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2002 Crop Performance Trials: Corn

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2002 Crop Performance Trials

CORN



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*Roundup Ready is registered by Monsanto.

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2002 Corn Performance Trials

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The performance of entries in the 2002 South Dakota corn trials are given for both conventional (non-Roundup-Ready) and Roundup-Ready hybrids. Information includes the most recent 2-year and 1-year grain yields in bushels per acre and 1-year bushel weight, moisture percentages of shelled corn at harvest, acre harvest population, and stalk lodge percentages. These performance trials are conducted by the South Dakota Crop Performance Testing (CPT) program at South Dakota State University.

Test Trial Locations

Trial locations, soil types, and seedbed preparation are indicated in Table A; seeding and harvest dates are shown in Table B. Seeding started May 5 and was completed May 14.

Weather and Climatic Conditions

Weather data (Table C) for this year's growing season, April-September, was obtained from the 2002 USDA-South Dakota crop-weather reports. Growing degree day (GDD) information for Frankfort was obtained from Huron. All other reporting stations are at or near their respective test trial sites.

NOTE: Precipitation may differ between a given test site and its recording station.

Monthly precipitation accumulations appeared near average to an inch below average for all locations in April. Thereafter, all locations accumulated below-average levels of precipitation through the end of July.

In August, Brookings and Centerville recovered to above-average levels of accumulated precipitation. Watertown recovered somewhat, but not completely, to normal levels through August. At Armour, precipitation accumulations stayed 4.0, 6.45, and 4.39 inches below average for June, July,

and August, respectively. Likewise, at Huron, precipitation accumulations were 4.12, 7.41, and 4.3 inches below average for June, July, and August. Although Armour and Huron showed the greatest moisture deficits, the Armour plots were more affected by drought stress than were the Huron plots. The Frankfort plots, about 28 miles north and 5 miles west of Huron, showed little drought stress. Many rainfall events in 2002 were very sporadic, and Frankfort may have received some precipitation that Huron did not receive. Although Armour and Huron were somewhat similar in rainfall during the growing season, the distribution of what little rain these areas received may have been better suited for the growth stage of the corn trials at Huron than at Armour.

The departure from average seasonal precipitation (April 1 to September 29) from high to low was -5.18 at Huron, -4.64 at Armour, -2.3 at Centerville, -2.16 at Watertown, and -0.39 inches at Brookings.

The heat unit or growing degree-day accumulations are reported, instead of temperatures, for the nearest test site. Corn hybrids typically express a certain thermal or heat unit requirement from emergence to black-layer formation (physiological maturity). The heat unit totals across test locations varied from a high of 3333 GDD at Armour to a low of 2563 GDD at Brookings. The GGD seasonal accumulations were above average at all locations.

In summary, moisture totals and distribution in 2002 impacted Armour the most. At other locations, moisture totals and distributions had less effect on trial results. The continuing moisture deficits during June, July, and August were probably very instrumental in the high coefficient of variation (CV) values obtained in the corn trials at Armour. In addition, rainfall at Armour likely did not arrive at or was too limited to help the corn when there was a high demand for moisture (just prior to tasseling through grain fill).

Seasonal GDD totals across this region varied only slightly and were probably not a significant factor in test results this year.

The assistance of the following is appreciated: Kyle Kepner at Brookings, Jim Smolik and Allen Heuer at the NE Research Farm, Todd Bortnem and the Brookings Agronomy Farm staff, Bob Berg and the SE Research Farm staff; and farmer-cooperators Robert Clark (Armour) and Steve Masat (Frankfort).

General Test Procedures

Participating companies picked the test locations where their entries are tested. A fee was charged for all entries at each location. A list of participating seed companies for 2002 is presented in Table F.

Entries are placed into "early" or "late" maturity trials. Arbitrary relative maturity breaks between the early and late tests are: 95 days for South Shore, 100 days for Frankfort and Brookings, 105 days for Armour, and 110 days for Beresford.

A hybrid is assigned to a maturity trial based on its relative maturity rating reported by the participating seed company. This testing program does not guarantee that all entries are placed in the proper maturity trial. In some trials, borderline entries with relative maturity ratings at or near the arbitrary break between the early and late trials may crossover at a given location. In some cases this may be indicated by exceptionally high or low grain moisture contents at harvest. A higher-than-average moisture content may indicate the hybrid is later in relative maturity than indicated. Likewise, a lower-than-average moisture may indicate the hybrid is earlier in relative maturity than indicated.

NOTE: The Roundup-Ready early and late maturity trials at Beresford were combined into a single test trial. This was necessary because there were too few entries to warrant separate test trials.

Experimental Procedures

Entries were seeded in three replications with each hybrid randomly located within a replication. Plots consisted of four 30-inch rows 20 feet long. A Monosem precision row crop planter was used for seeding plots at all locations. In 2002, this precision planter was calibrated to deliver 33,106 seeds per acre, regardless of seed quality and germination percentage. No seeding rate adjustment was made for low germination. Therefore, the harvest population per acre is an indication of initial seed quality and the ability of the seed to cope with the production environment from seeding to harvest.

Soil type, land preparation, and previous crop at each test site are given in table A. Seedbed preparation was good at all locations. A starter fertilizer of 100 lb/a of 37-18-00 was

applied 2 inches below and 2 inches to the side (2 x 2) of the seed row. Force insecticide was applied down the seed tube at label rates for corn rootworm control this year. Pounce granular was applied at labeled rates down the whorl with a tractor mounted granular applicator just prior to canopy closure.

The experimental procedures described above apply both to conventional and Roundup Ready hybrid corn trials with one exception: Weed control in the Roundup Ready trials consisted of two post emergence applications of Roundup Ultra (32 oz/a), the first when weeds were 2-4 inches tall, followed by a second application when weed growth was again 2-4 inches tall.

In non-Roundup Ready test trials, pre-emergence herbicides consisted of Lasso at South Shore, Balance at Frankfort, Dual at Brookings, Roundup (burn down) and pre-emergence Lasso at Armour, and a tank mix of Harness (2.5 pt/a)/Clarity (1.0 pt/a) at Beresford. Follow-up post emergence herbicide applications included Accent/Buctril at South Shore and Brookings and Accent at Frankfort. All herbicides were applied according to label instructions.

Measurements of Performance

Yield. Yields are an average of three replications, expressed as bushels per acre (bu/a), adjusted to 15.5% moisture on a dry-matter basis and a bushel weight of 56 pounds (lb).

Hybrids of equal potential may yield differently because of variations in slope, soil fertility, and stand. Statistical tests were conducted to determine whether differences were caused by variations in environment or were true variety differences. The coefficient of variation (CV) value in a given test trial is a measure of experimental error associated with the test. Ideally, it should not exceed 15%. Where it does exceed 15%, we recommend that the test data be used with caution in making hybrid selection decisions.

Experimental error may be the result of several factors, including test methods, moisture, temperature, soil variations, or agronomic factors (seeding date, reseeding, or seed quality), all of which may or may not be controllable in a given year.

In 2002, the coefficient of variation (CV) for yield was within reasonable limits across all locations except for Armour. Extremely high CV values approaching 30 to 58% at Armour indicated both the early and late maturity test trials in the conventional and Roundup Ready hybrid trials contained a very high level of experimental error. Consequently, the results of those trials are not valid and are not reported since the data may be misleading.

Moisture Content. Moisture content is expressed as the percentage of moisture in the shelled corn at harvest. Moisture is inversely related to maturity.

Because maturity is of prime importance in South Dakota, moisture figures are of considerable importance in the evaluation of the trial entries. Hybrids that provide satisfactory yields and can be stored without additional drying are desirable. During harvest, random moisture determinations on the combine were further checked with a Dickey-john GAC II to verify that measurements were indeed correct as harvested.

In 2002, grain moisture levels were well above average across all test locations.

Use of tables. Check for the “least significant difference” (LSD) value at the bottom of each column of data averages. The LSD value indicates how much a variable such as yield must differ between two hybrids before there is a real yield difference.

An LSD value is given at the bottom of every column where there is significant difference among the averages within a given column. If there are no real differences among the averages within a given column a “nonsignificant” (NS) difference designation is shown.

The LSD values reported in this publication can be used in two ways. In this publication the LSD value is used primarily to identify the top group for current year and 2-year yields, bushel weight, grain moisture at harvest, green snap percentage, and stalk lodging below the ear percentage for each test trial.

For example, at South Shore (Table 1) the highest current-year yield was 167 bu/a for Wensman/W 5212 BT. To determine if it is the only top yielding hybrid at South Shore, use the LSD value of 12 bu/a indicated at the bottom of the 2002 yield column. For hybrids to be in the top-yield group they must yield 155 bu/a ($167 - 12 = 155$) or higher. Technically, a yield value of 156 bu/a is in the top-yield group while a value of 155 bu/a is not in the top-yield group. However, all yields and LSD values are rounded to the nearest whole number.

The minimum top-group value is indicated for the 2-year (2001-02) average unless there were no significant yield differences. Top-yield hybrids for 2002 are those hybrids that are equal or higher than the minimum top-group value indicated at the bottom of the 2002 yield column.

The top group for other performance factors like bushel weight, grain moisture at harvest, green snap percentage, and stalk lodging below the ear percentage can be determined in the same manner. For example, at South Shore, the minimum bushel weight value to qualify for the top-performance group is 54 lb. Bushel weights of 54 lb or higher are in the top group for bushel weight.

Note that yield and bushel weight values needed to qualify for the top group are reported as a minimum top-group

value. In contrast, the grain moisture, green snap, and lodging below the ear percentage values that qualify for the top group are reported as a maximum top-group value. In other words, yield and bushel weight top-group values must exceed a certain value while grain moisture, green snap, and lodging below ear percentages must be equal to or less than certain values to qualify for the top group depending on the performance factor being considered.

At South Shore (Table 1), current-year yield values must equal 155 bu/a or higher, bushel weight must be 54 lb or higher, grain moisture must be 21% or lower, green snap must equal 0%, and stalk lodging below the ear must be 1% or less to be in the top group for these performance factors.

In addition to identifying the top-yield group LSD values can be used to determine whether two hybrids differ in performance.

For example, in the early test at South Shore, the LSD value of 12 bu/a can be used to compare the yields of any two hybrids in the early maturity trial. If hybrid A yields 164 bu/a and hybrid B yields 142 bu/a, their yield difference is 12 bu/a ($164 - 152 = 12$). In this case the two hybrids do not differ in yield because their yield difference of 12 bu/a is less or equal to the reported LSD value of 12 bu/a. In contrast, if hybrid C yields 150 bu/a, the yield difference between hybrid A and hybrid C is 14 bu/a ($164 - 150 = 14$). In this case the yield difference of 14 bu/a is more than the reported LSD value of 12 bu/a and therefore hybrid A would have a significantly higher yield than hybrid C.

LSD values for bushel weight, grain moisture, green snap, and stalk lodging below the ear percentages can be used to determine whether any two hybrids differ in regard to these performance factors.

Performance Trial Results: Conventional Hybrids

The performance trial results for 2 years (2001-02) and 1 year (2002) are summarized below:

Note: Green snap percentage differences among hybrids was nonsignificant (NS) at all locations in 2002.

SOUTH SHORE (NE Research Farm):

Early Maturity Trial (Table 1), 35 hybrid entries.

