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1998 Crop Performance Trials: Corn

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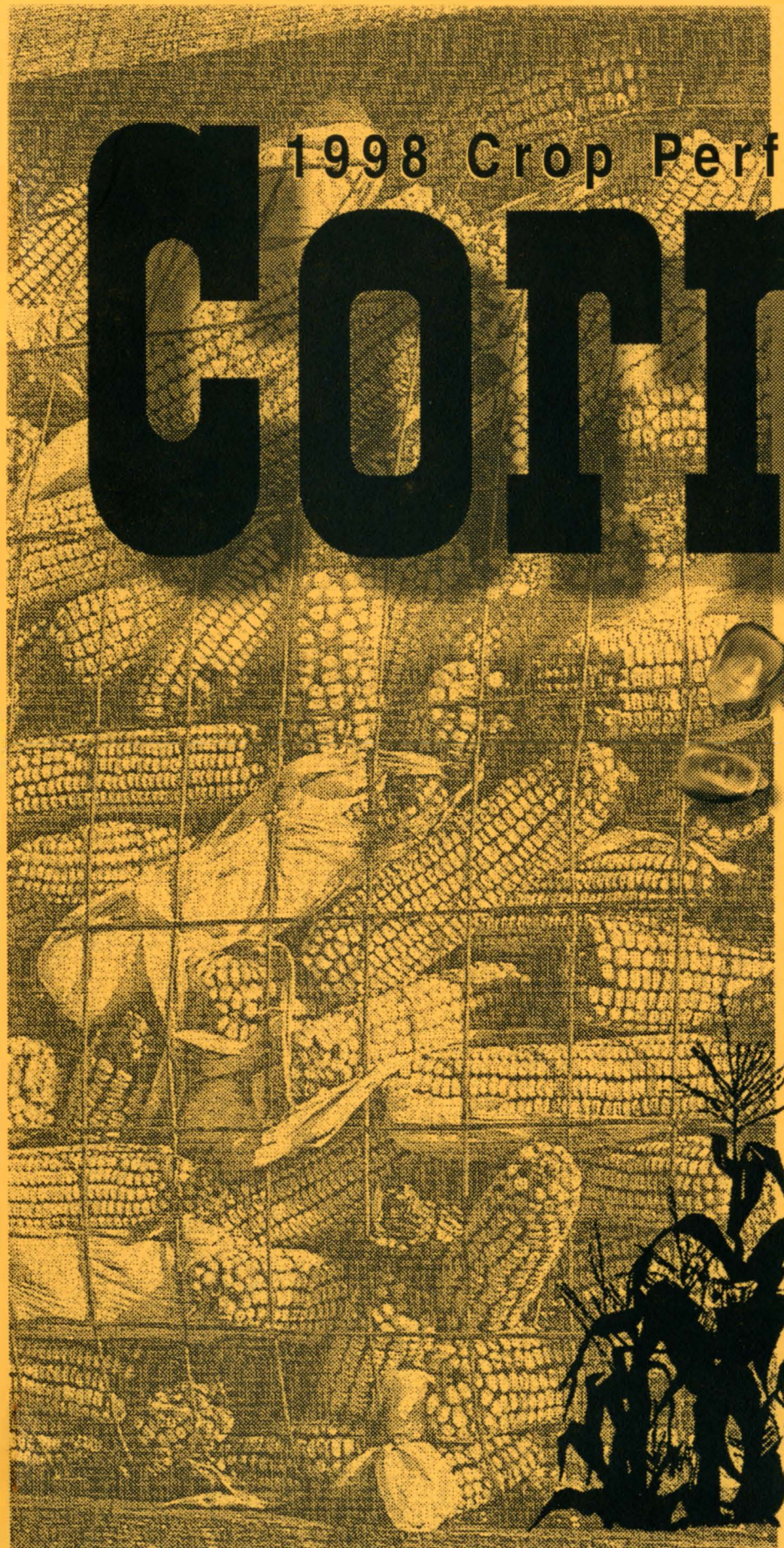
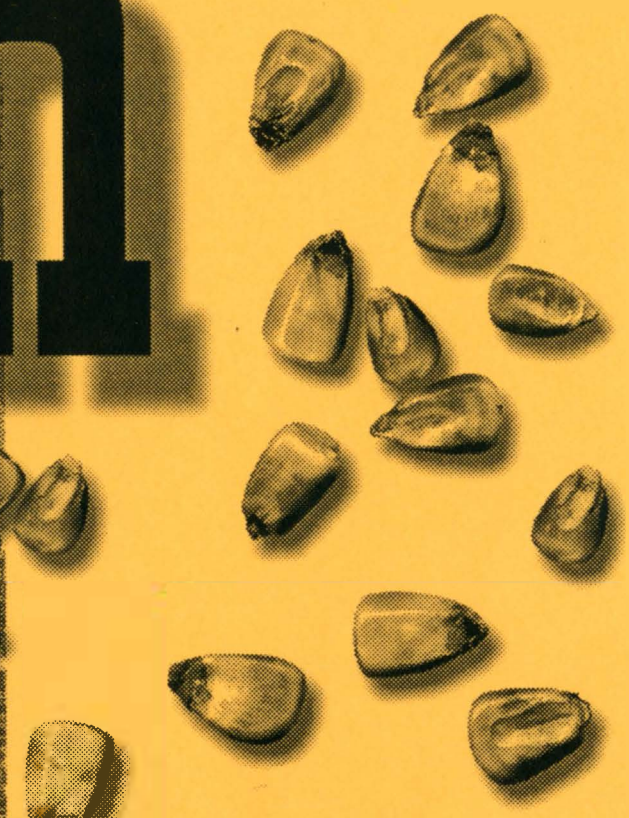
C253
Revised Annually

