634 | 9 | 11 | 4 | 9 | 1 | 2 | 2 | 7 |
| L74D-674 | 6 | 3 | 2 | 1 | 7 | 3 | 13 | 6 |
| L74L-125 | 2 | 4 | 13 | 3 | 6 | 7 | 6 | 3 |
| L74L-228 | 7 | 2 | 7 | 8 | 3 | 10 | 9 | 8 |
| Miles (Md71-407) | 13 | 13 | 5 | 14 | 2 | 14 | 7 | 13 |

| Strain | Ken. | Ind. | | Ill. | | | Edina | Columbia |
|------------------|---------------------|----------------|---------------|-----------------|-----------------|---------------|-------|----------|
| | Lexing- ton | Lafay- ette | Sulli- van | Browns- town | Belle- ville | Eldor- ado | | |
| | <u>YIELD (bu/a)</u> | | | | | | | |
| Essex (V) | 49.3 | 24.2 | 40.5 | 32.9 | 45.3 | 50.8 | 34.3 | 27.9 |
| Union (IV) | 50.6 | 49.0 | 45.1 | 30.2 | 51.8 | 41.2 | 38.7 | 28.0 |
| Williams (III) | 51.2 | 52.9 | 37.7 | 26.7 | 44.7 | 43.1 | 36.1 | 27.6 |
| K1024 | 53.3 | 51.1 | 42.9 | 28.4 | 48.2 | 47.5 | 37.4 | 24.6 |
| K1033 | 53.5 | 55.8 | 45.9 | 37.2 | 52.2 | 46.3 | 38.8 | 27.2 |
| K1035 | 53.4 | 49.2 | 39.2 | 31.8 | 50.0 | 46.7 | 37.0 | 25.3 |
| K1036 | 49.7 | 46.8 | 46.7 | 35.5 | 51.2 | 47.6 | 33.2 | 24.1 |
| L70L-3048 | 51.0 | 48.4 | 43.4 | 35.6 | 53.7 | 43.9 | 34.3 | 29.1 |
| L74D-609 | 59.3 | 49.2 | 51.5 | 33.9 | 49.1 | 43.2 | 36.9 | 29.0 |
| L74D-634 | 59.5 | 45.3 | 49.9 | 35.6 | 45.5 | 42.8 | 35.7 | 32.2 |
| L74D-674 | 58.1 | 48.3 | 42.8 | 30.4 | 51.3 | 44.9 | 38.4 | 31.6 |
| L74L-125 | 54.2 | 52.4 | 43.8 | 29.7 | 56.4 | 46.5 | 37.2 | 29.2 |
| L74L-228 | 55.6 | 48.9 | 39.6 | 33.1 | 48.6 | 40.9 | 39.2 | 27.4 |
| Miles (Md71-407) | 49.6 | 49.2 | 43.7 | 29.8 | 46.2 | 42.2 | 34.0 | 28.4 |
| C.V. (%) | - | 7.7 | 12.1 | 9.8 | 6.8 | 4.8 | 9.2 | 7.7 |
| L.S.D. (5%) | 5.6 | 6.0 | 8.3 | 6.8 | 7.6 | 4.6 | N.S. | 3.1 |
| Row Sp. (in.) | 30 | 30 | 28 | 30 | 30 | 30 | 30 | 30 |
| Rows/plot | 4 | 4 | 3 | 4 | 4 | 4 | 2 | 2 |
| Reps. | 3 | 3 | 3 | 2 | 2 | 2 | 4 | 4 |
| | <u>YIELD RANK</u> | | | | | | | |
| Essex (V) | 16 | 14 | 11 | 7 | 13 | 1 | 11 | 8 |
| Union (IV) | 13 | 8 | 5 | 10 | 4 | 13 | 3 | 7 |
| Williams (III) | 11 | 2 | 14 | 14 | 14 | 10 | 9 | 9 |
| K1024 | 10 | 4 | 9 | 13 | 10 | 3 | 5 | 13 |
| K1033 | 8 | 1 | 4 | 1 | 3 | 6 | 2 | 11 |
| K1035 | 9 | 5 | 13 | 8 | 7 | 4 | 7 | 12 |
| K1036 | 14 | 12 | 3 | 4 | 6 | 2 | 14 | 14 |
| L70L-3048 | 12 | 10 | 8 | 2 | 2 | 8 | 11 | 4 |
| L74D-609 | 4 | 5 | 1 | 5 | 8 | 9 | 8 | 5 |
| L74D-634 | 3 | 13 | 2 | 2 | 12 | 11 | 10 | 1 |
| L74D-674 | 5 | 11 | 10 | 9 | 5 | 7 | 4 | 2 |
| L74L-125 | 7 | 3 | 6 | 12 | 1 | 5 | 6 | 3 |
| L74L-228 | 6 | 9 | 12 | 6 | 9 | 14 | 1 | 10 |
| Miles (Md71-407) | 15 | 5 | 7 | 11 | 11 | 12 | 13 | 6 |

| Mo. | | Kans. | | | | | Tex. |
|---------------------|---------------------------|---------------------------|----------------|----------------|--------|----------|--------------|
| Clinton | Portage- ville loam | Portage- ville clay | Pow- hattan | Man- hattan | Ottawa | Columbus | Lub- bock |
| <u>YIELD (bu/a)</u> | | | | | | | |
| 42.4 | 52.8 | 30.8 | 29.7 | 47.5 | 18.8 | 18.8 | 46.3 |
| 31.6 | 50.0 | 31.4 | 28.0 | 43.7 | 21.1 | 11.5 | 51.3 |
| 26.3 | 48.5 | 23.8 | 32.0 | 44.3 | 18.3 | 9.4 | 47.1 |
| 35.8 | 49.5 | 24.1 | 33.9 | 45.3 | 17.8 | 11.2 | 54.3 |
| 40.7 | 58.1 | 22.9 | 30.7 | 48.2 | 16.3 | 9.1 | 57.7 |
| 33.5 | 53.7 | 27.7 | 28.9 | 45.2 | 15.5 | 8.5 | 58.4 |
| 38.5 | 57.1 | 20.4 | 29.0 | 50.4 | 13.6 | 9.7 | 55.6 |
| 35.5 | 47.2 | 31.4 | 30.3 | 45.2 | 21.3 | 13.6 | 54.1 |
| 43.0 | 35.1 | 24.0 | 28.1 | 40.0 | 19.7 | 12.4 | 44.8 |
| 41.6 | 26.3 | 20.8 | 33.3 | 37.5 | 14.7 | 16.0 | 42.5 |
| 37.5 | 43.8 | 22.2 | 32.2 | 50.2 | 18.4 | 11.8 | 43.4 |
| 38.0 | 47.1 | 22.8 | 32.9 | 46.1 | 17.2 | 11.5 | 57.7 |
| 37.6 | 52.1 | 27.6 | 32.2 | 41.1 | 21.1 | 12.7 | 52.0 |
| 38.4 | 43.1 | 26.2 | 27.8 | 37.9 | 17.4 | 11.5 | 49.3 |
| 8.5 | 7.0 | 17.1 | 7.7 | 7.3 | 8.1 | 16.0 | 8.9 |
| 4.5 | 5.5 | 7.4 | 4.0 | 5.5 | 2.5 | 3.2 | 7.6 |
| 30 | 38 | 38 | 30 | 30 | 30 | 30 | 40 |
| 2 | 3 | 3 | 4 | 4 | 4 | 4 | 4 |
| 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| <u>YIELD RANK</u> | | | | | | | |
| 2 | 4 | 3 | 9 | 4 | 5 | 1 | 11 |
| 13 | 6 | 1 | 13 | 10 | 2 | 7 | 8 |
| 14 | 8 | 9 | 6 | 9 | 7 | 12 | 10 |
| 10 | 7 | 7 | 1 | 6 | 8 | 10 | 5 |
| 4 | 1 | 10 | 7 | 3 | 11 | 13 | 3 |
| 12 | 3 | 4 | 11 | 7 | 12 | 14 | 1 |
| 5 | 2 | 14 | 10 | 1 | 14 | 11 | 4 |
| 11 | 9 | 1 | 8 | 7 | 1 | 3 | 6 |
| 1 | 13 | 8 | 12 | 12 | 4 | 5 | 12 |
| 3 | 14 | 13 | 2 | 14 | 13 | 2 | 14 |
| 9 | 11 | 12 | 4 | 2 | 6 | 6 | 13 |
| 7 | 10 | 11 | 3 | 5 | 10 | 7 | 2 |
| 8 | 5 | 5 | 4 | 11 | 2 | 4 | 7 |
| 6 | 12 | 6 | 14 | 13 | 9 | 7 | 9 |

| Strain | Mean | Del. | N.J. | Md. | Pa. | Ohio | | |
|------------------|----------|--------------------------|----------|-----------------|------------------|------------------|------------------|-------------------|
| | | George- town | Adelphia | Queens- town | Clarks- ville | Landis- ville | S. Charleston | Wheelers- burg |
| | 20 Tests | MATURITY (relative date) | | | | | | |
| Essex (V) | +19.0 | +15 | +11 | +20 | +25 | +12 | +23 | +9 |
| Union (IV) | * 9-24 | 9-27 | 10-7 | 9-26 | 9-29 | 10-11 | 9-27 | 9-18 |
| Williams (III) | -2.4 | -2 | -1 | -3 | -4 | -2 | -5 | -4 |
| K1024 | +2.4 | +2 | 0 | +3 | +2 | +1 | +2 | +2 |
| K1033 | +7.9 | +6 | +4 | +11 | +10 | +2 | +7 | +3 |
| K1035 | +5.4 | +3 | +2 | +4 | +6 | +2 | +8 | +3 |
| K1036 | +9.5 | +7 | +6 | +10 | +6 | +3 | +10 | +5 |
| L70L-3048 | +3.1 | +1 | -1 | +1 | +10 | +3 | +2 | +2 |
| L74D-609 | +1.2 | -1 | +4 | -2 | +2 | -2 | +1 | +3 |
| L74D-634 | +9.2 | +9 | +5 | +12 | +3 | +3 | +6 | +4 |
| L74D-674 | -0.9 | -2 | -1 | -1 | +3 | -5 | +1 | -3 |
| L74L-125 | +0.4 | +1 | 0 | -1 | +2 | +1 | +1 | +2 |
| L74L-228 | +1.2 | +1 | +2 | +1 | +2 | +2 | -1 | +2 |
| Miles (Md71-407) | +6.1 | +3 | +4 | +7 | +7 | +2 | +8 | +4 |
| Date planted | 5-26 | 6-1 | 6-6 | 5-30 | 5-26 | 6-8 | 5-1 | 5-3 |
| *Days to mat. | 121 | 118 | 123 | 119 | 126 | 125 | 149 | 138 |
| | 20 Tests | LODGING (score) | | | | | | |
| Essex (V) | 2.4 | 2.3 | 3.3 | 2.3 | 3.3 | 3.0 | 4.7 | 2.3 |
| Union (IV) | 2.5 | 2.0 | 3.5 | 2.7 | 3.0 | 3.0 | 4.8 | 3.2 |
| Williams (III) | 2.0 | 1.7 | 2.9 | 2.3 | 2.0 | 2.7 | 2.5 | 2.7 |
| K1024 | 2.2 | 2.2 | 3.0 | 2.5 | 2.7 | 3.3 | 3.0 | 3.2 |
| K1033 | 2.2 | 2.2 | 2.9 | 2.5 | 2.0 | 2.7 | 3.3 | 3.2 |
| K1035 | 2.4 | 2.2 | 3.4 | 2.7 | 2.5 | 3.2 | 4.3 | 2.5 |
| K1036 | 2.2 | 1.7 | 3.0 | 2.8 | 2.2 | 2.8 | 4.3 | 2.5 |
| L70L-3048 | 2.4 | 1.8 | 3.5 | 2.7 | 2.5 | 3.2 | 3.2 | 3.0 |
| L74D-609 | 1.4 | 1.3 | 2.1 | 1.0 | 2.3 | 1.8 | 2.7 | 1.5 |
| L74D-634 | 1.2 | 1.2 | 1.5 | 1.0 | 2.0 | 1.0 | 1.5 | 1.0 |
| L74D-674 | 1.5 | 1.2 | 3.0 | 1.0 | 2.2 | 2.0 | 2.8 | 1.7 |
| L74L-125 | 1.6 | 1.5 | 2.8 | 2.0 | 2.0 | 1.8 | 2.3 | 1.8 |
| L74L-228 | 2.2 | 1.8 | 3.4 | 2.7 | 2.5 | 2.5 | 2.5 | 2.7 |
| Miles (Md71-407) | 2.5 | 1.8 | 3.5 | 2.3 | 3.0 | 3.5 | 4.2 | 2.8 |

