

South Dakota State University
**Open PRAIRIE: Open Public Research Access Institutional
Repository and Information Exchange**

Agricultural Experiment Station Circulars

SDSU Agricultural Experiment Station

11-2004

2004 Precision Planted Performance Trials: Corn

R. G. Hall

South Dakota State University, robert.hall@sdstate.edu

K. K. Kirby

South Dakota State University, kevin.kirby@sdstate.edu

Follow this and additional works at: http://openprairie.sdstate.edu/agexperimentsta_circ

Recommended Citation

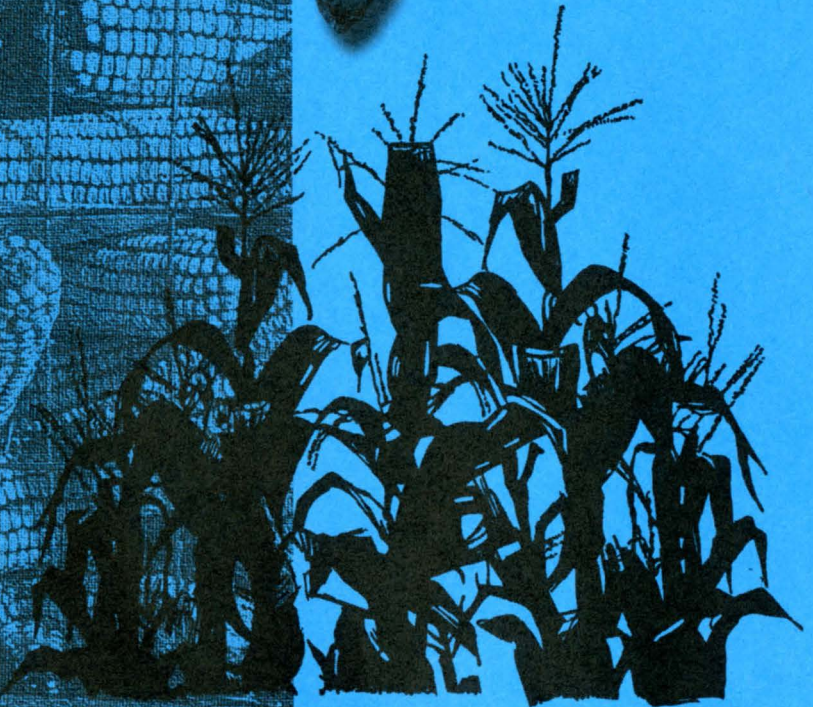
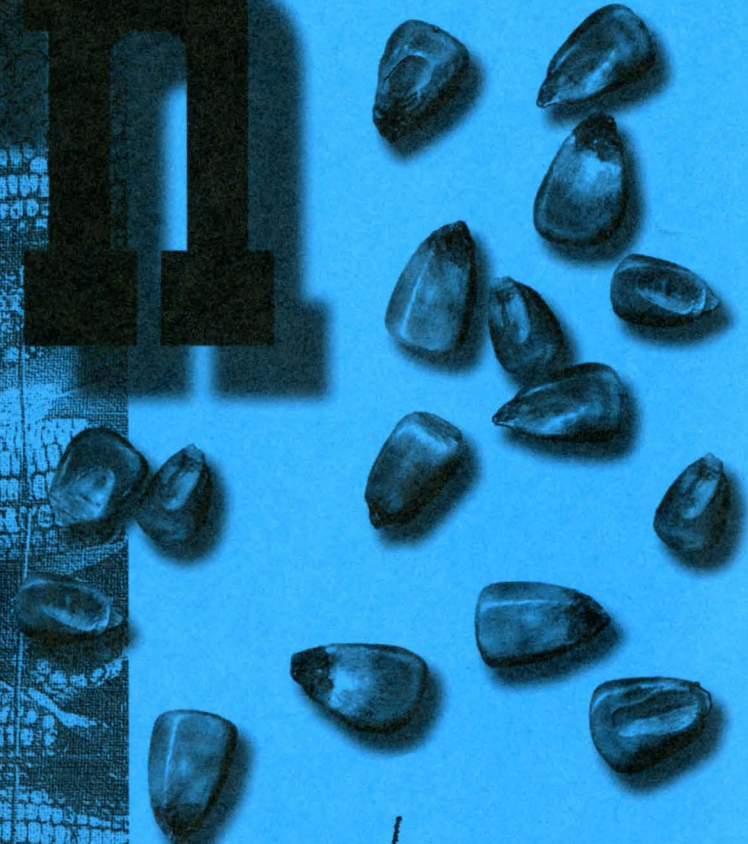
Hall, R. G. and Kirby, K. K., "2004 Precision Planted Performance Trials: Corn" (2004). *Agricultural Experiment Station Circulars*. Paper 303.

http://openprairie.sdstate.edu/agexperimentsta_circ/303

This Circular is brought to you for free and open access by the SDSU Agricultural Experiment Station at Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. It has been accepted for inclusion in Agricultural Experiment Station Circulars by an authorized administrator of Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. For more information, please contact michael.biondo@sdstate.edu.

2004 Precision Planted Performance Trials

Corn



Tables, 2004 corn performance trials

A	Soil classification, percent slope, seedbed, and previous crop	8
B	Trial cooperators, locations, and dates seeded	8
C	Nearest weather station precipitation and GDD accumulation	9
D	Non-Roundup Ready entries by brand/hybrid and yield table number(s).....	10
E	Roundup Ready™ entries by brand/hybrid and yield table number(s)	34
F	Mailing addresses of seed companies	60

Non-Roundup Ready hybrid trial results

1a	Early maturity corn yield results– northern South Dakota locations	12
1b	Early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– northern South Dakota locations.....	14
2a	Late maturity corn yield results– northern South Dakota locations	16
2b	Late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– northern South Dakota locations.....	17
3a	Early maturity corn yield results– central South Dakota locations.....	18
3b	Early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– central South Dakota locations	20
4a	Late maturity corn yield results– central South Dakota locations	22
4b	Late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– central South Dakota locations	24
5a	Early maturity corn yield results– southern South Dakota locations	26
5b	Early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– southern South Dakota locations	28
6a	Late maturity corn yield results– southern South Dakota locations.....	30
6b	Late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– southern South Dakota locations	32

Roundup Ready™* hybrid trial results

7a	Early maturity corn yield results– northern South Dakota locations	36
7b	Early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– northern South Dakota locations.....	38
8a	Late maturity corn yield results– northern South Dakota locations	40
8b	Late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– northern South Dakota locations.....	42
9a	Early maturity corn yield results– central South Dakota locations.....	44
9b	Early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– central South Dakota locations	46
10a	Late maturity corn yield results– central South Dakota locations	48
10b	Late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– central South Dakota locations	50
11a	Early maturity corn yield results– southern South Dakota locations	52
11b	Early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– southern South Dakota locations	54
12a	Late maturity corn yield results– southern South Dakota locations.....	56
12b	Late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– southern South Dakota locations	58

*Roundup Ready is registered by Monsanto.

This publication reports the results of research only. Mention of a trademark, proprietary product, or vendor does not constitute a guarantee or warranty of the product by the South Dakota Agricultural Experiment Station and does not imply its approval to the exclusion of other products or vendors that may also be suitable.

A PDF version of this publication is available at <http://agbiopubs.sdstate.edu/articles/C253-04.pdf>



Published in accordance with an act passed in 1881 by the 14th Legislative Assembly, Dakota Territory, establishing the Dakota Agricultural College and with the act of reorganization in 1887 by the 17th Legislative Assembly, which established the Agricultural Experiment Station at South Dakota State University. SDSU is an Affirmative Action/Equal Opportunity Employer (male/female) and offers all benefits, services, education, and employment opportunities without regard for ancestry, age, race, citizenship, color, creed, religion, gender, disability, national origin, sexual preference, or Vietnam Era veteran status.

3100 copies printed by AES at a cost of \$1.44 each. AX062 December 2004

2004 Precision Planted Corn Performance Trials

Robert G. Hall, Extension Agronomist,
Project Leader, Crop Performance Testing
&

Kevin K. Kirby, Agricultural Research Manager,
Crop Performance Testing

This publication reports the performance of entries in the 2004 South Dakota corn hybrid performance trials for both non-Roundup-Ready™ and Roundup-Ready™ hybrids. Information includes both the most recent 2-year and 1-year grain yields in bushels per acre (bu/ac); 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, while cooperators and seeding dates are shown in Table B. Seeding started April 30 and was completed May 7, 2004.

Weather Conditions

Weather data (Table C) for this year's growing season, April-September, was obtained from the 2004 USDA-South Dakota Crop-Weather reports and the South Dakota Automatic Weather Data Network (SD-AWDN).

Heat unit or growing-degree-day (GDD) accumulations are reported for the nearest test site in place of temperatures. 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 2,829 GDD at Armour to a low of 2,032 GDD at Brookings.

GDD seasonal accumulations were below average for all test locations in 2004. Deficits ranged from a low range of 96 to 165 units at Huron, Centerville, Armour, and Brookings to a higher range of 304 to 333 units at Watertown and Aberdeen. Generally, across all locations, cooler than normal temperatures resulted in below-normal levels of heat units during July and August. At Aberdeen and Watertown cooler than normal temperatures were evident in May and June.

Precipitation accumulation varied greatly across test locations. Seasonal total precipitation from April 1 through the end of September was highest at Huron and Brookings and lowest at Aberdeen and Armour. On average the seasonal precipitation accumulations were above average at all locations. Precipitation seasonal accumulations ranged from 1.62 inches at Armour to 7.67 inches at Huron. Precipitation deficits of 0.12 to 1.0 inches were evident in April at most locations. Later in the season deficits of 0.88, 1.3, and 1.35 inches were evident at Watertown, Beresford, and Armour, respectively.

In summary, moisture deficits in July and August likely reduced yields at Armour. A more normal or above-normal moisture distribution in July and August likely resulted in higher yields at the other locations. The seasonal GDD totals across this region were below normal for 2004. At Aberdeen, Brookings, and Watertown, temperatures were cooler than normal in May and June. These cooler temperatures were often accompanied by overcast clouds and little effective sunlight. At Brookings these overcast conditions lasted nearly 3 weeks.

The assistance of the following is appreciated: Glenda Piechowski at Brookings, Jim Smolik and Allen Heuer at the NE Research Farm, Todd Bortnem and the Brookings Agronomy Farm staff, and Bob Berg and the SE Research Farm staff; and farmer-cooperators Mark and Cletus Wiechmann (Armour), Kirk Aughenbaugh (Iroquois), and Allen and Inel Ryckman (Warner).

General Test Procedures

Participating companies pick the test locations where their entries are tested. Entries are placed into "early" or "late" maturity trials. The arbitrary relative maturity breaks between the early and late tests are as follows: 95 days for Warner and South Shore; 100 days for Yale 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.

A fee was charged for all entries at each location. A list of participating seed companies for 2004 is presented in Table F.

Experimental Procedures

Entries were seeded in three replications with each hybrid randomly located within each trial. Plots consisted of four 30-inch rows that were 20 feet long. The center two rows were harvested for yield. A Monosem precision row crop planter was used for seeding plots at all locations. In 2004, the planter was calibrated and delivered 27,878 seeds per acre, regardless of seed quality and germination percentage. No seeding rate adjustment was made for low germination. Therefore, the acre harvest population 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 outlined in table A. Seedbed preparation was good at all locations. A starter fertilizer of 100 pounds/acre 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. In addition, 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 the non-Roundup Ready™ and the 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/acre): first, when weeds were 2-4 inches tall; and second, when weed growth was again 2-4 inches tall. In non-Roundup Ready™ test trials, pre-emergence herbicides consisted of Harness Extra™ (1.0 qt/ac) at Warner, South Shore, and Iroquois; Dual™ at Brookings; and Balance™ (3.0 oz/ac) at Armour. Post emergence herbicide applications included Accent/Buctril™ at Brookings, Armour, and Warner, at labeled rates.

Measurements of Performance

Yield. Yields are an average of three replications and are expressed as bushels per acre adjusted to 15.5% moisture on a dry-matter basis and a bushel weight of 56 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 obtained were caused by variations in environment or were true variety differences. In 2004, the coefficient of variation (CV) for yield was within reasonable limits across all locations. The CV value in a given test trial is a measure of experimental error associated with the test trial. Ideally, this value should not exceed 15%. In cases where the CV value exceeds 15% it is recommended 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, and soil variations; agronomic factors like seeding date, reseeding; or seed quality factors; all of which may or may not be controllable in a given year.

Grain moisture content. Moisture content is expressed as the percentage of moisture in the shelled corn at harvest. Moisture is inversely related to maturity, and because maturity is of prime importance in South Dakota, moisture figures are of considerable importance in the evaluation of trial entries. Hybrids that provide satisfactory yields and can be stored without additional drying are desirable. During harvest, random moisture values as determined by the on-board moisture meter on the combine were checked with a Dickey-John GAC II to verify that the on-board moisture meter was within calibration limits.

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 “non-significant” (NS) difference designation is indicated.

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 1a) the highest current year yield was 163 bu/ac for Dekalb/DKC40-05. To determine whether it is the only top yielding hybrid at South Shore, use the LSD value of 11 bu/ac indicated at the bottom of the 2004 yield column. For hybrids to be in the top yield group they must yield 152 bu/ac ($163 - 11 = 152$) or higher. Technically, a yield value of 153 bu/ac is in the top yield group while a value of 152 bu/ac is not in the top yield group. However, all yields and LSD values are rounded to the nearest whole number. We can say 152 bu/ac, because of the rounding-off, is the more appropriate minimum value for top yield hybrids at the “early” maturity test at South Shore in 2004. In addition, the minimum top group value is indicated for the 2-year (2003-04) average unless there were no significant yield differences. Top yield hybrids

for 2004 are those hybrids that are equal or higher than the minimum top group value indicated at the bottom of the 2004 yield column. In cases where hybrid yield differences are not significant (NS), then by definition all hybrids in the test are in the top-yield group for the stated 1 or 2 years.

Likewise, the top group for other performance factors like bushel weight, percent grain moisture at harvest, percent stalk lodging below the ear, and final population in plant per acre (ppa) can be determined. For example, at South Shore in 2004 (Table 1b), to qualify for the top performance group (TPG), a hybrid must have a bushel weight of 52 lb or higher and a final population of 24,249 ppa or higher. Likewise, to qualify for the top performance group a hybrid must have a grain moisture of 23% or less and a lodging value of 2% or less.

Note that yield, bushel weight, and final population (ppa) top performance group values must be greater than a certain yield, bushel weight, or final population value; while grain moisture and lodging below ear percentages must be equal to or less than a certain percentage to qualify for the TPG. Again, as with hybrid yields, if there are no hybrid

differences for a given performance factor, then by definition all hybrids in the test are in the top group for that performance factor for the current year.

In addition, the top yield group LSD values can also be used to determine whether two hybrids differ in performance. For example, in the early test at South Shore (Table 1a); the LSD value of 11 bu/ac can be used to compare the yields of any two hybrids in the trial. If hybrid A yields 163 bu/ac and hybrid B yields 153 bu/ac their yield difference is 10 bu/ac ($163 - 153 = 10$). In this case the two hybrids do not differ in yield because their yield difference of 10 bu/ac is equal to or less than the reported LSD value of 11 bu/ac. In contrast, if hybrid C yields 151 bu/ac, the yield difference between hybrids A and C is 12 bu/ac ($163 - 151 = 12$). In this case the yield difference of 12 bu/ac is more than the reported LSD value of 11 bu/ac; therefore hybrid A would have a significantly higher yield than hybrid C. Similarly, the LSD values for bushel weight, grain moisture, stalk lodging below the ear, and final population (ppa) can be used to determine if any two hybrids differ in these performance factors.

Performance Trial Results: Conventional Hybrids

Northern Locations

Early maturity corn tests:

South Shore, Tables 1a and b. The test trial yield average (Table 1a) was 148 bu/ac for year 2004 and 117 bu/ac for 2 years (2003-04). Hybrids that yielded 152 bu/ac or more in 2004 and 118 bu/ac or more for 2 years qualified for the top yield group. Hybrids had to differ in yield by 11 bu/ac in 2004 and by 10 bu/ac for 2 years to be significantly different from one another. In 2004, bushel weights averaged 51 lb, grain moisture averaged 28%, lodging averaged 1%, and the final plant population averaged 26,826 ppa (Table 1b). For a hybrid to be in the top performance group for these factors it had to equal 52 lb or higher in bushel weight, 23% or less in grain moisture, 2% or less in stalk lodging, and 24,249 ppa in final population. This final population of 24,249 ppa was the lowest population; however, the differences in final population were non-significant (NS). The minimum top performance final population of 24,249 ppa was 87% ($24,249/27,878$) of the population delivered at planting.

Warner, Tables 1a and b. The test trial yield average (Table 1a) was 224 bu/ac for year 2004 and 217 bu/ac for 2 years

(2003-04). Hybrids that yielded 227 bu/ac or more were in the top yield group for 2004. Since there were no significant differences in yield in hybrids tested for 2 years, even the lowest yield of 208 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 15 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 57 lb, grain moisture averaged 20%, lodging averaged 2%, and the final plant population averaged 27,287 ppa (Table 1b). For a hybrid to be in the top performance group for these factors it had to equal 57 lb or higher in bushel weight, 18% or less in grain moisture, 7% or less in stalk lodging, and 27,040 ppa in final population. The minimum top performance final population of 27,040 ppa was 97% ($27,040/27,878$) of the population delivered at planting.

Late maturity corn tests:

South Shore, Tables 2a and b. The test trial yield average (Table 2a) was 130 bu/ac for year 2004 and 99 bu/ac for 2 years (2003-04). Hybrids that yielded 161 bu/ac or more in 2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years,

even the lowest yield of 86 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 13 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 50 lb, grain moisture averaged 34%, lodging averaged 2%, and the final plant population averaged 27,349 ppa (Table 2b). For a hybrid to be in the top performance group for these factors it had to equal 49 lb or higher in bushel weight, 28% or less in grain moisture, 3% or less in stalk lodging, and 25,991 ppa in final population. The minimum top performance final population of 25,991 ppa was 93% (25,991/27,878) of the population delivered at planting.