1998 Crop Performance Trials

Corn





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C 253
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1998 Performance Trials

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Entries and their yield table locations are reported in table D.

This report evaluates the performance of entries in the 1998 South Dakota corn hybrid performance trials. Information includes both 1997-98 and 1998 grain yields in bushels per acre (bu/ac); and 1998 test weight, moisture percentages of shelled corn at harvest, final plant populations per acre, and stalk lodge percentages. These trials were conducted by the South Dakota State University crop performance testing (CPT) program.

Test Trial Locations

Test trial locations along with soil types and seedbed preparation are given in Table A, while seeding and harvest dates are in Table B. Seeding of plots started on April 25 and was completed by May 11. Trial results at all locations were very good this year.

Test sites experiencing problems this year were: Frankfort (Spink Co.) plots were hit by high winds on July 18. These winds caused some "greensnap" in both trials. Generally, within hybrids the level of greensnap was consistent across all three replications and occurred below the ear.

Watertown (NE Research Farm) plots were seeded May 11 into a good seedbed. Plots were sprayed for European corn borer control with liquid Pounce 3.2 EC at 8 oz/ac with 20 gal/ac of water using a highboy on July 28. All plots exhibited good field emergence. At harvest, both trials exhibited many stalks leaning at 45 degrees or less; however, harvesting was no problem.

Beresford (SE Research Farm) plots were sprayed for European corn borer control with liquid Pounce 3.2 EC at 8 oz/ac with 20 gal/ac of water using a highboy on July 13.

Weather and Climatic Conditions

Climatic data (Table C) for this year's growing season, April-October, was obtained from the South Dakota Automatic Weather Data Network at http://www.abs.sdstate.edu/ae/weather.htm. Watertown and Sioux Falls airport data were used for the Watertown and the Colton trials, respectively. Stations are located at or near the other trial sites. Precipitation quantities may differ between test sites and the recording station; however, the nearest available data is reported.

The assistance of the following ... CPT technician Jesse Hall at Brookings, Jim Smolik and Allen Heuer at the Northeast Research Farm, Todd Bortnem and the Brookings Agronomy Farm staff, and Bob Berg and the Southeast Research Farm staff; Robert Clark (Armour), Greg Vanzanten (Colton), and Steve Masat (Frankfort), farmer-cooperators ... is deeply appreciated.

Available electronically on World Wide Web at http://www.abs.sdstate.edu/abs/c253corn.htm

Monthly precipitation totals were variable across locations. Monthly levels varied from a low of 0.00 inches at Redfield in September to a high of 7.06 at Watertown in October. More importantly, the station with the high accumulation of seasonal precipitation was Armour at 26.2 inches, 6.62 inches above average.

The only station reporting below-average precipitation was Brookings at 16.12 inches or 4.16 inches below average from April through October. Although Brookings was below average in rainfall for the season, a 3.51 inch accumulation for August was timely and critical in obtaining respectable yields during an otherwise dry year.

Heat unit or growing degree day (GDD) accumulations are reported for the nearest test site. Corn hybrids typically express a certain thermal or heat unit requirement from emergence to black-layer formation (physiological maturity).

The GDD totals across test locations varied from a high of 3412 at Armour to a low of 2542 at Watertown. At the four locations with a long-term history of GDD accumulation, two sites (Brookings and Centerville) showed above-average heat unit totals for the year and two sites (Sioux Falls and Watertown) showed below-average GDD totals for the year. The remaining two sites have no long-term GDD history with which to make comparisons. This year Armour totaled 3412 heat units. The Redfield heat unit total for the season was incomplete because of missing data in July.

In summary, the climatic conditions this year were variable across all locations. In general, however, there were no major negative climatic impacts on our test trial results.