The 2-year yield average was 151 bu/a, but yield differences among hybrids were not significant. The 2002 average was 143 bu/a, hybrids had to average 155 bu/a or higher to be in the top-yield group, 12 hybrids qualified for the top-yield group, and hybrids had to differ by 12 bu/a to be significantly different in yield. Bushel weight had to equal 54 lb or higher (13 hybrids), grain moisture had to equal 21% or less (6 hybrids), and stalk lodging below the ear had to equal 1% or less (35 hybrids) to be in the top group

for these factors. The harvest population had to equal 27,954 plants per acre or 84% of the seeding population to be in the top group (22 hybrids) for harvest population.

Late Maturity Trial (Table 2), 34 hybrid entries.

The 2-year average was 128 bu/a, but yield differences among hybrids were not significant. The 2002 average was 129 bu/a, hybrids had to average 145 bu/a or higher to be in the top-yield group, 5 hybrids qualified for the top-yield group, and hybrids had to differ by 16 bu/a to be significantly different in yield. Bushel weight had to equal 52 lb or higher (10 hybrids) and grain moisture had to equal 24% or less (8 hybrids) to be in the top group for these factors. Stalk lodging was not significant. The harvest population had to equal 28,890 plants per acre or 87% of the seeding population to be in the top group (19 hybrids) for harvest population.

FRANKFORT, NO-TILL TRIAL (Steve Masat Farm):

Early Maturity Trial (Table 3), 31 hybrid entries.

The 2-year average was 159 bu/a, but yield differences among hybrids were not significant. The 2002 average was 159 bu/a, hybrids had to average 170 bu/a or higher to be in the top-yield group, 6 hybrids qualified for the top-yield group, and hybrids had to differ by 15 bu/a to be significantly different in yield. Bushel weight had to equal 57 lb or higher (22 hybrids) and grain moisture had to equal 21% or less (16 hybrids) to be in the top group for these factors. Stalk lodging was nonsignificant. The harvest population had to equal 28,775 plants per acre or 87% of the seeding population to be in the top group (18 hybrids) for harvest population.

Late Maturity Trial (Table 4), 18 hybrid entries.

The 2-year average was 161 bu/a, and hybrid yield differences were not significant. Therefore, all 5 entries were in the top-yield group. The 2002 average was 157 bu/a, hybrids had to average 167 bu/a or higher to be in the top-yield group, 2 hybrids qualified for the top-yield group, and hybrids had to differ by 11 bu/a to be significantly different in yield. In addition, bushel weight had to equal 53 lb or higher (5 hybrids) and grain moisture had to equal 23% or less (4 hybrids) to be in the top group for these factors. Stalk lodging was nonsignificant. The harvest population had to equal 28,994 plants per acre or 88% of the seeding population to be in the top group (9 hybrids) for harvest population.

BROOKINGS (SDSU Agronomy Farm):

Early Maturity Trial (Table 5), 56 hybrid entries.

The 2-year average was 157 bu/a, and hybrid yield differences were not significant. The 2002 average was 126 bu/a, hybrids had to average 150 bu/a or higher to be in the top-yield group, 5 hybrids qualified for the top-yield group, and hybrids had to differ by 18 bu/a to be significantly different in yield. Bushel weight had to equal 58 lb or higher (17 hybrids) and grain moisture had to equal 19%

or less (19 hybrids) to be in the top group for these factors. Stalk lodging was nonsignificant. The harvest population had to equal 29,504 plants per acre or 89% of the seeding population to be in the top group (15 hybrids) for harvest population.

Late Maturity Trial (Table 6), 42 hybrid entries.

The 2-year average was 156 bu/a, and hybrid yield differences were not significant. The 2002 average was 126 bu/a, hybrids had to average 140 bu/a or higher to be in the top-yield group, 12 hybrids qualified for the top-yield group, and hybrids had to differ by 20 bu/a to be significantly different in yield. Bushel weight had to equal 58 lb or higher (8 hybrids) and grain moisture had to equal 21% or less (14 hybrids) to be in the top group for these factors. Stalk lodging was nonsignificant. The harvest population had to equal 29,016 plants per acre or 88% of the seeding population to be in the top group (20 hybrids) for harvest population.

ARMOUR, NO-TILL TRIAL (Robert Clark Farm):

Early Maturity Trial, 32 hybrid entries.

The coefficient of variation (CV) value, a measure of experimental error, was 38%. This high level of experimental error caused the results of this trial to be invalid. Consequently, these results are not reported to prevent the distribution of misleading information. Note the below-average precipitation at Armour as discussed in Weather Conditions.

Late Maturity Trial, 48 hybrid entries.

The coefficient of variation value was 54%. This high level of experimental error caused the results of this trial to be invalid. Consequently, these results are not reported to prevent the distribution of misleading information. Note the below-average precipitation at Armour as discussed in Weather Conditions.

BERESFORD (SE Research Farm):

Early Maturity Trial (Table 7), 61 hybrid entries.

The 2-year average was 166 bu/a; hybrids had to average 159 bu/a or higher to be in the top-yield group, 19 hybrids qualified for the top-yield group, and hybrids had to differ by 18 bu/a to be significantly different in yield. The 2002 average was 156 bu/a, hybrids had to average 161 bu/a or higher to be in the top-yield group, 27 hybrids qualified for the top-yield group, and hybrids had to differ by 19 bu/a to be significantly different in yield. Bushel weight had to equal 63 lb or higher (3 hybrids), grain moisture had to equal 20% or less (18 hybrids), and stalk lodging below the ear had to equal 3% or less (48 hybrids) to be in the top group for these factors. The harvest population had to equal 30,663 plants per acre or 93% of the seeding population to be in the top group (31 hybrids) for harvest population.

Late Maturity Trial (Table 8), 29 hybrid entries.

The 2-year average was 172 bu/a, but yield differences among the hybrids tested were not significant. The 2002

average was 166 bu/a, hybrids had to average 173 bu/a or higher to be in the top-yield group, 9 hybrids qualified for the top-yield group, and hybrids had to differ by 16 bu/a to be significantly different in yield. Bushel weight had to equal 61 lb or higher (10 hybrids) and grain moisture had to equal 21% or less (9 hybrids) to be in the top group for these factors. Stalk lodging was nonsignificant. The harvest population had to equal 28,605 plants per acre or 86% of the seeding population to be in the top group (29 hybrids) for harvest population.

Performance Trial Results: Roundup Ready Hybrids

Note: Green snap percentage differences among hybrids was nonsignificant (NS) at all locations in 2002.

SOUTH SHORE (NE Research Farm):

Early Maturity Trial (Table 9), 21 hybrid entries.

This was the first year for this test; hence, no 2-year averages are reported. The 2002 average was 134 bu/a, hybrids had to average 145 bu/a or higher to be in the top-yield group, 6 hybrids qualified for the top-yield group, and hybrids had to differ by 14 bu/a to be significantly different in yield. In addition, bushel weight had to equal 55 lb or higher (8 hybrids) and grain moisture had to equal 22% or less (9 hybrids) to be in the top group for these factors. Stalk lodging was nonsignificant. The harvest population had to equal 27,529 plants per acre or 83% of the seeding population to be in the top group (17 hybrids) for harvest population.

Late Maturity Trial (Table 10), 26 hybrid entries.

This was the first year for this test; hence, no 2-year averages are reported. The 2002 average was 128 bu/a, hybrids had to average 160 bu/a or higher to be in the top-yield group, one hybrid qualified for the top-yield group, and hybrids had to differ by 12 bu/a to be significantly different in yield. Bushel weight had to equal 52 lb or higher (8 hybrids) and grain moisture had to equal 24% or less (4 hybrids) to be in the top group for these factors. Stalk lodging was not significant. The harvest population had to equal 28,645 plants per acre or 86% of the seeding population to be in the top group (18 hybrids) for harvest population.

FRANKFORT, NO-TILL TRIAL (Steve Masat Farm):

Early Maturity Trial (Table 11), 25 hybrid entries.

The 2-year average was 160 bu/a, but yield differences among hybrids were not significant. The 2002 average was 157 bu/a, hybrids had to average 170 bu/a or higher to be in the top-yield group, 5 hybrids qualified for the top-yield group, and hybrids had to differ by 11 bu/a to be significantly different in yield. Bushel weight had to equal 55 lb or higher (7 hybrids) and grain moisture had to equal 21% or less (15 hybrids) to be in the top group for these factors. Stalk lodging was nonsignificant. The harvest population had to equal 27,173 plants per acre or 88% of the

seeding population to be in the top group (11 hybrids) for harvest population.

Late Maturity Trial (Table 12), 19 hybrid entries.

The 2-year average was 151 bu/a, and hybrid yield differences were not significant. Therefore, all three entries were in the top-yield group. The 2002 average was 152 bu/a, hybrids had to average 154 bu/a or higher to be in the top-yield group, 7 hybrids qualified for the top-yield group, and hybrids had to differ by 17 bu/a to be significantly different in yield. Bushel weight had to equal 52 lb or higher (7 hybrids) and grain moisture had to equal 22% or less (3 hybrids) to be in the top group for these factors. Stalk lodging was nonsignificant. The harvest population had to equal 28,727 plants per acre or 87% of the seeding population to be in the top group (12 hybrids) for harvest population.

BROOKINGS (SDSU Agronomy Farm):

Early Maturity Trial (Table 13), 39 hybrid entries

The 2-year average was 160 bu/a, but yield differences among the hybrids tested were not significant. Therefore, all eight hybrids tested were in the top-yield group. The 2002 average was 140 bu/a, hybrids had to average 61 bu/a or higher to be in the top-yield group, 6 hybrids qualified for the top-yield group, and hybrids had to differ by 15 bu/a to be significantly different in yield. Bushel weight had to equal 57 lb or higher (18 hybrids), grain moisture had to equal 18% or less (6 hybrids), and stalk lodging below the ear had to equal 2% or less (37 hybrids) to be in the top group for these factors. The harvest population had to equal 28,601 plants per acre or 86% of the seeding population to be in the top group (17 hybrids) for harvest population.

Late Maturity Trial (Table 14), 26 hybrid entries.

The 2-year average was 160 bu/a, but yield differences among the hybrids were not significant. The 2002 average was 144 bu/a, hybrids had to average 146 bu/a or higher to be in the top-yield group, 13 hybrids qualified for the top-yield group, and hybrids had to differ by 18 bu/a to be significantly different in yield. Bushel weight had to equal 56 lb or higher (13 hybrids) and grain moisture had to equal 21% or less (8 hybrids) to be in the top group for these factors. Stalk lodging was nonsignificant. The harvest population had to equal 28,955 plants per acre or 87% of the seeding population to be in the top group (12 hybrids) for harvest population.

ARMOUR, NO-TILL TRIAL (Robert Clark Farm):

Early Maturity Trial, 26 hybrid entries

The coefficient of variation (CV) value, a measure of experimental error, was 29%. This high level of experimental error caused the results of this trial to be invalid. Consequently, these results are not reported to prevent the distribution of misleading information. Note the below-average precipitation at Armour as discussed in Weather Conditions.

Late Maturity Trial, 20 hybrid entries.

The coefficient of variation value was 35%. This high level of experimental error caused the results of this trial to be invalid. Consequently, these results are not reported to prevent the distribution of misleading information. Note the below-average precipitation at Armour as discussed in Weather Conditions.

BERESFORD (SE Research Farm): Note – both maturity trials were combined into a single trial.

Combined Maturity Trial (Table 15), 33 hybrid entries.

The 2-year average was 165 bu/a, hybrids had to average

162 bu/a or higher to be in the top-yield group, 6 hybrids qualified for the top-yield group, and hybrids had to differ by 17 bu/a to be significantly different in yield. The 2002 average was 152 bu/a, hybrids had to average 158 bu/a or higher to be in the top-yield group, 12 hybrids qualified for the top-yield group, and hybrids had to differ by 17 bu/a to be significantly different in yield. Bushel weight had to be 62 lb or higher (13 hybrids) and grain moisture had to be 18% or less (3 hybrids) to be in the top group for these factors. Stalk lodging was nonsignificant. The harvest population had to equal 29,630 plants per acre or 90% of the seeding population to be in the top group (23 hybrids) for harvest population.