| Ken. | | Ind. | | Ill. | | Mo. | |
|---------------------------------|-----------|----------|------------|------------|----------|-------|----------|
| Lexington | Lafayette | Sullivan | Brownstown | Belleville | Eldorado | Edina | Columbia |
| <u>MATURITY (relative date)</u> | | | | | | | |
| +8 | +18 | +25 | +23 | +24 | +35 | | - |
| 9-30 | 9-22 | 9-17 | 9-22 | 9-24 | 9-19 | | 9-25 |
| -1 | -3 | -2 | -2 | -3 | -3 | | -3 |
| 0 | +5 | +4 | +2 | +2 | +4 | | 0 |
| +16 | +10 | +5 | +8 | +5 | +15 | | +3 |
| +10 | +7 | +3 | +4 | +2 | +9 | | +1 |
| +14 | +5 | +8 | +10 | +8 | +21 | | +4 |
| +9 | +3 | +3 | +2 | -1 | +2 | | 0 |
| +2 | +1 | +4 | +3 | 0 | +2 | | -1 |
| +9 | +7 | +9 | +8 | +9 | +21 | | +3 |
| -1 | +1 | -2 | +3 | -4 | -1 | | -2 |
| +1 | +2 | -1 | 0 | -1 | +4 | | -1 |
| +4 | +2 | +1 | +1 | 0 | +3 | | 0 |
| +14 | +5 | +7 | +4 | +5 | +9 | | +3 |
| 6-2 | 5-27 | 5-30 | 6-10 | 5-28 | 5-24 | | 6-16 |
| 120 | 118 | 110 | 104 | 120 | 118 | | 102 |
| <u>LODGING (score)</u> | | | | | | | |
| 2.2 | 3.2 | 2.3 | 1.4 | 3.1 | 2.0 | | |
| 2.8 | 2.3 | 3.7 | 1.0 | 2.4 | 1.8 | | |
| 1.8 | 2.0 | 3.0 | 1.0 | 2.1 | 1.1 | | |
| 1.7 | 3.0 | 3.3 | 1.0 | 2.3 | 1.3 | | |
| 2.0 | 2.8 | 3.8 | 1.0 | 1.9 | 1.3 | | |
| 2.5 | 3.2 | 2.7 | 1.0 | 2.8 | 1.7 | | |
| 1.7 | 2.3 | 2.7 | 1.0 | 2.3 | 1.2 | | |
| 2.3 | 3.3 | 3.3 | 1.3 | 2.6 | 1.9 | | |
| 2.2 | 1.0 | 1.5 | 1.0 | 1.2 | 1.0 | | |
| 1.3 | 1.0 | 1.2 | 1.0 | 1.0 | 1.1 | | |
| 1.3 | 2.3 | 1.8 | 1.0 | 1.1 | 1.2 | | |
| 1.0 | 1.5 | 2.2 | 1.0 | 1.5 | 1.0 | | |
| 2.0 | 2.2 | 3.5 | 1.0 | 2.4 | 1.3 | | |
| 2.8 | 3.3 | 2.7 | 1.0 | 2.7 | 2.2 | | |

| Strain | Mo. | | Kans. | | | | Tex. | |
|---------------------------------|---------|---------------------------|---------------------------|----------------|----------------|--------|----------|--------------|
| | Clinton | Loam Portage- ville | Clay Portage- ville | Pow- hattan | Man- hattan | Ottawa | Columbus | Lub- bock |
| <u>MATURITY (relative date)</u> | | | | | | | | |
| Essex (V) | | +15 | +11 | +25 | +15 | | +16 | +32 |
| Union (IV) | | * 9-12 | 9-17 | 9-25 | 9-23 | | 9-19 | 9-14 |
| Williams (III) | | -2 | -2 | -1 | 0 | | -5 | -1 |
| K1024 | | +1 | -1 | +9 | +9 | | -1 | +2 |
| K1033 | | +8 | +6 | +16 | +14 | | +2 | +7 |
| K1035 | | +3 | +3 | +17 | +17 | | +2 | +6 |
| K1036 | | +10 | +7 | +21 | +17 | | +11 | +7 |
| L70L-3048 | | -1 | -1 | +11 | +15 | | +1 | +1 |
| L74D-609 | | -1 | 0 | +6 | +1 | | -1 | +3 |
| L74D-634 | | +11 | +8 | +20 | +13 | | +13 | +10 |
| L74D-674 | | -1 | -2 | 0 | +1 | | -1 | -1 |
| L74L-125 | | -1 | 0 | 0 | -2 | | 0 | 0 |
| L74L-228 | | +1 | 0 | +2 | -2 | | +1 | +2 |
| Miles (Md71-407) | | +4 | 0 | +20 | +11 | | +1 | +4 |
| Date planted | | 5-10 | 5-23 | 5-27 | 5-3 | 5-18 | 6-9 | 5-22 |
| *Days to mat. | | 125 | 117 | 121 | 143 | | 102 | 115 |
| <u>LODGING (score)</u> | | | | | | | | |
| Essex (V) | 2.4 | 3.3 | 2.0 | 1.0 | 1.1 | | 1.0 | 1.0 |
| Union (IV) | 3.1 | 3.0 | 2.0 | 1.0 | 1.7 | | 1.0 | 1.5 |
| Williams (III) | 2.4 | 2.7 | 1.7 | 1.0 | 1.5 | | 1.0 | 1.5 |
| K1024 | 2.0 | 2.8 | 1.5 | 1.0 | 1.5 | | 1.0 | 1.7 |
| K1033 | 2.6 | 2.5 | 1.7 | 1.0 | 1.7 | | 1.0 | 1.5 |
| K1035 | 2.8 | 2.7 | 1.7 | 1.0 | 1.7 | | 1.0 | 1.5 |
| K1036 | 2.5 | 3.2 | 1.7 | 1.0 | 1.9 | | 1.0 | 1.7 |
| L70L-3048 | 3.0 | 3.0 | 2.0 | 1.0 | 1.6 | | 1.0 | 1.5 |
| L74D-609 | 1.0 | 1.0 | 1.2 | 1.0 | 1.0 | | 1.0 | 1.2 |
| L74D-634 | 1.0 | 1.0 | 1.2 | 1.0 | 1.0 | | 1.0 | 1.2 |
| L74D-674 | 1.8 | 1.0 | 1.3 | 1.0 | 1.0 | | 1.0 | 1.0 |
| L74L-125 | 2.3 | 2.3 | 1.3 | 1.0 | 1.2 | | 1.0 | 1.2 |
| L74L-228 | 3.1 | 3.2 | 1.7 | 1.0 | 1.2 | | 1.0 | 1.7 |
| Miles (Md71-407) | 2.6 | 4.0 | 2.2 | 1.0 | 1.7 | | 1.0 | 1.5 |

| Strain | Mean | Del. | N.J. | Md. | Pa. | Ohio | | |
|----------------|----------|------------------------------|----------|-----------------|------------------|------------------|------------------|-------------------|
| | | George- town | Adelphia | Queens- town | Clarks- ville | Landis- ville | S. Charleston | Wheelers- burg |
| | 23 Tests | <u>PLANT HEIGHT (inches)</u> | | | | | | |
| Essex (V) | 33 | 35 | 33 | 38 | 43 | 36 | 41 | 35 |
| Union (IV) | 40 | 39 | 36 | 46 | 50 | 40 | 50 | 42 |
| Williams (III) | 37 | 36 | 34 | 44 | 46 | 37 | 41 | 38 |
| K1024 | 38 | 40 | 34 | 44 | 50 | 37 | 45 | 39 |
| K1033 | 38 | 38 | 36 | 45 | 47 | 37 | 41 | 38 |
| K1035 | 37 | 36 | 34 | 43 | 48 | 37 | 42 | 39 |
| K1036 | 39 | 37 | 35 | 48 | 49 | 39 | 44 | 39 |
| L70L-3048 | 39 | 38 | 34 | 45 | 51 | 36 | 44 | 39 |
| L74D-609 | 21 | 19 | 21 | 22 | 31 | 26 | 27 | 25 |
| L74D-634 | 22 | 20 | 23 | 22 | 31 | 30 | 26 | 23 |
| L74D-674 | 28 | 24 | 28 | 26 | 43 | 35 | 36 | 29 |
| L74L-125 | 37 | 36 | 34 | 46 | 47 | 37 | 43 | 38 |
| L74L-228 | 37 | 37 | 34 | 44 | 48 | 35 | 43 | 41 |
| Miles | 39 | 38 | 35 | 46 | 50 | 39 | 42 | 40 |
| | 23 Tests | <u>SEED QUALITY (score)</u> | | | | | | |
| Essex (V) | 1.8 | 1.8 | 1.0 | 2.0 | 2.2 | 1.5 | 1.2 | 1.0 |
| Union (IV) | 2.0 | 2.3 | 1.8 | 2.0 | 2.0 | 1.7 | 1.3 | 1.2 |
| Williams (III) | 1.8 | 2.3 | 1.3 | 2.0 | 2.0 | 1.7 | 1.3 | 1.2 |
| K1024 | 2.0 | 2.2 | 1.8 | 2.0 | 2.0 | 1.8 | 1.2 | 1.0 |
| K1033 | 2.5 | 3.2 | 2.0 | 3.0 | 2.2 | 2.2 | 2.7 | 2.0 |
| K1035 | 2.4 | 3.5 | 2.0 | 3.0 | 2.0 | 2.2 | 2.0 | 2.3 |
| K1036 | 2.1 | 2.5 | 1.8 | 2.3 | 2.0 | 1.9 | 2.3 | 1.5 |
| L70L-3048 | 2.3 | 2.7 | 1.5 | 2.2 | 2.2 | 2.7 | 1.3 | 2.3 |
| L74D-609 | 1.8 | 2.0 | 1.0 | 2.0 | 2.0 | 1.7 | 1.0 | 1.0 |
| L74D-634 | 1.8 | 2.2 | 1.3 | 2.0 | 2.0 | 1.5 | 1.0 | 1.0 |
| L74D-674 | 2.2 | 2.2 | 1.0 | 2.0 | 2.0 | 1.6 | 1.3 | 2.0 |
| L74L-125 | 2.2 | 2.3 | 1.3 | 2.0 | 2.0 | 1.9 | 2.0 | 1.0 |
| L74L-228 | 2.1 | 2.5 | 1.5 | 2.2 | 2.2 | 1.8 | 1.3 | 1.3 |
| Miles | 1.7 | 2.2 | 1.0 | 2.0 | 2.0 | 1.8 | 1.0 | 1.0 |

| Strain | Ken. | Ind. | | Ill. | | | Edina | Columbia |
|------------------------------|----------------|----------------|---------------|------------------|-----------------|---------------|-------|----------|
| | Lexing- ton | Lafay- ette | Sulli- van | Browns- ville | Belle- ville | Eldor- ado | | |
| <u>PLANT HEIGHT (inches)</u> | | | | | | | | |
| Essex (V) | 33 | 41 | 39 | 31 | 35 | 36 | 32 | 30 |
| Union (IV) | 41 | 45 | 47 | 33 | 46 | 44 | 37 | 32 |
| Williams (III) | 38 | 46 | 45 | 28 | 42 | 40 | 33 | 31 |
| K1024 | 37 | 47 | 45 | 28 | 44 | 41 | 33 | 30 |
| K1033 | 42 | 44 | 47 | 30 | 42 | 38 | 35 | 31 |
| K1035 | 39 | 47 | 46 | 30 | 44 | 38 | 34 | 32 |
| K1036 | 42 | 45 | 49 | 31 | 43 | 39 | 36 | 32 |
| L70L-3048 | 38 | 42 | 44 | 33 | 44 | 41 | 35 | 31 |
| L74D-609 | 25 | 24 | 24 | 19 | 21 | 21 | 20 | 21 |
| L74D-634 | 26 | 22 | 27 | 23 | 19 | 22 | 24 | 25 |
| L74D-674 | 30 | 35 | 33 | 21 | 29 | 35 | 23 | 27 |
| L74L-125 | 38 | 45 | 47 | 28 | 42 | 38 | 33 | 31 |
| L74L-228 | 36 | 44 | 43 | 29 | 42 | 39 | 33 | 32 |
| Miles (Md71-407) | 40 | 45 | 48 | 28 | 43 | 43 | 34 | 33 |
| <u>SEED QUALITY (score)</u> | | | | | | | | |
| Essex (V) | 1.0 | 2.5 | 1.5 | 2.5 | 2.0 | 3.0 | 1.8 | 1.8 |
| Union (IV) | 2.0 | 1.5 | 1.5 | 2.3 | 2.5 | 2.5 | 1.5 | 2.3 |
| Williams (III) | 1.0 | 1.0 | 1.5 | 2.0 | 1.5 | 2.5 | 1.5 | 2.5 |
| K1024 | 2.0 | 1.0 | 1.5 | 2.5 | 2.0 | 3.3 | 2.0 | 2.0 |
| K1033 | 2.0 | 1.5 | 1.5 | 3.5 | 2.0 | 4.0 | 2.0 | 2.0 |
| K1035 | 2.0 | 1.5 | 1.5 | 3.3 | 2.5 | 3.8 | 2.0 | 2.0 |
| K1036 | 1.0 | 1.5 | 1.5 | 3.0 | 2.0 | 3.5 | 2.0 | 2.0 |
| L70L-3048 | 2.0 | 1.5 | 1.5 | 2.8 | 2.5 | 4.0 | 1.5 | 2.0 |
| L74D-609 | 2.0 | 1.5 | 1.0 | 2.3 | 1.8 | 3.0 | 1.8 | 2.3 |
| L74D-634 | 1.0 | 1.0 | 1.5 | 2.0 | 1.8 | 3.5 | 1.3 | 2.0 |
| L74D-674 | 2.0 | 1.0 | 1.5 | 3.8 | 2.8 | 3.5 | 1.5 | 2.3 |
| L74L-125 | 3.0 | 1.5 | 1.0 | 2.5 | 2.0 | 4.0 | 1.8 | 2.0 |
| L74L-228 | 3.0 | 1.5 | 1.0 | 2.0 | 2.3 | 3.8 | 2.0 | 2.3 |
| Miles (Md71-407) | 2.0 | 1.0 | 1.0 | 2.0 | 1.5 | 3.5 | 2.3 | 2.0 |