Warner, Tables 2a and b. The test trial yield average (Table 2a) was 218 bu/ac for year 2004 and 202 bu/ac for 2 years (2003-04). Hybrids that yielded 218 bu/ac or more in 2004 and 199 bu/ac or more for 2 years qualified for the top yield group. Hybrids had to differ in yield by 15 bu/ac in 2004 and by 14 bu/ac for 2 years to be significantly different from one another. In 2004, bushel weights averaged 54 lb, grain moisture averaged 23%, lodging averaged 1%, and the final plant population averaged 27,152 ppa (Table 2b). For a hybrid to be in the top performance group for these factors it had to equal 54 lb or higher in bushel weight, 22% or less in grain moisture, 3% or less in stalk lodging, and 25,555 ppa in final population. The minimum top performance final population of 25,555 ppa was 92% (25,555/27,878) of the population delivered at planting.

Central Locations

Early maturity corn tests:

Brookings, Tables 3a and b. The test trial yield average (Table 3a) was 191 bu/ac for year 2004 and 189 bu/ac for 2 years (2003-04). Hybrids that yielded 195 bu/ac or more in 2004 and 186 bu/ac or more for 2 years qualified for the top yield groups. Hybrids had to differ in yield by 12 bu/ac in 2004 and by 10 bu/ac for 2 years to be significantly different from one another. In 2004, bushel weights averaged 54 lb, grain moisture averaged 21%, lodging averaged 1%, and the final plant population averaged 27,072 ppa (Table 3b). For a hybrid to be in the top performance group for these factors it had to equal 54 lb or higher in bushel weight, 19% or less in grain moisture, 3% or less in stalk lodging, and 26,965 ppa in final population. The minimum top performance final population of 26,965 ppa was 97% (26,965/27,878) of the population delivered at planting.

Iroquois, Tables 3a and b. The test trial yield average (Table 3a) was 194 bu/ac for year 2004 and 147 bu/ac for 2 years (2003-04). Hybrids that yielded 189 bu/ac or more in 2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years, even the lowest yield of 125 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 29 bu/ac in

2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 61 lb, grain moisture averaged 17%, lodging averaged 2%, and the final plant population averaged 26,959 ppa (Table 3b). For a hybrid to be in the top performance group for these factors it had to equal 61 lb or higher in bushel weight, 16% or less in grain moisture, 6% or less in stalk lodging, and 27,177 ppa in final population. The minimum top performance final population of 27,177 ppa was 97% (27,177/27,878) of the population delivered at planting.

Late maturity corn tests:

Brookings, Tables 4a and b. The test trial yield average (Table 4a) was 187 bu/ac for year 2004 and 184 bu/ac for 2 years (2003-04). Hybrids that yielded 192 bu/ac or more in 2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years, even the lowest yield of 169 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 15 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 52 lb, grain moisture averaged 27%, lodging averaged 1%, and the final plant population averaged 26,739 ppa (Table 4b). For a hybrid to be in the top performance group for these factors it had to equal 53 lb or higher in bushel weight, 21% or less in grain moisture, 3% or less in stalk lodging, and 25,748 ppa in final population. The minimum top performance final population of 25,748 ppa was 92% (25,748/27,878) of the population delivered at planting.

Iroquois, Tables 4a and b. The test trial yield average (Table 4a) was 202 bu/ac for year 2004 and 146 bu/ac for 2 years (2003-04). Hybrids that yielded 197 bu/ac or more in 2004 and 142 bu/ac or more for 2 years qualified for the top yield group. Hybrids had to differ in yield by 36 bu/ac in 2004 and by 19 bu/ac for 2 years to be significantly different from one another. In 2004, bushel weight averaged 58 lb, grain moisture averaged 19%, lodging averaged 3%, and the final plant population averaged 26,866 ppa (Table 4b). For a hybrid to be in the top performance group for these factors it had to equal 58 lb or higher in bushel weight, 20% or less in grain moisture, 8% or less in stalk lodging, and 26,310 ppa in final population. The minimum top performance final population of 26,310 ppa was 94% (26,310/27,878) of the population delivered at planting.

Southern Locations

Early maturity corn tests:

Beresford, Tables 5a and b. The test trial yield average (Table 5a) was 235 bu/ac for year 2004 and 210 bu/ac for 2 years (2003-04). Hybrids that yielded 244 bu/ac or more in 2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years,

even the lowest yield of 205 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 15 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 60 lb, grain moisture averaged 19%, lodging averaged 1%, and the final plant population averaged 27,429 ppa (Table 5b). For a hybrid to be in the top performance group for these factors it had to equal 62 lb or higher in bushel weight, 18% or less in grain moisture, 5% or less in stalk lodging, and 27,021 ppa in final population. The minimum top performance final population of 27,021 ppa was 97% (27,021/27,878) of the population delivered at planting.

Armour, Tables 5a and b. The test trial yield average (Table 5a) was 124 bu/ac for year 2004 and 105 bu/ac for 2 years (2003-04). Hybrids that yielded 115 bu/ac or more in 2004 and 98 bu/ac or more for 2 years qualified for the top yield group. Hybrids had to differ in yield by 28 bu/ac in 2004 and by 18 bu/ac for 2 years to be significantly different from one another. In 2004, bushel weights averaged 58 lb, grain moisture averaged 16%, lodging averaged 2%, and the final plant population averaged 26,103 ppa (Table 5b). For a hybrid to be in the top performance group for these factors it had to equal 59 lb or higher in bushel weight, 16% or less in grain moisture, 4% or less in stalk lodging, and 26,107 ppa in final population. The minimum top performance final population of 26,107 ppa was 94% (26,107/27,878) of the population delivered at planting.

Late maturity corn tests:

Beresford, Tables 6a and b. The test trial yield average (Table 6a) was 244 bu/ac for year 2004 and 213 bu/ac for 2 years (2003-04). Hybrids that yielded 247 bu/ac or more in

2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years, even the lowest yield of 208 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 14 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 58 lb, grain moisture averaged 23%, lodging averaged 2%, and the final plant population averaged 27,388 ppa (Table 6b). For a hybrid to be in the top performance group for these factors it had to equal 59 lb or higher in bushel weight, 21% or less in grain moisture, 4% or less in stalk lodging, and 25,700 ppa in final population. The minimum top performance final population of 25,700 ppa was 92% (25,700/27,878) of the population delivered at planting.

Armour, Tables 6a and b. The test trial yield average (Table 6a) was 125 bu/ac for year 2004 and 98 bu/ac for 2 years (2003-04). Hybrids that yielded 127 bu/ac or more in 2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years, even the lowest yield of 94 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 28 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 58 lb, grain moisture averaged 19%, lodging averaged 6%, and the final plant population averaged 25,356 ppa (Table 6b). For a hybrid to be in the top performance group for these factors it had to equal 58 lb or higher in bushel weight, 18% or less in grain moisture, 7% or less in stalk lodging, and 25,921 ppa in final population. The minimum top performance final population of 25,921 ppa was 93% (25,921/27,878) of the population delivered at planting.

Performance Trial Results: Roundup Ready™ Hybrids

The performance trial results for 2 years (2003-04) and 1 year (2004) are summarized below.

Northern Locations

Early maturity corn tests:

South Shore, Tables 7a and b. The test trial yield average (Table 7a) was 146 bu/ac for year 2004 and 114 bu/ac for 2 years (2003-04). Hybrids that yielded 147 bu/ac or more in 2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years,

even the lowest yield of 109 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 11 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 53 lb, grain moisture averaged 25%, lodging averaged 1%, and the final plant population averaged 27,087 ppa (Table 7b). For a hybrid to be in the top performance group for these factors it had to equal 54 lb or higher in bushel weight, 21% or less in grain moisture, 2% or less in stalk lodging, and 27,282 ppa in final population. The minimum top performance final pop-

ulation of 27,282 ppa was 98% (27,282/27,878) of the population delivered at planting.

Warner, Tables 7a and b. The test trial yield average (Table 7a) was 223 bu/ac for year 2004 and 210 bu/ac for 2 years (2003-04). Hybrids that yielded 225 bu/ac or more in 2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years, even the lowest yield of 199 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 15 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 59 lb, grain moisture averaged 18%, lodging averaged 2%, and the final plant population averaged 27,177 ppa (Table 7b). For a hybrid to be in the top performance group for these factors it had to equal 59 lb or higher in bushel weight, 18% or less in grain moisture, 3% or less in stalk lodging, and 27,140 ppa in final population. The minimum top performance final population of 27,140 ppa was 97% (27,140/27,878) of the population delivered at planting.

Late maturity corn tests:

South Shore, Tables 8a and b. The test trial yield average (Table 8a) was 134 bu/ac for year 2004 and 104 bu/ac for 2 years (2003-04). Hybrids that yielded 144 bu/ac or more in 2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years, even the lowest yield of 102 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 11 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 49 lb, grain moisture averaged 31%, lodging averaged 1%, and the final plant population averaged 27,171 ppa (Table 8b). For a hybrid to be in the top performance group for these factors it had to equal 50 lb or higher in bushel weight, 27% or less in grain moisture, 2% or less in stalk lodging, and 26,884 ppa in final population. The minimum top performance final population of 26,884 ppa was 96% (26,884/27,878) of the population delivered at planting.

Warner, Tables 8a and b. The test trial yield average (Table 8a) was 207 bu/ac for year 2004 and 210 bu/ac for 2 years (2003-04). Hybrids that yielded 212 bu/ac or more in 2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years, even the lowest yield of 207 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 14 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 55 lb, grain moisture averaged 23%, lodging averaged 1%, and the final plant population averaged 27,020 ppa (Table 8b). In order for a hybrid to be in the top performance group for these factors it had to equal 56 lb or higher in bushel weight, 21% or less in grain moisture, 3% or less in stalk lodging, and 26,638

ppa in final population. The minimum top performance final population of 26,638 ppa was 96% (26,638/27,878) of the population delivered at planting.

Central Locations

Early maturity corn tests:

Brookings, Tables 9a and b. The test trial yield average (Table 9a) was 205 bu/ac for year 2004 and 198 bu/ac for 2 years (2003-04). Hybrids that yielded 211 bu/ac or more in 2004 and 208 bu/ac or more for 2 years qualified for the top yield group. Hybrids had to differ in yield by 13 bu/ac in 2004 and by 3 bu/ac for 2 years to be significantly different from one another. In 2004, bushel weights averaged 56 lb, grain moisture averaged 22%, lodging averaged 1%, and the final plant population averaged 27,255 ppa (Table 9b). For a hybrid to be in the top performance group for these factors it had to equal 58 lb or higher in bushel weight, 20% or less in grain moisture, 5% or less in stalk lodging, and 27,171 ppa in final population. The minimum top performance final population of 27,171 ppa was 97% (27,171/27,878) of the population delivered at planting.

Iroquois, Tables 9a and b. The test trial yield average (Table 9a) was 177 bu/ac for year 2004 and 141 bu/ac for 2 years (2003-04). Hybrids that yielded 174 bu/ac or more in 2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years, even the lowest yield of 134 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 33 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 59 lb, grain moisture averaged 17%, lodging averaged 2%, and the final plant population averaged 26,999 ppa (Table 9b). For a hybrid to be in the top performance group for these factors it had to equal 59 lb or higher in bushel weight, 17% or less in grain moisture, 4% or less in stalk lodging, and 26,955 ppa in final population. The minimum top performance final population of 26,955 ppa was 97% (26,955/27,878) of the population delivered at planting.

Late maturity corn tests:

Brookings, Tables 10a and b. The test trial yield average (Table 10a) was 194 bu/ac for year 2004 and 182 bu/ac for 2 years (2003-04). Hybrids that yielded 205 bu/ac or more in 2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years, even the lowest yield of 171 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 14 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 51 lb, grain moisture averaged 28%, lodging averaged 1%, and the final plant population averaged 27,349 ppa (Table 10b). For a hybrid to be in the top performance group for these factors it had to equal 52 lb or higher in bushel weight, 24% or less in grain

moisture, 3% or less in stalk lodging, and 26,949 ppa in final population. The minimum top performance final population of 26,949 ppa was 97% (26,949/27,878) of the population delivered at planting.

Iroquois, Tables 10a and b. The test trial yield average (Table 10a) was 190 bu/ac for year 2004 and 140 bu/ac for 2 years (2003-04). Hybrids that yielded 175 bu/ac or more in 2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years, even the lowest yield of 135 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 37 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 58 lb, grain moisture averaged 18%, lodging averaged 3%, and the final plant population averaged 27,272 ppa (Table 10b). For a hybrid to be in the top performance group for these factors it had to equal 55 lb or higher in bushel weight, 22% or less in grain moisture, 5% or less in stalk lodging, and 27,314 ppa in final population. The minimum top performance final population of 27,314 ppa was 98% (27,314/27,878) of the population delivered at planting.

Southern Locations

Early maturity corn tests:

Beresford, Tables 11a and b. The test trial yield average (Table 11a) was 220 bu/ac for year 2004 and 190 bu/ac for 2 years (2003-04). Hybrids that yielded 229 bu/ac or more in 2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years, even the lowest yield of 183 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 15 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 60 lb, grain moisture averaged 19%, lodging averaged 1%, and the final plant population averaged 27,270 ppa (Table 11b). For a hybrid to be in the top performance group for these factors it had to equal 60 lb or higher in bushel weight, 18% or less in grain moisture, 3% or less in stalk lodging, and 27,266 ppa in final population. The minimum top performance final population of 27,266 ppa was 98% (27,266/27,878) of the population delivered at planting.

Armour, Tables 11a and b. The test trial yield average (Table 11a) was 116 bu/ac for year 2004 and 102 bu/ac for 2 years (2003-04). Hybrids that yielded 111 bu/ac or more in 2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years, even

the lowest yield of 99 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 24 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 59 lb, grain moisture averaged 16%, lodging averaged 3%, and the final plant population averaged 25,796 ppa (Table 11b). For a hybrid to be in the top performance group for these factors it had to equal 60 lb or higher in bushel weight, 16% or less in grain moisture, 7% or less in stalk lodging, and 25,672 ppa in final population. The minimum top performance final population of 25,672 ppa was 92% (25,672/27,878) of the population delivered at planting.

Late maturity corn tests:

Beresford, Tables 12a and b. The test trial yield average (Table 12a) was 229 bu/ac for year 2004 and 200 bu/ac for 2 years (2003-04). Hybrids that yielded 227 bu/ac or more in 2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years, even the lowest yield of 192 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 19 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 57 lb, grain moisture averaged 22%, lodging averaged 1%, and the final plant population averaged 27,401 ppa (Table 12b). For a hybrid to be in the top performance group for these factors it had to equal 58 lb or higher in bushel weight, 19% or less in grain moisture, 2% or less in stalk lodging, and 26,572 ppa in final population. The minimum top performance final population of 26,572 ppa was 95% (26,572/27,878) of the population delivered at planting.

Armour, Tables 12a and b. The test trial yield average (Table 12a) was 126 bu/ac for year 2004 and 106 bu/ac for 2 years (2003-04). Hybrids that yielded 122 bu/ac or more in 2004 qualified for the top yield group. Since there were no significant differences in yield in hybrids tested for 2 years, even the lowest yield of 95 bu/ac qualified for the 2-year top yield group. Hybrids had to differ in yield by 29 bu/ac in 2004 to be significantly different from one another, while there were no significant yield differences for hybrids tested 2 years. In 2004, bushel weights averaged 59 lb, grain moisture averaged 17%, lodging averaged 2%, and the final plant population averaged 26,198 ppa (Table 12b). For a hybrid to be in the top performance group for these factors it had to equal 59 lb or higher in bushel weight, 17% or less in grain moisture, 7% or less in stalk lodging, and 26,295 ppa in final population. The minimum top performance final population of 26,295 ppa was 94% (26,295/27,878) of the population delivered at planting.

Table A. Site Soil classification, percent slope, seedbed, and previous crop.

Site	Soil type	Seedbed, previous crop
Warner	Great Bend-Putney silt loams, 0-2% sl.	Min-till, s.wheat stubble
South Shore	Brookings sil.cl.loam, 0-3% sl.	Conventional, soybeans
Iroquois	Houdek-Stickney-Dudley, 0-2% sl.	No-till, soybeans
Brookings	Brandt sil. cl., 0-2% sl.	Conventional, soybean
Armour	Highmore silt loam, 0-2% sl.	No-till, soybean stubble
Beresford	Egan-Clarno-Trent complex, 0-2% sl.	Conventional, soybean

Table B. Year 2004 trial cooperators, locations, and dates seeded.

Cooperators	Location*	Date Seeded
Allen & Inel Ryckman	Warner	May 5
NE Research Farm	South Shore	May 6
Kirk Aughenbaugh	Iroquois	April 30
SDSU Agronomy Farm	Brookings	May 7
Mark & Cletus Wiechmann	Armour	May 3
SE Research Farm	Beresford	May 4

- Plots were all seeded at 27,878 seeds per acre.

Table C. Nearest weather station precipitation and growing degree day (GDD) accumulations for 2004 and their departures from normal (DFN).

Station	Variable	Data is accumulated from April 1 up to the week ending:					
		Apr. 26	May 30	June 27	Aug. 1	Aug. 29	Oct. 3
Aberdeen Airport	Precip.- in. '04	0.61	4.78	9.4	12.43	13.38	16.96
	DFN*	-1	0.48	2.4	2.09	1.12	2.57
Aberdeen Airport	GDD's '04	46	274	602	1276	1664	2126
	DFN	3	-31	-160	-278	-466	-333
Watertown Airport	Precip.- in. '04	1.61	6.52	8.92	12.1	13.49	20.68
	DFN	-0.19	1.37	0.46	0.19	-0.88	4.01
Watertown Airport	GDD's '04	47	257	582	1241	1640	2129
	DFN	14	-33	-172	-295	-462	-304
Huron Airport	Precip.- in. '04	1.87	5.35	8.72	13.24	16.33	22.5
	DFN	0.16	0.8	0.68	2.18	3.5	7.67
Huron Airport	GDD's '04	78	379	771	1519	1995	2544
	DFN	32	59	-42	-144	-277	-96
Brookings 2NE	Precip.- in. '04	1.57	7.63	10.7	15.11	16.02	22.54
	DFN	-0.12	2.46	1.7	2.33	0.71	4.21
Brookings 2NE	GDD's '04	39	246	585	1231	1591	2032
	DFN	12	-7	-97	-173	-315	-165
Centerville 6 SE	Precip.- in. '04	1.44	6.95	10.31	12.3	14.78	21.45
	DFN	-0.41	1.3	0.7	0.24	-1.3	2.35
Centerville 6 SE	GDD's '04	78	388	818	1550	2014	2557
	DFN	27	15	-81	-176	-291	-124
Armour** Airport	Precip.- in. '04	1.31	6.42	10.59	11.26	13.19	18.87
	DFN	-0.18	0.97	1.51	-1.35	-1.35	1.61
Armour** Airport	GDD's '04	93	454	897	1707	2231	2829
	DFN	24	34	-51	-165	-297	-143

* DFN - how much a variable for year 2004 is greater or less (-) than the long-term average.