Table A. Soil classification and land preparation.

Location	Soil type	Seedbed, previous crop
Brookings	Brandt sil. cl.	Conventional, spring wheat
South Shore	Brookings silty clay loam	Conventional, oat
Frankfort	Beotia silt loam	No-till, soybean stubble
Beresford	Trent silty loam	Conventional, soybean
Armour	Eakin-Ethan complex	No-till, soybean stubble

Table B. Year 2002 trial cooperators, locations, and seeding and harvest dates.

Cooperators	Location	Date	
		Seeded	Harvested
Robert Clark	Armour	May 6	Oct. 26
SE Research Farm	Beresford	May 14	Nov. 4
SDSU Agronomy Farm	Brookings	May 5	Nov. 3
NE Research Farm	South Shore	May 15	Oct. 24
Steve Masat	Frankfort	May 11	Oct. 25

* All plots were seeded with a precision row crop planter at 33,106 seeds per acre.

Table C. Nearest weather station precipitation and growing degree day (GDD) accumulation for 2002 and their departures from normal (DFN). Source USDA-SD-Crop-Weather reports.

Station	Variable	Since April 1	Apr-28	May-26	Jun-30	Jul-28	Sep-1
Armour	Precip - in.	2002	2.18	3.31	5.4	5.83	10.37
		DFN*	0.02	-1.61	-4.00	-6.45	-4.39
	GDD's	2002	137	281	1141	2010	2894
Brookings	Precip - in.	2002	1.33	3.94	6.94	8.25	16.01
		DFN	-0.58	-0.46	-2.4	-4.14	0.45
	GDD's	2002	73	132	817	1527	2217
Centerville	Precip - in.	2002	2.16	4.24	6.81	9.49	15.58
		DFN	0.07	-0.82	-3.12	-3.52	0.75
	GDD's	2002	109	212	1026	1795	2548
Huron	Precip - in.	2002	1.58	2.61	4.19	4.7	8.71
		DFN	-0.35	-1.83	-4.12	-7.41	-4.3
	GDD's	2002	118	224	1005	1846	2667
Watertown	Precip - in.	2002	1.00	2.6	4.51	6.05	12.88
		DFN	-1.02	-2.06	-4.23	-5.47	-1.71
	GDD's	2002	76	141	824	1554	2263
		DFN	37	-91	30	133	130

*DFN - departure from normal.

Table D. 2002 corn performance trials - conventional non-Roundup Ready entries by brand/hybrid, and yield table number(s).

No.	Brand / Hybrid	Table No.	No.	Brand / Hybrid	Table No.
1	DEKALB/DKC44-42 (YG)	1,3,5	41	GARST/8578 IT	6,8,9
2	DEKALB/DKC46-26	2,3	42	GARST/8443	8,10
3	DEKALB/DKC48-83	2,3,5,7	43	GARST/8461	8,9
4	DEKALB/DKC53-32 (YG)	4,6,7	44	GARST/8348	10
5	DEKALB/DKC48-15	2,5,7	45	GARST/8523 IT	9
6	DEKALB/DKC60-15	8	46	GOLDEN HARVEST/H-8554BT	7,9
7	DEKALB/DKC60-08 (YG)	8,9	47	GOLDEN HARVEST/H-9164BT	8,10
8	DEKALB/DKC51-43	2,4,6,7	48	KAYSTAR/KX-665	7
9	DEKALB/DKC58-78 (YG)	8,9	49	KAYSTAR/KX-406	1
10	DAIRYLAND/STEALTH-1297	1	50	KALTENBERG/K5151BT	6
11	DAIRYLAND/STEALTH-1499	3	51	LG SEEDS/LG 2533	4,6,7
12	DAIRYLAND/STEALTH-1606	7	52	KRUGER/K-2096	1
13	DAIRYLAND/STEALTH-1609	9	53	KRUGER/K-9002 BT	2,3,5
14	DAIRYLAND/STEALTH-1598	3	54	KRUGER/K-9903 BT	2,5
15	DAIRYLAND/STEALTH1401BT	4	55	KRUGER/K-9910 BT	6
16	DAIRYLAND/STEALTH-1605	7	56	KRUGER/K-9014 BT	10
17	DAIRYLAND/STEALTH-1503	6	57	KRUGER/K-9108	4,6,7
18	DAIRYLAND/STEALTH-1497	2,3	58	KRUGER/K-9111	9
19	DAIRYLAND/STEALTH1005BT	7	59	KRUGER/K-9013	8,9
20	DAIRYLAND/STEALTH-1602	5	60	KRUGER/K-9914	8
21	DAIRYLAND/STEALTH1507BT	9	61	KRUGER/K-9013+ BT	8,9
22	DAIRYLAND/STEALTH-1510	10	62	KRUGER/K-9113	8,9
23	SABRE/3555	1,5	63	KRUGER/K-9114	8
24	SABRE/3990BT	2,6	64	KRUGER/K-9392 BT	1,3
25	SANDS/SOI 9126	10	65	KRUGER/K-9201	2,3
26	SANDS/SOI 9102	8,9	66	KRUGER/K-9203	2,3
27	SANDS/SOI 9082	8,9	67	KRUGER/K-9204 BT	3,7
28	SANDS/SOI 9041	6	68	KRUGER/K-9206	4,7
29	SANDS/SOI 9962	2,5	69	KRUGER/K-9208A	6,7
30	SANDS/EXP 901-03	2,6	70	KRUGER/K-9211 BT	6
31	SANDS/SOI 100BT	2,6	71	KRUGER/K-9014+ BT	8,10
32	SANDS/SOI 104BT	2,6	72	KRUGER/K-9114 BT	8,10
33	SANDS/SOI 9062	9	73	KRUGER/K-9396 BT	1
34	SANDS/SOI 9126BT	10	74	KRUGER/EXP-303A BT	2,3,5
35	SANDS/SOI 9132	10	75	KRUGER/K-9304 BT	2,3,5
36	ASGROW/RX730YG	8,10	76	KRUGER/K-9204-1	3
37	ASGROW/RX730IMI	8,10	77	KRUGER/K-9306 BT	2,4,6
38	GARST/8832 BT	1,3,5	78	KRUGER/K-9310A BT	6,8
39	GARST/8888	1,3,5	79	KRUGER/K-9309 BT	4,6,8
40	GARST/8715	2,6,7	80	KRUGER/K-9212	8

Table D (continued)

No.	Brand / Hybrid	Table No.	No.	Brand / Hybrid	Table No.
81	KRUGER/EXP-9212	9	121	EPLEY/E2484	8,9
82	KRUGER/K-9614B BT	8,9	122	EPLEY/E2412	6,7,9
83	KRUGER/K-9313	9	123	WENSMAN/W 5088 BT	1
84	KRUGER/K-9212 BT	8,9	124	WENSMAN/W 4212	1,3,5
85	KRUGER/K-9214-1	8,9	125	WENSMAN/W 4314	2,4,6,7,
86	KRUGER/K-9315B BT	8,10	126	WENSMAN/W 4388	4,6,7,9
87	KRUGER/K-9315A BT	8,10	127	WENSMAN/W 4418	6,8,9
88	KRUGER/K-9315 BT	8,10	128	WENSMAN/W 4424	4,6,8,9
89	JACOBSEN/JS4785BT	8,9	129	WENSMAN/W 5086 BT	1
90	JACOBSEN/JS4645BT	8,9	130	WENSMAN/W 5115 BT	1
91	JACOBSEN/JS4637	8,9	131	WENSMAN/W 5181 BT	1,3,5
92	JACOBSEN/JS4225BT	7,9	132	WENSMAN/W 5117 BT	1,3,5
93	JACOBSEN/JS4167	3,5	133	WENSMAN/W 5212 BT	1,3,5
94	CROW'S/217 B	2,5	134	WENSMAN/W 5257 BT	2,3,5
95	CROW'S/438 B	8	135	WENSMAN/W 5311 BT	2,4,6,7,
96	CROW'S/3520 B	7,9	136	WENSMAN/W 5417 BT	6,8,9
97	CROW'S/4908	9	137	WENSMAN/W 4437	8,9
98	CROW'S/1702	1	138	WENSMAN/W 5223 BT	1,3,5
99	NC+/1912B	3	139	WENSMAN/W 5361 BT	2,4,6,7,
100	NC+/2572B	4	140	US SEEDS/US C1029BT	4,6
101	NC+/3451B	4	141	US SEEDS/US C1002	2,3,5
102	NC+/4990B	10	142	US SEEDS/US C1111	10
103	MIDWEST/G 6961	1,3,5	143	US SEEDS/US C952	1
104	MIDWEST/G 7101 B	2,5	144	US SEEDS/US C973BT	2,3,5
105	MIDWEST/G 7706	6,9	145	US SEEDS/US C1042BT	4,6,7
106	STINE/9201BT	1	146	US SEEDS/US C1051ND	6,7
107	STINE/9306BT	1,3	147	US SEEDS/US C1062BT	8
108	STINE/9509	9	148	US SEEDS/US C1123	8,9
109	STINE/9617	8,9	149	US SEEDS/US C1111ND	10
110	EPLEY/E3620	8,10	150	US SEEDS/US C1071	9
111	EPLEY/E1470BT	2,6,7	151	US SEEDS/US C923	1
112	EPLEY/E3610BT	8,10	152	SEEDS/2000 2953	1,5
113	EPLEY/E1027	1,5	153	SEEDS/2000 2953BT	1,3,5
114	EPLEY/E1130	1,5	154	SEEDS/2000 2943BT	1
115	EPLEY/E2433	6,8,9	155	SEEDS/2000 2991	3,5
116	EPLEY/E1170	2,5	156	HEINE/H840	10
117	EPLEY/E1493	2,6,7,9	157	HEINE/H821	9
118	EPLEY/E2470	6,8,9	158	HEINE/H785	9
119	EPLEY/E3630BT	8,10	159	HEINE/H740	9
120	EPLEY/E1181	2,5	160	HEINE/H825BT	10

Table D (continued).

No.	Brand / Hybrid	Table No.	No.	Brand / Hybrid	Table No.
161	HEINE/H832BT	10	183	GOLD COUNTRY/1051	8
162	HEINE/H836BT	10	184	GOLD COUNTRY/X10010BT	8,9
163	HEINE/H841BT	10	185	GOLD COUNTRY/1016	6,7
164	HEINE/H822	10	186	GOLD COUNTRY/9369	1
165	HEINE/H790BT	9	187	GOLD COUNTRY/9649BT	2
166	HEINE/H765BT	9	188	PFISTER/1680	2,5,7
167	HEINE/H760	9	189	PFISTER/2656	9
168	HEINE/H745BT	9	190	PFISTER/2420	6,9
169	HEINE/H730	9	191	MERSCHMAN/M-20101	9
170	DAHLCO/2075	1,5	192	MERSCHMAN/M-10102	9
171	DAHLCO/2140	1,5	193	MERSCHMAN/M-10103	9
172	DAHLCO/2288	1,5	194	MERSCHMAN/M-10108	9
173	DAHLCO/2289	1,5	195	MERSCHMAN/M-20108	9
174	DAHLCO/EXP-1903	1,5	196	AGSOURCE SEEDS/4403BT	5
175	DAHLCO/2482	2,5	197	AGSOURCE SEEDS/4663BT	6
176	DAHLCO/2502	6	198	AGSOURCE SEEDS/5203BT	7
177	DAHLCO/2505	6,7	199	AGSOURCE SEEDS/5493BT	8
178	DAHLCO/EXP-0012	5,7	200	AGSOURCE SEEDS/5713BT	8
179	GOLD COUNTRY/1026BT	4,6	201	AGSOURCE SEEDS/5970	9
180	GOLD COUNTRY/X60094	1,3,5	202	AGSOURCE SEEDS/6183BT	10
181	GOLD COUNTRY/1006	5	203	AGSOURCE SEEDS/6203BT	10
182	GOLD COUNTRY/X20200CL	2,5,7			

Table E. 2002 corn performance trials - Roundup Ready entries by brand/hybrid, and yield table number(s).