| Mo. | | Kans. | | | | | Tex. |
|------------------------------|---------------------------|---------------------------|----------------|----------------|--------|----------|--------------|
| Clinton | Loam Portage- ville | Clay Portage- ville | Pow- hattan | Man- hattan | Ottawa | Columbus | Lub- bock |
| <u>PLANT HEIGHT (inches)</u> | | | | | | | |
| 34 | 29 | 27 | 35 | 36 | 25 | 20 | 20 |
| 40 | 41 | 34 | 43 | 51 | 33 | 21 | 31 |
| 36 | 39 | 32 | 39 | 48 | 29 | 20 | 30 |
| 37 | 40 | 33 | 40 | 49 | 30 | 20 | 30 |
| 38 | 37 | 33 | 40 | 46 | 31 | 17 | 30 |
| 37 | 39 | 31 | 39 | 46 | 30 | 17 | 31 |
| 38 | 41 | 35 | 43 | 48 | 27 | 21 | 33 |
| 39 | 44 | 35 | 42 | 47 | 34 | 22 | 34 |
| 22 | 14 | 19 | 23 | 18 | 17 | 16 | 14 |
| 23 | 12 | 19 | 33 | 17 | 15 | 17 | 12 |
| 29 | 22 | 22 | 32 | 25 | 20 | 17 | 16 |
| 37 | 40 | 30 | 37 | 50 | 28 | 20 | 30 |
| 38 | 41 | 33 | 36 | 47 | 30 | 20 | 29 |
| 35 | 42 | 34 | 41 | 52 | 32 | 23 | 32 |
| <u>SEED QUALITY (score)</u> | | | | | | | |
| 1.8 | 1.5 | 2.0 | 2.0 | 1.4 | 2.1 | 1.5 | 1.7 |
| 3.0 | 2.5 | 3.0 | 1.5 | 1.5 | 2.1 | 2.1 | 2.5 |
| 2.3 | 2.0 | 2.5 | 1.5 | 1.6 | 2.1 | 2.5 | 2.7 |
| 2.3 | 2.5 | 3.0 | 1.5 | 1.6 | 2.0 | 1.6 | 2.5 |
| 2.8 | 3.2 | 3.0 | 1.8 | 1.9 | 2.2 | 2.3 | 3.5 |
| 3.0 | 2.5 | 3.0 | 1.6 | 1.9 | 2.0 | 2.3 | 3.0 |
| 2.6 | 2.5 | 3.0 | 1.9 | 1.7 | 1.9 | 2.2 | 2.5 |
| 3.0 | 2.5 | 3.5 | 1.7 | 1.7 | 2.3 | 2.3 | 3.0 |
| 2.0 | 1.5 | 2.0 | 1.7 | 1.5 | 1.9 | 1.7 | 2.5 |
| 2.0 | 2.0 | 2.5 | 1.4 | 1.5 | 2.1 | 1.6 | 2.5 |
| 2.5 | 2.5 | 3.0 | 2.0 | 1.8 | 2.5 | 2.7 | 4.0 |
| 3.0 | 2.0 | 3.0 | 1.9 | 1.8 | 2.2 | 2.0 | 3.5 |
| 2.5 | 2.5 | 3.0 | 1.6 | 1.5 | 2.3 | 2.5 | 2.5 |
| 2.0 | 1.5 | 2.0 | 1.5 | 1.0 | 1.7 | 1.7 | 2.2 |

| Strain | Mean | Del. | N.J. | Md. | Pa. | Ohio | | |
|------------------|----------|--------------------------|----------|-----------------|------------------|------------------|------------------|-------------------|
| | | George- town | Adelphia | Queens- town | Clarks- ville | Landis- ville | S. Charleston | Wheelers- burg |
| | 20 Tests | <u>SEED SIZE (g/100)</u> | | | | | | |
| Essex (V) | 12.7 | 12.4 | 13 | 14.0 | 14.0 | 13.6 | 14.0 | 9.0 |
| Union (IV) | 17.9 | 17.5 | 19 | 18.4 | 21.1 | 20.3 | 19.0 | 18.0 |
| Williams (III) | 16.8 | 19.3 | 18 | 17.2 | 18.2 | 18.2 | 19.0 | 15.0 |
| K1024 | 16.2 | 16.0 | 16 | 16.8 | 18.8 | 17.9 | 18.0 | 14.0 |
| K1033 | 18.0 | 18.5 | 17 | 18.9 | 18.9 | 19.3 | 21.0 | 15.0 |
| K1035 | 16.2 | 16.8 | 15 | 16.1 | 17.0 | 18.7 | 18.0 | 12.0 |
| K1036 | 16.0 | 15.7 | 15 | 16.1 | 17.3 | 17.7 | 19.0 | 11.0 |
| L70L-3048 | 15.5 | 16.3 | 16 | 16.5 | 17.6 | 17.4 | 18.0 | 14.0 |
| L74D-609 | 16.5 | 15.1 | 18 | 16.4 | 18.0 | 18.1 | 18.0 | 15.0 |
| L74D-634 | 18.5 | 18.5 | 17 | 17.8 | 19.7 | 19.7 | 23.0 | 15.0 |
| L74D-674 | 15.8 | 15.5 | 18 | 18.0 | 16.7 | 18.2 | 16.0 | 15.0 |
| L74L-125 | 17.1 | 17.1 | 16 | 18.4 | 18.3 | 19.9 | 20.0 | 16.0 |
| L74L-228 | 17.9 | 18.8 | 17 | 18.0 | 21.6 | 19.9 | 20.0 | 17.0 |
| Miles (Md71-407) | 14.4 | 15.0 | 16 | 14.1 | 17.0 | 16.2 | 17.0 | 11.0 |
| | 9 Tests | <u>PROTEIN (%)</u> | | | | | | |
| Essex (V) | 42.6 | | | | 41.6 | | 41.5 | |
| Union (IV) | 42.4 | | | | 42.2 | | 41.1 | |
| Williams (III) | 42.4 | | | | 42.8 | | 40.3 | |
| K1024 | 41.5 | | | | 42.4 | | 39.8 | |
| K1033 | 42.2 | | | | 42.3 | | 41.4 | |
| K1035 | 41.0 | | | | 40.7 | | 40.3 | |
| K1036 | 41.0 | | | | 40.9 | | 39.8 | |
| L70L-3048 | 42.0 | | | | 42.0 | | 41.4 | |
| L74D-609 | 42.8 | | | | 42.6 | | 40.9 | |
| L74D-634 | 43.4 | | | | 41.7 | | 41.9 | |
| L74D-674 | 39.8 | | | | 38.7 | | 38.6 | |
| L74L-125 | 42.2 | | | | 42.9 | | 41.8 | |
| L74L-228 | 43.1 | | | | 43.2 | | 41.1 | |
| Miles (Md71-407) | 42.8 | | | | 41.5 | | 41.8 | |

| Ken. | Ind. | | Ill. | | | Mo. | |
|--------------------------|-----------|----------|------------|------------|----------|-------|----------|
| Lexington | Lafayette | Sullivan | Brownstown | Belleville | Eldorado | Edina | Columbia |
| <u>SEED SIZE (g/100)</u> | | | | | | | |
| 12.7 | 13.3 | 13.1 | 12.4 | 12.4 | 15.6 | | |
| 20.3 | 20.8 | 17.6 | 18.2 | 18.2 | 16.1 | | |
| 18.9 | 19.2 | 16.8 | 16.3 | 16.3 | 15.6 | | |
| 17.8 | 18.7 | 17.3 | 15.8 | 15.8 | 15.7 | | |
| 20.4 | 19.9 | 19.0 | 17.3 | 17.3 | 19.4 | | |
| 19.4 | 19.0 | 15.2 | 16.3 | 16.3 | 17.7 | | |
| 17.4 | 17.4 | 16.7 | 15.3 | 15.3 | 17.8 | | |
| 16.3 | 16.9 | 15.3 | 16.1 | 16.1 | 14.5 | | |
| 18.0 | 17.0 | 17.3 | 16.1 | 16.1 | 17.7 | | |
| 20.5 | 19.8 | 18.6 | 18.2 | 18.2 | 19.3 | | |
| 16.6 | 16.9 | 17.1 | 15.2 | 15.2 | 14.3 | | |
| 19.1 | 18.9 | 14.0 | 16.4 | 16.4 | 17.8 | | |
| 20.1 | 19.3 | 17.9 | 17.5 | 17.5 | 16.2 | | |
| 15.6 | 14.3 | 15.0 | 13.0 | 13.0 | 15.8 | | |
| <u>PROTEIN (%)</u> | | | | | | | |
| 42.6 | | 43.8 | | 44.5 | 44.1 | | 42.9 |
| 43.8 | | 41.4 | | 42.8 | 41.6 | | 43.1 |
| 41.0 | | 43.8 | | 43.6 | 41.1 | | 44.3 |
| 41.0 | | 42.1 | | 42.4 | 39.7 | | 43.2 |
| 41.7 | | 42.0 | | 43.1 | 43.5 | | 42.8 |
| 41.6 | | 41.1 | | 41.8 | 41.3 | | 41.8 |
| 39.3 | | 40.7 | | 41.3 | 42.5 | | 42.6 |
| 41.2 | | 42.8 | | 41.9 | 41.3 | | 43.5 |
| 41.6 | | 43.9 | | 45.4 | 40.2 | | 43.7 |
| 43.7 | | 44.1 | | 45.0 | 43.9 | | 43.9 |
| 40.5 | | 40.2 | | 41.1 | 38.0 | | 41.1 |
| 42.6 | | 42.8 | | 43.0 | 40.8 | | 43.0 |
| 44.1 | | 44.1 | | 42.8 | 43.2 | | 44.0 |
| 41.7 | | 43.8 | | 42.8 | 43.3 | | 43.0 |

| Strain | Mo. | | Kans. | | | | Tex. | |
|--------------------------|---------|---------------------------|---------------------------|----------------|----------------|--------|----------|--------------|
| | Clinton | Loam Portage- ville | Clay Portage- ville | Pow- hattan | Man- hattan | Ottawa | Columbus | Lub- bock |
| <u>SEED SIZE (g/100)</u> | | | | | | | | |
| Essex (V) | | 11.5 | 12.1 | 11.3 | 11.8 | 11.7 | 11.7 | 14.7 |
| Union (IV) | | 16.3 | 18.0 | 14.6 | 17.0 | 13.3 | 13.7 | 21.1 |
| Williams (III) | | 15.0 | 16.8 | 14.6 | 16.2 | 12.4 | 12.4 | 20.5 |
| K1024 | | 15.9 | 15.2 | 13.9 | 15.8 | 12.5 | 13.9 | 19.0 |
| K1033 | | 17.0 | 17.1 | 15.0 | 16.9 | 14.1 | 16.1 | 21.4 |
| K1035 | | 15.8 | 16.0 | 13.3 | 15.4 | 11.9 | 15.4 | 19.4 |
| K1036 | | 15.5 | 14.9 | 14.2 | 16.2 | 13.0 | 15.7 | 18.9 |
| L70L-3048 | | 14.2 | 14.8 | 12.5 | 15.2 | 11.7 | 12.6 | 17.9 |
| L74D-609 | | 14.7 | 15.6 | 13.5 | 17.1 | 13.6 | 12.6 | 21.9 |
| L74D-634 | | 17.8 | 17.7 | 15.8 | 19.3 | 15.0 | 16.1 | 23.6 |
| L74D-674 | | 16.2 | 13.9 | 12.9 | 16.9 | 11.8 | 12.5 | 18.3 |
| L74L-125 | | 17.5 | 17.4 | 14.3 | 15.9 | 13.5 | 14.5 | 21.5 |
| L74L-228 | | 16.9 | 18.2 | 15.1 | 15.8 | 13.5 | 16.0 | 21.2 |
| Miles (Md71-407) | | 13.7 | 14.1 | 11.9 | 13.9 | 12.4 | 12.7 | 17.1 |
| <u>PROTEIN (%)</u> | | | | | | | | |
| Essex (V) | | | | 41.2 | 41.3 | | | |
| Union (IV) | | | | 43.7 | 41.7 | | | |
| Williams (III) | | | | 42.8 | 41.8 | | | |
| K1024 | | | | 42.0 | 41.2 | | | |
| K1033 | | | | 42.0 | 40.7 | | | |
| K1035 | | | | 41.5 | 39.1 | | | |
| K1036 | | | | 41.5 | 40.2 | | | |
| L70L-3048 | | | | 42.4 | 41.3 | | | |
| L74D-609 | | | | 44.8 | 41.9 | | | |
| L74D-634 | | | | 43.6 | 42.9 | | | |
| L74D-674 | | | | 40.4 | 40.0 | | | |
| L74L-125 | | | | 42.2 | 40.5 | | | |
| L74L-228 | | | | 43.8 | 41.8 | | | |
| Miles (Md71-407) | | | | 42.9 | 44.0 | | | |