** Although the airport received above average rainfall the cooperators at this site indicated rainfall levels were much lower than reported at the airport.

Source: USDA-SD-Crop-Weather report & SD Automatic Weather Data Network.

Table D. Non-Roundup Ready entries by brand/hybrid and yield table number(s).

Brand / Hybrid	Table No.	Brand / Hybrid	Table No.
ACCESS/EXP 5405YGCB	4,5	JACOBSEN/4025	1,3
ACCESS/EXP 5503YGCB	4,5	JACOBSEN/4068CB	1,3
ACCESS/EXP 5910YGCB	5,6	JACOBSEN/4358CB	4,5
AGSOURCE SEEDS/3933	3	JACOBSEN/4637CB	6
AGSOURCE SEEDS/5153	4,5	JACOBSEN/4757CB	6
AGSOURCE SEEDS/5393	4,5	JUNG/6432YGCB	3
AGSOURCE SEEDS/5883	5,6	JUNG/6545YGCB	4
AGSOURCE SEEDS/6163	6	KAYSTAR/KX-8615BT	6
AGSOURCE SEEDS/6183	6	KELTGEN/AV4880CB	1
ASGROW/RX718YGPL	6	KRUGER/0510	4,6
CROW'S/1703 B	1,3	KRUGER/5093YGCB	1,3
CROW'S/438 B	5	KRUGER/5207YGCB	4,6
CROW'S/5366 B	6	KRUGER/5208YGCB	4,6
DAIRYLAND/STEALTH-1507BT	5,6	KRUGER/5210YGCB	4,6
DAIRYLAND/STEALTH-5104	4,5	KRUGER/5211YGCB	6
DAIRYLAND/STEALTH-5194	1	KRUGER/5305YGCB	4,5
DAIRYLAND/STEALTH-5497	2,3	KRUGER/5315YGCB	6
DAIRYLAND/STEALTH-5611	6	KRUGER/5405YGCB	2,4,5
DAIRYLAND/STEALTH-5692	1	KRUGER/5407YGCB	4,6
DEKALB/DKC40-05	1	KRUGER/5416YGCB	6
DEKALB/DKC42-89 (YGPL)	1	KRUGER/5512YGCB	6
DEKALB/DKC46-25 (YGPL)	3	KRUGER/5514YGCB	6
DEKALB/DKC50-18 (YGCB)	2,3,5	KRUGER/5516YGCB	6
DEKALB/DKC52-45 (YGCB)	2,4,5	KRUGER/5594YGCB	2,3
DEKALB/DKC54-51 (YGCB)	4,5	KRUGER/5615YGCB	6
DEKALB/DKC60-14 (YGPL)	5,6	KRUGER/5717YGCB	6
DEKALB/DKC63-79 (YGCB)	6	KRUGER/5805YGCB	2,4,5
EPLEY/E1157	3	KRUGER/5815YGCB	6
EPLEY/E1430YGCB	4	KRUGER/8407HX	4,6
EPLEY/E1442	4	KRUGER/8413HX	6
EPLEY/E14H07	3	KRUGER/8503HX	2,4,5
EPLEY/E2410YGCB	4,6	KRUGER/8504HX	2,4
EPLEY/E2470	4,6	KRUGER/8513HX	6
EPLEY/E2490YGCB	4,6	KRUGER/9002YGCB	2,4
EPLEY/E3220YGCB	4,6	KRUGER/9111YGCB	6
EPLEY/E37H07	6	KRUGER/9115YGCB	6
GOLD COUNTRY/103-02CB	2,4	KRUGER/9203YGRW	2,4,5
GOLD COUNTRY/110-07CB	5	KRUGER/9212YGCB	6
GOLD COUNTRY/94-01CB	1,3	KRUGER/9305	4,6
GOLD COUNTRY/99-01CB	3	KRUGER/9306YGCB	2,4,5
HEINE/H728YGCB	5	KRUGER/9392YGCB	1
HEINE/H745YGCB	5	KRUGER/9401YGCB	2,4
HEINE/H748YGCB	5	KRUGER/9404YGCB	2,4,5
HEINE/H760YGCB	5	KRUGER/9407YGCB	4,5
HEINE/H761	5	KRUGER/9496YGCB	1,3
HEINE/H793YGCB	5	MALLARD/3411CB	1
HEINE/H820YGCB	5	MALLARD/BT-2430	1
HEINE/H821YGCB	5	MALLARD/EXP 05-04	1
HEINE/H8600YGCB	6	MIDWEST/G 6963 B	1,3

Table D. Non-Roundup Ready entries by brand/hybrid and yield table number(s) (continued).

Brand / Hybrid	Table No.	Brand / Hybrid	Table No.
MIDWEST/G 7716 B	5	WENSMAN/W 4212	1,3
MIDWEST/G 8125 B	6	WENSMAN/W 5117BT	1,3
MYCOGEN/2E390	1	WENSMAN/W 5212BT	1,3
MYCOGEN/2E633	4	WENSMAN/W 5417BT	4,6
MYCOGEN/2G626	2,4	WENSMAN/W 5437BT	5,6
MYCOGEN/2K350	1	WENSMAN/W 6318BT	4,5
MYCOGEN/2R426	1	WENSMAN/W 7117BTRW	1,3
MYCOGEN/2R570	2,4	WENSMAN/W 7212RW	1,3
NUTECH/0313	4,5	WENSMAN/W 7315BTRW	3,5
NUTECH/1992 LL/BT	1		
NUTECH/2202 HX	3,5		
NUTECH/2414 HX	6		
NUTECH/4013 YGCB	6		
NUTECH/4191 YGCB	1		
NUTECH/4202 YGCB	3,5		
NUTECH/4213 YGCB	6		
NUTECH/4393 YGCB	1,3		
NUTECH/4403 YGCB	4,5		
NUTECH/4407 YGCB	5,6		
NUTECH/4595 YGCB	1,3		
NUTECH/4607 YGCB	4		
NUTECH/4999 YGCB	2,3		
NUTECH/EX.205 YGCB	4,5		
NUTECH/EX.308 YGCB	5,6		
NUTECH/EX.317 YGCB	6		
NUTECH/EX.539 YGCB	6		
NUTECH/EX.607 YGCB	4,5		
NUTECH/EX.713 YGCB	6		
PFISTER/1499BT	3		
PFISTER/1680BT	3		
PFISTER/EXP 2380	4		
SANDS/SOI 103YGCB	2,4,5		
SANDS/SOI 107YGCB	4,5		
SANDS/SOI 110YGCB	5		
SANDS/SOI 113YGCB	6		
SEEDS 2000/2933BT	1		
SEEDS 2000/2953BT	1,3		
TOP FARM/E34103	4,5		
TOP FARM/E34105CB	4,5		
TOP FARM/E34107CB	5,6		
TOP FARM/E34110BCB	5,6		
TOP FARM/E34110DCB	5,6		
TOP FARM/TFSX 2300	4,5		
TOP FARM/TFSX 2301	3		
TOP FARM/TFSX 2395	3		
TOP FARM/TFSX 2405	4,5		
TOP FARM/TFSX 7496BT	3		

**Table 1a. Non-Roundup Ready early maturity corn yield results—
northern South Dakota locations.**

Brand/Hybrid	RM*	- Northern Location Averages - for yield (by year)			
		South Shore		Warner	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
GOLD COUNTRY/94-01CB	94	152	113	242	222
KRUGER/9392YGCB	90	161	128	230	219
DEKALB/DKC42-89 (YGPL)	92	157		232	
WENSMAN/W 5117BT	92	157	116	232	217
KRUGER/9496YGCB	94	153	117	235	216
CROW'S/1703 B	95	157	121	228	220
MIDWEST/G 6963 B	95	153	114	233	221
WENSMAN/W 5212BT	95	158	121	228	215
SEEDS 2000/2953BT	95	153	118	232	214
WENSMAN/W 4212	95	157	118	226	208
KELTGEN/AV4880CB	95	151		230	
DEKALB/DKC40-05	90	163		217	
NUTECH/4595 YGCB	94	149		231	
WENSMAN/W 7212RW	95	156		224	
NUTECH/4393 YGCB	95	146		229	
MYCOGEN/2R426	95	144		232	
MALLARD/BT-2430	95	140		234	
NUTECH/1992 LL/BT	92	146		225	
JACOBSEN/4025	92	156		214	
WENSMAN/W 7117BTRW	92	147		218	
DAIRYLAND/STEALTH-5194	94	133	102	224	215
DAIRYLAND/STEALTH-5692	93	136		222	
SEEDS 2000/2933BT	93	137		221	
MALLARD/3411CB	92	140		215	
NUTECH/4191 YGCB	90	144		210	

* RM= relative maturity reported by seed company.

Table 1a. Non-Roundup Ready early maturity corn yield results– northern South Dakota locations (continued).

Brand/Hybrid	RM*	- Northern Location Averages - for yield (by year)			
		South Shore		Warner	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
MALLARD/EXP 05-04	91	137	.	215	.
KRUGER/5093YGCB	93	132	.	193	.
JACOBSEN/4068CB	95	134	.	.	.
MYCOGEN/2K350	93	.	.	227	.
MYCOGEN/2E390	94	.	.	205	.
Test avg.:	93	148	117	224	217
High value:	95	163	128	242	222
# Lsd (.05):		11	10	15	NS
## TPG-value:		152	118	227	208
@ Coef.Var.:		5	7	4	4
No. Entries:		28	10	29	10

* RM= relative maturity reported by seed company.

Seeding dates: South Shore- May 6 and Warner- May 5, 2004.

Lsd= amount values in a column must differ to be significantly different.

TPG-value= minimum value to qualify for top performance group.

@ Coef. of variation= a measure of trial experimental error, 15% or less is best.

Table 1b. Non-Roundup Ready early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– northern South Dakota locations.

Brand/Hybrid	RM*	----- Northern Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		South Shore				Warner			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
KRUGER/9392YGCB	90	52	27	2	26,426	60	18	3	27,878
MALLARD/EXP 05-04	91	52	26	0	26,572	59	19	3	24,829
WENSMAN/W 5117BT	92	52	27	1	27,007	59	19	1	28,023
DEKALB/DKC40-05	90	53	21	0	28,169	57	17	2	27,588
DAIRYLAND/STEALTH-5194	94	52	26	1	25,700	59	20	1	26,717
NUTECH/1992 LL/BT	92	52	28	0	27,733	58	19	2	27,152
NUTECH/4393 YGCB	95	52	28	0	26,281	58	21	1	28,023
NUTECH/4191 YGCB	90	53	27	1	25,265	57	19	3	24,394
DEKALB/DKC42-89 (YGPL)	92	53	26	1	27,297	57	19	1	28,023
WENSMAN/W 7117BTRW	92	52	28	0	27,298	58	20	1	27,588
MALLARD/3411CB	92	50	29	2	27,298	58	19	3	27,297
MYCOGEN/2R426	95	50	28	1	27,007	58	21	1	28,169
GOLD COUNTRY/94-01CB	94	50	27	1	25,845	58	20	1	27,878
KRUGER/5093YGCB	93	50	23	0	24,249	57	20	3	26,717
WENSMAN/W 4212	95	51	27	0	28,169	56	19	4	27,588
KELTGEN/AV4880CB	95	51	28	0	26,427	56	20	1	27,733
NUTECH/4595 YGCB	94	50	28	0	27,443	56	21	2	27,878
DAIRYLAND/STEALTH-5692	93	50	30	2	27,152	56	20	6	27,733
WENSMAN/W 5212BT	95	50	27	1	25,991	56	20	2	27,588
SEEDS 2000/2953BT	95	51	28	1	28,024	56	20	3	27,733
JACOBSEN/4025	92	49	27	2	25,846	57	21	7	24,829
SEEDS 2000/2933BT	93	50	33	0	27,297	56	21	4	26,717
KRUGER/9496YGCB	94	49	28	1	26,717	57	20	2	27,297
CROW'S/1703 B	95	49	28	1	28,024	57	20	2	27,733
WENSMAN/W 7212RW	95	50	27	0	27,733	55	20	3	27,443

* RM= relative maturity reported by seed company.

Table 1b. Non-Roundup Ready early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– northern South Dakota locations (continued).

Brand/Hybrid	RM*	----- Northern Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		South Shore				Warner			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
MIDWEST/G 6963 B	95	49	28	0	25,265	56	20	2	27,733
MALLARD/BT-2430	95	49	28	0	27,298	54	20	3	27,878
JACOBSEN/4068CB	95	51	31	1	27,588	*	*	*	*
MYCOGEN/2K350	93	*	*	*	*	58	19	5	27,878
MYCOGEN/2E390	94	*	*	*	*	59	21	2	27,297
Test avg.:		51	28	1	26,826	57	20	2	27,287
Max-value:		53	33	2	28,169	60	21	7	28,169
Min-value:		49	21	0	24,249	54	17	1	24,394
# Lsd (.05):		1	2	NS	NS	2	1	NS	1,129
## TPG-value:		52	23	2	24,249	58	18	7	27,040
@ Coef.Var.:		2	3	165	4	2	4	91	3
No. Entries:		28	28	28	28	29	29	29	29

* RM= relative maturity reported by seed company.

Seeding dates: South Shore- May 6 and Warner- May 5, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum or maximum value to qualify for top performance group.

@ Coef. of variation= measure of trial experimental error.

Table 2a. Non-Roundup Ready ate maturity corn yield results— northern South Dakota locations.

Brand/Hybrid	RM*	- Northern Location Averages - for yield (by year)			
		South Shore		Warner	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
KRUGER/9306YGCB	103	161	.	218	.
KRUGER/5594YGCB	96	145	.	228	.
DEKALB/DKC50-18 (YGCB)	100	142	111	227	213
DEKALB/DKC52-45 (YGCB)	102	134	107	233	.
NUTECH/4999 YGCB	99	135	.	229	.
KRUGER/9002YGCB	102	141	.	218	196
KRUGER/9401YGCB	101	129	.	228	.
KRUGER/8504HX	102	132	.	217	.
KRUGER/9404YGCB	103	125	86	207	191
KRUGER/5805YGCB	105	115	.	213	.
KRUGER/8503HX	103	121	.	205	.
KRUGER/9203YGRW	103	129	.	195	.
KRUGER/5405YGCB	105	115	.	208	.
DAIRYLAND/STEALTH-5497	98	.	.	223	208
SANDS/SOI 103YGCB	103	116	91	.	.
MYCOGEN/2R570	104	130	.	.	.
MYCOGEN/2G626	105	118	.	.	.
GOLD COUNTRY/103-02CB	103	126	.	.	.
Test avg.:		130	99	218	202
High value:		161	111	233	213
# Lsd (.05):		13	NS	15	14
## TPG-value:		161	86	218	199
@ Coef.Var.:		6	5	4	5
No. Entries:		17	4	14	4

* RM= relative maturity reported by seed company.

Seeding dates: South Shore- May 6, and Warner- May 5, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum value to qualify for top performance group.

@ Coef. of variation= a measure of trial experimental error, 15% or less is best.

Table 2b. Non-Roundup Ready late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– northern South Dakota locations.

Brand/Hybrid	RM*	----- Northern Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		South Shore				Warner			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
KRUGER/5594YGCB	96	52	28	1	27,878	56	21	1	27,007
KRUGER/9306YGCB	103	51	29	2	27,878	55	21	3	27,733
DEKALB/DKC50-18 (YGCB)	100	50	29	1	27,733	55	22	1	27,733
KRUGER/9002YGCB	102	51	26	5	27,443	54	22	3	26,426
KRUGER/9404YGCB	103	50	32	1	28,169	54	23	1	27,588
KRUGER/9401YGCB	101	50	32	1	26,281	54	21	1	27,297
NUTECH/4999 YGCB	99	50	34	1	27,007	54	22	1	27,007
KRUGER/9203YGRW	103	51	31	1	27,007	53	22	6	27,733
DEKALB/DKC52-45 (YGCB)	102	48	30	0	27,152	55	21	1	27,297
KRUGER/5405YGCB	105	50	39	2	27,152	52	26	1	26,426
KRUGER/5805YGCB	105	50	39	4	26,862	52	26	1	25,555
KRUGER/8504HX	102	49	31	2	28,023	53	25	1	27,588
KRUGER/8503HX	103	50	42	4	27,733	50	27	2	27,007
DAIRYLAND/STEALTH-5497	98	.	.	.	.	54	21	0	27,733
SANDS/SOI 103YGCB	103	49	38	0	28,023	.	.	.	.
MYCOGEN/2R570	104	51	41	4	28,024	.	.	.	.
MYCOGEN/2G626	105	50	36	6	26,571	.	.	.	.
GOLD COUNTRY/103-02CB	103	51	37	1	25,991	.	.	.	.
Test avg.:		50	34	2	27,349	54	23	1	27,152
Max-value:		52	42	6	28,169	56	27	6	27,733
Min-value:		49	26	0	25,991	50	21	0	25,555
# Lsd (.05):		NS	2	3	NS	2	1	3	NS
## TPG-value:		49	28	3	25,991	54	22	3	25,555
@ Coef.Var.:		2	4	99	4	2	4	112	4
No. Entries:		17	17	17	17	14	14	14	14

* RM= relative maturity reported by seed company.

Seeding dates: South Shore- May 6, and Warner- May 5, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum or maximum value to qualify for top performance group.

@ Coef. of variation= measure of trial experimental error, 15% or less is best.

**Table 3a. Non-Roundup Ready early maturity corn yield results—
central South Dakota locations.**

Brand/Hybrid	RM*	-- Central Location Averages -- for yield (by year)			
		Brookings		Iroquois	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
WENSMAN/W 5212BT	95	196	191	218	156
DEKALB/DKC46-25 (YGPL)	96	206	.	206	.
NUTECH/4595 YGCB	94	196	.	216	.
CROW'S/1703 B	95	202	196	210	153
WENSMAN/W 7315BTRW	100	197	.	215	.
MIDWEST/G 6963 B	95	207	195	196	146
WENSMAN/W 7212RW	95	196	.	207	.
TOP FARM/TFSX 2395	94	199	194	198	.
SEEDS 2000/2953BT	95	199	189	196	147
KRUGER/9496YGCB	94	195	190	199	149
DEKALB/DKC50-18 (YGCB)	100	199	193	191	145
NUTECH/4999 YGCB	99	203	.	187	.
EPLEY/E14H07	100	191	.	199	.
NUTECH/4393 YGCB	95	190	.	197	.
DAIRYLAND/STEALTH-5497	98	188	.	198	144
KRUGER/5594YGCB	96	195	.	188	.
NUTECH/2202 HX	100	187	.	188	.
JACOBSEN/4068CB	95	175	.	190	.
EPLEY/E1157	96	172	.	188	.
NUTECH/4202 YGCB	100	197	.	159	.
KRUGER/5093YGCB	93	173	.	180	.
WENSMAN/W 4212	95	194	182	160	125
TOP FARM/TFSX 7496BT	94	167	.	168	.
JUNG/6432YGCB	95	198	.	.	.
TOP FARM/TFSX 2301	100	176	.	.	.
JACOBSEN/4025	92	.	.	188	.
WENSMAN/W 5117BT	92	.	.	210	156
WENSMAN/W 7117BTRW	92	.	.	177	.
GOLD COUNTRY/94-01CB	94	.	.	211	.
GOLD COUNTRY/99-01CB	99	188	.	.	.