No.	Brand / Hybrid	Table No.	No.	Brand / Hybrid	Table No.
1	DEKALB/DKC39-47 (RR)	11	41	KRUGER/EXP-304 RR/BT	12,13,15
2	DEKALB/DKC46-28 (RR)	12,13,15,17	42	KRUGER/K-9206 RR	12,14,16,17
3	DEKALB/DKC60-17 (RR)	18	43	KRUGER/K-9108 RR	12,14,16,17,19
4	DEKALB/DKC44-46 (RR/YG)	11,13,15	44	KRUGER/K-9212+ RR	14,16,18,19
5	DEKALB/DKC53-34 (RR/YG)	14,16,17	45	JACOBSEN/JS4637R	18,19
6	DEKALB/DKC58-24 (RR/YG)	14,18,19	46	JACOBSEN/JS4255R	16,19
7	DEKALB/DKC60-19 (RR/YG)	19	47	STINE/85EXRRBT	13
8	DEKALB/DKC60-09 (RR/YG)	18,19	48	STINE/9412RR	12,17
9	DEKALB/DKC50-73 (RR/YG)	12,13,15,17	49	EPLEY/E1485RR	15,17
10	MALLARD/RR 9610	12,16	50	EPLEY/E1135RR	15,17
11	MALLARD/RR 8500	11	51	EPLEY/E1175RR	15,17
12	MALLARD/RR 9000A	11	52	EPLEY/E2425RR	16,18,19
13	SABRE/3942	12,15	53	EPLEY/E2485RR	16,18,19
14	SABRE/3904	12,15	54	EPLEY/E1445RR	17,19
15	SANDS/SOI 1010RR	12,15	55	WENSMAN/W 6212RR	11,13,15
16	SANDS/SOI 1000RR	12,15	56	WENSMAN/W 5421RR	16,18,19
17	ASGROW/RX601RR/YG	16,17,19	57	US SEEDS US/C1091RR	18,19
18	ASGROW/RX730RR/YG	19	58	US SEEDS US/C1012RR	14,16
19	GARST/8802RR	11,15	59	US SEEDS US/C1052RR	17
20	GARST/8590RR	16,19	60	US SEEDS US/C912RR	11
21	GOLDEN HAREST/H-7696BT/RR	14,16	61	US SEEDS US/C943RR	11,13
22	KAYSTAR/KX-5700RR	15	62	US SEEDS US/C1003RR	12,13,15
23	KAYSTAR/KX-6260RR	17	63	US SEEDS US/C1001RR/BT	12,15
24	KAYSTAR/KX-8550RR	19	64	US SEEDS US/C1031RR/BT	14
25	KAYSTAR/KX-6300RR	14,16,17	65	US SEEDS US/C1041RR	16,17
26	KAYSTAR/KX-6220RR	12,13	66	US SEEDS US/C1083RR/BT	18,19
27	KALTENBERG/K4919RRBT	15	67	US SEEDS US/C1122RR	19
28	KALTENBERG/K5717RRBT	16,17	68	SEEDS 2000/3112RR	14
29	LG SEEDS/C 7753RR	18	69	SEEDS 2000/3110RRBT	14,16
30	LG SEEDS/LG 2533RR	14,17	70	SEEDS 2000/3171RR	18
31	KRUGER/K-9199 RR/BT	11,13,15	71	SEEDS 2000/3132RR	14,16
32	KRUGER/K-9102 RR	13,15	72	SEEDS 2000/2944RRBT	15
33	KRUGER/K-9299A RR	11,13,15	73	HEINE/H825RR/BT	19
34	KRUGER/K-9208 RR	16,17,19	74	HEINE/H832RR/BT	19
35	KRUGER/K-9212 RR	14,16,18,19	75	DAHLCO/DS 2288RR	11,15
36	KRUGER/K-9912+ RR	19	76	DAHLCO/DS 2335RR	11,15
37	KRUGER/K-9190 RR/BT	11	77	DAHLCO/DS EXP-1951RR	11,13,15
38	KRUGER/EXP-82ARR	11	78	DAHLCO/DS 2502RR	13,15
39	KRUGER/K-9300 RR/BT	11,13,15	79	GOLD COUNTRY/9603RRBT	12,13,15
40	KRUGER/K-9204 RR	12,13,15	80	GOLD COUNTRY/1020RRBT	12,14,16

Table E (continued).

No.	Brand / Hybrid	Table No.	No.	Brand / Hybrid	Table No.
81	GOLD COUNTRY/9649RRBT	12,15	97	TRIUMPH/1120BTRR	19
82	GOLD COUNTRY/8521RRBT	11	98	AGSOURCE SEEDS/4041RR	17
83	GOLD COUNTRY/X12008RR	16,18,19	99	AGSOURCE SEEDS/5206RR	17
84	PFISTER/1553 RR	15,17	100	AGSOURCE SEEDS/5351RR	18
85	PFISTER/1554 RR	15,17	101	AGSOURCE SEEDS/5456BTRR	18
86	PFISTER/2656 RR	19	102	AGSOURCE SEEDS/5911RR	19
87	KAUP/97-1112RR	18,19	103	AGSOURCE SEEDS/6211RR	19
88	KAUP/EXP 0123RR/BT	18,19	104	INTEGRA/INT 6193RR/BT	11,13,15,17
89	CHANNEL/6925RB	11	105	INTEGRA/INT 7985RR	11
90	CHANNEL/6996R	12,13,15	106	INTEGRA/INT 6198RR/BT	12,13,15,17
91	CHANNEL/7009RB	12,13,15	107	INTEGRA/INT 7100RR	12,13,15
92	CHANNEL/7406R	14,16,17	108	INTEGRA/INT 6102RR	12,14,16
93	CHANNEL/7710RB	18,19	109	INTEGRA/INT 6205RR	14,16,19
94	CHANNEL/7705R	18,19	110	INTEGRA/INT 6290RR	12,13,15
95	CHANNEL/9348RB	12,13,15	111	INTEGRA/INT 6104RR/BT	12,13,15
96	CHANNEL/9490RB	14,16,17	112	INTEGRA/INT 6183RR/BT	11

Table F. Mailing addresses of seed companies entered in the 2002 corn hybrid trials according to seed brand name.

Seed brand	Mailing address
AgSource	Agsources Seeds, 1717 E. 8 th Street, Boone, IA 50036
Asgrow	Monsanto, 3100 Sycamore Rd, Dekalb, IA 60115
Channel	Channel Bio Corp., 5932 Schumann Dr., Madison, WI 53711
Crows	Crows Hybrid Corn Co., 5932 Schumann Dr., Madison, WI 53711
Dekalb	Monsanto, 3100 Sycamore Rd, Dekalb, IA 60115
Dahlco	Dahlco Seeds, 14730 15th St. SW, Cokato, MN 55321
Epley Bros.	Epley Bros. Hybrids Inc., PO Box 310 Shell Rock, IA 50670
Garst	Garst/AgriPro Seed Co., 1010 Christine Ave, Brookings, SD 57006
Gold Country	Gold Country Seed Inc., PO Box 604, Hutchinson, MN 55350
Golden Harvest	The J.C. Robinson Seed Co., PO Box A, Waterloo, NE 68069
Heine	Heine Seed Corn, 1020 E. 320 th St., Vermillion, SD 57064
Integra Seed	Integra Seed, Ltd., PO Box 40, Bozeman, MT 59771
Jacobsen	Jacobsen Hybrid Corn Co., Inc., Box 379, Lake View, IA 51450
Kaltenberg	Kaltenberg Seeds, PO Box 278, Waunakee, WI 53597
Kaup	Kaup Seed, 1101 Beemer, West Point, NE 68788
Kaystar	Kaystar Seed, PO Box 947, Huron, SD 57350
Kruger	Kruger Seed Co., Hwy 20 E, Box A, Dike, IA 50624
LG Seeds	LG Seeds, 810 Keene Drive, Columbus, NE 68601
Mallard	Mallard Seed Co., PO Box 637, Plainview, MN 55964
Merschman	Merschman Seeds, Inc. 103 Ave. D, West Point, IA 52656
Midwest	Midwest Seed Genetics, 5932 Schumann Dr., Madison, WI 53711
NC+	NC+ Hybrids, Box 4408, Lincoln, NE 68504
Pfister	Pfister Hybrid Corn Co., 187 N. Fayette St., El Paso, IL 61738
Sabre	Sabre Initiatives, LLC, 2508 Trott Ave. SW, Willmar, MN 56201
Sands	Sand Seed Service, Inc., Box 648, Marcus, IA 51035
Seeds 2000	Seeds 2000, PO Box 200, Breckenridge, MN 56520
Stealth	Dairyland Seed Co., Inc., PO Box 958, West Bend, WI 53095
Stine	Stine Seed Co., 2225 Laredo Trail, Adel, IA 50003
Triumph	Triumph Seed Co., Inc., PO Box 1050, Ralls, TX 79357
US Seeds	United Suppliers Inc., PO Box 538, Eldora, IA 50627
Wensman	Wensman Seed Co., PO Box 190, Wadena, MN 56482

Table 1. South Shore early hybrid results (continued).

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		Bu. wt. lb	Grain moist. pct	----- 2002 -----		Lodged below ear pct	
		2-yr	2002			Acres harvest pop.	Green snap pct		
						Entries tested one year			
DAHLCO/EXP-1903	90	.	130	55	20	28,459	0	0	
GOLD COUNTRY/9369	93	.	126	52	25	26,281	0	1	
STINE/9201BT	87	.	125	53	27	26,281	0	0	
SEEDS 2000/2943BT	94	.	123	51	27	21,925	0	0	
DAHLCO/2289	89	.	123	54	21	27,733	0	0	
KRUGER/K-9396 BT	92	.	122	52	26	25,119	0	1	
KAYSTAR/KX-406	92	.	120	53	21	24,684	0	0	
GARST/8832 BT	95	.	114	50	25	27,588	0	1	
Test average:			151	143	53	24	28,090	0	<1
LSD (5%) values:			NS	12	2	1	3,119	0	NS
Top group value*- Minimum:			140	155	54		27,954		
Maximum:						21	0	1	
No. entries in top group:			7	12	13	6	22	35	35
Coef. of variation#:			6	5	2	4	7		222

+ Relative maturity of hybrid as reported by seed company.

* Value is within one LSD value of the highest yield, bushel weight, or harvest population values; or the lowest grain moisture, green snap or lodging values.

NS indicates values within a column are not significantly different.

Measure of experimental error: values less than 15% are desired.

Table 2. South Shore late hybrid results (continued).