| Strain | Mean | Md. | Ohio | Ken. | Ind. | Ill. | Mo. | Kans. | | |
|------------------|---------|------------------|------------------|----------------|---------------|-----------------|---------------|----------|----------------|----------------|
| | | Clarks- ville | S. Charleston | Lexing- ton | Sulli- van | Belle- ville | Eldor- ado | Columbia | Pow- hattan | Man- hattan |
| | 9 Tests | OIL (%) | | | | | | | | |
| Essex (V) | 20.3 | 20.7 | 20.8 | 20.5 | 19.2 | 20.1 | 19.2 | 20.7 | 20.8 | 21.0 |
| Union (IV) | 21.0 | 20.6 | 21.1 | 20.3 | 21.3 | 20.8 | 21.8 | 20.1 | 20.4 | 22.2 |
| Williams (III) | 21.3 | 21.0 | 22.1 | 21.8 | 20.6 | 21.1 | 22.5 | 20.2 | 20.8 | 21.9 |
| K1024 | 20.9 | 19.8 | 21.5 | 20.6 | 20.8 | 20.7 | 22.0 | 20.4 | 21.0 | 21.4 |
| K1033 | 20.9 | 21.2 | 21.3 | 20.6 | 21.1 | 20.7 | 20.3 | 19.7 | 20.7 | 22.6 |
| K1035 | 21.3 | 21.7 | 20.8 | 21.1 | 21.3 | 21.5 | 21.2 | 21.3 | 20.2 | 22.4 |
| K1036 | 21.0 | 20.9 | 21.5 | 22.1 | 20.7 | 21.4 | 20.3 | 19.8 | 20.3 | 21.6 |
| L70L-3048 | 21.4 | 21.2 | 21.0 | 21.6 | 20.9 | 22.4 | 22.2 | 20.0 | 20.6 | 22.3 |
| L74D-609 | 21.2 | 20.8 | 22.0 | 21.6 | 20.6 | 20.3 | 23.8 | 20.0 | 19.6 | 21.9 |
| L74D-634 | 20.8 | 21.8 | 21.8 | 20.2 | 20.1 | 20.3 | 20.5 | 20.5 | 20.5 | 21.3 |
| L74D-674 | 22.3 | 22.7 | 22.5 | 22.0 | 22.5 | 22.1 | 23.7 | 20.7 | 21.7 | 22.9 |
| L74L-125 | 20.8 | 20.9 | 20.3 | 20.3 | 20.6 | 20.8 | 22.1 | 20.2 | 20.1 | 21.6 |
| L74L-228 | 20.6 | 20.7 | 21.2 | 20.3 | 20.1 | 21.1 | 20.8 | 19.6 | 20.3 | 21.1 |
| Miles (Md71-407) | 20.3 | 20.4 | 20.6 | 20.9 | 19.5 | 20.7 | 20.6 | 20.3 | 19.7 | 19.7 |

| Strain | Parentage | Generation Compositied |
|-------------------|---|------------------------|
| 1. Franklin | L12 x Custer | F5 |
| 2. Essex (V) | Lee x S5-7075 | F6 |
| 3. Union (IV) | Williams ⁵ x SL11 (Wayne <u>Rpm</u> <u>Rps</u>) | F3 |
| 4. Williams (III) | Wayne x L57-0034 (Clark x Adams) | F6 |
| 5. A77-305025 | AP6 | S4 |
| 6. A77-314014 | Coles x A72-507 | F4 |
| 7. A77-315011 | L69D-133 x C1515 | F4 |
| 8. A77-315023 | A72-512 x Amsoy 71 | F4 |
| 9. A77-316004 | A x 990 | S3 |
| 10. A77-316013 | A x 1390 | S3 |
| 11. C1569 | C1421 x Williams | F7 |
| 12. C1572 | C1421 x Williams | F7 |
| 13. C1573 | C1421 x Williams | F7 |
| 14. C1578 | Beeson x L69L-6-1 | F7 |
| 15. H72-247 | L63-3297 x L66L-140 | F5 |
| 16. H75-121 | Williams x Ransom | F5 |
| 17. H75-4211 | Wells x York | F5 |
| 18. H75-4212 | Wells x York | F5 |
| 19. H7772 | L66L-137 x Calland | F5 |
| 20. K1037 | Williams x Bonus | F4 |
| 21. K1038 | Williams x Cutler 71 | F3 |
| 22. K1040 | L66-1359 x Calland | F3 |
| 23. K1042 | L66L-140 x Cutler 71 | F3 |
| 24. L74L-116 | Calland x Williams | F6 |
| 25. L74L-497 | Wayne <u>Ir</u> x Coker Hampton 266A | F5 |
| 26. L75-8064 | Williams x L70-2283 (Chippewa x Custer) | F4 |
| 27. L75-8073 | Williams x L70-2283 (Chippewa x Custer) | F4 |
| 28. L75-8366 | Williams x L70-2450 (Wayne x Custer) | F4 |
| 29. L75-8381 | Williams x L70-2450 (Wayne x Custer) | F4 |
| 30. Md70-1626-67 | 3rd cycle intercross of 8-parent diallel | F8 |
| 31. Md70-2221-71 | 3rd cycle intercross of 8-parent diallel | F8 |
| 32. S76-2052 | D67-3297 x L73-827 | F4 |
| 33. S76-2102 | D67-3297 x Essex | F4 |
| 34. S76-2109 | D67-3297 x Essex | F4 |
| 35. S76-2145 | D67-3297 x Essex | F4 |
| 36. S76-2169 | D67-3297 x Essex | F4 |

Yields of the four cyst nematode, race 3, resistant strains L75-8064, -8073, -8366, and -8381 were considerably lower than yields of the Group III check varieties. However, the yield of L75-8381 was nearly 5 bushels above that of Franklin, the cyst nematode resistant check. The yields of the four determinate strains, H72-247, H75-121, -4211, and -4212 were well below the yields of the check varieties. These strains were among the highest yielding entries in Ohio but were the lowest yielding strains in Illinois, Missouri, and Kansas.

Descriptive and Other Data

| Strain | Descriptive Code | | <u>Chlorosis Score</u> | | <u>Shattering</u> |
|----------------|------------------|---------|------------------------|--|----------------------|
| | | | Ames | | Manhattan 2 weeks |
| Franklin | PGBr | DYIb | 3 | | 3 |
| Essex (V) | PGTn | SYBf | 3 | | 1 |
| Union (IV) | WTTn | SYB1 | 4 | | 2 |
| Williams (III) | WTTn | SYB1 | 4 | | 1 |
| A76-305025 | WT + GTn | DYBr | 4 | | 2 |
| A77-314014 | WGBr | SYy | 4 | | 4 |
| A77-315011 | PTBr | DYG | 5 | | 3 |
| A77-315023 | WGBr | SYy | 3 | | 2 |
| A77-316004 | PTBr | DYy | 2 | | 2 |
| A77-316013 | PGBr | DYy | 4 | | 2 |
| C1569 | WTTn | SYB1 | 3 | | 1 |
| C1572 | WTTn | SYB1 | 2 | | 2 |
| C1573 | WTTn | SYB1 | 4 | | 2 |
| C1578 | PGBr | DYBf | 4 | | 4 |
| H72-247 | PTBr | DYB1 | 4 | | 1 |
| H75-121 | PTTn | SYB1 | 3 | | 1 |
| H75-4211 | PGBr + Tn | SYBf | 3 | | 1 |
| H75-4212 | PGTn | SYBf | 4 | | 1 |
| K7772 | WTTn | DYB1 | 5 | | 1 |
| K1037 | PGBr | SYIb | 3 | | 4 |
| K1038 | WTBr | SYB1 | 3 | | 2 |
| K1040 | WTBr | DYB1 | 4 | | 1 |
| K1042 | WTTn | SYB1 | 4 | | 1 |
| L74L-116 | WTBr | SYB1 | 4 | | 2 |
| L74L-497 | PTBr | SYBr | 4 | | 2 |
| L75-8064 | PGBr | SYIb | 4 | | 1 |
| L75-8073 | PTTn | SYG | 3 | | 1 |
| L75-8366 | WTTn | SYB1 | 3 | | 1 |
| L75-8381 | WTTn | SYB1 | 3 | | 1 |
| Md70-1626-67 | WGTn | SYBf | 2 | | 1 |
| Md70-2221-71 | PTBr + Tn | SYB1 | 3 | | 1 |
| S76-2052 | PGTn | DYB1 | 5 | | 1 |
| S76-2102 | PGTn | SYG + Y | 3 | | 1 |
| S76-2109 | WGTn | SYBf | 3 | | 1 |
| S76-2145 | PGTn | SYBf | 3 | | 1 |
| S76-2169 | PGTn | SYBf | 3 | | 1 |

Disease Date

| Strain | FE ₂ | BSR | | | SMV | PSB | PS | PR race 1 | |
|----------------|-----------------|--------------|--------------------------|--------|--------------|--------------|--------------|-------------------|--------------|
| | Laf. Ind. | Laf. Ind. | Ames, Ia. stem plants | | Laf. Ind. | Laf. Ind. | Laf. Ind. | Laf. Ind. | Ames, Ia. |
| | a score | n % | n % | n % | n score | d % | a % | a --reaction-- | a |
| Franklin | 5 | 80 | 100 | 100 | 3M | 1 | 0 | R | R |
| Essex (V) | 4 | 100 | 92 | 100 | 5E | 1 | 0 | S | S |
| Union (IV) | 4 | 40 | 80 | 100 | 5E | 1 | 1 | R | R |
| Williams (III) | 5 | 100 | 98 | 100 | 5E | 4 | 2 | S | S |
| A76-305025 | 4 | 60 | 68 | 100 | 5E | 4 | 1 | H | H |
| A77-314014 | 3 | 80 | 96 | 100 | 5S | 0 | 0 | H | S |
| A77-315011 | 5 | 80 | 70 | 100 | 5S | 1 | 2 | R | R |
| A77-315023 | 5 | 100 | 96 | 100 | 5M | 2 | 2 | H | R |
| A77-316004 | 3 | 0 | 54 | 100 | 5E | 1 | 0 | R | R |
| A77-316013 | 5 | 20 | 47 | 100 | 1 | 3 | 2 | S | S |
| C1569 | 4 | 80 | 83 | 100 | 5M | 1 | 2 | S | S |
| C1572 | 5 | 100 | 88 | 100 | 5E | 0 | 0 | S | S |
| C1573 | 5 | 40 | 97 | 100 | 4E | 0 | 0 | R | R |
| C1578 | 1 | 20 | 98 | 100 | 3M | 0 | 0 | S | S |
| H72-247 | 5 | 0 | 100 | 100 | 4E | 2 | 3 | H | S |
| H75-121 | 1 | 20 | 95 | 100 | 2M | 0 | 1 | S | S |
| H75-4211 | 3 | 60 | 100 | 100 | 3M | 7 | 1 | R | H |
| H75-4212 | 1 | 20 | 96 | 100 | 1 | 3 | 0 | S | S |
| H7772 | 5 | 20 | 96 | 100 | 4E | 0 | 2 | S | S |
| K1037 | 5 | 0 | 96 | 100 | 2E | 2 | 5 | H | H |
| K1038 | 5 | 20 | 93 | 100 | 5E | 3 | 1 | R | R |
| K1040 | 3 | 20 | 100 | 100 | 5E | 0 | 0 | S | S |
| K1042 | 1 | 0 | 100 | 100 | 5M | 1 | 0 | R | R |
| L74L-116 | 4 | 80 | 100 | 100 | 5E | 2 | 2 | H | S |
| L74L-497 | 5 | 100 | 100 | 100 | 3E | 2 | 0 | S | S |
| L75-8064 | 3 | 100 | 96 | 100 | 2M | 3 | 2 | R | H |
| L75-8073 | 4 | 60 | 96 | 100 | 3E | 4 | 0 | S | S |
| L75-8366 | 4 | 40 | 95 | 100 | 5E | 1 | 0 | S | H |
| L75-8381 | 5 | 40 | 99 | 100 | 5E | 2 | 2 | S | S |
| Md70-1626-67 | 1 | 40 | 100 | 100 | 1 | 1 | 0 | S | S |
| Md70-2221-71 | 1 | 60 | 99 | 100 | 1 | 0 | 0 | S | S |
| S76-2052 | 1 | 40 | 100 | 100 | 4E | 0 | 0 | H | S |
| S76-2102 | 1 | 80 | - | - | 1 | 0 | 0 | S | S |
| S76-2109 | 3 | 80 | - | - | 1 | 0 | 0 | S | S |
| S76-2145 | 4 | 100 | - | - | 1 | 0 | 0 | S | S |
| S76-2169 | 4 | 100 | - | - | 1 | 1 | 0 | H | S |