Hybrid Entry Procedure

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 Watertown; 100 days for Frankfort, Brookings, and Pierre; 105 days for Crooks and Armour; 110 days for Beresford.

Hybrids are assigned to maturity trials based on relative maturity ratings defined by the participating 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 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 brands is presented in table E.

Experimental Procedures

Entries were seeded in three replications with each hybrid randomly located within a replication. Plots consisted of two 30-inch rows, 20 feet long.

Soil type, land preparation, and previous crop at each test site are outlined in table A. A starter fertilizer of 100 pounds/ac 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 T-banded at label rates for corn rootworm control this year. Recommended herbicides (pre-emergence and post-emergence) were broadcast at labeled rates where needed.

A 31-cell cone drill seeder was used for all plots. Cone units were mounted above commercial maxi-merge units. Seeding rate was 15% more than the desired number of plants harvested per plot. Plots were later thinned to a final field population

which is listed in each yield table. Seedbed preparation was good at all locations.

Measurements of Performance

Yield

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

Hybrids of equal potential may yield differently because of variations in slope, soil fertility, and stand. Statistical tests determine whether differences were caused by variations in environment or were true variety differences.

In 1998 the coefficient of variation (CV) for yield was 10% or less at all test sites except for Frankfort where high winds and "greensnap" likely caused high CV values. 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 selecting a hybrid.

In 1998, however, the CV values were well within test limits, and experimental error was not a major factor in any trial. Experimental error may be the result of several factors including test methods, or factors such as moisture, temperature, soil variations, or agronomic factors like seeding date, reseeding, or seed quality factors; all of which may or may not be controllable in a given year.

Moisture Content

Moisture content is expressed as the percentage of moisture in the shelled corn at harvest. Moisture is inversely related to maturity. Because maturity is of prime importance in South Dakota, moisture figures are of considerable importance in the evaluation of the trial entries. Hybrids that provide satisfactory yields and can be stored without additional drying are desirable.

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 that column. If there are no real differences among the averages within a given column, a "nonsignificant" (NS) difference designation is indicated.

The LSD values can be used in two ways. Here the LSD value is used primarily to identify the top-yielding group for each test trial. For example, at Watertown the highest 2-year yield was 172 bu/ac for Wensman Max 78. To determine whether Wensman Max 78 is the only top yielder at Watertown, use the LSD value of 26 bu/ac at the bottom of the 2-yr yield column. For hybrids to be in the top-yield group they must yield 147 bu/ac (172 - 26 = 146 + 1) or higher.

A yield of 147 bu/ac would be in the top-yield group while a yield of 146 bu/ac would not be in the top-yield group. That is why 1 bu/ac is added to 146 in the above equation to define the top-yield group. All yields and LSD values are rounded to the nearest whole number. We can say 147 bu/ac is the minimum value for top-yield hybrids at the "early" maturity test at Watertown in 1998. This value is indicated as the min. top-yield value at the bottom of the 2-yr yield column.

In addition, the minimum top-yield value is indicated for the 2-year (1997-98) average unless there were no significant yield differences. Top-yield hybrids for 1998 are those hybrids which are equal or higher than the minimim top-yield value indicated at the bottom of the 1998 yield column.

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

early test at Watertown, the LSD value of 26 bu/ac can be used to compare the yields of any two hybrids in the early maturity trial. If hybrid A yields 163 bu/ac and hybrid B yields 141 bu/ac, their yield difference is 22 bu/ac (163 - 141 = 22). In this case the two hybrids do not differ in yield because their yield difference of 22 bu/ac is less than the reported LSD value of 26 bu/ac.

In contrast, if hybrid C yields 127 bu/ac, the yield difference between hybrid A and hybrid C would be 36 bu/ac (163 - 127 = 36). In this case the yield difference of 36 bu/ac is more than the reported LSD value of 26 bu/ac and therefore hybrid A would have a significantly higher yield than hybrid C.

PERFORMANCE TRIAL RESULTS

The performance trial results for 2 years (1997-98) and one year (1998) are summarized below:

Watertown (NE Research Farm)

Early Maturity Trial (Table 1)

The number of hybrid entries was 54. The 2-year average was 153 bu/ac, hybrids had to average 147 bu/ac or higher to be in the top-yield group (TYG), and 13 hybrids qualified. Hybrids had to differ by 26 bu/ac to be significantly different in yield. The 1998 average was 158 bu/ac, hybrids had to average 183 bu/ac or higher to be in the top-yield group, 3 hybrids qualified. Hybrids had to differ by 16 bu/ac to be significantly different in yield.