* RM= relative maturity reported by seed company.

**Table 3a. Non-Roundup Ready early maturity corn yield results—
central South Dakota locations (continued).**

Brand/Hybrid	RM*	-- Central Location Averages -- for yield (by year)			
		Brookings		Iroquois	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
PFISTER/1499BT	98	178	171	.	.
PFISTER/1680BT	99	183	.	.	.
AGSOURCE SEEDS/3933	96	197	.	.	.
Test avg.:		191	189	194	147
High value:		207	196	218	156
# Lsd (.05):		12	10	29	NS
## TPG-value:		195	186	189	125
@ Coef.Var.:		4	3	9	8
No. Entries:		29	9	27	9

* RM= relative maturity reported by seed company.

Seeding dates: Brookings- May 7 and Iroquois- April 7, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum value to qualify for top performance group.

@ Coef. of variation= a measure of trial experimental error, 15% or less is best.

Table 3b. Non-Roundup Ready early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– central South Dakota locations.

Brand/Hybrid	RM*	----- Central Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		Brookings				Iroquois			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
KRUGER/9496YGCB	94	56	20	1	27,007	61	17	1	26,717
DEKALB/DKC46-25 (YGPL)	96	56	18	1	27,297	61	17	2	28,023
MIDWEST/G 6963 B	95	55	21	1	27,733	62	17	0	27,443
TOP FARM/TFSX 7496BT	94	55	20	1	27,588	61	17	1	25,410
WENSMAN/W 5212BT	95	54	20	2	27,733	62	17	1	27,443
KRUGER/5093YGCB	93	56	19	1	24,103	60	17	0	19,021
KRUGER/5594YGCB	96	55	21	0	27,152	61	17	1	27,298
NUTECH/4595 YGCB	94	55	20	0	28,023	61	17	0	27,588
SEEDS 2000/2953BT	95	55	20	1	27,733	61	17	1	27,733
WENSMAN/W 4212	95	55	20	1	27,733	60	17	0	25,991
TOP FARM/TFSX 2395	94	55	19	1	27,588	60	17	3	26,572
DEKALB/DKC50-18 (YGCB)	100	55	22	1	28,169	60	18	2	27,878
JACOBSEN/4068CB	95	54	19	3	27,443	61	16	2	27,588
NUTECH/4393 YGCB	95	54	22	0	27,007	60	17	2	27,152
CROW'S/1703 B	95	54	21	1	27,733	60	17	2	27,733
WENSMAN/W 7212RW	95	53	20	3	27,588	61	17	1	27,733
DAIRYLAND/STEALTH-5497	98	54	20	1	26,136	60	16	2	27,152
NUTECH/4999 YGCB	99	53	23	0	27,443	61	18	1	26,717
WENSMAN/W 7315BTRW	100	53	22	0	27,733	61	17	1	27,878
NUTECH/4202 YGCB	100	54	22	2	27,007	58	18	2	26,136
EPLEY/E1157	96	51	25	3	26,136	59	19	5	28,169
EPLEY/E14H07	100	50	28	5	27,878	60	17	3	26,572
NUTECH/2202 HX	100	49	28	6	27,733	60	17	6	27,443
JUNG/6432YGCB	95	54	21	1	25,845	.	.	.	.
TOP FARM/TFSX 2301	100	53	22	1	24,829	.	.	.	.

* RM= relative maturity reported by seed company.

Table 3b. Non-Roundup Ready early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– central South Dakota locations (continued).

Brand/Hybrid	RM*	----- Central Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		Brookings				Iroquois			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
JACOBSEN/4025	92	61	17	0	27,152	61	17	0	27,152
WENSMAN/W 5117BT	92	63	16	5	27,878	63	16	5	27,878
WENSMAN/W 7117BTRW	92	62	16	2	27,588	62	16	2	27,588
GOLD COUNTRY/94-01CB	94	61	17	2	27,878	61	17	2	27,878
GOLD COUNTRY/99-01CB	99	52	22	0	25,700	52	22	0	25,700
PFISTER/1499BT	98	54	20	3	27,588	54	20	3	27,588
PFISTER/1680BT	99	52	25	2	26,281	52	25	2	26,281
AGSOURCE SEEDS/3933	96	55	21	1	27,152	55	21	1	27,152
Test avg.:		54	21	1	27,072	61	17	2	26,959
Max-value:		56	28	6	28,169	63	19	6	29,169
Min-value:		49	18	0	24,103	58	16	0	19,021
# Lsd (.05):		2	1	3	1,204	2	3	NS	1,992
## TPG-value:		54	19	3	26,965	61	16	6	27,177
@ Coef.Var.:		2	4	107	3	2	5	127	5
No. Entries:		29	29	29	29	27	27	27	27

* RM= relative maturity reported by seed company.

Seeding dates: Brookings- May 7 and Iroquois- April 7, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum or maximum value to qualify for top performance group.

Coef. of variation= measure of trial experimental error.

**Table 4a. Non-Roundup Ready late maturity corn yield results--
central South Dakota locations.**

Brand/Hybrid	RM*	-- Central Location Averages -- for yield (by year)			
		Brookings		Iroquois	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
DEKALB/DKC52-45 (YGCB)	102	207	196	229	161
NUTECH/4403 YGCB	103	206	.	226	.
ACCESS/EXP 5503YGCB	103	205	.	221	.
KRUGER/9306YGCB	103	206	194	214	.
DEKALB/DKC54-51 (YGCB)	104	204	.	202	.
NUTECH/4607 YGCB	105	182	.	222	.
KRUGER/8504HX	102	192	.	209	.
KRUGER/8503HX	103	190	.	211	.
KRUGER/5407YGCB	107	185	.	217	.
KRUGER/9203YGRW	103	194	.	203	.
NUTECH/0313	105	177	.	218	.
KRUGER/8407HX	107	173	.	220	.
GOLD COUNTRY/103-02CB	103	189	188	205	.
TOP FARM/TFSX 2300	103	183	.	204	.
KRUGER/5405YGCB	105	183	.	202	.
KRUGER/5207YGCB	110	173	.	213	.
WENSMAN/W 5417BT	107	179	179	206	140
KRUGER/9002YGCB	102	193	.	188	.
KRUGER/9404YGCB	103	192	176	189	125
KRUGER/5208YGCB	110	179	.	201	.
KRUGER/5210YGCB	109	178	.	200	.
KRUGER/5305YGCB	105	175	169	200	.
KRUGER/9401YGCB	101	189	.	185	.
KRUGER/9407YGCB	105	170	.	204	.
NUTECH/EX.607 YGCB	105	182	.	189	.
NUTECH/EX.205 YGCB	105	185	.	187	.
WENSMAN/W 6318BT	104	197	.	174	.
KRUGER/5805YGCB	105	187	.	182	.
TOP FARM/E34105CB	105	179	.	186	.
KRUGER/9305	106	175	.	188	.

* RM= relative maturity reported by seed company.

**Table 4a. Non-Roundup Ready late maturity corn yield results—
central South Dakota locations (continued).**

Brand/Hybrid	RM*	-- Central Location Averages -- for yield (by year)			
		Brookings		Iroquois	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
KRUGER/0510	108	172	.	117	.
DAIRYLAND/STEALTH-5104	104	193	192	.	.
JUNG/6545YGCB	105	202	.	.	.
SANDS/SOI 103YGCB	103	177	176	.	.
SANDS/SOI 107YGCB	107	186	.	.	.
TOP FARM/TFSX 2405	102	190	.	.	.
TOP FARM/E34103	103	186	.	.	.
ACCESS/EXP 5405YGCB	105	184	.	.	.
JACOBSEN/4358CB	105	185	.	.	.
EPLEY/E2470	110	182	.	.	.
EPLEY/E2410YGCB	107	185	182	.	.
EPLEY/E2490YGCB	110	190	.	.	.
EPLEY/E1442	102	.	.	233	159
EPLEY/E1430YGCB	103	.	.	199	.
EPLEY/E3220YGCB	112	181	.	.	.
MYCOGEN/2R570	104	.	.	223	.
MYCOGEN/2G626	105	.	.	187	.
MYCOGEN/2E633	107	.	.	210	.
PFISTER/EXP 2380	105	189	.	.	.
AGSOURCE SEEDS/5153	105	189	.	.	.
AGSOURCE SEEDS/5393	105	182	.	.	.
Test avg.:		187	184	202	146
High value:		207	196	233	161
# Lsd (.05):		15	NS	36	19
## TPG-value:		192	169	197	142
@ Coef.Var.:		5	4	11	7
No. Entries:		46	9	36	4

* RM= relative maturity reported by seed company.

Seeding dates: Brookings- May 7 and Iroquois- April 30, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum value to qualify for top performance group.

@ Coef. of variation= a measure of trial experimental error, 15% or less is best.

Table 4b. Non-Roundup Ready late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– central South Dakota locations.

Brand/Hybrid	RM*	-- Central Location Averages -- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		Brookings				Iroquois			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
KRUGER/9002YGCB	102	55	20	1	27,007	60	17	6	28,169
DEKALB/DKC52-45 (YGCB)	102	55	21	0	27,588	59	17	0	27,878
KRUGER/9203YGRW	103	54	23	2	27,152	60	17	0	26,426
KRUGER/9404YGCB	103	55	23	0	27,733	59	17	4	27,878
DEKALB/DKC54-51 (YGCB)	104	55	24	1	27,733	59	20	6	27,007
KRUGER/9407YGCB	105	53	26	1	24,974	61	21	2	26,572
GOLD COUNTRY/103-02CB	103	53	27	0	24,248	61	21	1	24,394
NUTECH/0313	105	52	30	1	27,733	61	23	5	28,023
KRUGER/5210YGCB	109	54	29	2	27,152	58	21	2	27,588
NUTECH/4403 YGCB	103	54	23	2	27,443	58	17	3	27,878
ACCESS/EXP 5503YGCB	103	52	26	0	27,588	59	19	1	28,459
KRUGER/8504HX	102	53	23	1	27,152	58	19	8	27,588
TOP FARM/TFSX 2300	103	52	29	2	27,297	60	18	1	26,862
KRUGER/5305YGCB	105	52	27	1	23,813	59	18	3	25,119
KRUGER/9306YGCB	103	53	23	3	27,733	58	19	1	26,862
TOP FARM/E34105CB	105	52	27	2	26,136	59	18	4	26,281
KRUGER/9401YGCB	101	52	23	2	26,136	59	17	8	26,281
KRUGER/9305	106	52	26	2	25,846	58	17	3	27,007
KRUGER/5405YGCB	105	52	28	1	27,007	58	20	1	25,991
KRUGER/5805YGCB	105	51	27	1	24,975	58	20	4	26,427
KRUGER/5208YGCB	110	51	28	2	27,443	58	20	1	22,942
NUTECH/EX.607 YGCB	105	50	30	2	26,281	59	18	5	27,298
WENSMAN/W 6318BT	104	52	29	0	27,443	56	19	4	27,007
KRUGER/8503HX	103	51	28	2	26,862	58	18	6	28,023
KRUGER/8407HX	107	51	31	1	24,394	57	20	2	27,152
KRUGER/5407YGCB	107	51	30	3	27,152	57	22	8	27,733
NUTECH/4607 YGCB	105	50	30	0	27,879	57	20	1	26,136
KRUGER/5207YGCB	110	49	28	2	26,571	59	20	3	27,007
WENSMAN/W 5417BT	107	49	31	1	27,298	56	20	4	27,443
NUTECH/EX.205 YGCB	105	50	27	3	23,087	56	19	2	26,862

* RM= relative maturity reported by seed company.

Table 4b. Non-Roundup Ready late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– central South Dakota locations (continued).

Brand/Hybrid	RM*	-- Central Location Averages -- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		Brookings				Iroquois			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
KRUGER/0510	108	50	33	3	26,717	53	24	4	25,265
DAIRYLAND/STEALTH-5104	104	54	26	1	27,588	.	.	.	.
JUNG/6545YGCB	105	53	26	0	27,878	.	.	.	.
SANDS/SOI 103YGCB	103	51	26	1	25,845	.	.	.	.
SANDS/SOI 107YGCB	107	55	25	0	27,297	.	.	.	.
TOP FARM/TFSX 2405	102	52	26	6	27,443	.	.	.	.
TOP FARM/E34103	103	52	29	2	27,152	.	.	.	.
ACCESS/EXP 5405YGCB	105	51	26	0	26,717	.	.	.	.
JACOBSEN/4358CB	105	53	31	1	27,733	.	.	.	.
EPLEY/E2470	110	51	28	0	27,298	.	.	.	.
EPLEY/E2410YGCB	107	51	29	1	27,588	.	.	.	.
EPLEY/E2490YGCB	110	51	34	0	26,862	.	.	.	.
EPLEY/E1442	102	.	.	.	.	60	19	0	28,314
EPLEY/E1430YGCB	103	.	.	.	.	57	23	0	25,265
EPLEY/E3220YGCB	112	53	32	2	27,588	.	.	.	.
MYCOGEN/2R570	104	.	.	.	.	59	17	6	28,024
MYCOGEN/2G626	105	.	.	.	.	58	19	1	27,588
MYCOGEN/2E633	107	.	.	.	.	57	20	1	27,153
PFISTER/EXP 2380	105	53	27	2	27,007	.	.	.	.
AGSOURCE SEEDS/5153	105	51	28	3	27,298	.	.	.	.
AGSOURCE SEEDS/5393	105	52	27	1	25,119	.	.	.	.
Test avg.:		52	27	1	26,739	58	19	3	26,886
Max-value:		55	34	6	27,879	61	24	8	28,459
Min-value:		49	20	0	23,087	53	17	0	22,942
# Lsd (.05):		2	1	3	2,131	3	3	NS	2,149
## TPG-value:		53	21	3	25,748	58	20	8	26,310
@ Coef.Var.:		2	3	120	5	3	9	124	5
No. Entries:		46	46	46	46	36	36	36	36

* RM= relative maturity reported by seed company.

Seeding dates: Brookings- May 7 and Iroquois- April 30, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum or maximum value to qualify for top performance group.

@ Coef. of variation= measure of trial experimental error.

Table 5a. Non-Roundup Ready early maturity corn yield results— southern South Dakota locations.

Brand/Hybrid	RM*	- Southern location Averages - for yield (by year)			
		Beresford		Armour	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
NUTECH/EX.607 YGCB	105	252	.	121	.
TOP FARM/TFSX 2405	102	239	.	135	.
NUTECH/4403 YGCB	103	238	.	129	.
NUTECH/2202 HX	100	241	.	125	.
JACOBSEN/4358CB	105	243	.	122	.
TOP FARM/E34105CB	105	227	.	136	.
DEKALB/DKC54-51 (YGCB)	104	230	.	132	.
NUTECH/0313	105	236	.	126	.
HEINE/H728YGCB	103	236	.	123	.
ACCESS/EXP 5405YGCB	105	239	.	109	.
HEINE/H760YGCB	105	233	.	112	.
NUTECH/4202 YGCB	100	228	.	116	.
HEINE/H748YGCB	105	241	.	98	.
KRUGER/5305YGCB	105	215	.	121	104
NUTECH/EX.205 YGCB	105	223	.	108	.
DEKALB/DKC50-18 (YGCB)	100	.	.	123	108
DEKALB/DKC52-45 (YGCB)	102	.	.	135	113
DEKALB/DKC60-14 (YGPL)	110	245	.	.	.
DAIRYLAND/STEALTH-1507BT	108	232	212	.	.
DAIRYLAND/STEALTH-5104	104	.	.	131	106
NUTECH/4407 YGCB	107	237	.	.	.
NUTECH/EX.308 YGCB	107	232	.	.	.
SANDS/SOI 103YGCB	103	212	.	.	.
SANDS/SOI 107YGCB	107	227	.	.	.
SANDS/SOI 110YGCB	110	237	.	.	.
TOP FARM/TFSX 2300	103	248	.	.	.
TOP FARM/E34103	103	.	.	115	.
TOP FARM/E34107CB	107	214	.	.	.
TOP FARM/E34110BCB	109	234	.	.	.
TOP FARM/E34110DCB	110	244	.	.	.
KRUGER/9306YGCB	103	.	.	120	103
KRUGER/9404YGCB	103	.	.	113	85
KRUGER/9203YGRW	103	.	.	131	.
KRUGER/8503HX	103	.	.	136	.
KRUGER/5405YGCB	105	.	.	131	.

* RM= relative maturity reported by seed company.

Table 5a. Non-Roundup Ready early maturity corn yield results— southern South Dakota locations (continued).

Brand/Hybrid	RM*	- Southern location Averages - for yield (by year)			
		Beresford		Armour	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
KRUGER/5805YGCB	105			102	
KRUGER/9407YGCB	105			116	
KRUGER/8407HX	107	225			
KRUGER/5407YGCB	107	240			
KRUGER/0510	108	233			
KRUGER/5210YGCB	109	225			
KRUGER/5208YGCB	110	243			
KRUGER/5207YGCB	110	245			
ACCESS/EXP 5910YGCB	110	213			
ACCESS/EXP 5503YGCB	103			131	
CROW'S/438 B	108	227	208		
MIDWEST/G 7716 B	110	250	215		
WENSMAN/W 5417BT	107	233	205		
WENSMAN/W 5437BT	110	242	210		
WENSMAN/W 7315BTRW	100			136	
WENSMAN/W 6318BT	104			133	
HEINE/H745YGCB	104	225	210		
HEINE/H821YGCB	110	226			
HEINE/H820YGCB	109	252			
HEINE/H793YGCB	107	234			
HEINE/H761	106	229			
GOLD COUNTRY/110-07CB	110	259			
AGSOURCE SEEDS/5153	105			143	116
AGSOURCE SEEDS/5393	105			123	
AGSOURCE SEEDS/5883	109	249			
Test avg.:		235	210	124	105
High value:		259	215	143	116
# Lsd (.05):		15	NS	28	18
## TPG-value:		244	205	115	98
@ Coef.Var.:		4	4	14	12
No. Entries:		44	6	31	7

* RM= relative maturity reported by seed company.