Regional Summary

| Strain | Yield Bu/A | Rank No. | Matu- rity Date | Lodg- ing Score | Height In. | Seed Quality Score | Seed Size g/100 | Seed Composition | |
|----------------|---------------|-------------|-----------------------|-----------------------|---------------|--------------------------|-----------------------|------------------|----------|
| | | | | | | | | Protein % | Oil % |
| No. of Tests | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 4 |
| Franklin | 39.0 | 32 | +4.1 | 2.7 | 47 | 2.0 | 14.0 | 39.1 | 22.1 |
| Essex (V) | 46.0 | 7 | +21.4 | 2.8 | 35 | 1.7 | 12.5 | 43.2 | 20.2 |
| Union (IV) | 46.6 | 5 | 9-20* | 2.6 | 45 | 1.9 | 17.2 | 41.2 | 21.8 |
| Williams (III) | 46.0 | 7 | -2.1 | 2.2 | 43 | 2.0 | 15.6 | 41.4 | 22.1 |
| A76-305025 | 40.2 | 27 | -0.3 | 3.1 | 44 | 2.3 | 15.8 | 42.5 | 21.5 |
| A77-314014 | 47.5 | 3 | +4.6 | 3.0 | 44 | 2.3 | 16.3 | 43.2 | 20.0 |
| A77-315011 | 43.7 | 16 | +1.4 | 2.9 | 44 | 2.1 | 15.3 | 42.0 | 20.8 |
| A77-315023 | 45.2 | 11 | +1.1 | 3.8 | 46 | 2.4 | 13.7 | 40.6 | 21.7 |
| A77-316004 | 40.1 | 28 | +2.6 | 3.1 | 47 | 1.8 | 13.8 | 43.5 | 21.0 |
| A77-316013 | 39.9 | 30 | -1.9 | 3.9 | 42 | 2.3 | 16.8 | 40.5 | 22.5 |
| C1569 | 45.0 | 12 | +1.6 | 2.0 | 45 | 1.8 | 16.2 | 43.0 | 20.8 |
| C1572 | 45.8 | 9 | +3.7 | 2.3 | 44 | 1.7 | 15.2 | 41.2 | 22.1 |
| C1573 | 48.2 | 1 | +6.3 | 2.8 | 45 | 1.5 | 15.9 | 41.9 | 21.0 |
| C1578 | 39.9 | 30 | -2.3 | 2.5 | 34 | 2.1 | 17.3 | 42.4 | 21.3 |
| H72-247 | 33.6 | 35 | -3.7 | 1.2 | 18 | 2.1 | 15.7 | 44.3 | 20.6 |
| H75-121 | 40.0 | 29 | +5.1 | 1.2 | 19 | 1.8 | 15.0 | 42.2 | 22.0 |
| H75-4211 | 32.2 | 36 | -0.1 | 1.0 | 22 | 2.7 | 17.9 | 42.8 | 20.6 |
| H75-4212 | 35.1 | 34 | +1.3 | 1.1 | 22 | 3.0 | 19.3 | 44.0 | 19.5 |
| H7772 | 45.0 | 12 | +6.3 | 2.2 | 44 | 2.1 | 14.8 | 41.7 | 19.9 |
| K1037 | 40.8 | 24 | -2.4 | 1.6 | 45 | 2.0 | 16.1 | 42.2 | 22.4 |
| K1038 | 41.5 | 23 | +0.6 | 2.5 | 44 | 2.0 | 16.3 | 42.7 | 21.0 |
| K1040 | 45.0 | 12 | +6.4 | 3.1 | 43 | 2.0 | 13.2 | 41.3 | 21.5 |
| K1042 | 47.4 | 4 | +2.4 | 2.1 | 45 | 2.2 | 17.9 | 41.2 | 22.1 |
| L74L-116 | 45.8 | 9 | +3.0 | 2.8 | 44 | 2.3 | 17.5 | 42.4 | 20.9 |
| L74L-497 | 46.6 | 5 | +12.6 | 2.8 | 45 | 2.2 | 16.2 | 43.5 | 20.0 |
| L75-8064 | 38.4 | 33 | +4.6 | 2.6 | 46 | 2.1 | 14.5 | 40.2 | 21.4 |
| L75-8073 | 40.3 | 25 | +3.9 | 2.5 | 46 | 1.8 | 14.8 | 42.8 | 20.2 |
| L75-8366 | 40.3 | 25 | -2.0 | 2.5 | 44 | 1.9 | 14.0 | 41.4 | 21.5 |
| L75-8381 | 44.3 | 15 | +0.1 | 2.5 | 44 | 1.8 | 13.8 | 39.8 | 21.8 |
| Md70-1626-67 | 42.5 | 19 | +7.9 | 2.8 | 46 | 1.9 | 17.6 | 40.0 | 22.3 |
| Md70-2221-71 | 42.2 | 21 | +7.6 | 2.0 | 43 | 1.9 | 14.3 | 41.8 | 21.2 |
| S76-2052 | 42.7 | 18 | +12.0 | 2.7 | 33 | 1.7 | 12.3 | 42.8 | 19.8 |
| S65-2102 | 42.1 | 22 | +12.6 | 2.2 | 36 | 1.8 | 10.2 | 42.7 | 19.8 |
| S76-2109 | 48.0 | 2 | +19.0 | 1.8 | 36 | 1.8 | 11.6 | 42.8 | 19.3 |
| S76-2145 | 42.4 | 20 | +15.9 | 2.7 | 38 | 1.5 | 11.2 | 42.8 | 19.6 |
| S76-2169 | 42.8 | 17 | +17.1 | 2.8 | 32 | 1.7 | 12.7 | 42.7 | 20.0 |

* 125 days after planting.

| Strain | Mean 7 Tests | Md. | Ohio |
|----------------|-----------------|----------------|------------------|
| | | Queens town | Wheeler- burg |
| | | YIELD (bu/a) | |
| Franklin | 39.0 | 43.2 | 35.7 |
| Essex (V) | 46.0 | 49.6 | 27.9 |
| Union (IV) | 46.6 | 48.5 | 57.2 |
| Williams (III) | 46.0 | 48.5 | 53.0 |
| A76-305025 | 40.2 | 49.2 | 32.8 |
| A77-314014 | 47.5 | 53.4 | 57.0 |
| A77-315011 | 43.7 | 50.6 | 48.4 |
| A77-315023 | 45.2 | 46.6 | 54.1 |
| A77-316004 | 40.1 | 41.8 | 48.2 |
| A77-316013 | 39.9 | 39.2 | 39.0 |
| C1569 | 45.0 | 51.6 | 48.3 |
| C1572 | 45.8 | 52.2 | 56.3 |
| C1573 | 48.2 | 52.9 | 49.6 |
| C1578 | 39.9 | 40.2 | 59.8 |
| H72-247 | 33.6 | 44.0 | 58.4 |
| H75-121 | 40.0 | 55.0 | 62.4 |
| H75-4211 | 32.2 | 40.3 | 57.3 |
| H75-4212 | 35.1 | 51.5 | 57.8 |
| H7772 | 45.0 | 47.0 | 48.3 |
| K1037 | 40.8 | 45.4 | 38.1 |
| K1038 | 41.5 | 46.1 | 56.2 |
| K1040 | 45.0 | 52.2 | 42.8 |
| K1042 | 47.4 | 49.7 | 53.4 |
| L74L-116 | 45.8 | 51.6 | 46.6 |
| L74L-497 | 46.6 | 50.7 | 37.2 |
| L75-8064 | 38.4 | 37.9 | 31.4 |
| L75-8073 | 40.3 | 42.1 | 45.2 |
| L75-8366 | 40.3 | 44.7 | 50.0 |
| L75-8381 | 44.3 | 47.3 | 56.5 |
| Md70-1626-67 | 42.5 | 44.3 | 44.8 |
| Md70-2221-71 | 42.2 | 38.0 | 42.8 |
| S76-2052 | 42.7 | 41.8 | 28.4 |
| S76-2102 | 42.1 | 43.9 | 31.4 |
| S76-2109 | 48.0 | 47.3 | 29.8 |
| S76-2145 | 42.4 | 45.7 | 27.1 |
| S76-2169 | 42.8 | 42.3 | 20.6 |
| C.V. (%) | | 7.85 | 11.9 |
| L.S.D. (5%) | | 7.42 | 10.9 |
| Row sp (in.) | | 30" | 30" |
| Rows/plot | | 4 | 4 |
| Reps | | 2 | 2 |

| Ind. Sull- ivan | Ill. | | Mo. | Kans. |
|-----------------------|-----------------|---------------|----------------------|----------------|
| | Belle- ville | Eld- orado | Portageville Loam | Man- hatten |
| | YIELD (bu/a) | | | |
| 29.9 | 43.5 | 39.4 | 42.3 | 38.7 |
| 35.3 | 50.0 | 50.5 | 54.5 | 54.5 |
| 42.6 | 47.0 | 43.2 | 45.7 | 42.0 |
| 38.8 | 46.7 | 44.6 | 46.5 | 43.6 |
| 37.1 | 44.1 | 33.8 | 40.1 | 44.0 |
| 41.1 | 53.7 | 42.1 | 42.2 | 42.7 |
| 36.0 | 38.2 | 40.9 | 48.1 | 43.6 |
| 41.4 | 49.1 | 39.2 | 44.8 | 41.1 |
| 29.8 | 42.3 | 34.8 | 42.3 | 41.3 |
| 37.5 | 45.9 | 37.8 | 38.7 | 41.3 |
| 37.5 | 47.3 | 39.8 | 47.1 | 43.2 |
| 39.1 | 41.2 | 42.3 | 47.7 | 41.8 |
| 38.4 | 56.6 | 42.2 | 48.0 | 49.7 |
| 22.8 | 47.5 | 24.8 | 39.7 | 44.2 |
| 37.0 | 27.1 | 23.4 | 26.8 | 18.5 |
| 34.8 | 42.5 | 30.5 | 26.6 | 28.3 |
| 32.9 | 34.9 | 20.3 | 27.2 | 12.4 |
| 37.3 | 35.3 | 25.9 | 23.6 | 14.5 |
| 38.1 | 49.7 | 43.5 | 49.9 | 38.4 |
| 34.7 | 48.0 | 36.6 | 41.5 | 41.3 |
| 30.8 | 38.3 | 34.9 | 41.9 | 42.4 |
| 33.1 | 52.1 | 41.5 | 46.5 | 46.7 |
| 40.7 | 51.1 | 44.8 | 48.6 | 43.8 |
| 33.7 | 48.3 | 43.1 | 51.8 | 45.4 |
| 44.0 | 48.8 | 45.9 | 54.0 | 45.6 |
| 35.9 | 43.9 | 39.2 | 44.7 | 36.0 |
| 34.6 | 40.2 | 40.0 | 45.2 | 35.0 |
| 33.3 | 41.0 | 30.3 | 46.2 | 36.3 |
| 33.9 | 42.1 | 34.3 | 46.9 | 49.1 |
| 41.2 | 43.5 | 40.8 | 41.2 | 42.0 |
| 34.8 | 48.5 | 46.5 | 40.9 | 44.4 |
| 40.0 | 44.8 | 51.0 | 43.2 | 49.4 |
| 37.3 | 43.4 | 44.8 | 44.5 | 49.4 |
| 41.3 | 54.8 | 54.3 | 54.9 | 53.5 |
| 31.8 | 44.3 | 45.6 | 50.5 | 52.1 |
| 40.3 | 47.7 | 48.5 | 50.7 | 49.3 |
| 10.3 | 8.2 | 7.3 | - | 6.9 |
| 7.6 | 7.6 | 5.8 | - | 5.8 |
| 28" | 30" | 30" | 38" | 30" |
| 3 | 4 | 4 | 3 | 4 |
| 2 | 2 | 2 | 3 | 3 |