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		Bu. wt. lb	Grain moist. pct	2002		Lodged below ear pct	
		2-yr	2002			Acre harvest pop.	Green snap pct		
						Entries tested one year			
KRUGER/K-9306 BT	103	.	121	46	38	30,637	0	0	
KRUGER/K-9002 BT	98	.	119	54	23	28,169	0	0	
SANDS/SOI 104BT	104	.	116	50	29	28,023	0	0	
KRUGER/K-9304 BT	100	.	107	49	29	27,007	0	0	
US SEEDS/US C973BT	97	.	107	51	33	27,878	0	0	
SABRE/3990BT	101	.	97	50	32	27,443	0	0	
EPLEY/E1181	99	.	92	50	25	29,185	0	1	
Test average:			128	129	52	27	28,882	0	<1
LSD (5%) values:			NS	16	2	2	2,328	0	NS
Top group value*- Minimum:			114	145	52		28,890		
Maximum:						24	0	1	
No. entries in top group:			12	5	10	8	19	34	34
Coef. of variation#:			8	8	3	4	5	0	295

+ Relative maturity of hybrid as reported by seed company.

* Value is within one LSD value of the highest yield, bushel weight, or harvest population values; or the lowest grain moisture, green snap or lodging values.

NS indicates values within a column are not significantly different.

Measure of experimental error: values less than 15% are desired.

Table 3. Frankfort no-till early corn hybrid results, 2001-2002.
Steve Masat farm, test relative maturity is 100-day or less.

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		Bu. wt. lb	Grain moist. pct	Acre harvest pop.	2002	
		2-yr	2002				Green snap pct	Lodged below ear pct
				Entries tested		two years		
DEKALB/DKC44-42 (YG)	94	171	175	56	20	29,476	0	0
JACOBSEN/JS4167	100	169	165	54	21	29,330	0	2
WENSMAN/W 4212	95	167	171	54	22	28,749	0	0
KRUGER/K-9203	100	164	162	55	20	28,024	0	1
KRUGER/K-9002 BT	98	163	149	60	19	30,057	0	0
KRUGER/K-9204 BT	100	163	154	57	25	30,492	0	1
US SEEDS/US C1002	100	163	163	60	21	27,878	0	0
DEKALB/DKC46-26	96	160	157	57	21	29,330	0	2
KRUGER/K-9201	98	159	149	60	21	26,862	0	1
				Entries tested		one year		
SEEDS 2000/2953BT	95	185	58	22	28,459	0	0	
WENSMAN/W 5212 BT	95	182	58	23	30,056	0	0	
KRUGER/K-9392 BT	89	172	58	20	29,911	0	0	
GOLD COUNTRY/X60094	94	172	58	22	29,476	0	0	
DAIRYLAND/STEALTH-1497	96	168	55	22	29,476	0	0	
DEKALB/DKC48-83	98	168	56	22	29,330	0	0	
KRUGER/EXP-303A BT	100	165	55	25	29,911	0	0	
NC+/1912B	99	164	56	21	28,459	0	0	
WENSMAN/W 5223 BT	94	163	58	22	30,928	0	0	
WENSMAN/W 5257 BT	97	162	56	21	29,766	0	1	
WENSMAN/W 5117 BT	92	159	60	20	29,040	0	0	
GARST/8888	95	158	57	22	28,314	0	0	
MIDWEST/G 6961	95	158	57	22	29,330	0	0	
US SEEDS/US C973BT	97	158	58	23	28,169	0	0	
KRUGER/K-9204-1	100	156	55	25	29,766	0	1	
DAIRYLAND/STEALTH-1499	99	156	57	21	26,862	0	0	
DAIRYLAND/STEALTH-1598	98	152	59	21	28,895	0	0	
GARST/8832 BT	95	147	55	21	28,895	0	0	
STINE/9306BT	90	146	61	21	24,974	0	0	
WENSMAN/W 5181 BT	94	145	61	21	28,024	0	0	
SEEDS 2000/2991	99	128	53	24	27,588	0	1	
KRUGER/K-9304 BT	100	125	53	27	28,604	0	0	
Test average:		164	159	57	22	28,853	0	0
LSD (5%) values:		NS	15	5	2	2,153	0	NS
Top group value*- Minimum:		159	170	56		28,775		
Maximum:					21		0	2
No. entries in top group:		9	6	22	16	18	31	31
Coef. of variation#:		5	6	5	4	5	0	321

+ Relative maturity of hybrid as reported by seed company.

* Value is within one LSD value of the highest yield, bushel weight, or harvest population values; or the lowest grain moisture, green snap or lodging values.

NS indicates values within a column are not significantly different.

Measure of experimental error: values less than 15% are desired.

Table 4. Frankfort no-till late corn hybrid results, 2001-2002.
Steve Masat farm, test relative maturity is 101-day or more.

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		----- 2002 -----			Green snap pct	Lodged below ear pct
		2-yr	2002	Bu. wt. lb	Grain moist. pct	Acre harvest pop.		
				Entries tested	two years			
DEKALB/DKC53-32 (YG)	103	175	174	52	25	29,330	0	0
KRUGER/K-9206	102	161	155	50	28	29,330	0	2
WENSMAN/W 4314	101	159	161	52	25	28,895	0	0
WENSMAN/W 4388	105	157	156	52	24	28,459	0	0
DAIRYLAND/STEALTH1401BT	103	155	143	53	25	24,539	0	0
				Entries tested	one year			
DEKALB/DKC51-43	101	178	55	24	29,330	0	1	
LG SEEDS/LG 2533	105	165	49	29	29,621	0	0	
GOLD COUNTRY/1026BT	102	161	54	21	29,330	0	1	
US SEEDS/US C1042BT	104	161	54	23	30,928	0	0	
WENSMAN/W 5311 BT	101	161	52	23	28,604	0	0	
KRUGER/K-9306 BT	103	158	51	27	30,202	0	0	
WENSMAN/W 5361 BT	103	158	52	25	29,330	0	0	
NC+/3451B	101	153	51	28	30,202	0	0	
US SEEDS/US C1029BT	102	152	55	24	28,604	0	0	
KRUGER/K-9309 BT	106	151	51	33	28,314	0	0	
KRUGER/K-9108	105	148	49	28	28,895	0	1	
NC+/2572B	101	147	52	26	27,443	0	0	
WENSMAN/W 4424	106	138	52	27	28,750	0	0	
Test average:		161	157	52	26	28,895	0	<1
LSD (5%) values:		NS	11	2	2	1,993	0	1
Top group value*- Minimum:		155	167	53		28,994		
Maximum:					23		0	1
No. entries in top group:		5	2	5	4	9	18	17
Coef. of variation#:		5	4	3	6	4	0	246

+ Relative maturity of hybrid as reported by seed company.

* Value is within one LSD value of the highest yield, bushel weight, or harvest population values; or the lowest grain moisture, green snap or lodging values.

NS indicates values within a column are not significantly different.

Measure of experimental error: values less than 15% are desired.

Table 5. Brookings early corn hybrid results, 2001-2002. SDSU Agronomy Farm, test relative maturity is 100-day or less.

Brand / Hybrid	+Rel. Mat.	Yield- bu/a		----- 2002 -----			Green snap pct	Lodged below ear pct
		2-yr	@15.5% mst. 2002	Bu. wt. lb	Grain moist. pct	Acre harvest pop.		
				Entries tested two years				
DEKALB/DKC44-42 (YG)	94	187	168	58	20	31,363	0	0
WENSMAN/W 4212	95	167	147	57	19	29,621	0	1
GOLD COUNTRY/1006	100	165	141	56	20	29,621	0	0
MIDWEST/G 6961	95	165	143	56	19	29,621	0	1
SEEDS 2000/2953	95	165	137	56	19	28,604	0	0
DEKALB/DKC48-83	98	164	134	55	21	28,024	0	0
SANDS/SOI 9962	96	162	142	56	19	26,281	0	1
MIDWEST/G 7101 B	100	160	128	59	20	28,895	0	1
DEKALB/DKC48-15	98	155	125	57	21	30,637	0	1
JACOBSEN/JS4167	100	155	127	54	20	29,911	0	0
PFISTER/1680	99	151	101	56	24	29,766	0	2
KRUGER/K-9903 BT	98	146	102	58	21	29,185	0	0
CROW'S/217 B	100	143	112	58	21	29,330	0	0
EPLEY/E1170	100	142	121	58	19	28,459	0	0
KRUGER/K-9002 BT	98	141	98	58	21	28,895	0	1
EPLEY/E1027	88	138	107	57	19	30,492	0	0
				Entries tested one year				
WENSMAN/W 5212 BT	95		161	57	20	27,878	0	0
SEEDS 2000/2953BT	95		158	57	20	29,185	0	1
DAHLCO/2482	96		156	57	19	28,169	0	0
WENSMAN/W 5117 BT	92		154	58	19	26,717	0	1
AGSOURCE SEEDS/4403BT	100		148	59	21	30,347	0	0
GOLD COUNTRY/X60094	94		143	57	19	31,218	0	0
GARST/8888	95		141	56	19	27,733	0	0
WENSMAN/W 5257 BT	97		136	57	21	30,202	0	1
SABRE/3555	95		135	56	19	27,152	0	1
WENSMAN/W 5223 BT	94		134	58	19	29,475	0	1

Table 5. Brookings early hybrid results (continued).

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		Bu. wt. lb	Grain moist. pct	Acre harvest pop.	2002	
		2-yr	2002				Green snap pct	Lodged below ear pct
				Entries tested	one year			
US SEEDS/US C1002	100		133	55	19	28,459	0	1
DAHLCO/EXP-1903	90		128	57	18	25,846	0	0
DAIRYLAND/STEALTH-1602	100		126	58	21	28,750	0	3
KRUGER/K-9304 BT	100		119	56	24	28,604	0	0
DAHLCO/2288	85		118	59	18	30,637	0	2
DAHLCO/2289	89		115	56	18	27,878	0	0
DAHLCO/2075	75		115	60	19	27,733	0	1
EPLEY/E1181	99		115	58	21	29,040	0	1
GOLD COUNTRY/X20200CL	100		113	59	24	28,169	0	0
EPLEY/E1130	95		113	54	20	26,426	0	2
WENSMAN/W 5181 BT	94		112	58	20	25,410	0	4
DAHLCO/2140	80		111	59	18	30,492	0	1
US SEEDS/US C973BT	97		105	56	23	27,588	0	2
DAHLCO/EXP-0012	100		105	55	19	29,330	0	0
SEEDS 2000/2991	99		102	58	21	29,621	0	2
KRUGER/EXP-303A BT	100		97	57	23	29,766	0	1
GARST/8832 BT	95		76	56	20	28,169	0	2
Test average:		157	126	57	20	28,807	0	1
LSD (5%) values:		NS	18	2	1	1,859	0	2
Top group value*- Minimum:		138	150	58		29,504		
Maximum:					19		0	2
No. entries in top group:		16	5	17	19	15	43	41
Coef. of variation#:		7	9	2	4	4	0	153

+ Relative maturity of hybrid as reported by seed company.

* Value is within one LSD value of the highest yield, bushel weight, or harvest population values; or the lowest grain moisture, green snap or lodging values.

NS indicates values within a column are not significantly different.

Measure of experimental error: values less than 15% are desired.

Table 6. Brookings late corn hybrid results, 2001-2002. SDSU Agronomy Farm, test relative maturity is 101-day or more.