Seeding dates: Beresford- May 4 and Armour- May 3, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum value to qualify for top performance group.

@ Coef. of variation= a measure of trial experimental error, 15% or less is best.

Table 5b. Non-Roundup Ready early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– southern South Dakota locations.

Brand/Hybrid	RM*	----- Southern Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		Beresford				Armour			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
DEKALB/DKC54-51 (YGCB)	104	62	17	5	27,733	59	15	7	27,588
JACOBSEN/4358CB	105	60	20	1	27,733	60	17	1	26,717
HEINE/H728YGCB	103	61	19	0	27,588	59	16	1	26,427
NUTECH/4202 YGCB	100	62	19	1	27,588	58	15	4	27,733
NUTECH/0313	105	61	21	3	27,878	58	16	2	26,717
TOP FARM/E34105CB	105	61	19	0	27,297	58	16	2	23,668
HEINE/H748YGCB	105	60	20	1	27,878	59	18	7	27,007
ACCESS/EXP 5405YGCB	105	61	19	0	27,443	57	16	1	26,717
NUTECH/EX.607 YGCB	105	60	19	0	28,023	58	16	3	26,136
NUTECH/4403 YGCB	103	61	17	1	27,443	57	15	2	27,007
KRUGER/5305YGCB	105	60	18	2	27,298	57	15	3	23,813
TOP FARM/TFSX 2405	102	61	18	3	27,297	56	15	6	25,846
NUTECH/EX.205 YGCB	105	59	17	1	28,169	56	15	4	26,426
NUTECH/2202 HX	100	60	18	4	27,443	55	15	4	27,007
HEINE/H760YGCB	105	60	21	0	27,152	54	16	5	25,265
DEKALB/DKC50-18 (YGCB)	100	.	.	.	.	59	15	3	25,846
DEKALB/DKC52-45 (YGCB)	102	.	.	.	.	58	15	1	26,426
DEKALB/DKC60-14 (YGPL)	110	60	20	0	27,588	.	.	.	.
DAIRYLAND/STEALTH-1507BT	108	59	19	1	27,443	.	.	.	.
DAIRYLAND/STEALTH-5104	104	.	.	.	.	59	16	0	26,426
NUTECH/4407 YGCB	107	60	20	5	27,588	.	.	.	.
NUTECH/EX.308 YGCB	107	60	20	1	28,169	.	.	.	.
SANDS/SOI 103YGCB	103	60	17	0	27,298	.	.	.	.
SANDS/SOI 107YGCB	107	61	19	0	27,443	.	.	.	.
SANDS/SOI 110YGCB	110	59	21	2	25,991	.	.	.	.
TOP FARM/TFSX 2300	103	61	18	0	28,169	.	.	.	.
TOP FARM/E34103	103	.	.	.	.	57	15	3	24,394
TOP FARM/E34107CB	107	59	18	1	27,443	.	.	.	.
TOP FARM/E34110BCB	109	59	20	0	27,007	.	.	.	.
TOP FARM/E34110DCB	110	59	21	1	27,152	.	.	.	.
KRUGER/9306YGCB	103	.	.	.	.	59	16	1	26,136
KRUGER/9404YGCB	103	.	.	.	.	60	15	3	27,152
KRUGER/9203YGRW	103	.	.	.	.	58	15	2	25,846
KRUGER/8503HX	103	.	.	.	.	55	15	4	25,991
KRUGER/5405YGCB	105	.	.	.	.	59	17	1	25,265

Table 5b. Non-Roundup Ready early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– southern South Dakota locations (continued).

Brand/Hybrid	RM*	----- Southern Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		Beresford				Armour			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
KRUGER/5805YGCB	105	.	.	.	.	58	16	1	25,991
KRUGER/9407YGCB	105	.	.	.	.	60	16	1	23,087
KRUGER/8407HX	107	60	20	2	25,265	.	.	.	.
KRUGER/5407YGCB	107	60	18	2	27,588	.	.	.	.
KRUGER/0510	108	60	19	1	27,443	.	.	.	.
KRUGER/5210YGCB	109	60	20	2	27,443	.	.	.	.
KRUGER/5208YGCB	110	61	19	2	27,878	.	.	.	.
KRUGER/5207YGCB	110	60	20	0	27,443	.	.	.	.
ACCESS/EXP 5910YGCB	110	62	19	2	27,733	.	.	.	.
ACCESS/EXP 5503YGCB	103	.	.	.	.	61	16	0	27,297
CROW'S/438 B	108	59	19	2	27,443	.	.	.	.
MIDWEST/G 7716 B	110	58	22	2	27,588	.	.	.	.
WENSMAN/W 5417BT	107	59	20	0	27,152	.	.	.	.
WENSMAN/W 5437BT	110	59	21	0	27,007	.	.	.	.
WENSMAN/W 7315BTRW	100	.	.	.	.	60	16	0	26,426
WENSMAN/W 6318BT	104	.	.	.	.	58	16	2	26,426
HEINE/H745YGCB	104	61	19	1	27,297	.	.	.	.
HEINE/H821YGCB	110	59	21	3	27,878	.	.	.	.
HEINE/H820YGCB	109	59	22	2	27,588	.	.	.	.
HEINE/H793YGCB	107	59	19	3	27,878	.	.	.	.
HEINE/H761	106	63	19	1	26,571	.	.	.	.
GOLD COUNTRY/110-07CB	110	58	22	1	26,862	.	.	.	.
AGSOURCE SEEDS/5153	105	.	.	.	.	57	16	2	26,717
AGSOURCE SEEDS/5393	105	.	.	.	.	58	16	2	25,700
AGSOURCE SEEDS/5883	109	59	21	2	27,588	.	.	.	.
Test avg.:		60	19	1	27,429	58	16	2	26,103
Max-value:		63	22	5	28,169	61	18	7	27,733
Min-value:		58	17	0	25,265	54	15	0	23,087
# Lsd (.05):		1	1	NS	1,148	2	1	4	1,626
## TPG-value:		62	18	5	27,021	59	16	4	26,107
@ Coef.Var.:		1	3	148	3	2	4	92	4
No. Entries:		44	44	44	44	31	31	31	31

* RM= relative maturity reported by seed company.

Seeding dates: Beresford- May 4 and Armour- May 3, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum value to qualify for top performance group.

@ Coef. of variation= a measure of trial experimental error.

Table 6a. Non-Roundup Ready late maturity corn yield results— southern South Dakota locations.

Brand/Hybrid	RM*	- Southern Location Averages - for yield (by year)			
		Beresford		Armour	
		Bu/Acre	Bu/Acre	Bu/Acre	Bu/Acre
		2004	2-Yr	2004	2-Yr
NUTECH/EX.713 YGCB	114	253	.	143	.
KRUGER/5615YGCB	116	239	.	155	.
JACOBSEN/4637CB	111	255	.	137	.
JACOBSEN/4757CB	112	257	215	131	94
KRUGER/5512YGCB	114	245	.	139	.
KRUGER/5211YGCB	112	249	.	133	.
KRUGER/5516YGCB	116	239	.	142	.
NUTECH/EX.539 YGCB	111	229	.	148	.
NUTECH/4213 YGCB	115	250	.	128	.
KRUGER/9212YGCB	112	258	214	120	.
KRUGER/9115YGCB	115	256	212	122	.
NUTECH/EX.317 YGCB	111	234	.	140	.
KRUGER/8513HX	113	250	.	122	.
KRUGER/5815YGCB	114	238	.	134	.
KRUGER/5514YGCB	116	235	.	136	.
DAIRYLAND/STEALTH-5611	112	254	.	115	.
KRUGER/5416YGCB	115	237	.	132	.
KRUGER/5315YGCB	115	235	.	134	.
KRUGER/5717YGCB	117	246	.	123	.
KRUGER/9111YGCB	113	243	.	113	96
KRUGER/8413HX	113	233	.	117	.
NUTECH/2414 HX	114	229	.	110	.
NUTECH/4013 YGCB	112	237	.	100	.
DEKALB/DKC63-79 (YGCB)	113	240	208	.	.
DEKALB/DKC60-14 (YGPL)	110	.	.	120	.
DAIRYLAND/STEALTH-1507BT	108	.	.	120	99
NUTECH/4407 YGCB	107	.	.	113	.
NUTECH/EX.308 YGCB	107	.	.	117	.
SANDS/SOI 113YGCB	113	217	.	.	.
ASGROW/RX718YGPL	111	227	.	.	.
TOP FARM/E34107CB	107	.	.	116	.
TOP FARM/E34110BCB	109	.	.	130	.
TOP FARM/E34110DCB	110	.	.	120	.
KAYSTAR/KX-8615BT	112	247	.	.	.
KRUGER/9305	106	.	.	115	.

* RM= relative maturity reported by seed company.

Table 6a. Non-Roundup Ready late maturity corn yield results— southern South Dakota locations (continued).

Brand/Hybrid	RM*	- Southern Location Averages - for yield (by year)			
		Beresford		Armour	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
KRUGER/8407HX	107	.	.	109	.
KRUGER/5407YGCB	107	.	.	144	.
KRUGER/0510	108	.	.	81	.
KRUGER/5210YGCB	109	.	.	130	.
KRUGER/5208YGCB	110	.	.	107	.
KRUGER/5207YGCB	110	.	.	112	.
ACCESS/EXP 5910YGCB	110	.	.	132	.
CROW'S/5366 B	112	252	211	.	.
MIDWEST/G 8125 B	112	259	212	.	.
EPLEY/E2470	110	.	.	108	.
EPLEY/E2410YGCB	107	.	.	125	.
EPLEY/E2490YGCB	110	.	.	125	.
EPLEY/E3220YGCB	112	.	.	122	.
EPLEY/E37H07	115	.	.	126	.
WENSMAN/W 5417BT	107	.	.	131	101
WENSMAN/W 5437BT	110	.	.	131	.
HEINE/H8600YGCB	113	261	.	.	.
AGSOURCE SEEDS/6183	112	261	218	.	.
AGSOURCE SEEDS/6163	111	251	.	.	.
AGSOURCE SEEDS/5883	109	.	.	126	.
Test avg.:		244	213	125	98
High value:		261	218	155	101
# Lsd (.05):		14	NS	28	NS
## TPG-value:		247	208	127	94
@ Coef.Var.:		4	6	14	13
No. Entries:		32	7	46	4

* RM= relative maturity reported by seed company.

Seeding dates: Beresford- May 4 and Armour- May 3, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum value to qualify for top performance group.

@ Coef. of variation= a measure of trial experimental error, 15% or less is best.

Table 6b. Non-Roundup Ready late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– southern South Dakota locations.

Brand/Hybrid	RM*	----- Southern Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		Beresford				Armour			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
KRUGER/5514YGCB	116	59	21	2	27,733	60	18	2	27,297
NUTECH/EX.713 YGCB	114	59	21	1	26,862	60	20	11	25,410
KRUGER/5512YGCB	114	58	22	3	26,717	60	20	8	25,845
KRUGER/9111YGCB	113	59	20	3	28,169	58	18	3	25,265
NUTECH/EX.539 YGCB	111	59	20	2	27,152	57	18	6	24,539
JACOBSEN/4637CB	111	59	21	1	26,572	58	20	4	26,862
KRUGER/9212YGCB	112	58	22	1	27,152	58	19	7	24,974
KRUGER/5416YGCB	115	57	23	0	27,152	58	20	11	25,845
NUTECH/4213 YGCB	115	58	23	1	26,862	58	22	6	25,846
NUTECH/4013 YGCB	112	59	21	2	28,169	57	20	7	25,701
KRUGER/5211YGCB	112	58	22	2	27,443	57	18	11	26,426
KRUGER/5516YGCB	116	58	24	0	27,007	57	20	1	25,845
KRUGER/8513HX	113	58	23	1	27,007	57	19	1	26,426
DAIRYLAND/STEALTH-5611	112	59	21	3	27,733	56	17	7	26,571
KRUGER/5615YGCB	116	57	23	4	27,733	58	21	3	24,249
KRUGER/9115YGCB	115	57	24	1	26,572	58	19	6	26,136
JACOBSEN/4757CB	112	57	24	2	27,443	57	21	9	25,700
KRUGER/5315YGCB	115	57	26	5	27,588	57	22	7	27,007
NUTECH/2414 HX	114	57	21	2	27,007	57	18	9	25,410
KRUGER/8413HX	113	57	23	4	28,169	56	19	7	23,813
KRUGER/5717YGCB	117	55	24	0	27,878	57	21	4	25,555
NUTECH/EX.317 YGCB	111	56	25	1	27,007	55	23	4	26,426
KRUGER/5815YGCB	114	53	26	1	28,169	55	20	4	26,572
DEKALB/DKC63-79 (YGCB)	113	59	22	1	28,169	.	.	.	.
DEKALB/DKC60-14 (YGPL)	110	.	.	.	.	58	17	2	24,394
DAIRYLAND/STEALTH-1507BT	108	.	.	.	.	57	18	8	24,829
NUTECH/4407 YGCB	107	.	.	.	.	57	18	10	26,571
NUTECH/EX.308 YGCB	107	.	.	.	.	59	17	5	25,991
SANDS/SOI 113YGCB	113	60	21	1	25,700	.	.	.	.
ASGROW/RX718YGPL	111	61	20	2	27,152	.	.	.	.
TOP FARM/E34107CB	107	.	.	.	.	59	19	8	24,103
TOP FARM/E34110BCB	109	.	.	.	.	59	18	3	23,958
TOP FARM/E34110DCB	110	.	.	.	.	57	20	10	25,555
KAYSTAR/KX-8615BT	112	57	21	7	27,298	.	.	.	.
KRUGER/9305	106	.	.	.	.	59	15	2	25,265

Table 6b. Non-Roundup Ready late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– southern South Dakota locations (continued).

Brand/Hybrid	RM*	----- Southern Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		Beresford				Armour			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
KRUGER/8407HX	107	.	.	.	.	58	16	8	24,684
KRUGER/5407YGCB	107	.	.	.	.	57	18	5	26,136
KRUGER/0510	108	.	.	.	.	57	21	9	24,394
KRUGER/5210YGCB	109	.	.	.	.	59	18	10	23,958
KRUGER/5208YGCB	110	.	.	.	.	58	16	3	23,813
KRUGER/5207YGCB	110	.	.	.	.	59	18	6	26,136
ACCESS/EXP 5910YGCB	110	.	.	.	.	59	16	3	25,845
CROW'S/5366 B	112	57	25	2	27,007	.	.	.	.
MIDWEST/G 8125 B	112	57	25	1	27,733	.	.	.	.
EPLEY/E2470	110	.	.	.	.	58	17	8	24,684
EPLEY/E2410YGCB	107	.	.	.	.	59	16	2	26,717
EPLEY/E2490YGCB	110	.	.	.	.	57	17	6	24,684
EPLEY/E3220YGCB	112	.	.	.	.	57	22	2	23,232
EPLEY/E37H07	115	.	.	.	.	55	18	5	25,991
WENSMAN/W 5417BT	107	.	.	.	.	58	19	5	23,522
WENSMAN/W 5437BT	110	.	.	.	.	58	19	7	24,829
HEINE/H8600YGCB	113	57	24	2	28,314	.	.	.	.
AGSOURCE SEEDS/6183	112	57	24	4	27,878	.	.	.	.
AGSOURCE SEEDS/6163	111	59	22	3	27,878	.	.	.	.
AGSOURCE SEEDS/5883	109	.	.	.	.	59	20	12	23,377
Test avg.:		58	23	2	27,388	58	19	6	25,356
Max-value:		61	26	7	28,314	60	23	12	27,297
Min-value:		53	20	0	25,700	55	15	1	23,232
# Lsd (.05):		2	1	4	NS	2	3	6	1,376
## TPG-value:		59	21	4	25,700	58	18	7	25,921
@ Coef.Var.:		2	4	111	3	2	10	65	3
# Entries:		32	32	32	32	46	46	46	46

* RM= relative maturity reported by seed company.

Seeding dates: Beresford- May 4 and Armour- May 3, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum or maximum value to qualify for top performance group.

@ Coef. of variation= measure of trial experimental error.

Table E. Roundup Ready™ entries by brand/hybrid and yield table number(s).