| Strain | Mean 7 Tests | <u>YIELD RANK</u> | |
|----------------|-----------------|-------------------|---------------------------|
| | | Md. Queens | Ohio Wheelers- burg |
| Franklin | 32 | 27 | 28 |
| Essex (V) | 7 | 12 | 34 |
| Union (IV) | 5 | 14 | 6 |
| Williams (III) | 7 | 14 | 13 |
| A76-305025 | 27 | 13 | 29 |
| A77-314014 | 3 | 2 | 7 |
| A77-315011 | 16 | 10 | 16 |
| A77-315023 | 11 | 19 | 11 |
| A77-316004 | 28 | 31 | 19 |
| A77-316013 | 30 | 34 | 25 |
| C1569 | 12 | 6 | 17 |
| C1572 | 9 | 4 | 9 |
| C1573 | 1 | 3 | 15 |
| C1578 | 30 | 33 | 2 |
| H72-247 | 35 | 25 | 3 |
| H75-121 | 29 | 1 | 1 |
| H75-4211 | 36 | 32 | 5 |
| H75-4212 | 34 | 8 | 4 |
| H7772 | 12 | 18 | 17 |
| K1037 | 24 | 22 | 26 |
| K1038 | 23 | 20 | 10 |
| K1040 | 12 | 4 | 23 |
| K1042 | 4 | 11 | 12 |
| L74L-116 | 9 | 6 | 20 |
| L74L-497 | 3 | 9 | 27 |
| L75-8064 | 33 | 36 | 30 |
| L75-8073 | 25 | 29 | 21 |
| L75-8366 | 25 | 23 | 14 |
| L75-8381 | 15 | 16 | 8 |
| Md70-1626-67 | 19 | 24 | 22 |
| Md70-2221-71 | 21 | 35 | 23 |
| S76-2052 | 18 | 30 | 33 |
| S76-2102 | 22 | 26 | 30 |
| S76-2109 | 2 | 16 | 32 |
| S76-2145 | 20 | 21 | 35 |
| S76-2169 | 17 | 28 | 36 |

| Ind. | Ill. | MO | Kans. | |
|-----------|-------------|---------------|------------|----|
| Sull-ivan | Belle-ville | Portage-ville | Man-hatten | |
| | | YIELD RANK | | |
| 34 | 23 | 22 | 23 | 28 |
| 22 | 6 | 3 | 2 | 1 |
| 2 | 16 | 12 | 17 | 21 |
| 11 | 17 | 10 | 14 | 16 |
| 18 | 21 | 30 | 30 | 14 |
| 6 | 3 | 16 | 25 | 19 |
| 20 | 33 | 18 | 9 | 16 |
| 3 | 8 | 23 | 19 | 27 |
| 35 | 27 | 28 | 23 | 24 |
| 14 | 18 | 25 | 32 | 24 |
| 14 | 15 | 21 | 12 | 18 |
| 10 | 29 | 14 | 11 | 23 |
| 12 | 1 | 15 | 10 | 4 |
| 36 | 14 | 34 | 31 | 13 |
| 19 | 36 | 35 | 34 | 34 |
| 23 | 26 | 31 | 35 | 33 |
| 31 | 35 | 36 | 33 | 36 |
| 16 | 34 | 33 | 36 | 35 |
| 13 | 7 | 11 | 7 | 29 |
| 25 | 12 | 26 | 27 | 24 |
| 33 | 32 | 27 | 26 | 20 |
| 30 | 4 | 17 | 14 | 9 |
| 7 | 5 | 8 | 8 | 15 |
| 28 | 11 | 13 | 4 | 11 |
| 1 | 9 | 6 | 3 | 10 |
| 21 | 22 | 23 | 20 | 31 |
| 26 | 31 | 20 | 18 | 32 |
| 29 | 30 | 32 | 16 | 30 |
| 27 | 28 | 29 | 13 | 8 |
| 5 | 23 | 19 | 28 | 21 |
| 23 | 10 | 5 | 29 | 12 |
| 9 | 19 | 2 | 22 | 5 |
| 16 | 25 | 8 | 21 | 5 |
| 4 | 2 | 1 | 1 | 2 |
| 32 | 20 | 7 | 6 | 3 |
| 8 | 13 | 4 | 5 | 7 |

| Strain | Mean 7 Tests | Md. | Ohio |
|---------------------------------|-----------------|--------|-------------------|
| | | Queens | Wheelers- burg |
| <u>MATURITY (relative date)</u> | | | |
| Franklin | +4.1 | +9 | +1 |
| Essex (V) | + 21.4 | +20 | +9 |
| Union (IV)* | 9-20 | 9-27 | 9-19 |
| Williams (III) | -2.1 | -3 | -3 |
| A76-305025 | -0.3 | +1 | -3 |
| A77-314014 | +4.6 | +5 | +2 |
| A77-315011 | +1.4 | +3 | -1 |
| A77-315023 | +1.1 | -4 | +1 |
| A77-316004 | +2.6 | +5 | +1 |
| A77-310613 | -1.9 | -4 | -5 |
| C1569 | +1.6 | +1 | -1 |
| C1572 | +3.7 | +5 | +1 |
| C1573 | +6.3 | +11 | +3 |
| C1578 | -2.3 | -2 | -2 |
| H72-247 | -3.7 | -4 | -5 |
| H75-121 | +5.1 | -4 | -5 |
| H75-4211 | -0.1 | 0 | -3 |
| H75-4212 | +1.3 | -1 | -1 |
| H7772 | +6.3 | +9 | +1 |
| K1037 | -2.4 | -2 | -7 |
| K1038 | +0.6 | -1 | -1 |
| K1040 | +6.4 | +7 | +2 |
| K1042 | +2.4 | +1 | -1 |
| L74L-116 | +3.0 | -3 | +2 |
| L74L-497 | +12.6 | +14 | +3 |
| L75-8064 | +4.6 | +5 | 0 |
| L75-8073 | +3.9 | +7 | 0 |
| L75-8366 | -2.0 | -3 | -5 |
| L75-8381 | +0.1 | +1 | -3 |
| Md70-1626-67 | +7.9 | +9 | -1 |
| Md70-2221-71 | +7.6 | +9 | +3 |
| S76-2052 | +12.0 | +9 | +6 |
| S76-2102 | +12.6 | +11 | +4 |
| S76-2109 | +19.0 | +14 | +9 |
| S76-2145 | +15.9 | +14 | +7 |
| S76-2169 | +17.1 | +14 | +9 |
| Date planted | 5-18 | 3-30 | 5-3 |
| *Days to mat. | 125 | 120 | 139 |

| Ind. Sull- ivan | Ill. | | MO | Kans. |
|-----------------------|---------------------------------|---------------|-------------------|----------------|
| | Belle- ville | El- dorado | Portage- ville | Man- hattan |
| | <u>MATURITY (relative date)</u> | | | |
| +1 | +2 | +5 | +3 | +8 |
| +16 | + 29 | +35 | +17 | +24 |
| 9-18 | 9-22 | 9-20 | 9-11 | 9-24 |
| -2 | -2 | -4 | 0 | -1 |
| -1 | -2 | -1 | +1 | +3 |
| +1 | +3 | +5 | +3 | +13 |
| -2 | -1 | +1 | 0 | +10 |
| -1 | +2 | -1 | +1 | +10 |
| +2 | 0 | +1 | +1 | +8 |
| -2 | -2 | -3 | -2 | +5 |
| -2 | -1 | -1 | +2 | +13 |
| -2 | +1 | +3 | +5 | +13 |
| 0 | +5 | +7 | +5 | +13 |
| -6 | -2 | -1 | -2 | -1 |
| -6 | -3 | -1 | -4 | -3 |
| -6 | -4 | -5 | -10 | -2 |
| -5 | -1 | +12 | -3 | -1 |
| -4 | -1 | +13 | -3 | +6 |
| 0 | +5 | +8 | +7 | +14 |
| -4 | -1 | -4 | -1 | +2 |
| -4 | 0 | 0 | +1 | +9 |
| +3 | +4 | +7 | +6 | +16 |
| -2 | -1 | +2 | +3 | +15 |
| -1 | +4 | +7 | +3 | +9 |
| +10 | +13 | +18 | +14 | +16 |
| +4 | +4 | +5 | +4 | +10 |
| +3 | +2 | +1 | +4 | +10 |
| -4 | -1 | -6 | 0 | +5 |
| -2 | -1 | -5 | 0 | +11 |
| +6 | +7 | +11 | +8 | +15 |
| +1 | +7 | +12 | +7 | +14 |
| +10 | +17 | +21 | +7 | +14 |
| +10 | +15 | +23 | +8 | +17 |
| +14 | +25 | +31 | +16 | +24 |
| +11 | +20 | +24 | +10 | +18 |
| +14 | +23 | +29 | +13 | +18 |
| 5-30 | 5-28 | 5-24 | 5-10 | 5-3 |
| 111 | 117 | 119 | 124 | 144 |

| Strain | Mean 7 Tests | Md. | Ohio |
|----------------|-----------------|------------------------|-------------------|
| | | Queens | Wheelers- burg |
| | | <u>LODGING (score)</u> | |
| Franklin | 2.7 | 3.2 | 2.8 |
| Essex (V) | 2.8 | 2.5 | 3.5 |
| Union (IV) | 2.6 | 2.5 | 3.0 |
| Williams (III) | 2.2 | 2.0 | 2.5 |
| A76-305025 | 3.1 | 3.5 | 3.5 |
| A77-314014 | 3.0 | 2.8 | 3.5 |
| A77-315011 | 2.9 | 3.8 | 2.8 |
| A77-315023 | 3.8 | 3.5 | 4.0 |
| A77-316004 | 3.1 | 4.2 | 3.8 |
| A77-316013 | 3.9 | 4.0 | 4.5 |
| C1569 | 2.0 | 2.0 | 2.0 |
| C1572 | 2.3 | 2.2 | 3.0 |
| C1573 | 2.8 | 3.0 | 3.8 |
| C1578 | 2.5 | 3.0 | 2.8 |
| H72-247 | 1.2 | 1.0 | 1.8 |
| H75-121 | 1.2 | 1.0 | 1.5 |
| H75-4211 | 1.0 | 1.0 | 1.0 |
| H75-4212 | 1.1 | 1.0 | 1.0 |
| H7772 | 2.2 | 2.5 | 2.2 |
| K1037 | 1.6 | 2.0 | 1.2 |
| K1038 | 2.5 | 4.0 | 2.2 |
| K1040 | 3.1 | 3.0 | 4.0 |
| K1042 | 2.1 | 2.5 | 2.0 |
| L74L-116 | 2.8 | 2.5 | 3.2 |
| L74L-497 | 2.8 | 3.0 | 3.0 |
| L75-8064 | 2.6 | 2.5 | 2.8 |
| L75-8073 | 2.5 | 3.2 | 2.0 |
| L75-8366 | 2.5 | 2.5 | 3.0 |
| L75-8381 | 2.5 | 3.0 | 2.5 |
| Md70-1626-67 | 2.8 | 3.8 | 2.5 |
| Md70-2221-71 | 2.0 | 2.5 | 1.8 |
| S76-2052 | 2.7 | 2.2 | 3.2 |
| S76-2102 | 2.2 | 2.2 | 3.2 |
| S76-2109 | 1.8 | 2.5 | 1.8 |
| S76-2145 | 2.7 | 3.0 | 3.8 |
| S76-2169 | 2.8 | 3.0 | 3.5 |

| Ind. Sull- ivan | Ill. | | MO | Kans. |
|-----------------------|-----------------|------------------------|-------------------|----------------|
| | Belle- ville | El- dorado | Portage- ville | Man- hatten |
| | | <u>LODGING (score)</u> | | |
| 3.3 | 2.6 | 1.9 | 2.8 | 2.5 |
| 3.8 | 2.7 | 2.3 | 3.3 | 1.3 |
| 3.3 | 2.3 | 2.3 | 3.3 | 1.8 |
| 3.3 | 1.9 | 1.5 | 2.5 | 1.7 |
| 4.0 | 2.5 | 1.7 | 3.0 | 3.3 |
| 3.3 | 2.9 | 2.0 | 4.0 | 2.5 |
| 3.8 | 2.5 | 1.8 | 2.5 | 3.3 |
| 3.8 | 3.5 | 3.5 | 4.3 | 3.8 |
| 4.0 | 2.4 | 2.3 | 3.3 | 1.9 |
| 3.5 | 3.8 | 2.8 | 4.5 | 4.0 |
| 2.5 | 1.4 | 1.3 | 2.8 | 1.8 |
| 3.3 | 1.5 | 1.2 | 3.3 | 1.9 |
| 3.5 | 2.3 | 1.9 | 3.3 | 2.0 |
| 4.3 | 2.5 | 2.5 | 1.5 | 1.0 |
| 1.5 | 1.1 | 1.0 | 1.0 | 1.0 |
| 1.8 | 1.1 | 1.0 | 1.0 | 1.0 |
| 1.3 | 1.0 | 1.0 | 1.0 | 1.0 |
| 1.5 | 1.0 | 1.0 | 1.0 | 1.0 |
| 2.5 | 1.9 | 1.3 | 2.5 | 2.5 |
| 2.3 | 1.4 | 1.4 | 2.0 | 1.0 |
| 3.0 | 2.2 | 2.0 | 2.5 | 1.9 |
| 2.8 | 2.7 | 1.8 | 4.3 | 2.8 |
| 3.0 | 1.5 | 1.3 | 3.0 | 1.4 |
| 3.5 | 3.0 | 2.1 | 3.3 | 2.3 |
| 3.3 | 2.4 | 2.0 | 3.3 | 2.5 |
| 3.0 | 2.3 | 1.7 | 3.8 | 1.8 |
| 3.3 | 2.8 | 1.6 | 3.0 | 1.9 |
| 2.8 | 2.4 | 2.0 | 3.8 | 1.7 |
| 3.3 | 1.9 | 1.6 | 3.0 | 2.3 |
| 2.5 | 4.5 | 1.7 | 3.0 | 1.7 |
| 1.8 | 1.8 | 1.1 | 3.3 | 2.0 |
| 2.0 | 3.0 | 3.1 | 4.0 | 1.3 |
| 1.8 | 2.3 | 2.2 | 2.5 | 1.0 |
| 1.8 | 1.5 | 1.3 | 2.3 | 1.2 |
| 2.5 | 2.5 | 2.4 | 3.3 | 1.6 |
| 2.3 | 3.4 | 2.3 | 4.0 | 1.1 |