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		Bu. wt. lb	Grain moist. pct	Acre harvest pop.	2002	
		2-yr	2002				Green snap pct	Lodged below ear pct
----- 2002 -----								
		Entries tested two years						
KRUGER/K-9208A	105	173	156	56	24	26,862	0	0
LG SEEDS/LG 2533	105	171	144	54	25	29,621	0	0
WENSMAN/W 4418	106	171	147	55	23	29,911	0	1
DEKALB/DKC53-32 (YG)	103	168	147	54	24	29,476	0	0
EPLEY/E1493	103	165	151	57	22	28,169	0	0
EPLEY/E2470	110	161	136	53	23	29,185	0	0
WENSMAN/W 4314	101	156	127	54	21	27,443	0	0
WENSMAN/W 4388	105	156	138	56	22	29,475	0	0
WENSMAN/W 4424	106	154	129	57	22	30,056	0	0
SANDS/EXP 901-03	101	153	123	54	21	22,651	0	0
MIDWEST/G 7706	110	153	106	54	26	29,621	0	0
EPLEY/E2433	108	150	118	54	21	27,443	0	0
KRUGER/K-9108	105	147	116	53	23	29,476	0	0
US SEEDS/US C1029BT	102	144	106	58	22	29,185	0	0
KALTENBERG/K5151BT	101	140	104	59	20	27,588	0	0
EPLEY/E1470BT	102	138	107	55	20	28,605	0	0
----- 2002 -----								
		Entries tested one year						
DEKALB/DKC51-43	101	*	160	57	22	29,476	0	0
KRUGER/K-9211 BT	107	*	153	55	26	28,169	0	0
GARST/8578 IT	107	*	152	55	23	26,717	0	0
KRUGER/K-9910 BT	106	*	151	56	25	27,588	0	0
WENSMAN/W 5417 BT	107	*	148	55	25	21,054	0	0
US SEEDS/US C1042BT	104	*	143	59	20	30,928	0	0
SANDS/SOI 9041	104	*	142	58	23	28,750	0	0
KRUGER/K-9310A BT	106	*	139	55	25	27,443	0	0
DAIRYLAND/STEALTH-1503	103	*	129	57	21	28,605	0	0
EPLEY/E2412	105	*	127	54	24	29,330	0	1

Table 6. Brookings late hybrid results (continued).

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		Bu. wt. lb	Grain moist. pct	----- 2002 -----		Lodged below ear pct
		2-yr	2002			Acre harvest pop.	Green snap pct	
----- Entries tested one year -----								
SABRE/3990BT	101		126	56	24	29,476	0	1
DAHLCO/2502	101		126	57	20	24,248	0	0
WENSMAN/W 5311 BT	101		125	55	20	27,152	0	0
KRUGER/K-9306 BT	103		123	53	26	29,330	0	0
KRUGER/K-9309 BT	106		120	55	26	27,007	0	0
GARST/8715	101		119	54	22	29,040	0	0
PFISTER/2420	106		119	53	25	27,443	0	0
DAHLCO/2505	105		118	53	21	25,410	0	1
AGSOURCE SEEDS/4663BT	102		117	60	21	29,621	0	0
GOLD COUNTRY/1016	102		113	54	21	28,169	0	0
GOLD COUNTRY/1026BT	102		107	59	20	29,040	0	0
US SEEDS/US C1051ND	105		105	56	25	30,637	0	1
SANDS/SOI 100BT	102		103	59	21	29,621	0	0
WENSMAN/W 5361 BT	103		95	59	22	28,024	0	0
SANDS/SOI 104BT	104		68	57	22	29,331	0	0
Test average:		156	126	56	23	28,204	0	0
LSD (5%) values:		NS	20	2	1	1,912	0	NS
Top group value*- Minimum:		138	140	58		29,016		
Maximum:					21		0	0
No. entries in top group:		16	12	8	14	20	41	41
Coef. of variation#:		6	10	2	4	4	0	501

+ Relative maturity of hybrid as reported by seed company.

* Value is within one LSD value of the highest yield, bushel weight, or harvest population values; or the lowest grain moisture, green snap or lodging values.

NS indicates values within a column are not significantly different.

Measure of experimental error: values less than 15% are desired.

Table 7. Beresford early corn hybrid results, 2001-2002.

SE Research Farm, test relative maturity is 110-day or less.

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		Bu. wt. lb	Grain moist. pct	Acre harvest pop.	2002	
		2-yr	2002				Green snap pct	Lodged below ear pct
		Entries tested two years					Entries tested one year	
KRUGER/K-9013+ BT	109	177	170	59	21	27,443	0	1
WENSMAN/W 4418	106	177	171	61	19	30,928	0	3
KRUGER/K-9013	109	175	172	62	21	29,476	0	1
HEINE/H785	108	174	164	60	19	31,508	0	3
DEKALB/DKC60-08 (YG)	110	174	160	60	21	31,508	0	0
CROW'S/4908	110	173	163	60	20	30,928	0	1
JACOBSEN/JS4785BT	110	172	168	60	21	31,363	0	1
GOLD COUNTRY/X10010BT	110	172	158	59	21	29,185	0	0
JACOBSEN/JS4637	110	169	167	60	21	32,380	0	1
PFISTER/2656	109	169	164	60	21	29,911	0	2
SANDS/SOI 9102	110	169	153	59	20	32,089	0	2
EPLEY/E2470	110	169	165	60	19	31,509	0	3
KRUGER/K-9111	107	169	150	60	20	31,363	0	3
HEINE/H821	110	166	151	59	21	30,637	0	1
SANDS/SOI 9082	108	166	146	61	18	31,944	0	3
MIDWEST/G 7706	110	164	157	60	21	29,621	0	1
DAIRYLAND/STEALTH-1609	109	162	152	61	19	30,202	0	3
CROW'S/3520 B	104	161	147	62	20	32,525	0	1
WENSMAN/W 4314	101	160	153	60	18	29,911	0	0
WENSMAN/W 4388	105	158	155	59	21	30,202	0	1
HEINE/H740	106	158	133	59	18	29,040	0	2
EPLEY/E2433	108	156	147	59	21	31,073	0	2
EPLEY/E1493	103	147	135	61	19	31,654	0	2
WENSMAN/W 4424	106	144	123	60	20	30,928	0	1
US SEEDS/US C1123	110		180	60	22	30,347	0	1
WENSMAN/W 4437	109		179	61	20	29,911	0	3
KRUGER/K-9614B BT	109		177	59	26	31,508	0	0
KRUGER/K-9214-1	110		176	58	22	30,202	0	3
HEINE/H745BT	106		172	63	19	31,363	0	0
DAIRYLAND/STEALTH1507BT	108		172	59	20	31,654	0	1
HEINE/H790BT	110		170	61	21	31,073	0	1
GOLDEN HARVEST/H-8554BT	100		169	61	21	30,492	0	1
JACOBSEN/JS4645BT	108		169	60	24	32,089	0	0
KRUGER/K-9113	109		168	60	20	31,799	0	3
EPLEY/E2484	110		168	61	19	28,895	0	2
KRUGER/K-9212 BT	110		167	60	23	31,363	0	0
WENSMAN/W 5417 BT	107		167	60	20	28,604	0	1
KRUGER/EXP-9212	109		164	59	23	30,347	0	1
MERSCHMAN/M-10108	108		163	61	19	31,508	0	2

Table 7. Beresford early hybrid results (continued).

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		Bu. wt. lb	Grain moist. pct	----- 2002 -----			
		2-yr	2002			Acres harvest pop.	Green snap pct	Lodged below ear pct	
----- Entries tested one year -----									
GARST/8461	109	↓	162	61	21	30,202	0	3	
DEKALB/DKC58-78 (YG)	108	+	162	60	21	31,654	0	0	
MERSCHMAN/M-20108	108	+	161	59	20	30,202	0	0	
GARST/8523 IT	108	↓	158	62	20	29,766	0	1	
AGSOURCE SEEDS/5970	109	↓	155	59	21	30,492	0	4	
SANDS/SOI 9062	106	↓	154	61	20	30,927	0	1	
GARST/8578 IT	107	↓	154	61	20	27,298	0	3	
HEINE/H765BT	108	↓	153	58	20	28,895	0	1	
WENSMAN/W 5361 BT	103	+	153	65	19	32,089	0	0	
EPLEY/E2412	105	↓	153	60	21	30,783	0	1	
WENSMAN/W 5311 BT	101	↓	150	59	18	30,492	0	1	
MERSCHMAN/M-10102	102	↓	150	59	19	29,475	0	2	
US SEEDS/US C1071	107	+	150	60	20	30,347	0	0	
STINE/9617	107	↓	149	60	20	30,783	0	2	
HEINE/H760	108	↓	141	62	19	32,234	0	2	
PFISTER/2420	106	↓	141	60	21	29,330	0	1	
KRUGER/K-9313	110	↓	140	59	23	29,911	0	2	
MERSCHMAN/M-10103	103	↓	138	62	19	29,330	0	1	
MERSCHMAN/M-20101	101	↓	136	62	19	30,928	0	2	
HEINE/H730	104	↓	134	63	19	31,363	0	3	
STINE/9509	102	↓	132	61	21	28,169	0	2	
JACOBSEN/JS4225BT	102	↓	104	61	19	32,380	0	0	
Test average:			166	156	60	20	30,582	0	1
LSD (5%) values:			18	19	2	1	1,862	0	3
Top group value*- Minimum:			159	161	63		30,663		
Maximum:						20	0	3	
No. entries in top group:			19	27	3	18	31	61	48
Coef. of variation#:			7	8	2	4	4	0	111

+ Relative maturity of hybrid as reported by seed company.

* Value is within one LSD value of the highest yield, bushel weight, or harvest population values; or the lowest grain moisture, green snap or lodging values.

NS indicates values within a column are not significantly different.

Measure of experimental error: values less than 15% are desired.

Table 8. Beresford late corn hybrid results, 2001-2002.
SE Research Farm, test relative maturity is 111-day or more.

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		Bu. wt. lb	Grain moist. pct	Acre harvest pop.	----- 2002 -----	
		2-yr	2002				Green snap pct	Lodged below ear pct
----- 2002 -----								
						Entries tested two years		
KRUGER/K-9014 BT	111	177	175	59	23	29,330	0	1
EPLEY/E3610BT	111	177	172	61	21	31,073	0	1
KRUGER/K-9014+ BT	111	176	172	60	22	29,040	0	1
ASGROW/RX730YG	111	173	159	60	22	31,218	0	0
EPLEY/E3620	113	173	171	62	21	29,621	0	2
HEINE/H840	112	173	172	58	21	31,509	0	2
EPLEY/E3630BT	113	169	161	63	24	30,202	0	0
US SEEDS/US C1111	111	165	159	61	19	30,056	0	2
KRUGER/K-9114 BT	111	161	154	61	22	31,654	0	0
----- 2002 -----								
						Entries tested one year		
AGSOURCE SEEDS/6183BT	111	.	189	62	21	30,492	0	0
AGSOURCE SEEDS/6203BT	112	.	183	62	23	29,911	0	0
SANDS/SOI 9132	113	.	182	60	21	30,347	0	1
KRUGER/K-9315 BT	112	.	179	62	23	29,185	0	0
GOLDEN HARVEST/H-9164BT	113	.	179	58	24	30,637	0	0
GARST/8443	111	.	177	61	22	29,040	0	1
HEINE/H841BT	113	.	177	63	21	30,782	0	0
HEINE/H832BT	112	.	175	62	22	29,911	0	1
SANDS/SOI 9126BT	113	.	167	62	23	30,347	0	0
KRUGER/K-9315B BT	111	.	165	59	23	30,201	0	0
DAIRYLAND/STEALTH-1510	111	.	164	60	20	30,492	0	4
HEINE/H825BT	111	.	164	61	24	30,492	0	0
NC+/4990B	112	.	161	62	23	30,928	0	2
SANDS/SOI 9126	112	.	160	62	22	31,073	0	2
KRUGER/K-9315A BT	111	.	160	61	23	28,605	0	2
ASGROW/RX730IMI	111	.	159	61	22	31,073	0	3
HEINE/H822	111	.	158	61	20	30,057	0	2
GARST/8348	115	.	146	60	24	30,492	0	3
HEINE/H836BT	113	.	135	58	23	29,911	0	0
US SEEDS/US C1111ND	111	.	130	61	25	31,508	0	2
Test average:		172	166	61	22	30,317	0	1
LSD (5%) values:		NS	16	2	2	NS	0	NS
Top group value*- Minimum:		161	173	61		28,605		
Maximum:					21		0	4
No. entries in top group:		9	9	10	9	29	29	29
Coef. of variation#:		5	6	2	4	4	0	154

+ Relative maturity of hybrid as reported by seed company.