Brand / Hybrid	Table No.	Brand / Hybrid	Table No.
ACCESS/EXP 2506RRYGCB	10,11,12	HEINE/H750RR/YGCB	8,10,11
ACCESS/EXP1500RR	8,9	HEINE/H793RR/YGCB	11,12
ACCESS/EXP1597RR	8,9	HEINE/H851RR/YGCB	12
AGSOURCE SEEDS/3566	7	HEINE/H8600RR/YGCB	12
AGSOURCE SEEDS/3931	8,9	INTEGRA/INT 6193RRYG	7,9
AGSOURCE SEEDS/4556	8,10,11	INTEGRA/INT 6390RRYG	9
AGSOURCE SEEDS/5286CBRR	10,11,12	INTEGRA/INT 6395RR	7,9
AGSOURCE SEEDS/5356	10,12	INTEGRA/INT 6504RRYGCB	10,11,12
AGSOURCE SEEDS/6166	12	INTEGRA/INT 6593RRYG	9
ASGROW/RX718RR/YG	11	JACOBSEN/4167RBT	8,10
CHANNEL/6925RB	7,9	JACOBSEN/4358R	10,11
CHANNEL/6939RB	7,9	JACOBSEN/4637RBT	11,12
CHANNEL/6965 R	7,9	JACOBSEN/4757RBT	12
CHANNEL/7135RB	8,10,11	JUNG/6418RR/YGCB	9
CHANNEL/7138RB	8,10,11	JUNG/6445RR	9
CHANNEL/7624RB	11,12	KALTENBERG/K4666RR	9
CHANNEL/7806RB	11,12	KALTENBERG/K5244RRBT	10,11
CHANNEL/8075RB	12	KALTENBERG/K5711RR	11
CHANNEL/8127RB	12	KALTENBERG/K5717RRBT	10,11
DAIRYLAND/STEALTH-1606	11,12	KALTENBERG/K6788RR	11
DAIRYLAND/STEALTH-6497	8,9	KAYSTAR/KX-4000RBT	7
DAIRYLAND/STEALTH-7507	11,12	KAYSTAR/KX-5150RR	7,9
DEKALB/DKC42-95RR2YGCB	7	KAYSTAR/KX-5900RR	9
DEKALB/DKC44-46RR2YGCB	7,9	KAYSTAR/KX-6650RR	11
DEKALB/DKC47-10RR2YGCB	8,9,11	KELTGEN/AV4005R2CB	7
DEKALB/DKC48-52 (RR2)	8,9,11	KELTGEN/AV4882R2	7
DEKALB/DKC50-20RR2YGCB	8,9,11	KRUGER/1006RR	10,11,12
DEKALB/DKC52-47RR2YGCB	10	KRUGER/1100RR	8,9
DEKALB/DKC53-34RR2YGCB	10,11	KRUGER/1200RR	8,9
DEKALB/DKC58-80RR2YGCB	11,12	KRUGER/1202RR	8,10
DEKALB/DKC60-19RR2YGCB	11,12	KRUGER/1506RR	8,10,11
DEKALB/DKC63-81RR2YGCB	12	KRUGER/1806RR	10,11,12
EPLEY/E1155RR	9	KRUGER/2103RR/YGCB	8,10,11
EPLEY/E1165RR	9	KRUGER/2291RR/YGCB	7
EPLEY/E1175RR	9,11	KRUGER/2391RR/YGCB	7
EPLEY/E1455RR	10,11	KRUGER/2613RR/YGCB	12
EPLEY/E1465RR	10,11	KRUGER/4193RR/YGRW	7,9
EPLEY/E1475RR	10,11	KRUGER/9115RR/YGCB	12
EPLEY/E1515RR	10,11	KRUGER/9203RR/YGCB	8,10,11
EPLEY/E2425RR	10,12	KRUGER/9208RR	10,11,12
GOLD COUNTRY/1016RRBT	8,10	KRUGER/9208RR/YGCB	10,11,12
GOLD COUNTRY/105-03CBR	10,11	KRUGER/9212RR/YGCB	12
GOLD COUNTRY/92-01CBR	7	KRUGER/9308RR/YGCB	10,12
HEINE/H625RR/YGCB	7	KRUGER/9392RR	7,9
HEINE/H630RR	7,9	KRUGER/9392RR/YGCB	7
HEINE/H710RR/YGCB	8,9,11	KRUGER/9412RR/YGCB	12
HEINE/H723RR/YGCB	8,9,11	KRUGER/9496RR	7
HEINE/H728RR/YGCB	8,9,11	MALLARD/EXP 05-09	7
HEINE/H748RR	8,10,11	MALLARD/RRBT-5810	7

Table E. Roundup Ready™ entries by brand/hybrid and yield table number(s) (continued).

Brand / Hybrid	Table No.	Brand / Hybrid	Table No.
MYCOGEN/2H398	8		
MYCOGEN/2K541	8,10		
MYCOGEN/2R416	7		
MYCOGEN/2T336	7		
MYCOGEN/2T655	10		
NUTECH/3005 RR/YGCB	8,9		
NUTECH/3595 RR	7,9		
NUTECH/5101 RR/YGCB	8,9		
NUTECH/5212 RR/YGCB	12		
NUTECH/5592 RR/YGCB	7		
NUTECH/5702 RR/YGCB	10,11		
NUTECH/5808 RR/YGCB	12		
NUTECH/5990 RR/YGCB	7		
PFISTER/2656 RR-BT	10,11		
SANDS/NGS 1030RR/YGCB	8,10,11		
SANDS/NGS 1100RR	11		
SEEDS 2000/2944RRBT	9		
SEEDS 2000/2953RR	9		
SEEDS 2000/3122RRBT	8,10		
TOP FARM/8301RR	9		
TOP FARM/8395RR	9		
TOP FARM/8403RR	10,11		
TOP FARM/9305RY	10,11		
TOP FARM/9391RY	9		
TOP FARM/E34100RR	9		
TOP FARM/E34102BRCB	10,11,12		
TOP FARM/E34102RR	10,11		
TOP FARM/E34103BRCB	10,11		
TOP FARM/E34110RCB	11,12		
WECO SEEDS/EXPCS90RR	7,9		
WECO SEEDS/EXPCS95RR	7,9		
WENSMAN/W 6116RR	7,9		
WENSMAN/W 6117BTRR	7,9		
WENSMAN/W 6212RR	7,9		
WENSMAN/W 6274RR	8,9		
WENSMAN/W 6315BTRR	10,11		
WENSMAN/W 6422BTRR	10,11,12		
WENSMAN/W 7111RWRR	7,9		
WENSMAN/W 7309RWRR	8,9		

Table 7a. Roundup Ready™ early maturity corn yield results– northern South Dakota locations.

Brand/Hybrid	RM*	- Northern Location Averages - for yield (by year)			
		South Shore		Warner	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
KRUGER/9392RR/YGCB	92	154	117	240	214
DEKALB/DKC42-95RR2YGCB	92	155	122	233	215
WENSMAN/W 6212RR	95	150	113	237	219
MYCOGEN/2R416	95	154	.	232	.
KRUGER/9392RR	90	156	116	226	199
KRUGER/9496RR	94	151	113	230	210
INTEGRA/INT 6395RR	95	153	116	229	205
NUTECH/3595 RR	94	148	.	231	.
KRUGER/2291RR/YGCB	91	158	.	222	.
SEEDS 2000/2944RRBT	94	150	.	228	212
WECO SEEDS/EXPCS90RR	90	143	.	230	.
SEEDS 2000/2953RR	95	150	114	223	206
WENSMAN/W 6116RR	91	151	115	221	206
CHANNEL/6925RB	92	146	112	226	207
CHANNEL/6939RB	93	144	111	227	212
KRUGER/2391RR/YGCB	92	143	114	226	213
CHANNEL/6965 R	95	141	.	228	.
KELTGEN/AV4005R2CB	92	143	.	225	.
WENSMAN/W 6117BTRR	92	147	115	220	210
DEKALB/DKC44-46RR2YGCB	94	140	110	223	214
KELTGEN/AV4882R2	94	142	.	221	.
MALLARD/EXP 05-09	92	142	.	222	.
NUTECH/5990 RR/YGCB	92	145	.	219	.
NUTECH/5592 RR/YGCB	93	145	.	219	.
GOLD COUNTRY/92-01CBR	92	143	.	215	207
WENSMAN/W 7111RWRR	90	146	.	210	.
KRUGER/4193RR/YGRW	93	145	.	206	.
INTEGRA/INT 6193RRYG	92	139	109	207	204
WECO SEEDS/EXPCS95RR	95	136	.	183	.
MALLARD/RRBT-5810	90	116	.	198	.

* RM= relative maturity reported by seed company.

**Table 7a. Roundup Ready™ early maturity corn yield results—
northern South Dakota locations (continued).**

Brand/Hybrid	RM*	- Northern Location Averages - for yield (by year)			
		South Shore		Warner	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
KAYSTAR/KX-4000RBT	91	.	.	224	210
KAYSTAR/KX-5150RR	95	.	.	233	213
MYCOGEN/2T336	92	.	.	235	.
HEINE/H625RR/YGCB	91	.	.	231	212
HEINE/H630RR	95	.	.	227	.
AGSOURCE SEEDS/3566	92	141	.	.	.
Test avg.:		146	114	223	210
High value:		158	122	240	219
# Lsd (.05):		11	NS	15	NS
## TPG-value:		147	109	225	199
@ Coef.Var.:		4	5	4	4
No. Entries:		31	14	35	19

* RM= relative maturity reported by seed company.

Seeding dates: South Shore- May 6 and Warner- May 5, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum value to qualify for top performance group.

@ Coef. of variation= a measure of trial experimental error, 15% or less is best.

Table 7b. Roundup Ready™ early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– northern South Dakota locations.

Brand/Hybrid	RM*	----- Northern Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		South Shore				Warner			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
WENSMAN/W 6117BTRR	92	55	26	1	27,733	61	18	1	26,862
NUTECH/5592 RR/YGCB	93	56	21	0	27,007	59	18	0	26,426
KRUGER/9392RR	90	55	25	0	27,443	61	19	3	27,588
WENSMAN/W 6116RR	91	55	25	1	26,862	61	18	2	27,733
KRUGER/4193RR/YGRW	93	56	20	2	27,152	59	18	2	26,717
KRUGER/9392RR/YGCB	92	55	27	0	28,314	61	18	0	27,878
WECO SEEDS/EXPCS90RR	90	55	26	1	27,152	60	18	1	27,588
GOLD COUNTRY/92-01CBR	92	55	27	0	26,426	60	18	1	26,136
CHANNEL/6925RB	92	54	26	0	27,152	60	19	0	27,588
WECO SEEDS/EXPCS95RR	95	54	20	1	24,103	60	17	3	25,410
MALLARD/EXP 05-09	92	54	26	1	27,733	59	18	0	27,733
KELTGEN/AV4005R2CB	92	53	27	1	27,879	60	18	1	27,007
KRUGER/2291RR/YGCB	91	53	22	3	26,862	60	18	1	27,443
DEKALB/DKC42-95RR2YGCB	92	54	26	0	28,023	58	18	1	27,878
KRUGER/2391RR/YGCB	92	54	23	2	27,007	59	18	0	28,023
WENSMAN/W 7111RWRR	90	53	22	1	27,443	59	18	2	27,588
CHANNEL/6939RB	93	53	23	0	27,443	59	18	0	27,298
SEEDS 2000/2944RRBT	94	52	22	2	27,152	60	18	1	27,007
NUTECH/5990 RR/YGCB	92	52	23	2	27,443	59	18	0	27,588
SEEDS 2000/2953RR	95	53	27	0	28,895	59	19	3	26,717
NUTECH/3595 RR	94	52	26	0	28,169	59	18	3	27,878
INTEGRA/INT 6193RRYG	92	53	22	1	25,701	58	17	2	25,120
KRUGER/9496RR	94	53	26	0	28,314	58	18	3	27,733
INTEGRA/INT 6395RR	95	53	26	0	27,588	58	19	3	27,588
WENSMAN/W 6212RR	95	52	26	0	27,878	58	19	5	27,878
MYCOGEN/2R416	95	52	27	0	26,426	58	18	3	27,588
KELTGEN/AV4882R2	94	51	27	1	26,136	58	19	3	26,281
MALLARD/RRBT-5810	90	50	26	2	25,410	59	19	2	25,700
CHANNEL/6965 R	95	51	27	0	25,410	58	19	4	26,426
DEKALB/DKC44-46RR2YGCB	94	49	28	1	27,298	58	19	1	27,878

* RM= relative maturity reported by seed company.

Table 7b. Roundup Ready™ early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– northern South Dakota locations (continued).

Brand/Hybrid	RM*	----- Northern Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		South Shore				Warner			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
KAYSTAR/KX-400RRBT	91	*	*	*	*	59	18	0	26,717
KAYSTAR/KX-5150RR	95	*	*	*	*	58	18	3	27,588
MYCOGEN/2T336	92	*	*	*	*	60	18	0	27,588
HEINE/H625RR/YGCB	91	*	*	*	*	58	18	1	27,733
HEINE/H630RR	95	*	*	*	*	58	19	2	27,298
AGSOURCE SEEDS/3566	92	55	27	0	26,136	.	.	.	.
Test avg.:		53	25	1	27,087	59	18	2	27,177
Max-value:		56	28	3	28,895	61	19	5	28,023
Min-value:		49	20	0	24,103	58	17	0	25,120
# Lsd (.05):		2	1	2	1,613	2	1	3	833
## TPG-value:		54	21	2	27,282	59	18	3	27,140
@ Coef.Var.:		3	3	182	4	2	3	118	2
No. Entries:		31	31	31	31	35	35	35	35

* RM= relative maturity reported by seed company.

Seeding dates: South Shore- May 6 and Warner- May 5, 2004.

Lsd= amount values in a column must differ to be significantly different.

TPG-value= minimum or maximum value to qualify for top performance group.

@ Coef. of variation= measure of trial experimental error.

**Table 8a. Roundup Ready™ late maturity corn yield results—
northern South Dakota locations.**

Brand/Hybrid	RM*	- Northern Location Averages - for yield (by year)			
		South Shore		Warner	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
DEKALB/DKC48-52 (RR2)	98	155	.	226	.
DEKALB/DKC47-10RR2YGCB	97	150	.	223	212
DAIRYLAND/STEALTH-6497	97	149	.	214	.
NUTECH/5101 RR/YGCB	100	139	.	213	.
KRUGER/9203RR/YGCB	103	135	102	214	207
ACCESS/EXP1597RR	97	139	.	211	.
MYCOGEN/2K541	103	135	.	211	.
KRUGER/2103RR/YGCB	103	133	.	209	.
KRUGER/1200RR	100	128	.	205	.
NUTECH/3005 RR/YGCB	100	131	.	198	.
WENSMAN/W 6274RR	98	122	.	207	.
WENSMAN/W 7309RWR	100	127	.	203	.
KRUGER/1100RR	100	121	.	196	.
KRUGER/1202RR	102	120	.	189	.
KRUGER/1506RR	105	113	.	192	.
DEKALB/DKC50-20RR2YGCB	100	.	.	218	.
SANDS/NGS 1030RR/YGCB	103	132	.	.	.
ACCESS/EXP1500RR	100	141	.	.	.
JACOBSEN/4167RBT	101	131	.	.	.
MYCOGEN/2H398	96	.	.	216	.
SEEDS 2000/3122RBT	102	.	.	220	.
HEINE/H750RR/YGCB	105	.	.	202	.
HEINE/H748RR	105	.	.	190	.
HEINE/H723RR/YGCB	100	.	.	211	.
HEINE/H728RR/YGCB	100	.	.	185	.

* RM= relative maturity reported by seed company.

Table 8a. Roundup Ready™ late maturity corn yield results– northern South Dakota locations (continued).

Brand/Hybrid	RM*	- Northern Location Averages - for yield (by year)			
		South Shore		Warner	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
HEINE/H710RR/YGCB	100	.	.	199	.
GOLD COUNTRY/1016RRBT	104	139	106	.	.
CHANNEL/7138RB	101	120	.	.	.
CHANNEL/7135RB	101	136	.	.	.
AGSOURCE SEEDS/3931	96	153	.	.	.
AGSOURCE SEEDS/4556	101	132	.	.	.
Test avg.:		134	104	207	210
High value:		155	106	226	212
# Lsd (.05):		11	NS	14	NS
## TPG-value:		144	102	212	207
@ Coef.Var.:		5	4	4	4
No. Entries:		23	2	23	2

* RM= relative maturity reported by seed company.

Seeding dates: South Shore- May 6 and Warner- May 5, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum value to qualify for top performance group.

@ Coef. of variation= a measure of trial experimental error, 15% or less is best.

Table 8b. Roundup Ready™ late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– northern South Dakota locations.

Brand/Hybrid	RM*	----- Northern Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		South Shore				Warner			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
DEKALB/DKC47-10RR2YGCB	97	52	26	1	28,169	58	20	0	27,588
DEKALB/DKC48-52 (RR2)	98	52	25	2	27,443	57	19	3	26,862
ACCESS/EXP1597RR	97	49	27	2	27,878	58	19	2	27,297
WENSMAN/W 7309RWR	100	51	33	2	27,443	55	23	0	26,281
NUTECH/3005 RR/YGCB	100	50	30	0	26,571	57	21	1	27,443
DAIRYLAND/STEALTH-6497	97	50	27	0	27,733	55	19	3	26,862
KRUGER/1200RR	100	49	30	2	25,555	56	22	0	26,862
WENSMAN/W 6274RR	98	49	30	2	25,700	55	22	5	27,588
KRUGER/1506RR	105	50	43	5	27,443	54	28	2	27,443
KRUGER/2103RR/YGCB	103	49	29	2	27,007	55	22	0	27,588
NUTECH/5101 RR/YGCB	100	50	33	2	28,459	54	24	2	27,733
KRUGER/1100RR	100	47	32	1	25,119	56	20	0	23,668
KRUGER/1202RR	102	49	37	1	27,007	53	26	4	27,733
KRUGER/9203RR/YGCB	103	48	34	0	27,152	53	24	1	27,297
MYCOGEN/2K541	103	47	34	0	28,169	53	23	1	27,007
DEKALB/DKC50-20RR2YGCB	100	.	.	.	.	56	21	0	27,007
SANDS/NGS 1030RR/YGCB	103	49	34	1	26,862	.	.	.	.
ACCESS/EXP1500RR	100	50	27	1	27,443	.	.	.	.
JACOBSEN/4167RBT	101	49	35	1	26,136	.	.	.	.
MYCOGEN/2H398	96	.	.	.	.	57	19	0	26,717
SEEDS 2000/3122RRBT	102	.	.	.	.	54	23	1	27,152
HEINE/H750RR/YGCB	105	.	.	.	.	52	27	1	27,152
HEINE/H748RR	105	.	.	.	.	54	28	3	27,007
HEINE/H723RR/YGCB	100	.	.	.	.	54	24	1	26,572
HEINE/H728RR/YGCB	100	.	.	.	.	56	27	0	27,007

* RM= relative maturity reported by seed company.

Table 8b. Roundup Ready™ late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– northern South Dakota locations (continued).

Brand/Hybrid	RM*	----- Northern Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		South Shore				Warner			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
HEINE/H710RR/YGCB	100	52	26	3	27,588	52	26	3	27,588
GOLD COUNTRY/1016RRBT	104	49	33	2	27,588	.	.	.	.
CHANNEL/7138RB	101	50	32	4	26,572	.	.	.	.
CHANNEL/7135RB	101	49	32	1	27,733	.	.	.	.
AGSOURCE SEEDS/3931	96	52	26	0	27,878	.	.	.	.
AGSOURCE SEEDS/4556	101	49	33	1	27,878	.	.	.	.
Test avg.:		49	31	1	27,171	55	23	1	27,020
Max-value:		52	43	5	28,459	58	28	5	27,733
Min-value:		47	25	0	25,119	52	19	0	23,668
# Lsd (.05):		2	2	2	1,775	2	2	3	1,135
## TPG-value:		50	27	2	26,884	56	21	3	26,638
@ Coef.Var.:		2	3	107	4	2	5	130	3
No. Entries:		23	23	23	23	23	23	23	23

* RM= relative maturity reported by seed company.

Seeding dates: South Shore- May 6 and Warner- May 5, 2004.

Lsd= amount values in a column must differ to be significantly different.

TPG-value= minimum or maximum value to qualify for top performance group.

@ Coef. of variation= measure of trial experimental error.