Late Maturity Trial (Table 2)

The number of hybrid entries was 45. The 2-year average was 159 bu/ac, hybrids had to average 142 bu/ac or higher to be in the top-yield group(TYG), and 15 hybrids qualified. The test trial was unable to detect hybrid yield difference among entries tested for 2 years; therefore, all entries qualified for the top-yield group and there were no significant differences in yield among hybrids tested 2 years. The 1998 average was 173 bu/ac, hybrids had to average 180 bu/ac or higher to be in the top-yield group, and 11 hybrids qualified. Hybrids had to differ by 15 bu/ac to be significantly different in yield.

Frankfort, no-till (Steve Masat Farm)

Early Maturity Trial (Table 3)

The number of hybrid entries was 52. The 2-year average was 158 bu/ac, hybrids had to average 152 bu/ac or higher to be in the top-yield group (TYG), and 12 hybrids qualified. Hybrids had to differ by 29 bu/ac to be significantly different in yield. The 1998 average was 174 bu/ac, hybrids had to average 162 bu/ac or higher to be in the top-yield group, 42 hybrids qualified. Hybrids had to differ by 33 bu/ac to be significantly different in yield.

Late Maturity Trial (Table 4)

The number of hybrid entries was 29. The 2-year average was 169 bu/ac, hybrids had to average 158 bu/ac or higher to be in the top-yield group (TYG), 6 hybrids qualified. Hybrids had to differ by 30 bu/ac to be significantly different in yield. The 1998 average was 187 bu/ac, hybrids had to average 184 bu/ac or higher to be in the top-yield group, 20 hybrids qualified. Hybrids had to differ by 31 bu/ac to be significantly different in yield.

Brookings (SDSU Agronomy Farm)

Early Maturity Trial (Table 5)

The number of hybrid entries was 62. The 2-year average was 153 bu/ac, hybrids had to average 141 bu/ac or higher to be in the top-yield group (TYG), 21 hybrids qualified. Hybrids had to differ by 26 bu/ac to be significantly different in yield. The 1998 average was 166 bu/ac, hybrids had to average 182 bu/ac or higher to be in the top-yield group, 8 hybrids qualified. Hybrids had to differ by 18 bu/ac to be significantly different in yield.

Late Maturity Trial (Table 6)

The number of hybrid entries was 45. The 2-year average was 153 bu/ac, hybrids had to average 154 bu/ac or higher to be in the top-yield group (TYG), 7 hybrids qualified. Hybrids had to differ by 22

bu/ac to be significantly different in yield. The 1998 average was 159 bu/ac, hybrids had to average 175 bu/ac or higher to be in the top-yield group, 5 hybrids qualified. Hybrids had to differ by 18 bu/ac to be significantly different in yield.

Colton (Greg Vanzanten Farm)

Early Maturity Trial (Table 7)

The number of hybrid entries was 53. The 2-year average was 171 bu/ac, hybrids had to average 173 bu/ac or higher to be in the top-yield group (TYG), 7 hybrids qualified. Hybrids had to differ by 22 bu/ac to be significantly different in yield. The 1998 average was 200 bu/ac, hybrids had to average 211 bu/ac or higher to be in the top-yield group, and 14 hybrids qualified. Hybrids had to differ by 20 bu/ac to be significantly different in yield.

Late Maturity Trial (Table 8)

The number of hybrid entries was 37. The 2-year average was 183 bu/ac, hybrids had to average 169 bu/ac or higher to be in the top-yield group (TYG), and 11 hybrids qualified. The test trial was unable to detect hybrid yield difference among entries tested for 2 years, therefore all entries qualified for the top-yield group and there were no significant differences in yield among hybrids tested 2 years. The 1998 average was 219 bu/ac, hybrids had to average 237 bu/ac or higher to be in the top-yield group, 5 hybrids qualified. Hybrids had to differ by 20 bu/ac to be significantly different in yield.

Armour, no-till (Robert Clark Farm)

Early Maturity Trial (Table 9)

The number of hybrid entries was 50. The 2-year average was 181 bu/ac, hybrids had to average 189 bu/ac or higher to be in the top-yield group (TYG), 3 hybrids qualified. Hybrids had to differ by 14 bu/ac to be significantly different in yield. The 1998 average was 178 bu/ac, hybrids had to average 195 bu/ac or higher to be in the top-yield group, 5 hybrids qualified. Hybrids had to differ by 21 bu/ac to be significantly different in yield.

Late Maturity Trial (Table 10)

The number of hybrid entries was 64. The 2-year average was 200 bu/ac, hybrids had to average 198 bu/ac or higher to be in the top-yield group (TYG), 18 hybrids qualified. Hybrids had to differ by 15 bu/ac to be significantly different in yield. The 1998 average was 192 bu/ac, hybrids had to average 201 bu/ac or higher to be in the top-yield group, 18 hybrids qualified. Hybrids had to differ by 18 bu/ac to be significantly different in yield.