* Value is within one LSD value of the highest yield, bushel weight, or harvest population values; or the lowest grain moisture, green snap or lodging values. NS indicates values within a column are not significantly different.

Measure of experimental error: values less than 15% are desired.

Table 9. South Shore Roundup Ready no-till early corn hybrid results, 2001-2002.
NE Research Farm, test relative maturity is 95-day or less.

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		Bu. wt. lb	Grain moist. pct	Acre harvest pop.	----- 2002 -----	
		2-yr	2002				Green snap pct	Lodged below ear pct
Entries tested one year								
INTEGRA/INT 6193RR/BT	93	159	54	22	28,314	0	1	
DEKALB/DKC44-46 (RR/YG)	94	157	54	25	28,895	0	0	
US SEEDS US/C943RR	94	151	52	26	28,459	0	1	
WENSMAN/W 6212RR	95	148	52	26	30,202	0	0	
CHANNEL/6925RB	92	148	56	22	28,604	0	0	
DAHLCO/DS EXP-1951RR	95	146	57	21	28,023	0	1	
DEKALB/DKC39-47 (RR)	89	144	57	24	30,056	0	0	
GARST/8802RR	95	144	52	23	27,007	0	0	
KRUGER/K-9190 RR/BT	87	137	55	22	27,588	0	0	
INTEGRA/INT 6183RR/BT	85	135	56	22	29,766	0	0	
KRUGER/EXP-82ARR	88	132	52	24	26,426	0	0	
GOLD COUNTRY/8521RRBT	88	132	54	23	29,185	0	0	
US SEEDS US/C912RR	91	130	55	20	29,330	0	0	
MALLARD/RR 9000A	88	128	56	20	27,733	0	1	
DAHLCO/DS 2335RR	90	126	52	21	28,604	0	0	
KRUGER/K-9300 RR/BT	95	126	49	26	29,911	0	1	
DAHLCO/DS 2288RR	85	124	57	20	25,991	0	1	
KRUGER/K-9199 RR/BT	95	119	51	27	25,846	0	1	
INTEGRA/INT 7985RR	86	118	52	23	27,879	0	0	
KRUGER/K-9299A RR	95	109	52	27	29,911	0	0	
MALLARD/RR 8500	86	101	53	25	30,202	0	1	
Test average:		134	54	23	28,473	0	<1	
LSD (5%) values:		14	12	2	2,673	0	NS	
Top group value*- Minimum:		145	55		27,529			
Maximum:				22		0	1	
No. entries in top group:		6	8	9	17	21	21	
Coef. of variation#:		6	2	4	6	0	282	

+ Relative maturity of hybrid as reported by seed company.

* Value is within one LSD value of the highest yield, bushel weight, or harvest population values; or the lowest grain moisture, green snap or lodging values. NS indicates values within a column are not significantly different.

Measure of experimental error: values less than 15% are desired.

Table 10. South Shore Roundup Ready no-till late corn hybrid results, 2001-2002.
NE Research Farm, test relative maturity is 96-day or more.

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		Bu. wt. lb	Grain moist. pct	Acre harvest pop.	2002	
		2-yr	2002				Green snap pct	Lodged below ear pct
----- 2002 -----								
				Entries tested one year				
DEKALB/DKC46-28 (RR)	96	.	160	54	24	30,492	0	0
DEKALB/DKC50-73 (RR/YG)	100	.	145	51	29	29,911	0	0
GOLD COUNTRY/9603RRBT	98	.	138	54	22	30,202	0	0
INTEGRA/INT 6198RR/BT	98	.	138	52	24	29,185	0	0
SABRE/3904	99	.	137	54	22	29,766	0	0
STINE/9412RR	100	.	135	54	27	28,895	0	0
SANDS/SOI 1000RR	100	.	134	50	29	30,637	0	0
US SEEDS US/C1001RR/BT	100	.	133	48	29	30,492	0	0
KRUGER/EXP-304 RR/BT	100	.	132	51	29	28,604	0	0
CHANNEL/7009RB	100	.	131	50	30	28,459	0	0
INTEGRA/INT 6102RR	103	.	130	52	30	28,314	0	0
KRUGER/K-9204 RR	100	.	130	52	29	28,314	0	0
KRUGER/K-9206 RR	102	.	127	52	35	29,911	0	0
INTEGRA/INT 7100RR	100	.	126	51	26	27,443	0	0
SANDS/SOI 1010RR	100	.	126	51	26	29,621	0	0
SABRE/3942	99	.	125	53	27	30,637	0	0
CHANNEL/6996R	99	.	124	50	26	30,492	0	0
GOLD COUNTRY/1020RRBT	102	.	123	49	27	28,895	0	0
MALLARD/RR 9610	101	.	122	51	26	30,782	0	1
US SEEDS US/C1003RR	100	.	121	52	28	23,813	0	1
KAYSTAR/KX-6220RR	100	.	120	53	25	28,169	0	0
GOLD COUNTRY/9649RRBT	96	.	120	53	28	30,056	0	0
INTEGRA/INT 6104RR/BT	100	.	120	50	34	29,476	0	0
INTEGRA/INT 6290RR	96	.	118	53	25	27,733	0	0
KRUGER/K-9108 RR	105	.	116	49	37	30,783	0	0
CHANNEL/9348RB	99	.	111	50	26	29,911	0	0
Test average:		.	128	52	28	29,269	0	<1
LSD (5%) values:		.	12	2	2	2,138	0	NS
Top group value*- Minimum:		.	160	52		28,645		
Maximum:		.			24		0	1
No. entries in top group:		.	1	8	4	18	26	26
Coef. of variation#:		.	6	2	4	4	0	631

+ Relative maturity of hybrid as reported by seed company.

* Value is within one LSD value of the highest yield, bushel weight, or harvest population values; or the lowest grain moisture, green snap or lodging values. NS indicates values within a column are not significantly different.

Measure of experimental error: values less than 15% are desired.

Table 11. Frankfort Roundup Ready no-till early corn hybrid results, 2001-2002. Steve Masat farm, test relative maturity is 100-day or less.

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		Bu. wt. lb	Grain moist. pct	Acre harvest pop.	2002	
		2-yr	2002				Green snap pct	Lodged below ear pct
----- 2002 -----								
Entries tested two years								
DEKALB/DKC46-28 (RR)	96	172	173	55	20	30,782	0	1
KRUGER/K-9199 RR/BT	95	162	160	51	21	28,895	0	0
GOLD COUNTRY/9603RRBT	98	158	154	55	19	27,443	0	0
KRUGER/K-9102 RR	99	157	159	50	23	27,879	0	0
KRUGER/K-9299A RR	95	152	143	51	20	29,331	0	0

Entries tested one year								
WENSMAN/W 6212RR	95	181	54	22	30,492	0	0	
US SEEDS US/C943RR	94	180	54	21	30,492	0	0	
DEKALB/DKC44-46 (RR/YG)	94	180	54	20	29,621	0	0	
DEKALB/DKC50-73 (RR/YG)	100	176	55	23	30,782	0	0	
INTEGRA/INT 6193RR/BT	93	169	56	20	29,766	0	0	
CHANNEL/7009RB	100	162	51	24	28,459	0	0	
INTEGRA/INT 6198RR/BT	98	157	54	20	26,862	0	0	
CHANNEL/6996R	99	153	51	22	29,040	0	1	
DAHLCO/DS EXP-1951RR	95	152	57	19	29,621	0	0	
INTEGRA/INT 6290RR	96	151	53	20	25,700	0	0	
KRUGER/K-9204 RR	100	151	54	24	28,750	0	0	
KAYSTAR/KX-6220RR	100	149	55	21	28,750	0	0	
KRUGER/K-9300 RR/BT	95	149	51	20	27,879	0	0	
CHANNEL/9348RB	99	149	52	20	29,476	0	1	
INTEGRA/INT 6104RR/BT	100	149	50	25	31,218	0	0	
KRUGER/EXP-304 RR/BT	100	148	54	23	29,330	0	0	
STINE/85EXRRBT	85	146	55	20	27,588	0	0	
DAHLCO/DS 2502RR	100	143	53	20	26,136	0	1	
US SEEDS US/C1003RR	100	141	54	22	21,635	0	0	
INTEGRA/INT 7100RR	100	141	52	23	26,862	0	1	
Test average:		160	157	53	21	28,511	0	0
LSD (5%) values:		NS	11	2	2	2,045	0	NS
Top group value*- Minimum:		152	170	55		29,173		
Maximum:					21		0	1
No. entries in top group:		5	5	7	15	11	25	25
Coef. of variation#:		4	4	2	5	4	0	400

+ Relative maturity of hybrid as reported by seed company.

* Value is within one LSD value of the highest yield, bushel weight, or harvest population values; or the lowest grain moisture, green snap or lodging values. NS indicates values within a column are not significantly different.

Measure of experimental error: values less than 15% are desired.

Table 12. Frankfort Roundup Ready no-till late corn hybrid results, 2001-2002. Steve Masat farm, test relative maturity is 101-day or more.

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		----- 2002 -----			Green snap pct	Lodged below ear pct
		2-yr	2002	Bu. wt. lb	Grain moist. pct	Acre harvest pop.		
----- Entries tested two years -----								
GOLD COUNTRY/1020RRBT	102	156	151	52	23	28,895	0	0
US SEEDS US/C1012RR	101	153	159	52	21	28,895	0	0
KRUGER/K-9212 RR	108	143	143	48	30	25,555	0	0
----- Entries tested one year -----								
DEKALB/DKC53-34 (RR/YG)	103		171	52	24	30,347	0	0
KRUGER/K-9212+ RR	109		163	50	28	28,314	0	0
DEKALB/DKC58-24 (RR/YG)	108		160	51	25	29,476	0	0
LG SEEDS/LG 2533RR	105		158	49	27	30,928	0	0
INTEGRA/INT 6102RR	103		158	54	24	28,605	0	0
US SEEDS US/C1031RR/BT	103		154	50	24	30,637	0	0
SEEDS 2000/3110RRBT	101		152	51	20	30,492	0	0
GOLDEN HAREST/H-7696BT/	108		151	51	23	28,024	0	0
KRUGER/K-9206 RR	102		151	52	26	30,347	0	0
INTEGRA/INT 6205RR	106		150	51	26	29,621	0	1
CHANNEL/9490RB	103		149	50	25	29,040	0	0
CHANNEL/7406R	104		149	50	24	27,588	0	1
KRUGER/K-9108 RR	105		148	49	28	30,927	0	1
SEEDS 2000/3112RR	101		147	51	20	28,024	0	0
SEEDS 2000/3132RR	101		140	52	25	29,185	0	0
KAYSTAR/KX-6300RR	103		137	52	24	27,878	0	1
Test average:		151	152	51	25	29,094	0	0
LSD (5%) values:		NS	17	2	2	2,201	0	NS
Top group value*- Minimum:		143	154	52		28,727		
Maximum:					22		0	1
No. entries in top group:		3	7	7	3	12	19	19
Coef. of variation#:		4	7	2	5	5	0	370

+ Relative maturity of hybrid as reported by seed company.