**Table 9a. Roundup Ready™ early maturity corn yield results—
central South Dakota locations.**

Brand/Hybrid	RM*	- Central Location Averages - for yield (by year)			
		Brookings		Iroquois	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
INTEGRA/INT 6395RR	95	211	200	207	153
KRUGER/9392RR	90	217	.	196	.
EPLEY/E1155RR	90	212	.	199	.
WENSMAN/W 6212RR	95	217	205	195	143
DEKALB/DKC50-20RR2YGCB	100	208	.	200	.
DAIRYLAND/STEALTH-6497	97	209	.	198	.
NUTECH/3595 RR	94	213	.	192	.
ACCESS/EXP1500RR	100	221	.	183	.
KAYSTAR/KX-5900RR	99	204	.	196	.
EPLEY/E1165RR	95	211	199	189	.
DEKALB/DKC47-10RR2YGCB	97	224	.	174	140
KALTENBERG/K4666RR	96	207	.	184	.
ACCESS/EXP1597RR	97	207	.	182	.
INTEGRA/INT 6193RRYG	92	200	.	188	.
DEKALB/DKC48-52 (RR2)	98	206	.	180	.
NUTECH/5101 RR/YGCB	100	204	.	180	.
KAYSTAR/KX-5150RR	95	213	200	171	137
CHANNEL/6965 R	95	211	.	167	.
WENSMAN/W 7111RWRR	90	203	.	169	.
WECO SEEDS/EXPCS90RR	90	214	.	155	.
WENSMAN/W 7309RWRR	100	189	.	178	.
NUTECH/3005 RR/YGCB	100	193	.	172	.
TOP FARM/E34100RR	100	197	.	169	.
WENSMAN/W 6274RR	98	184	.	180	.
TOP FARM/8301RR	100	199	.	162	.
INTEGRA/INT 6593RRYG	93	207	.	153	.
KRUGER/1200RR	100	193	.	161	.
KRUGER/4193RR/YGRW	93	181	.	169	.
EPLEY/E1175RR	100	187	.	161	.
KRUGER/1100RR	100	183	.	155	.
WECO SEEDS/EXPCS95RR	95	191	.	139	.
DEKALB/DKC44-46RR2YGCB	94	217	204	.	.
JUNG/6418RR/YGCB	92	205	193	.	.
JUNG/6445RR	99	197	.	.	.
TOP FARM/8395RR	95	223	211	.	.

• RM= relative maturity reported by seed company.

**Table 9a. Roundup Ready™ early maturity corn yield results—
central South Dakota locations (continued).**

Brand/Hybrid	RM*	- Central Location Averages - for yield (by year)			
		Brookings		Iroquois	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
TOP FARM/9391RY	92	203	.	.	.
WENSMAN/W 6116RR	91	.	.	174	137
WENSMAN/W 6117BTRR	92	.	.	168	134
SEEDS 2000/2944RRBT	94	199	188	.	.
SEEDS 2000/2953RR	95	214	202	.	.
HEINE/H723RR/YGCB	100	.	.	166	.
HEINE/H728RR/YGCB	100	.	.	168	.
HEINE/H710RR/YGCB	100	.	.	184	.
HEINE/H630RR	95	.	.	200	.
CHANNEL/6925RB	92	204	190	.	.
CHANNEL/6939RB	93	199	188	.	.
AGSOURCE SEEDS/3931	96	213	.	.	.
Test avg.:		205	198	177	141
High value:		224	211	207	153
# Lsd (.05):		13	3	33	NS
## TPG-value:		211	208	174	134
@ Coef.Var.:		4	4	12	10
No. Entries:		41	11	37	6

* RM= relative maturity reported by seed company.

Seeding dates: Brookings- May 7 and Iroquois- April 30, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum value to qualify for top performance group.

@ Coef. of variation= a measure of trial experimental error, 15% or less is best.

Table 9b. Roundup Ready™ early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– central South Dakota locations.

Brand/Hybrid	RM*	----- Central Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		Brookings				Iroquois			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
KRUGER/4193RR/YGRW	93	59	20	0	25,555	61	16	3	27,733
KRUGER/9392RR	90	58	21	1	26,717	61	16	2	26,281
EPLEY/E1155RR	90	58	21	2	27,878	60	16	2	28,459
WENSMAN/W 7111RWRR	90	58	21	2	27,443	60	16	4	27,443
INTEGRA/INT 6193RRYG	92	57	19	2	27,298	61	16	1	26,717
WECO SEEDS/EXPCS95RR	95	58	19	1	26,426	60	16	0	21,344
WECO SEEDS/EXPCS90RR	90	58	22	1	26,862	60	16	1	27,007
EPLEY/E1165RR	95	58	21	2	27,298	60	16	1	27,298
INTEGRA/INT 6395RR	95	57	22	1	27,007	60	17	2	27,297
INTEGRA/INT 6593RRYG	93	58	21	1	27,588	59	15	2	27,588
ACCESS/EXP1597RR	97	57	23	1	27,878	60	16	2	27,007
DEKALB/DKC47-10RR2YGCB	97	58	22	2	27,733	59	18	1	27,152
DEKALB/DKC48-52 (RR2)	98	56	21	4	27,733	60	16	1	25,991
WENSMAN/W 6212RR	95	57	22	3	27,007	59	16	2	27,152
DAIRYLAND/STEALTH-6497	97	56	22	3	27,007	60	17	3	28,459
NUTECH/3595 RR	94	57	22	2	26,862	58	16	3	27,443
DEKALB/DKC50-20RR2YGCB	100	56	23	1	27,878	59	19	2	28,023
TOP FARM/8301RR	100	56	22	5	26,862	58	17	2	27,297
KALTENBERG/K4666RR	96	55	22	1	27,588	59	18	0	27,152
ACCESS/EXP1500RR	100	56	22	1	27,297	58	18	1	26,571
CHANNEL/6965 R	95	55	23	2	27,588	59	17	2	26,572
NUTECH/5101 RR/YGCB	100	54	26	1	27,588	59	18	1	27,588
KAYSTAR/KX-5150RR	95	56	22	1	27,878	57	19	1	27,298
EPLEY/E1175RR	100	54	23	2	26,572	59	16	4	28,169
WENSMAN/W 6274RR	98	54	25	2	26,862	59	19	0	27,153
NUTECH/3005 RR/YGCB	100	54	24	1	26,717	59	19	1	26,572
TOP FARM/E34100RR	100	55	20	2	26,571	58	17	3	25,845
WENSMAN/W 7309RWRR	100	53	27	1	27,878	59	19	4	27,588
KRUGER/1200RR	100	53	23	1	27,007	57	19	4	27,007
KAYSTAR/KX-5900RR	99	52	26	1	27,298	58	17	1	28,023

* RM= relative maturity reported by seed company.

Table 9b. Roundup Ready™ early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population— central South Dakota locations (continued).

Brand/Hybrid	RM*	----- Central Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		Brookings				Iroquois			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
KRUGER/1100RR	100	52	24	1	24,829	58	19	0	24,684
DEKALB/DKC44-46RR2YGCB	94	56	22	1	27,878	.	.	.	.
JUNG/6418RR/YGCB	92	58	22	0	27,298	.	.	.	.
JUNG/6445RR	99	52	27	3	27,878	.	.	.	.
TOP FARM/8395RR	95	56	22	1	27,443	.	.	.	.
TOP FARM/9391RY	92	59	20	0	27,733	.	.	.	.
WENSMAN/W 6116RR	91	.	.	.	.	61	16	2	27,733
WENSMAN/W 6117BTRR	92	.	.	.	.	62	17	0	26,862
SEEDS 2000/2944RRBT	94	57	19	1	28,459	.	.	.	.
SEEDS 2000/2953RR	95	56	21	0	27,733	.	.	.	.
HEINE/H723RR/YGCB	100	.	.	.	.	58	20	0	25,845
HEINE/H728RR/YGCB	100	.	.	.	.	60	22	1	27,443
HEINE/H710RR/YGCB	100	.	.	.	.	55	20	1	27,733
HEINE/H630RR	95	.	.	.	.	60	16	1	27,443
CHANNEL/6925RB	92	59	21	0	27,443	.	.	.	.
CHANNEL/6939RB	93	57	20	1	27,443	.	.	.	.
AGSOURCE SEEDS/3931	96	56	22	1	27,443	.	.	.	.
Test avg.:		56	22	1	27,255	59	17	2	26,999
Max-value:		59	27	5	28,459	62	22	4	28,459
Min-value:		52	19	0	24,829	55	15	0	21,344
# Lsd (.05):		1	1	NS	1,288	3	2	NS	1,504
## TPG-value:		58	20	5	27,171	59	17	4	26,955
@ Coef.Var.:		2	4	115	3	3	7	139	3
No. Entries:		41	41	41	41	37	37	37	37

* RM= relative maturity reported by seed company.

Seeding dates: Brookings- May 7 and Iroquois- April 30, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum or maximum value to qualify for top performance group.

@ Coef. of variation= measure of trial experimental error.

**Table 10a. Roundup Ready™ late maturity corn yield results—
central South Dakota locations.**

Brand/Hybrid	RM*	- Central Location Averages - for yield (by year)			
		Brookings		Iroquois	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
CHANNEL/7135RB	101	208	190	209	146
DEKALB/DKC52-47RR2YGCB	102	219	.	192	.
SEEDS 2000/3122RRBT	102	197	.	212	148
TOP FARM/E34102RR	102	203	.	198	.
KRUGER/9203RR/YGCB	103	202	.	194	.
KRUGER/2103RR/YGCB	103	202	.	194	.
WENSMAN/W 6315BTRR	101	203	185	189	135
GOLD COUNTRY/1016RRBT	104	195	185	193	138
KRUGER/1506RR	105	204	.	181	.
EPLEY/E1515RR	105	191	.	191	.
KRUGER/9208RR/YGCB	110	189	.	191	.
KRUGER/1006RR	106	174	.	200	.
EPLEY/E1475RR	103	183	.	190	.
NUTECH/5702 RR/YGCB	103	191	.	179	.
KRUGER/9308RR/YGCB	111	186	.	181	.
WENSMAN/W 6422BTRR	107	191	.	177	.
TOP FARM/9305RY	104	181	.	185	.
EPLEY/E1465RR	103	186	.	180	.
KRUGER/1202RR	102	186	.	178	.
KRUGER/9208RR	108	189	.	175	.
EPLEY/E1455RR	101	195	.	165	.
KRUGER/1806RR	106	184	.	171	.
DEKALB/DKC53-34RR2YGCB	103	.	.	188	139
SANDS/NGS 1030RR/YGCB	103	196	.	.	.
TOP FARM/8403RR	102	186	171	.	.
TOP FARM/E34102BRCB	110	198	.	.	.
TOP FARM/E34103BRCB	103	206	.	.	.
KALTENBERG/K5717RRBT	105	194	.	.	.
KALTENBERG/K5244RRBT	102	207	.	.	.
ACCESS/EXP 2506RRYGCB	106	191	.	.	.
JACOBSEN/4167RBT	101	.	.	212	.
JACOBSEN/4358R	105	155	.	.	.
EPLEY/E2425RR	107	191	179	.	.
MYCOGEN/2K541	103	.	.	207	.
MYCOGEN/2T655	107	.	.	187	.

* RM= relative maturity reported by seed company.

**Table 10a. Roundup Ready™ late maturity corn yield results—
central South Dakota locations (continued).**

Brand/Hybrid	RM*	- Central Location Averages - for yield (by year)			
		Brookings		Iroquois	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
HEINE/H750RR/YGCB	105	.	.	211	.
HEINE/H748RR	105	.	.	192	.
GOLD COUNTRY/105-03CBR	105	218	.	.	.
PFISTER/2656 RR-BT	110	195	.	.	.
CHANNEL/7138RB	101	.	.	186	136
AGSOURCE SEEDS/5356	106	186	.	.	.
AGSOURCE SEEDS/4556	101	206	.	.	.
AGSOURCE SEEDS/5286CBRR	106	193	.	.	.
INTEGRA/INT 6504RRYGCB	106	195	.	.	.
Test avg.:		194	182	190	140
High value:		219	190	212	148
# Lsd (.05):		14	NS	37	NS
## TPG-value:		205	171	175	135
@ Coef.Var.:		4	4	12	7
No. Entries:		37	5	29	6

* RM= relative maturity reported by seed company.

Seeding dates: Brookings- May 7 and Iroquois- April 30, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum value to qualify for top performance group.

@ Coef. of variation= a measure of trial experimental error, 15% or less is best.

Table 10b. Roundup Ready™ late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– central South Dakota locations.

Brand/Hybrid	RM*	----- Central Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		Brookings				Iroquois			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
TOP FARM/E34102RR	102	53	23	1	27,588	62	17	1	26,281
DEKALB/DKC52-47RR2YGCB	102	54	23	1	27,878	59	16	2	26,426
EPLEY/E1475RR	103	52	25	3	26,572	62	17	1	27,298
NUTECH/5702 RR/YGCB	103	53	27	1	27,443	60	17	2	28,169
KRUGER/2103RR/YGCB	103	52	26	3	27,878	60	17	3	27,733
KRUGER/9203RR/YGCB	103	51	27	0	27,443	60	17	1	28,169
CHANNEL/7135RB	101	52	27	1	28,023	59	17	2	28,314
KRUGER/1506RR	105	51	28	1	27,878	60	19	3	27,733
KRUGER/9208RR/YGCB	110	52	29	1	27,588	59	19	4	27,007
EPLEY/E1465RR	103	51	26	3	26,862	60	17	4	27,443
KRUGER/9208RR	108	51	28	1	27,007	58	17	5	27,733
WENSMAN/W 6315BTRR	101	50	27	1	26,281	59	17	4	27,588
KRUGER/1202RR	102	50	28	0	27,152	59	19	3	27,733
TOP FARM/9305RY	104	50	30	2	27,878	59	20	3	28,023
SEEDS 2000/312RRBT	102	49	28	2	28,023	59	17	4	27,733
GOLD COUNTRY/1016RRBT	104	49	28	1	27,588	59	18	1	27,297
EPLEY/E1455RR	101	51	26	1	27,878	57	16	4	26,572
KRUGER/1006RR	106	50	31	5	26,572	58	21	2	27,443
EPLEY/E1515RR	105	51	29	2	27,733	56	17	3	27,878
KRUGER/9308RR/YGCB	111	48	32	2	27,878	56	21	4	26,136
WENSMAN/W 6422BTRR	107	49	31	1	27,007	55	22	2	25,555
KRUGER/1806RR	106	51	27	0	26,426	47	14	6	26,717
DEKALB/DKC53-34RR2YGCB	103					59	17	1	28,023
SANDS/NGS 1030RR/YGCB	103	51	28	1	26,717				
TOP FARM/8403RR	102	51	25	2	26,717				
TOP FARM/E34102BRCB	110	51	25	6	28,023				
TOP FARM/E34103BRCB	103	50	27	0	27,878				
KALTENBERG/K5717RRBT	105	52	27	0	27,152				
KALTENBERG/K5244RRBT	102	50	27	0	27,588				
ACCESS/EXP 2506RRYGCB	106	51	30	1	27,298				

* RM= relative maturity reported by seed company.

Table 10b. Roundup Ready™ late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population— central South Dakota locations (continued).

Brand/Hybrid	RM*	----- Central Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		Brookings				Iroquois			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
JACOBSEN/4167RBT	101	.	.	.	.	59	18	2	26,862
JACOBSEN/4358R	105	49	35	3	25,846	.	.	.	.
EPLYE/E2425RR	107	51	28	1	27,152	.	.	.	.
MYCOGEN/2K541	103	.	.	.	.	59	17	3	27,443
MYCOGEN/2T655	107	.	.	.	.	58	17	4	27,733
HEINE/H750RR/YGCB	105	.	.	.	.	59	22	0	27,297
HEINE/H748RR	105	.	.	.	.	59	19	4	28,169
GOLD COUNTRY/105-03CBR	105	51	27	1	28,314	.	.	.	.
PFISTER/2656 RR-BT	110	50	33	2	28,023	.	.	.	.
CHANNEL/7138RB	101	.	.	.	.	59	18	1	24,394
AGSOURCE SEEDS/5356	106	52	26	1	26,717	.	.	.	.
AGSOURCE SEEDS/4556	101	51	27	1	28,024	.	.	.	.
AGSOURCE SEEDS/5286CBRR	106	51	29	2	26,717	.	.	.	.
INTEGRA/INT 6504RRYGCB	106	52	28	0	27,152	.	.	.	.
Test avg.:		51	28	1	27,349	58	18	3	27,272
Max-value:		54	35	6	28,314	62	22	6	28,314
Min-value:		48	23	0	25,846	47	14	0	24,393
# Lsd (.05):		2	1	3	1,365	7	NS	5	1,000
## TPG-value:		52	24	3	26,949	55	22	5	27,314
@ Coef.Var.:		2	3	107	3	7	8	102	2
No. Entries:		37	37	37	37	29	29	29	29

* RM= relative maturity reported by seed company.

Seeding dates: Brookings- May 7 and Iroquois- April 30, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum or maximum value to qualify for top performance group.

@ Coef. of variation= measure of trial experimental error.

Table 11a. Roundup Ready™ early maturity corn yield results— southern South Dakota locations.

Brand/Hybrid	RM*	- Southern Location Averages - for yield (by year)			
		Beresford		Armour	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
HEINE/H750RR/YGCB	105	238	.	115	.
HEINE/H748RR	105	244	.	102	.
NUTECH/5702 RR/YGCB	103	209	.	133	.
TOP FARM/9305RY	104	228	.	112	.
TOP FARM/E34102RR	102	206	.	129	.
HEINE/H728RR/YGCB	100	208	.	98	.
DEKALB/DKC53-34RR2YGCB	103	.	.	116	104
DEKALB/DKC60-19RR2YGCB	110	242	.	.	.
DEKALB/DKC47-10RR2YGCB	97	.	.	114	107
DEKALB/DKC48-52 (RR2)	98	.	.	127	.
DEKALB/DKC50-20RR2YGCB	100	.	.	118	.
DEKALB/DKC58-80RR2YGCB	108	224	.	.	.
DAIRYLAND/STEALTH-1606	107	239	.	.	.
DAIRYLAND/STEALTH-7507	109	197	.	.	.
SANDS/NGS 1030RR/YGCB	103	210	.	.	.
SANDS/NGS 1100RR	110	213	.	.	.
ASGROW/RX718RR/YG	110	224	.	.	.
TOP FARM/8403RR	102	213	.	.	.
TOP FARM/E34110RCB	110	205	.	.	.
TOP FARM/E34102BRCB	110	216	.	.	.
TOP FARM/E34103BRCB	103	.	.	127	.
KAYSTAR/KX-6650RR	105	.	.	116	.
KALTENBERG/K5717RRBT	105	.	.	122	.
KALTENBERG/K5711RR	105	220	194	.	.
KALTENBERG/K6788RR	108	200	189	.	.
KALTENBERG/K5244RRBT	102	.	.	105	.
KRUGER/9203RR/YGCB	103	.	.	102	.
KRUGER/2103RR/YGCB	103	.	.	135	.
KRUGER/1506RR	105	.	.	110	.
KRUGER/1006RR	106	224	.	.	.
KRUGER/1806RR	106	219	.	.	.
KRUGER/9208RR	108	228	.	.	.
KRUGER/9208RR/YGCB	110	229	.	.	.
ACCESS/EXP 2506RRYGCB	106	232	.	.	.
JACOBSEN/4637RBT	110	233	.	.	.