Beresford (SE Research Farm)

Early Maturity Trial (Table 11)

The number of hybrid entries was 85. The 2-year average was 187 bu/ac, hybrids had to average 187 bu/ac or higher to be in the top-yield group (TYG), 14 hybrids qualified. Hybrids had to differ by 22 bu/ac to be significantly different in yield. The 1998 average was 201 bu/ac, hybrids had to average 218 bu/ac or higher to be in the top-yield group, 11 hybrids qualified. Hybrids had to differ by 13 bu/ac to be significantly different in yield.

Late Maturity Trial (Table 12)

The number of hybrid entries was 25. The 2-year average was 189 bu/ac, hybrids had to average 176 bu/ac or higher to be in the top-yield group (TYG), and 13 hybrids qualified. The test trial was unable to detect hybrid yield difference among entries tested for 2 years, therefore all entries qualified for the top-yield group and there were no significant differences in yield among hybrids tested 2 years. The 1998 average was 207 bu/ac, hybrids had to average 207 bu/ac or higher to be in the top-yield group, 16 hybrids qualified. Hybrids had to differ by 16 bu/ac to be significantly different in yield.

• Table A. Soil classification and land preparation.

LOCATION	SOIL TYPE	SEEDBED, PREVIOUS CROP
BROOKINGS	BRANDT SIL. CL.	CONV., SPRING WHEAT
WATERTOWN	BROOKINGS SILTY CLAY LOAM	CONV., OATS
FRANKFORT	BEOTIA SILT LOAM	NO-TILL, SOYBEAN
BERESFORD	TRENT SILTY LOAM	CONV., OATS
ARMOUR	EAKIN-ETHAN COMPLEX	NO-TILL, SOYBEAN STUBBLE
COLTON	VIBORG SILTY CLAY LOAM	MIN.-TILL, SOYBEAN STUBBLE

CONV. = CONVENTIONAL TILLAGE, NO-TILL = NO TILLAGE, AND
MIN.-TILL = MINIMUM TILLAGE.

• Table B. Test trial cooperators, locations, 1998 seeding and harvest dates.

COOPERATORS	LOCATION	DATE SEEDED	DATE HARVESTED
ROBERT CLARK	ARMOUR	MAY 5	OCT. 22
S.E. RESEARCH FARM	BERESFORD	MAY 7	OCT. 21
SDSU AGRONOMY FARM	BROOKINGS	APR 28	OCT. 20
GREG VANZANTEN (LATE MATURITY)	COLTON	APR 25	OCT. 24
GREG VANZANTEN (EARLY MATURITY)	COLTON	APR 25	NOV. 6
N.E. RESEARCH FARM	WATERTOWN	MAY 11	OCT. 26
STEVE MASAT	FRANKFORT	APR 30	OCT. 23

• Table C. Nearest station precipitation and heat unit or Growing Degree Day data for 1998 (Source: S.D. Automatic Weather Data Network).

STATION	DATA	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTAL
ARMOUR	PRECIP.TOTAL(in.)	3.86	1.93	4.63	6.58	3.37	0.67	5.16	26.2
	PRECIP.DEPARTURE	1.52	-1.25	0.75	3.46	0.25	-1.71	3.6	6.62
AIRPORT	GDD'S TOTAL*	192	484	498	754	734	564	186	3412
	GDD DEPARTURE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BROOKINGS	PRECIP.TOTAL(in.)	1.82	1.54	2.04	1.59	3.51	0.76	4.86	16.12
	PRECIP.DEPARTURE	-0.25	-1.39	-2.3	-1.73	0.19	-1.88	3.2	-4.16
2 NE	GDD'S TOTAL	149	414	413	617	597	465	159	2814
	GDD DEPARTURE	26	112	-66	-3	39	129	-3	234
CENTERVILLE	PRECIP.TOTAL(in.)	5.23	1.98	5.51	2.78	3.16	0.28	4.46	23.4
	PRECIP.DEPARTURE	2.96	-1.46	1.29	-0.6	-0.22	-2.36	2.75	2.36
6 SE	GDD'S TOTAL	169	464	478	707	674	551	216	3259
	GDD DEPARTURE	-17	85	-90	7	42	140	-9	158
REDFIELD	PRECIP.TOTAL(in.)	2.09	4.19	1.94	2.72	3.83	0	6.82	21.59
	PRECIP.DEPARTURE	-0.01	1.3	-1.23	0.05	1.16	-1.77	5.48	4.98
2 NE	GDD'S TOTAL**	158	371	429	375	661	462	150	2606
	GDD DEPARTURE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SIOUX FALLS	PRECIP.TOTAL(in.)	3.57	1.92	4.52	2.66	3.29	1.18	6.25	23.39
	PRECIP.DEPARTURE	1.05	-1.11	1.12	-0.02	0.61	-1.84	4.47	4.28
AIRPORT	GDD'S TOTAL	150	417	424	667	647	465	178	2948
	GDD DEPARTURE	-14	64	-124	-40	8	77	-20	-49
WATERTOWN	PRECIP.TOTAL(in.)	2.17	2.91	1.62	2.69	4.06	0.13	7.06	20.64
	PRECIP.DEPARTURE	-0.01	-0.12	-1.91	-0.36	1.01	-1.84	5.19	1.96
AIRPORT	GDD'S TOTAL	131	364	375	552	578	411	131	2542
	GDD DEPARTURE	9	60	-118	-96	-12	74	-25	-108