* Value is within one LSD value of the highest yield, bushel weight, or harvest population values; or the lowest grain moisture, green snap or lodging values. NS indicates values within a column are not significantly different.

Measure of experimental error: values less than 15% are desired.

Table 13. Brookings Roundup Ready early corn hybrid results, 2001-2002. SDSU Agronomy Farm, test relative maturity is 100-day or less.

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		Bu. wt. lb	Grain moist. pct	2002		Lodged below ear pct
		2-yr	2002			Acre harvest pop.	Green snap pct	
----- 2002 -----								
Entries tested two years								
DEKALB/DKC46-28 (RR)	96	180	176	60	19	29,621	0	0
SANDS/SOI 1000RR	100	170	147	57	21	30,782	0	0
SANDS/SOI 1010RR	100	163	145	57	20	28,459	0	0
PFISTER/1553 RR	98	161	143	56	19	25,555	0	0
KRUGER/K-9102 RR	99	154	129	57	21	27,152	0	0
PFISTER/1554 RR	99	153	142	58	20	27,443	0	0
EPLEY/E1485RR	100	149	141	56	20	24,684	0	0
GOLD COUNTRY/9603RRBT	98	149	144	60	18	28,169	0	1
Entries tested one year								
DEKALB/DKC44-46 (RR/YG)	94	.	176	56	20	28,749	0	0
DAHLCO/DS EXP-1951RR	95	.	163	59	19	28,314	0	0
SEEDS 2000/2944RRBT	92	.	161	59	20	28,604	0	0
INTEGRA/INT 6193RR/BT	93	.	161	58	19	28,750	0	1
KRUGER/K-9204 RR	100	.	161	56	21	28,895	0	0
DEKALB/DKC50-73 (RR/YG)	100	.	159	56	23	29,766	0	0
WENSMAN/W 6212RR	95	.	156	57	20	29,476	0	0
CHANNEL/6996R	99	.	150	56	19	28,750	0	0
KRUGER/K-9299A RR	95	.	150	60	20	30,056	0	1
KRUGER/EXP-304 RR/BT	100	.	149	56	22	28,750	0	2
INTEGRA/INT 6198RR/BT	98	.	147	57	20	27,443	0	2
KRUGER/K-9199 RR/BT	95	.	147	56	20	28,024	0	0
EPLEY/E1175RR	100	.	144	56	19	26,572	0	0
INTEGRA/INT 7100RR	100	.	142	56	20	26,136	0	0
SABRE/3904	99	.	140	58	18	26,281	0	1
US SEEDS US/C1003RR	100	.	140	56	21	21,925	0	1
GARST/8802RR	95	.	139	56	19	29,766	0	3
KALTENBERG/K4919RRBT	100	.	139	57	21	29,040	0	0
US SEEDS US/C1001RR/BT	100	.	135	55	23	27,878	0	0
KAYSTAR/KX-5700RR	100	.	134	55	20	28,459	0	2

Table 13. Brookings Roundup Ready early hybrid results (continued).

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		Bu. wt. lb	Grain moist. pct	Acre harvest pop.	----- 2002 -----	
		2-yr	2002				Green snap pct	Lodged below ear pct
				Entries tested one year				
CHANNEL/7009RB	100	.	131	53	23	28,169	0	0
KRUGER/K-9300 RR/BT	95	.	130	55	20	25,555	0	0
CHANNEL/9348RB	99	.	129	56	20	28,750	0	1
DAHLCO/DS 2502RR	100	.	128	55	20	28,169	0	2
DAHLCO/DS 2288RR	85	.	128	59	18	26,571	0	3
DAHLCO/DS 2335RR	90	.	125	58	18	29,040	0	0
INTEGRA/INT 6290RR	96	.	116	57	18	27,297	0	1
INTEGRA/INT 6104RR/BT	100	.	115	54	23	28,750	0	2
EPLEY/E1135RR	90	.	106	57	17	27,588	0	1
GOLD COUNTRY/9649RRBT	96	.	106	54	24	26,862	0	1
SABRE/3942	99	.	87	55	24	29,911	0	0
Test average:			160	140	57	27,953	0	1
LSD (5%) values:		NS	15	3	1	2,181	0	2
Top group value*- Minimum:			149	161	57	28,601		
Maximum:					18		0	2
No. entries in top group:			8	6	18	6	17	39
Coef. of variation#:			8	7	2	3	5	0
								187

+ Relative maturity of hybrid as reported by seed company.

* Value is within one LSD value of the highest yield, bushel weight, or harvest population values; or the lowest grain moisture, green snap or lodging values.

NS indicates values within a column are not significantly different.

Measure of experimental error: values less than 15% are desired.

Table 14. Brookings Roundup Ready late corn hybrid results, 2001-2002. SDSU Agronomy Farm, test relative maturity is 101-day or more.

Brand / Hybrid	+Rel. Mat.	Yield- bu/a @15.5% mst.		----- 2002 -----				
		2-yr	2002	Bu. wt. lb	Grain moist. pct	Acre harvest pop.	Green snap pct	Lodged below ear pct
				Entries tested two years				
ASGROW/RX601RR/YG	105	166	145	57	24	29,040	0	2
GOLD COUNTRY/1020RRBT	102	163	149	56	21	27,443	0	1
KRUGER/K-9212 RR	108	162	133	52	28	27,443	0	2
KRUGER/K-9208 RR	105	156	151	53	23	28,750	0	0
SEEDS 2000/3110RRBT	101	156	122	56	21	27,152	0	1
US SEEDS US/C1012RR	101	154	139	56	21	27,297	0	1
				Entries tested one year				
GARST/8590RR	105	.	164	55	26	28,459	0	1
WENSMAN/W 5421RR	106	.	161	53	25	29,911	0	0
EPLEY/E2425RR	107	.	159	55	22	30,492	0	0
INTEGRA/INT 6102RR	103	.	158	57	21	29,040	0	1
GOLD COUNTRY/X12008RR	108	.	157	54	23	30,201	0	0
INTEGRA/INT 6205RR	106	.	154	58	23	28,750	0	0
GOLDEN HAREST/H-7696BT/	108	.	153	57	20	26,572	0	0
MALLARD/RR 9610	101	.	153	56	20	29,330	0	0
KALTENBERG/K5717RRBT	105	.	151	55	24	30,347	0	0
SEEDS 2000/3132RR	101	.	147	57	22	28,023	0	0
KAYSTAR/KX-6300RR	103	.	146	56	21	28,459	0	0
KRUGER/K-9206 RR	102	.	144	56	22	28,459	0	0
EPLEY/E2485RR	110	.	139	52	26	30,782	0	0
KRUGER/K-9212+ RR	109	.	138	52	28	27,588	0	1
CHANNEL/9490RB	103	.	136	56	23	26,862	0	0
DEKALB/DKC53-34 (RR/YG)	103	.	136	54	25	29,911	0	0
JACOBSEN/JS4255R	102	.	136	57	20	27,298	0	0
CHANNEL/7406R	104	.	134	53	25	29,766	0	0
US SEEDS US/C1041RR	104	.	132	53	23	29,621	0	1
KRUGER/K-9108 RR	105	.	100	50	27	30,928	0	0
Test average:		160	144	55	23	28,766	0	0
LSD (5%) values:		NS	18	2	1	1,973	0	NS
Top group value*- Minimum:		154	146	56		28,955		
Maximum:					21		0	1
No. entries in top group:		6	13	13	8	12	26	24
Coef. of variation#:		8	8	2	3	4	0	255

+ Relative maturity of hybrid as reported by seed company.

* Value is within one LSD value of the highest yield, bushel weight, or harvest population values; or the lowest grain moisture, green snap or lodging values.

NS indicates values within a column are not significantly different.

Measure of experimental error: values less than 15% are desired.

Table 15. Beresford Roundup Ready combined early and late corn hybrid results, 2001-2002. SE Research Farm, test relative maturity is 102- to 112-day.

Brand / Hybrid	+Rel. Mat.	----- 2002 -----						
		Yield- bu/a @15.5% mst.		Bu. wt. lb	Grain moist. pct	Acre harvest pop.	Green snap pct	Lodged below ear pct
		2-yr	2002					

		Entries tested two years						
PFISTER/2656 RR	109	179	175	62	20	30,057	0	2
TRIUMPH/1120BTRR	108	171	153	61	21	29,185	0	0
KRUGER/K-9212 RR	108	170	154	61	21	27,588	0	0
KRUGER/K-9912+ RR	110	169	155	61	21	29,185	0	1
KAYSTAR/KX-8550RR	112	168	152	60	21	31,363	0	0
ASGROW/RX601RR/YG	105	167	154	62	20	29,766	0	0
KRUGER/K-9208 RR	105	156	147	61	19	30,782	0	1
ASGROW/RX730RR/YG	110	155	134	59	22	31,073	0	1
US SEEDS US/C1091RR	109	148	132	61	20	30,928	0	1

		Entries tested one year						
WENSMAN/W 5421RR	106	.	174	62	19	29,911	0	0
CHANNEL/7710RB	110	.	172	63	21	30,056	0	0
KRUGER/K-9212+ RR	109	.	170	61	20	29,476	0	2
US SEEDS US/C1083RR/BT	108	.	169	61	20	31,073	0	0
GOLD COUNTRY/X12008RR	108	.	162	63	19	30,347	0	1
HEINE/H832RR/BT	112	.	161	62	21	28,750	0	0
GARST/8590RR	105	.	160	61	20	30,637	0	0
DEKALB/DKC60-09 (RR/YG)	110	.	160	61	21	31,073	0	1
CHANNEL/7705R	110	.	158	59	20	30,347	0	0
KAUP/EXP 0123RR/BT	109	.	158	62	21	29,331	0	1
KRUGER/K-9108 RR	105	.	158	60	19	29,766	0	1
AGSOURCE SEEDS/6211RR	111	.	157	61	21	28,895	0	1
HEINE/H825RR/BT	111	.	156	61	23	30,927	0	1
JACOBSEN/JS4637R	111	.	155	60	21	30,347	0	0
EPLEY/E1445RR	104	.	154	63	18	28,459	0	1
DEKALB/DKC58-24 (RR/YG)	108	.	151	64	20	30,492	0	0
US SEEDS US/C1122RR	112	.	150	62	19	31,508	0	0
EPLEY/E2485RR	110	.	149	62	18	29,621	0	2
DEKALB/DKC60-19 (RR/YG)	110	.	143	61	22	30,928	0	0
JACOBSEN/JS4255R	102	.	142	62	17	30,056	0	0
KAUP/97-1112RR	110	.	142	61	19	30,202	0	0
EPLEY/E2425RR	107	.	139	61	19	30,056	0	1
INTEGRA/INT 6205RR	106	.	115	63	19	29,475	0	0
AGSOURCE SEEDS/5911RR	108	.	112	60	21	29,911	0	1
Test average:		165	152	61	20	30,048	0	<1
LSD (5%) values:		17	17	2	1	1,878	0	NS
Top group value*- Minimum:		162	158	62		29,630		
Maximum:					18		0	2
No. entries in top group:		6	12	13	3	23	33	33
Coef. of variation#:		7	7	2	3	4	0	243

+ Relative maturity of hybrid as reported by seed company.

* Value is within one LSD value of the highest yield, bushel weight, or harvest population values; or the lowest grain moisture, green snap or lodging values. NS indicates values within a column are not significantly different.

Measure of experimental error: values less than 15% are desired.