* RM= relative maturity reported by seed company.

Table 11a. Roundup Ready™ early maturity corn yield results– southern South Dakota locations (continued).

Brand/Hybrid	RM*	- Southern Location Averages - for yield (by year)			
		Beresford		Armour	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
JACOBSEN/4358R	105	210	.	.	.
EPLEY/E1515RR	105	.	.	97	.
EPLEY/E1175RR	100	.	.	100	.
EPLEY/E1455RR	101	.	.	101	.
EPLEY/E1465RR	103	.	.	117	.
EPLEY/E1475RR	103	.	.	121	.
WENSMAN/W 6315BTRR	101	.	.	111	99
WENSMAN/W 6422BTRR	107	228	.	.	.
HEINE/H793RR/YGCB	108	222	.	.	.
HEINE/H723RR/YGCB	100	.	.	123	.
HEINE/H710RR/YGCB	100	.	.	129	.
GOLD COUNTRY/105-03CBR	105	.	.	116	.
PFISTER/2656 RR-BT	110	242	.	.	.
CHANNEL/7138RB	101	.	.	113	99
CHANNEL/7135RB	101	.	.	123	103
CHANNEL/7624RB	108	199	183	.	.
CHANNEL/7806RB	110	226	195	.	.
AGSOURCE SEEDS/4556	101	.	.	119	.
AGSOURCE SEEDS/5286CBRR	106	205	.	.	.
INTEGRA/INT 6504RRYGCB	106	216	.	.	.
Test avg.:		220	190	116	102
High value:		244	195	135	107
# Lsd (.05):		15	NS	24	NS
## TPG-value:		229	183	111	99
@ Coef.Var.:		4	8	13	10
No. Entries:		32	4	29	5

* RM= relative maturity reported by seed company.

Seeding dates: Beresford- May 4 and Armour- May 3, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum value to qualify for top performance group.

@ Coef. of variation= a measure of trial experimental error, 15% or less is best.

Table 11b. Roundup Ready™ early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– southern South Dakota locations.

Brand/Hybrid	RM*	----- Southern Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		Beresford				Armour			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
HEINE/H728RR/YGCB	100	61	20	0	27,297	62	19	2	25,991
NUTECH/5702 RR/YGCB	103	62	17	1	28,169	60	15	2	25,846
TOP FARM/E34102RR	102	61	18	1	27,298	60	16	0	26,862
HEINE/H748RR	105	61	18	2	27,588	59	18	6	26,426
HEINE/H750RR/YGCB	105	60	20	0	27,588	60	18	0	26,572
TOP FARM/9305RY	104	60	19	1	28,169	59	16	2	25,410
DEKALB/DKC53-34RR2YGCB	103	.	.	.	.	59	16	0	25,991
DEKALB/DKC60-19RR2YGCB	110	60	21	1	26,862	.	.	.	.
DEKALB/DKC47-10RR2YGCB	97	.	.	.	.	62	15	4	24,394
DEKALB/DKC48-52 (RR2)	98	.	.	.	.	58	14	3	25,410
DEKALB/DKC50-20RR2YGCB	100	.	.	.	.	60	15	2	27,152
DEKALB/DKC58-80RR2YGCB	108	60	19	0	27,588	.	.	.	.
DAIRYLAND/STEALTH-1606	107	59	18	2	27,007	.	.	.	.
DAIRYLAND/STEALTH-7507	109	58	19	1	25,991	.	.	.	.
SANDS/NGS 1030RR/YGCB	103	60	18	0	27,007	.	.	.	.
SANDS/NGS 1100RR	110	59	19	0	27,588	.	.	.	.
ASGROW/RX718RR/YG	110	62	19	3	27,297	.	.	.	.
TOP FARM/8403RR	102	60	17	0	27,297	.	.	.	.
TOP FARM/E34110RCB	110	60	18	0	27,297	.	.	.	.
TOP FARM/E34102BRCB	110	60	17	0	27,733	.	.	.	.
TOP FARM/E34103BRCB	103	.	.	.	.	58	15	4	25,555
KAYSTAR/KX-6650RR	105	.	.	.	.	60	16	2	25,555
KALTENBERG/K5717RRBT	105	.	.	.	.	58	15	0	25,410
KALTENBERG/K5711RR	105	61	19	0	26,426	.	.	.	.
KALTENBERG/K6788RR	108	59	18	1	27,588	.	.	.	.
KALTENBERG/K5244RRBT	102	.	.	.	.	58	16	3	26,862
KRUGER/9203RR/YGCB	103	.	.	.	.	58	15	6	23,813
KRUGER/2103RR/YGCB	103	.	.	.	.	60	15	0	26,717
KRUGER/1506RR	105	.	.	.	.	58	16	2	25,120
KRUGER/1006RR	106	61	21	6	27,297	.	.	.	.
KRUGER/1806RR	106	61	18	0	26,427	.	.	.	.
KRUGER/9208RR	108	60	18	0	27,152	.	.	.	.
KRUGER/9208RR/YGCB	110	60	18	1	27,007	.	.	.	.
ACCESS/EXP 2506RRYGCB	106	61	19	0	27,878	.	.	.	.

• RM= relative maturity reported by seed company.

Table 11b. Roundup Ready™ early hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– southern South Dakota locations (continued).

Brand/Hybrid	RM*	----- Southern Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		Beresford				Armour			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
JACOBSEN/4637RBT	110	56	21	0	26,717	.	.	.	.
JACOBSEN/4358R	105	61	20	0	27,152	.	.	.	.
EPLEY/E1515RR	105	.	.	.	.	56	16	7	26,426
EPLEY/E1175RR	100	.	.	.	.	59	15	1	25,700
EPLEY/E1455RR	101	.	.	.	.	58	15	1	25,991
EPLEY/E1465RR	103	.	.	.	.	60	15	0	24,539
EPLEY/E1475RR	103	.	.	.	.	61	15	3	26,281
WENSMAN/W 6315BTRR	101	.	.	.	.	58	16	6	26,426
WENSMAN/W 6422BTRR	107	59	19	0	27,152	.	.	.	.
HEINE/H793RR/YGCB	108	59	19	2	27,152	.	.	.	.
HEINE/H723RR/YGCB	100	.	.	.	.	59	15	2	25,700
HEINE/H710RR/YGCB	100	.	.	.	.	58	16	2	25,120
GOLD COUNTRY/105-03CBR	105	.	.	.	.	60	18	6	25,120
PFISTER/2656 RR-BT	110	57	21	3	27,588	.	.	.	.
CHANNEL/7138RB	101	.	.	.	.	60	16	2	25,265
CHANNEL/7135RB	101	.	.	.	.	58	15	5	25,991
CHANNEL/7624RB	108	59	18	1	27,588	.	.	.	.
CHANNEL/7806RB	110	58	21	0	27,007	.	.	.	.
AGSOURCE SEEDS/4556	101	.	.	.	.	58	15	4	26,426
AGSOURCE SEEDS/5286CBRR	106	62	19	0	27,297	.	.	.	.
INTEGRA/INT 6504RRYGCB	106	61	20	0	27,443	.	.	.	.
Test avg.:		60	19	1	27,270	59	16	3	25,796
Max-value:		62	21	6	28,169	62	19	7	27,152
Min-value:		56	17	0	25,991	56	14	0	23,813
# Lsd (.05):		2	1	3	903	2	2	NS	1,480
## TPG-value:		60	18	3	27,266	60	16	7	25,672
@ Coef.Var.:		2	4	223	2	2	6	111	4
No. Entries:		32	32	32	32	29	29	29	29

* RM= relative maturity reported by seed company.

Seeding dates: Beresford- May 4 and Armour- May 3, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum or maximum value to qualify for top performance group.

@ Coef. of variation= measure of trial experimental error.

**Table 12a. Roundup Ready™ late maturity corn yield results—
southern South Dakota locations.**

Brand/Hybrid	RM*	- Southern Location Averages - for yield (by year)			
		Beresford		Armour	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
NUTECH/5212 RR/YGCB	115	227	.	151	.
KRUGER/9412RR/YGCB	112	229	.	139	.
KRUGER/9115RR/YGCB	117	232	192	134	.
KRUGER/9212RR/YGCB	115	238	.	127	.
JACOBSEN/4757RBT	112	232	.	124	.
KRUGER/2613RR/YGCB	113	240	.	94	.
NUTECH/5808 RR/YGCB	114	199	.	120	.
KRUGER/9308RR/YGCB	111	202	.	114	.
DEKALB/DKC60-19RR2YGCB	110	.	.	136	115
DEKALB/DKC58-80RR2YGCB	108	.	.	134	.
DEKALB/DKC63-81RR2YGCB	113	234	.	.	.
DAIRYLAND/STEALTH-1606	107	.	.	146	.
DAIRYLAND/STEALTH-7507	109	.	.	105	.
TOP FARM/E34110RCB	110	.	.	115	.
TOP FARM/E34102BRCB	110	.	.	128	.
KRUGER/1006RR	106	.	.	126	.
KRUGER/1806RR	106	.	.	131	.
KRUGER/9208RR	108	.	.	113	.
KRUGER/9208RR/YGCB	110	.	.	130	.
ACCESS/EXP 2506RRYGCB	106	.	.	133	.
JACOBSEN/4637RBT	110	.	.	128	.
EPLEY/E2425RR	107	.	.	138	111
WENSMAN/W 6422BTRR	107	.	.	133	.
HEINE/H851RR/YGCB	113	246	.	.	.
HEINE/H8600RR/YGCB	112	232	.	.	.
HEINE/H793RR/YGCB	108	.	.	117	.
CHANNEL/7624RB	108	.	.	119	104
CHANNEL/7806RB	110	.	.	131	95
CHANNEL/8127RB	112	237	203	.	.
CHANNEL/8075RB	112	225	197	.	.

* RM= relative maturity reported by seed company.

**Table 12a. Roundup Ready™ late maturity corn yield results—
southern South Dakota locations (continued).**

Brand/Hybrid	RM*	- Southern Location Averages - for yield (by year)			
		Beresford		Armour	
		Bu/Acre 2004	Bu/Acre 2-Yr	Bu/Acre 2004	Bu/Acre 2-Yr
AGSOURCE SEEDS/6166	111	236	208	114	105
AGSOURCE SEEDS/5356	106			117	
AGSOURCE SEEDS/5286CBRR	106			141	
INTEGRA/INT 6504RRYGCB	106				
Test avg.:		229	200	126	106
High value:		246	208	151	115
# Lsd (.05):		19	NS	29	NS
## TPG-value:		227	192	122	95
@ Coef.Var.:		5	5	14	9
No. Entries:		14	4	28	5

* RM= relative maturity reported by seed company.

Seeding dates: Beresford- May 4 and Armour- May 3, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum value to qualify for top performance group.

@ Coef. of variation= a measure of trial experimental error, 15% or less is best.

Table 12b. Roundup Ready™ late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population— southern South Dakota locations.

Brand/Hybrid	RM*	----- Southern Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		Beresford				Armour			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
KRUGER/9412RR/YGCB	112	60	20	7	27,152	60	17	2	25,845
NUTECH/5808 RR/YGCB	114	58	18	1	28,169	59	16	3	25,265
KRUGER/9308RR/YGCB	111	58	18	0	28,024	58	16	3	26,426
KRUGER/2613RR/YGCB	113	58	24	0	27,297	58	23	3	25,846
KRUGER/9212RR/YGCB	115	57	21	1	27,007	59	17	1	26,717
NUTECH/5212 RR/YGCB	115	57	22	1	27,733	58	17	5	25,846
KRUGER/9115RR/YGCB	117	56	24	0	26,572	59	19	0	25,991
JACOBSEN/4757RBT	112	55	25	1	27,443	57	22	1	25,120
DEKALB/DKC60-19RR2YGCB	110	.	.	.	.	54	16	2	26,281
DEKALB/DKC58-80RR2YGCB	108	.	.	.	.	57	16	0	26,572
DEKALB/DKC63-81RR2YGCB	113	59	22	2	27,588	.	.	.	.
DAIRYLAND/STEALTH-1606	107	.	.	.	.	59	16	1	27,298
DAIRYLAND/STEALTH-7507	109	.	.	.	.	58	17	2	26,571
TOP FARM/E34110RCB	110	.	.	.	.	58	16	5	23,958
TOP FARM/E34102BRCB	110	.	.	.	.	60	15	3	26,426
KRUGER/1006RR	106	.	.	.	.	60	19	7	26,136
KRUGER/1806RR	106	.	.	.	.	61	16	3	26,281
KRUGER/9208RR	108	.	.	.	.	58	15	3	27,588
KRUGER/9208RR/YGCB	110	.	.	.	.	59	16	1	26,136
ACCESS/EXP 2506RRYGCB	106	.	.	.	.	59	17	0	26,281
JACOBSEN/4637RBT	110	.	.	.	.	58	17	1	25,555
EPLEY/E2425RR	107	.	.	.	.	59	15	2	26,717
WENSMAN/W 6422BTRR	107	.	.	.	.	60	18	1	26,572
HEINE/H851RR/YGCB	113	57	24	1	27,443	.	.	.	.
HEINE/H8600RR/YGCB	112	57	23	1	27,007	.	.	.	.

* RM= relative maturity reported by seed company.

Table 12b. Roundup Ready™ late hybrid averages for bushel weight, kernel moisture, lodging below ear, and harvest population– southern South Dakota locations (continued).

Brand/Hybrid	RM*	----- Southern Location Averages ----- for bu.wt., kernel moisture, lodging below ear, & plants/acre (ppa)							
		Beresford				Armour			
		Bu. wt. Lb.	H2O %	Ldg. %	PPA	Bu. wt. Lb.	H2O %	Ldg. %	PPA
HEINE/H793RR/YGCB	108	.	.	.	.	57	16	2	25,991
CHANNEL/7624RB	108	.	.	.	.	58	16	5	25,700
CHANNEL/7806RB	110	.	.	.	.	58	17	5	26,281
CHANNEL/8127RB	112	57	24	1	27,443	.	.	.	.
CHANNEL/8075RB	112	57	24	1	26,717	.	.	.	.
AGSOURCE SEEDS/6166	111	57	22	1	28,024	.	.	.	.
AGSOURCE SEEDS/5356	106	.	.	.	.	58	15	0	26,136
AGSOURCE SEEDS/5286CBRR	106	.	.	.	.	61	19	0	27,298
INTEGRA/INT 6504RRYGCB	106	.	.	.	.	62	17	1	26,717
Test avg.:		57	22	1	27,401	59	17	2	26,198
Max-value:		60	25	7	28,169	62	23	7	27,588
Min-value:		55	18	0	26,572	54	15	0	23,958
# Lsd (.05):		2	1	2	NS	3	2	NS	1,293
## TPG-value:		58	19	2	26,572	59	17	7	26,295
@ Coef.Var.:		2	4	114	2	3	7	118	3
No. Entries:		14	14	14	14	28	28	28	28

* RM= relative maturity reported by seed company.

Seeding dates: Beresford- May 4 and Armour- May 3, 2004.

Lsd= amount values in a column must differ to be significantly different.

NS indicates differences among values in a column are non-significant.

TPG-value= minimum or maximum value to qualify for top performance group.

@ Coef. of variation= measure of trial experimental error.

Table F. Seed companies entered in the 2003 corn hybrid trials by seed brand name.

Seed brand	Mailing address
Access	Access Seed, 980 Fox Ridge Rd., Dike, IA 50624
AgSource	Agsource Seeds Inc., 1800 L Ave., Nevada, IA 50201
Asgrow	Monsanto, 3100 Sycamore Rd, Dekalb, IL 60115
Channel	Channel Bio Corp., 5932 Schumann Dr., Madison, WI 53711
Crows	Crows Hybrid Corn Co., 5932 Schumann Dr., Madison, WI 53711
Dairyland	Dairyland Seed Co., Inc., PO Box 958, West Bend, WI 53095
Dekalb	Monsanto, 3100 Sycamore Rd, Dekalb, IL 60115
Epley Bros.	Epley Bros. Hybrids Inc., PO Box 310, Shell Rock, IA 50670
Gold Country	Gold Country Seed Inc., 16506 Hwy 15 N., Hutchinson, MN 55350
Heine	Heine Seed Corn, 1020 E. 320 th St., Vermillion, SD 57064
Integra Seed	Integra Seed, Ltd., PO Box 40, Bozeman, MT 59718
Jacobsen	Jacobsen Hybrid Corn Co., Inc., 129 9 th St., Lake View, IA 51450
Jung	Jung Seed Genetics, 341 S. High St., Randolph, WI 53956
Kaltenberg	Kaltenberg Seeds, PO Box 278, Waunakee, WI 53597
Kaystar	Kaystar Seed, PO Box 947, Huron, SD 57350
Keltgen	Keltgen Inc., AgVenture, 302 South Spruce St., Henry, SD 57243
Kruger	Kruger Seed Co., Hwy 20 E, Box A, Dike, IA 50624
Mallard	Mallard Seed Co. Inc., PO Box 637, Plainview, MN 55964
Midwest	Midwest Seed Genetics, 5932 Schumann Dr., Madison, WI 53711
Mycogen	Mycogen Seeds, 205 Oak Ridge Rd., Brandon, SD 57005
Pfister	Pfister Hybrid Corn Co., 187 N. Fayette St., El Paso, IL 61752
Sands	Sand Seed Service, Inc., Box 648, Marcus, IA 51035
Seeds 2000	Seeds 2000, PO Box 200, Breckenridge, MN 56520
NuTech	Thompson Seeds/Nutech, 6131 N. Fork Rd., Ames, IA 50010
Top Farm	Top Farm Hybrids, PO Box 850, Cokato, MN 55321
Weco	Wilbur-Ellis Co., PO Box 2169, Minot, ND 58702
Wensman	Wensman Seed Co., PO Box 190, Wadena, MN 56482