| Strain | Mean 7 Tests | Md. | Ohio |
|-----------------------|-----------------|-----------------|-------------------|
| | | Queens- town | Wheelers- burg |
| PLANT HEIGHT (inches) | | | |
| Franklin | 47 | 46 | 49 |
| Essex (V) | 35 | 36 | 36 |
| Union (IV) | 45 | 50 | 40 |
| Williams (III) | 43 | 44 | 38 |
| A76-305025 | 44 | 45 | 37 |
| A77-314014 | 44 | 45 | 40 |
| A77-315011 | 44 | 46 | 39 |
| A77-315023 | 46 | 49 | 40 |
| A77-316004 | 47 | 48 | 39 |
| A77-316013 | 42 | 40 | 35 |
| C1569 | 45 | 49 | 38 |
| C1572 | 44 | 46 | 40 |
| C1573 | 45 | 49 | 39 |
| C1578 | 34 | 33 | 36 |
| H72-247 | 18 | 20 | 24 |
| H75-121 | 19 | 20 | 24 |
| H75-4211 | 22 | 24 | 30 |
| H75-4212 | 22 | 25 | 29 |
| H7772 | 44 | 46 | 40 |
| K1037 | 45 | 47 | 39 |
| K1038 | 44 | 46 | 40 |
| K1040 | 43 | 48 | 39 |
| K1042 | 45 | 48 | 42 |
| L74L-116 | 44 | 45 | 39 |
| L74L-497 | 45 | 49 | 39 |
| L75-8064 | 46 | 46 | 43 |
| L75-8073 | 46 | 45 | 42 |
| L75-8366 | 44 | 45 | 40 |
| L75-8381 | 44 | 46 | 38 |
| Md70-1626-67 | 46 | 48 | 39 |
| Md70-2221-71 | 43 | 44 | 41 |
| S76-2052 | 33 | 35 | 37 |
| S76-2102 | 36 | 38 | 36 |
| S76-2109 | 36 | 39 | 36 |
| S76-2145 | 38 | 39 | 38 |
| S76-2169 | 32 | 34 | 36 |

| Ind. Sull- ivan | Ill. | | MO | Kans. |
|------------------------------|-----------------|---------------|-------------------|----------------|
| | Belle- ville | El- dorado | Portage- ville | Man- hatten |
| <u>PLANT HEIGHT (inches)</u> | | | | |
| 46 | 50 | 45 | 43 | 51 |
| 38 | 34 | 38 | 28 | 37 |
| 46 | 48 | 44 | 41 | 48 |
| 44 | 44 | 42 | 38 | 49 |
| 46 | 46 | 45 | 44 | 47 |
| 43 | 47 | 46 | 38 | 48 |
| 44 | 43 | 46 | 40 | 47 |
| 44 | 45 | 46 | 42 | 54 |
| 48 | 48 | 47 | 47 | 52 |
| 42 | 42 | 42 | 37 | 47 |
| 46 | 47 | 43 | 42 | 48 |
| 44 | 46 | 44 | 42 | 47 |
| 43 | 50 | 44 | 41 | 52 |
| 38 | 34 | 36 | 23 | 35 |
| 24 | 12 | 17 | 14 | 15 |
| 23 | 18 | 20 | 13 | 13 |
| 30 | 20 | 22 | 16 | 14 |
| 28 | 19 | 22 | 16 | 16 |
| 47 | 43 | 42 | 42 | 50 |
| 46 | 49 | 42 | 38 | 51 |
| 43 | 46 | 43 | 39 | 49 |
| 43 | 43 | 42 | 38 | 48 |
| 46 | 47 | 43 | 39 | 49 |
| 45 | 46 | 43 | 39 | 49 |
| 47 | 47 | 44 | 43 | 46 |
| 50 | 47 | 44 | 44 | 50 |
| 47 | 48 | 46 | 39 | 54 |
| 44 | 46 | 46 | 38 | 48 |
| 45 | 46 | 40 | 43 | 47 |
| 48 | 46 | 47 | 45 | 52 |
| 46 | 42 | 42 | 39 | 45 |
| 30 | 32 | 36 | 29 | 33 |
| 36 | 37 | 40 | 33 | 35 |
| 38 | 34 | 33 | 27 | 36 |
| 40 | 37 | 40 | 34 | 38 |
| 34 | 29 | 34 | 29 | 31 |

| Strain | Mean 7 Tests | SEED QUALITY | |
|----------------|-----------------|-----------------------|---------------------------|
| | | Md. Queens town | Ohio Wheelers- burg |
| Franklin | 2.0 | 2.0 | 1.0 |
| Essex (V) | 1.7 | 2.0 | 1.0 |
| Union (IV) | 1.9 | 2.0 | 1.0 |
| Williams (III) | 2.0 | 2.0 | 1.0 |
| A76-305025 | 2.3 | 2.0 | 1.8 |
| A77-314014 | 2.3 | 2.0 | 2.5 |
| A77-315011 | 2.1 | 2.5 | 1.5 |
| A77-315023 | 2.4 | 2.2 | 3.0 |
| A77-316004 | 1.8 | 2.2 | 1.2 |
| A77-316013 | 2.3 | 2.0 | 2.0 |
| C1569 | 1.8 | 2.0 | 1.0 |
| C1572 | 1.7 | 2.0 | 1.5 |
| C1573 | 1.5 | 2.2 | 1.0 |
| C1578 | 2.1 | 2.0 | 1.8 |
| H72-247 | 2.1 | 3.0 | 1.0 |
| H75-121 | 1.8 | 2.0 | 1.0 |
| H75-4211 | 2.7 | 3.0 | 2.0 |
| H75-4212 | 3.0 | 3.0 | 2.5 |
| H7772 | 2.1 | 2.0 | 1.2 |
| K1037 | 2.0 | 2.0 | 1.0 |
| K1038 | 2.0 | 2.0 | 1.0 |
| K1040 | 2.0 | 2.0 | 1.5 |
| K1042 | 2.2 | 2.2 | 2.0 |
| L74L-116 | 2.3 | 2.2 | 1.5 |
| L74L-497 | 2.2 | 2.8 | 1.0 |
| L75-8064 | 2.1 | 2.0 | 1.5 |
| L75-8073 | 1.8 | 2.0 | 1.0 |
| L75-8366 | 1.9 | 2.0 | 1.2 |
| L75-8381 | 1.8 | 2.0 | 1.0 |
| Md70-1626-67 | 1.9 | 2.0 | 1.0 |
| Md70-2221-71 | 1.9 | 2.0 | 1.0 |
| S76-2052 | 1.7 | 2.0 | 1.0 |
| S76-2102 | 1.8 | 2.0 | 1.0 |
| S76-2109 | 1.8 | 2.0 | 1.0 |
| S76-2145 | 1.5 | 2.0 | 1.2 |
| S76-2169 | 1.7 | 2.0 | 1.0 |

| Ind. | Ill. | MO | Kans. |
|----------------|-----------------|------------------------------------|----------------|
| Sulli- ivan | Belle- ville | El- dorado Portage- ville | Man- hatten |
| | | <u>SEED QUALITY</u> | |
| 1.5 | 2.5 | 2.8 | 1.5 |
| 1.0 | 1.8 | 3.0 | 1.3 |
| 1.5 | 2.0 | 3.3 | 1.5 |
| 2.0 | 1.5 | 4.0 | 1.5 |
| 2.0 | 2.5 | 3.0 | 1.6 |
| 2.0 | 2.0 | 3.0 | 1.7 |
| 2.0 | 2.0 | 2.5 | 1.9 |
| 2.0 | 2.8 | 2.0 | 1.7 |
| 1.5 | 1.8 | 2.0 | 1.8 |
| 1.5 | 2.0 | 3.8 | 1.7 |
| 1.0 | 2.3 | 2.3 | 1.5 |
| 1.0 | 1.8 | 2.3 | 1.5 |
| 1.0 | 1.5 | 2.0 | 1.5 |
| 1.0 | 3.0 | 2.3 | 1.5 |
| 1.5 | 2.5 | 2.5 | 1.7 |
| 1.5 | 1.5 | 3.0 | 1.4 |
| 1.5 | 3.0 | 3.8 | 1.8 |
| 2.0 | 3.3 | 3.5 | 3.3 |
| 2.0 | 2.5 | 2.5 | 1.7 |
| 1.5 | 2.3 | 2.3 | 1.9 |
| 1.5 | 1.8 | 4.0 | 1.5 |
| 1.5 | 1.8 | 3.8 | 1.4 |
| 1.5 | 2.3 | 3.3 | 1.9 |
| 2.5 | 2.5 | 3.3 | 1.8 |
| 2.5 | 2.0 | 2.8 | 1.7 |
| 1.5 | 2.5 | 3.3 | 1.7 |
| 1.5 | 1.8 | 3.0 | 1.5 |
| 1.5 | 1.8 | 3.3 | 1.6 |
| 1.5 | 1.5 | 3.0 | 1.6 |
| 1.5 | 2.0 | 3.0 | 1.5 |
| 1.5 | 2.0 | 3.8 | 1.5 |
| 1.0 | 2.3 | 3.0 | 1.3 |
| 1.0 | 1.5 | 4.5 | 1.3 |
| 1.0 | 2.0 | 4.3 | 1.4 |
| 1.0 | 1.5 | 2.8 | 1.3 |
| 1.0 | 1.8 | 3.0 | 1.7 |

| Strain | Mean 7 Tests | Md. | Ohio |
|----------------|--------------------------|-----------------|-------------------|
| | | Queens- town | Wheelers- burg |
| | <u>SEED SIZE (g/100)</u> | | |
| Franklin | 14.0 | 15.0 | 11.0 |
| Essex (V) | 12.5 | 14.7 | 9.0 |
| Union (IV) | 17.2 | 17.8 | 18.0 |
| Williams (III) | 15.6 | 16.2 | 14.0 |
| A76-305025 | 15.8 | 17.6 | 13.0 |
| A77-314014 | 16.3 | 17.0 | 16.0 |
| A77-315011 | 15.3 | 17.0 | 15.0 |
| A77-315023 | 13.7 | 13.6 | 14.0 |
| A77-316004 | 13.8 | 15.9 | 13.0 |
| A77-316013 | 16.8 | 17.2 | 16.0 |
| C1569 | 16.2 | 17.3 | 15.0 |
| C1572 | 15.2 | 16.8 | 14.0 |
| C1573 | 15.9 | 17.1 | 14.0 |
| C1578 | 17.3 | 17.4 | 20.0 |
| H72-247 | 15.7 | 17.0 | 15.0 |
| H75-121 | 15.0 | 15.0 | 15.0 |
| H75-4211 | 17.9 | 18.4 | 19.0 |
| H75-4212 | 19.3 | 20.8 | 20.0 |
| H7772 | 14.8 | 15.0 | 13.0 |
| K1037 | 16.1 | 16.4 | 13.0 |
| K1038 | 16.3 | 16.3 | 18.0 |
| K1040 | 13.2 | 13.7 | 12.0 |
| K1042 | 17.9 | 16.9 | 18.0 |
| L74L-116 | 17.5 | 17.8 | 16.0 |
| L74L-497 | 16.2 | 17.6 | 12.0 |
| L75-8064 | 14.5 | 13.8 | 13.0 |
| L75-8073 | 14.8 | 15.6 | 14.0 |
| L75-8366 | 14.0 | 15.2 | 14.0 |
| L75-8381 | 13.8 | 15.0 | 13.0 |
| Md70-1626-67 | 17.6 | 16.8 | 14.0 |
| Md70-2221-71 | 14.3 | 14.9 | 12.0 |
| S76-2052 | 12.3 | 13.2 | 10.0 |
| S76-2102 | 10.2 | 10.8 | 9.0 |
| S76-2109 | 11.6 | 12.8 | 10.0 |
| S76-2145 | 11.2 | 12.4 | 9.0 |
| S76-2169 | 12.7 | 14.2 | 9.0 |