*Growing Degree Day = ((Daily Max.Temp<=86 F. + Daily Min.Temp>=50 F.)/2) - 50
The maximum number of GGD's that can accumulate per day is 18 and the minimum number per day is zero.

**This location was missing 14 days of data in July.

• Table D. Entries and their yield table locations for the 1998 corn hybrid performance trials.

NO.	BRAND & HYBRID	TABLE NO.	NO.	BRAND & HYBRID	TABLE NO.
1	CARGILL 3677	2,3,5,7	52	SANDS SOI 9067	6,8,11
2	CARGILL 4127	4,6,7	53	SANDS SOI 9087	11
3	CARGILL 6997	12	54	SANDS SOI 9128	10
4	CARGILL 6888	10,12	55	SANDS SOI 9008	5,9
5	CARGILL 7770	12			
6	CARGILL 5677	10,11	56	ASGROW RX490	4,6,7
7	CARGILL 6303	8,10,11	57	ASGROW RX601	8,10,11
8	CARGILL 2777	1,3,5	58	ASGROW RX730	10,11
9	CARGILL 4111	2,4,6,7	59	ASGROW RX530	6
10	CARGILL 4811	4,6,7,9	60	ASGROW RX355	1
11	CARGILL 5021BT	10,11	61	ASGROW RX352	1
12	CARGILL 5611	8,10,11	62	ASGROW RX587	8,10,11
			63	ASGROW RX505BT	8,10,11
13	DEKALB DK477	2,3,5			
14	DEKALB DK586	4,8,10,11	64	GARST 8814	1
15	DEKALB DK471	3	65	GARST 8640	6,7,9
16	DEKALB DK449	1,5	66	GARST P834	11
17	DEKALB DK405	1	67	GARST 8707	2,3,5,7,9
18	DEKALB DK440	1,3,5	68	GARST 8780HPH	5
19	DEKALB DK493BTX	2,3,5,7,9	69	GARST 8766	2,3,5
20	DEKALB DK525	6,7	70	GARST N6901	1
21	DEKALB DK540	4,6,7,9	71	GARST 8830	1,3
22	DEKALB DK545BTY	4,6,7,11	72	GARST 8686	8,11
23	DEKALB DK551	7,9	73	GARST 8600IT	10
24	DEKALB DK566BTX	11	74	GARST 8556IT	4,10,11
25	DEKALB DK580BTY	8,11	75	GARST 8585 GLS/IT	8,10,11
26	DEKALB DK595BTX	8,10,11			
27	DEKALB DK626BTX	12	76	GOLDEN HARVEST H-2547	8,10
			77	GOLDEN HARVEST H-2390	4,6,7,9,11
28	MALLARD UC-389-A	1	78	GOLDEN HARVEST H-2292	1
29	MALLARD UC-414-A	1	79	GOLDEN HARVEST H-2382	5
30	MALLARD UC-595-A	2	80	GOLDEN HARVEST H-2265	1,3
31	MALLARD UC-2660	6	81	GOLDEN HARVEST H-2315	5
32	MALLARD UC-585	5	82	GOLDEN HARVEST H-2309	1,3
			83	GOLDEN HARVEST H-2398	4,7,11
33	DAIRYLAND STEALTH-1297	1	84	GOLDEN HARVEST H-2515	11
34	DAIRYLAND STEALTH-1401	3,5	85	GOLDEN HARVEST H-2516	8,10,11
35	DAIRYLAND STEALTH-1406	11			
36	DAIRYLAND STEALTH-1595	1	86	WILSON 1390	9,11
37	DAIRYLAND STEALTH-1496	1	87	WILSON 1664	10,12
38	DAIRYLAND STEALTH-1500	3,5	88	WILSON 1098	9
39	DAIRYLAND STEALTH-1509	11	89	WILSON 1644	11
41	DAIRYLAND STEALTH-1410	10,11	90	WILSON E6011	10,11
42	DAIRYLAND STEALTH-1409	10	91	WILSON 1475PT	10,11
43	DAIRYLAND STEALTH-1505	11	92	WILSON E3034	10,11
44	DAIRYLAND DST-9044	1			
45	DAIRYLAND DST-9047	1	93	TOP FARM TFSX 2100	2,4,6,7
46	DAIRYLAND STEALTH-1292	1	94	TOP FARM TFSX 2103	4,6
			95	TOP FARM TFSX 2196	1,3,5
47	SANDS SOI 9045	6,7	96	TOP FARM TFSX 2201	2,3,5,7
48	SANDS SOI 9115	12	97	TOP FARM TFSX 2111	8
49	SANDS SOI 9126	10,12	98	TOP FARM TFSX 2202	2,4,6,7
50	SANDS SOI 9027	7,9	99	KAYSTAR KX-777	6,8,10,11
51	SANDS SOI 9991	5	100	KAYSTAR KX-410	1