| Ind. | Ill. | | MO | Kans. |
|--------------------------|-----------------|---------------|-------------------|----------------|
| Sull- ivan | Belle- ville | El- dorado | Portage- ville | Man- hatten |
| <u>SEED SIZE (g/100)</u> | | | | |
| 14.9 | 14.3 | 14.5 | 14.0 | 14.1 |
| 12.3 | 11.5 | 14.6 | 12.0 | 13.4 |
| 17.0 | 17.8 | 16.9 | 16.0 | 17.2 |
| 15.9 | 16.3 | 15.8 | 15.3 | 15.6 |
| 15.9 | 16.8 | 14.6 | 15.0 | 17.5 |
| 15.8 | 16.6 | 16.7 | 15.4 | 16.8 |
| 15.3 | 14.9 | 15.1 | 14.0 | 16.1 |
| 13.2 | 13.3 | 14.2 | 13.2 | 14.3 |
| 14.5 | 13.3 | 12.9 | 12.3 | 14.6 |
| 17.8 | 16.9 | 16.8 | 14.6 | 18.0 |
| 15.3 | 16.1 | 16.6 | 15.3 | 17.6 |
| 16.4 | 14.7 | 15.4 | 14.1 | 15.0 |
| 16.1 | 15.6 | 16.9 | 15.1 | 16.5 |
| 14.8 | 17.2 | 15.4 | 17.8 | 18.7 |
| 12.8 | 15.2 | 16.7 | 16.0 | 17.3 |
| 12.8 | 13.7 | 17.4 | 14.1 | 16.9 |
| 16.4 | 15.5 | 22.1 | 17.0 | 16.8 |
| 16.8 | 17.0 | 21.3 | 20.0 | 19.3 |
| 15.1 | 14.4 | 15.5 | 14.7 | 15.6 |
| 15.7 | 17.0 | 15.2 | 17.7 | 17.7 |
| 15.7 | 16.7 | 15.4 | 15.0 | 17.1 |
| 12.8 | 13.4 | 14.0 | 12.8 | 13.6 |
| 17.2 | 18.0 | 17.9 | 17.3 | 19.9 |
| 17.7 | 17.7 | 18.8 | 17.1 | 17.3 |
| 17.2 | 16.9 | 16.3 | 16.2 | 17.3 |
| 15.8 | 15.0 | 15.2 | 13.8 | 15.1 |
| 14.9 | 15.3 | 14.9 | 13.2 | 15.6 |
| 13.3 | 14.7 | 13.1 | 13.1 | 14.9 |
| 12.9 | 13.8 | 12.8 | 13.8 | 15.1 |
| 18.8 | 18.6 | 20.8 | 16.3 | 18.0 |
| 13.7 | 13.9 | 16.4 | 13.2 | 15.7 |
| 12.5 | 11.5 | 15.0 | 11.2 | 12.5 |
| 10.1 | 10.0 | 11.6 | 9.6 | 10.4 |
| 11.3 | 11.0 | 13.8 | 11.0 | 11.6 |
| 10.3 | 10.8 | 13.5 | 10.5 | 11.6 |
| 12.7 | 12.3 | 15.3 | 12.7 | 12.7 |

| Strain | Mean 4 Tests | Md. | Ind. | Ill. | Kans. |
|----------------|-----------------|-----------------|---------------|---------------|----------------|
| | | Queens- town | Sulli- van | El- dorado | Man- hattan |
| | | PROTEIN | | | |
| Franklin | 39.1 | 39.4 | 40.2 | 38.3 | 38.4 |
| Essex (V) | 43.2 | 43.5 | 43.3 | 44.0 | 41.8 |
| Union (IV) | 41.2 | 42.6 | 39.3 | 41.1 | 41.8 |
| Williams (III) | 41.4 | 41.8 | 42.9 | 39.6 | 41.3 |
| A76-305025 | 42.5 | 42.9 | 44.5 | 41.8 | 40.7 |
| A77-314014 | 43.2 | 43.6 | 44.3 | 43.4 | 41.6 |
| A77-315011 | 42.0 | 42.8 | 43.5 | 40.1 | 41.4 |
| A77-315023 | 40.6 | 40.6 | 41.8 | 40.0 | 40.2 |
| A77-316004 | 43.5 | 44.1 | 43.8 | 44.1 | 42.1 |
| A77-316013 | 40.5 | 42.7 | 39.9 | 39.6 | 39.9 |
| C1569 | 43.0 | 43.9 | 44.6 | 42.1 | 41.3 |
| C1572 | 41.2 | 42.1 | 41.9 | 41.8 | 39.1 |
| C1573 | 41.9 | 43.0 | 40.2 | 42.8 | 41.5 |
| C1578 | 42.4 | 44.0 | 44.2 | 40.2 | 41.4 |
| H72-247 | 44.3 | 45.1 | 47.2 | 41.6 | 43.2 |
| H75-121 | 42.2 | 42.0 | 45.0 | 40.8 | 41.0 |
| H75-4211 | 42.8 | 43.0 | 44.0 | 43.4 | 41.0 |
| H75-4212 | 44.0 | 44.4 | 45.1 | 43.7 | 42.9 |
| H7772 | 41.7 | 42.4 | 42.9 | 41.2 | 40.4 |
| K1037 | 42.2 | 43.4 | 41.1 | 42.7 | 41.5 |
| K1038 | 42.7 | 43.6 | 44.9 | 41.0 | 41.2 |
| K1040 | 41.3 | 41.6 | 42.4 | 40.9 | 40.3 |
| K1042 | 41.2 | 42.2 | 40.8 | 40.7 | 40.9 |
| L74L-116 | 42.4 | 43.1 | 42.7 | 42.6 | 41.3 |
| L74L-497 | 43.5 | 43.4 | 44.1 | 43.3 | 43.2 |
| L75-8064 | 40.2 | 40.7 | 40.5 | 40.0 | 39.7 |
| L75-8073 | 42.8 | 43.5 | 44.1 | 42.5 | 41.0 |
| L75-8366 | 41.4 | 41.7 | 43.4 | 40.9 | 39.4 |
| L75-8381 | 39.8 | 40.3 | 41.5 | 38.6 | 38.6 |
| Md70-1626-67 | 40.0 | 41.3 | 39.2 | 40.0 | 39.7 |
| Md70-2221-71 | 41.8 | 41.4 | 42.7 | 42.5 | 40.7 |
| S76-2052 | 42.8 | 43.6 | 43.3 | 43.1 | 41.1 |
| S76-2102 | 42.7 | 43.5 | 43.2 | 43.2 | 40.8 |
| S76-2109 | 42.8 | 43.0 | 43.6 | 44.5 | 40.2 |
| S76-2145 | 42.8 | 43.8 | 42.7 | 43.0 | 41.5 |
| S76-2169 | 42.7 | 43.2 | 44.4 | 42.4 | 40.9 |

| Strain | Mean 4 Tests | Md. | Ind. | Tll. | Kans. |
|----------------|-----------------|-----------------|---------------|---------------|----------------|
| | | Queens- town | Sulli- van | El- dorado | Man- hattan |
| | | | OIL | | |
| Franklin | 22.1 | 21.4 | 21.9 | 22.5 | 22.7 |
| Essex (V) | 20.2 | 19.6 | 20.3 | 20.3 | 20.4 |
| Union (IV) | 21.8 | 21.0 | 22.7 | 21.3 | 22.0 |
| Williams (III) | 22.1 | 22.0 | 21.6 | 22.8 | 22.1 |
| A76-305025 | 21.5 | 21.8 | 20.2 | 21.9 | 22.1 |
| A77-314014 | 20.0 | 19.2 | 19.4 | 20.5 | 20.8 |
| A77-315011 | 20.8 | 20.2 | 20.1 | 21.7 | 21.2 |
| A77-315023 | 21.7 | 21.0 | 21.2 | 22.6 | 21.9 |
| A77-316004 | 21.0 | 20.2 | 21.3 | 20.7 | 21.8 |
| A77-316013 | 22.5 | 21.5 | 22.7 | 23.0 | 22.9 |
| C1569 | 20.8 | 20.3 | 19.6 | 22.0 | 21.5 |
| C1572 | 22.1 | 21.0 | 22.0 | 21.7 | 23.8 |
| C1573 | 21.0 | 19.9 | 21.6 | 20.7 | 21.6 |
| C1578 | 21.3 | 20.1 | 20.0 | 23.2 | 21.9 |
| H72-247 | 20.6 | 20.5 | 18.4 | 21.6 | 21.8 |
| H75-121 | 22.0 | 22.7 | 20.4 | 22.6 | 22.5 |
| H75-4211 | 20.6 | 20.7 | 19.6 | 20.7 | 21.3 |
| H75-4212 | 19.5 | 19.1 | 18.6 | 19.9 | 20.3 |
| H7772 | 19.9 | 18.9 | 19.4 | 19.8 | 21.4 |
| K1037 | 22.4 | 21.1 | 22.2 | 22.9 | 23.3 |
| K1038 | 21.0 | 20.5 | 19.5 | 21.4 | 22.4 |
| K1040 | 21.5 | 21.3 | 21.3 | 21.5 | 21.8 |
| K1042 | 22.1 | 20.9 | 21.3 | 23.3 | 22.9 |
| L74L-116 | 20.9 | 20.1 | 20.5 | 21.6 | 21.5 |
| L74L-497 | 20.0 | 19.7 | 19.5 | 19.8 | 21.0 |
| L75-8064 | 21.4 | 20.5 | 20.8 | 21.7 | 22.4 |
| L75-8073 | 20.2 | 19.9 | 19.2 | 20.1 | 21.8 |
| L75-8366 | 21.5 | 21.1 | 20.6 | 21.9 | 22.5 |
| L75-8381 | 21.8 | 21.6 | 20.1 | 23.2 | 22.4 |
| Md70-1626-67 | 22.3 | 21.2 | 22.0 | 22.9 | 23.2 |
| Md70-2221-71 | 21.2 | 20.7 | 20.3 | 20.8 | 23.0 |
| S76-2052 | 19.8 | 18.8 | 19.3 | 20.1 | 20.9 |
| S76-2102 | 19.8 | 19.4 | 18.9 | 19.6 | 21.4 |
| S76-2109 | 19.3 | 19.7 | 18.8 | 18.3 | 20.4 |
| S76-2145 | 19.6 | 19.2 | 18.8 | 20.4 | 20.2 |
| S76-2169 | 20.0 | 19.2 | 19.1 | 20.5 | 21.0 |

Origin and Development of

Wells II Soybean

- 1973-Wells (rps rps) x Arksoy (Rps^c Rps^c) Cross made in the spring greenhouse.
- 1973-Wells x F₁ cross made in the field to produce BC₁ generation (1Rps^c rps: 1rps rps).
- 1973-BC₁ seedlings inoculated with race 3 of Phytophthora megasperma var. sojae, suseptible rps rps plants killed, resistant Rps^c rps plants crossed back to Wells in the fall greenhouse to produce BC₂.
- 1974-BC₃ produced as above in spring greenhouse.
-BC₄ produced as above in the field.
-BC₅ produced as above in fall greenhouse.
- 1975-BC₆ produced as above in spring greenhouse.
-BC₇ produced as above in the field.
-BC₇ seedlings inoculated as above in the fall greenhouse and resistant plants (Rps^c rps) grown to maturity.
- 1976-BC₇-F₂ seeds sown one per 6" pot in the spring greenhouse, inoculated as above, and resistant plants (1 Rps^c Rps^c : 2 Rps^c rps) grown to maturity, seed harvested from 270 individual plants.
- 1976-Seed from resistant plants sown in 270 6'-rows at the Purdue Agronomy Farm, 30 seeds per row. One 3-seeded pod picked from each plant in each row, then each row harvested separately.
- 1976-In the fall greenhouse, one seed per pod inoculated with race 1, one with race 3, and one with race 6 of P. megasperma var. sojae. Seed from 71 homogeneous resistant rows bulked to produce breeder seed.
- 1977-The 71 line composite grown in UT II in 13 states and Ontario, Canada. Fiftly-nine pounds of breeder seed increased to 68 bushels at the Purdue Agronomy Farm.
- 1978-Breeder seed divided among the releasing states of Indiana (28 bu), Illinois (28 bu), Michigan (3 bu) and non-releasing South Dakota (5 bu). Plant variety protection applied for and on August 1, 1978 publicity released on Wells II.