TABLE D (CONTINUED). ENTRIES AND THEIR YIELD TABLE LOCATIONS FOR 1998.

NO.	BRAND & HYBRID	TABLE NO.	NO.	BRAND & HYBRID	TABLE NO.
101	KAYSTAR KX-575	3,5	152	KRUGER EX807	4,6,7,9,11
102	KAYSTAR KX-625	2,4,7,9	153	KRUGER K-9808	6,7,9,11
103	KAYSTAR KX-808	12	154	KRUGER EX808	4,6,7,9,11
104	KAYSTAR KX-675	6,8	155	KRUGER EX809	6,7,9,11
105	KAYSTAR KX-780	11	156	KRUGER K-9910	8,10,11
			157	KRUGER K-9810	8,10,11
106	KALTENBERG 3709	1	158	KRUGER K-9914	10
107	KALTENBERG 3904	1			
108	KALTENBERG 4807	2,5	159	JACOBSEN JS4476	9
109	KALTENBERG 4809	2,5	160	JACOBSEN JS4635	10
110	KALTENBERG 5009	6,7	161	JACOBSEN JS4176	5
111	KALTENBERG 5109	6,7	162	JACOBSEN JS4685	11
112	KALTENBERG 6106	8	163	JACOBSEN JS4500BT	10,11
113	KALTENBERG 6301	8	164	JACOBSEN JS4247	9,11
114	KALTENBERG 6801	11			
115	KALTENBERG 6901	11	165	FONTANELLE 4997	11
116	KALTENBERG 7001	12	166	FONTANELLE 4567	11
117	KALTENBERG 7101	12	167	FONTANELLE 4988	11
118	LG SEEDS LG 2539	10	168	PAYCO 607	2,3
119	LG SEEDS LG 2583	11	169	PAYCO 468	1,3
120	LG SEEDS LG 2447	9			
121	LG SEEDS LG 2473	9	170	NC+ 2395	4,7,9
122	LG SEEDS LG 2483	9	171	NC+ 4880	11
123	LG SEEDS LG 2530	9	172	NC+ 1487	3
124	LG SEEDS LG 2587	12	173	NC+ 1728	3
125	LG SEEDS LG 2616	12			
			174	HOEGEMEYER 2591	7,9,11
126	STAUFFER 2436	11	175	HOEGEMEYER 2612	8,10,11
127	STAUFFER 2207	12	176	HOEGEMEYER 2567	7
128	STAUFFER 2420	5	177	HOEGEMEYER 2623	10
129	STAUFFER 2500	6	178	HOEGEMEYER 2618	10,11
			179	HOEGEMEYER 2641IMI	11
130	KRUGER K-9614A	10,11	180	HOEGEMEYER 2645	12
131	KRUGER K-9709	6,7,9	181	HOEGEMEYER 592WX	11
132	KRUGER K-9513	10,11			
133	KRUGER K-9802	2,3,5	182	TERRA TR 1087	8,10,11
134	KRUGER K-9806	4,6,7,9	183	TERRA E857	1
135	KRUGER K-9904	2,3,5	184	TERRA E858	1
136	KRUGER K-9705	2	185	TERRA E968	2
137	KRUGER K-9706	9	186	TERRA E988IT	2,3,5
138	KRUGER K-9910A	8			
139	KRUGER K-9811+	10	188	TERRA E987	3,5
140	KRUGER K-9912	10	189	TERRA TR 1047	6,7,9,11
141	KRUGER K-9813	10	190	TERRA E1058BT	9,11
142	KRUGER K-9995	1	191	TERRA E1089IT	8,10,11
143	KRUGER K-9896	1,3	192	TERRA TR 1097	8,10,11
144	KRUGER K-9901	2,3,5	193	TERRA TR 1107IT	10,11
145	KRUGER EX902	2,3,5,7			
146	KRUGER K-9902A	2,3,5	194	M-W GENETICS G 7350	9
147	KRUGER K-9803	2,3,5,7	195	M-W GENETICS G 7480	8,10
148	KRUGER EX803	2,3,5,7,9	196	M-W GENETICS G 7610	10,11
149	KRUGER EX805	2,4	197	M-W GENETICS G 7711	12
150	KRUGER K-9807	4,6,7,9	198	M-W GENETICS G 7118	5,7,9
151	KRUGER K-9806B	4,7,9	199	M-W GENETICS G 6920	1

TABLE D (CONTINUED). ENTRIES AND THEIR YIELD TABLE LOCATIONS FOR 1998.

NO.	BRAND & HYBRID	TABLE NO.
200	M-W GENETICS G 6960	2,5
201	EPLEY EX2422	6,10,11
202	EPLEY EX1500	6,9,11
203	EPLEY EX3608	10,12
204	EPLEY EX3242	10,12
205	EPLEY EX1160	2
206	EPLEY EX1460	2,6,9
207	EPLEY EX1122	1,5
208	EPLEY EX1140	2,5
209	EPLEY EX1125	2,9
210	EPLEY E2434	6,10,11
211	EPLEY EX3620	12
212	EPLEY E1510BT	9,11
213	MUSTANG DX720	11
214	MUSTANG DX403	1,5
215	MUSTANG DX550	2,5
216	MUSTANG DX503	2,5
217	MUSTANG 2085	1
218	MUSTANG 3090	1
219	MUSTANG 3093	1
220	MUSTANG DX402	1,5
221	MUSTANG DX460	1
222	MUSTANG DX661	6,7,9,11
223	MUSTANG DX705	11
224	RENZE 6345	12
225	RENZE 6386	10,12
226	RENZE 6167	7,9,11
227	RENZE 6287	8,10,11
228	RENZE 6318	8,10,11
229	RENZE 6327	10,11
230	RENZE 8158BT	7,9,11
231	RENZE 8248BT	8,10,11
232	MYCOGEN 7250	8,10,12
233	MYCOGEN 2250	1
234	MYCOGEN 2395	1,3,5
235	MYCOGEN 2420	1
236	MYCOGEN 2500	2,3,5
237	MYCOGEN 2616IMI	6,10
238	MYCOGEN 2725	8,10,12
239	MYCOGEN 2545	2,6,7
240	MYCOGEN 2620	4,6,7,9,11
241	MYCOGEN 2598	4,6,8,10,11
242	MYCOGEN 2593	2,4,6,7
243	MYCOGEN 2722	10,12
244	WENSMAN MAX 78	1,3,5
245	WENSMAN MAX 007	1,3,5,7
246	WENSMAN MAX 127	1,3,5,7
247	WENSMAN MAX 88	2,3,5,7
248	WENSMAN W 4123	1,3,5
249	WENSMAN W 4137	1,3,5
250	WENSMAN W 4146	1,3,5,7
251	WENSMAN MAX 70	1,3,5
252	WENSMAN W 4237	2,3,5,7
253	WENSMAN W 4297	2,4,6,7
254	WENSMAN W 5088 BT	1,3,5
255	WENSMAN W 5108 BT	1,3,5
256	ENESTVEDT'S E-605	1,5
257	ENESTVEDT'S E-601	1
258	ENESTVEDT'S E-690	6
259	DENBESTEN DB2890	1,3,5
260	DENBESTEN DB2892	1,3,5
261	DENBESTEN DB2695	1,3,5
262	DENBESTEN DB2696	2,3,5
263	DENBESTEN DB5101	2,4,6,7,9
264	DENBESTEN DB2702	2,4,6,7,9,
265	DENBESTEN DB2806	4,6,8,10,1
266	DENBESTEN DB6750	4,6,7,9,11
267	DENBESTEN DB2608	8,10,11
268	DENBESTEN DB3608	8,10,11
269	DENBESTEN DB5112	8,10,12
270	DENBESTEN DB2611	8,10,12
271	HYLAND SEEDS HL 2521	2,5
272	HYLAND SEEDS HL 2505	2,5
273	HYLAND SEEDS HL 2507	2,5
274	HYLAND SEEDS HL 2614	2,5

• Table E. Mailing addresses of seed brands entered in the 1998 corn hybrid performance trials.

SEED BRAND	MAILING ADDRESS
Asgrow	310 Main St., Mapleton, MN 56065
Cargill	PO Box 5645, Minneapolis, MN 55440
Dairyland	PO Box 958, West Bend, WI 53095-0958
Dekalb	3100 Sycamore Rd., Dekalb, IL 60115
Den Besten	Box 896, Platte, SD 57369
Domestic	306 S. Washington, Madison, SD 57042
Enestvedt	RR1 Box 36, Sacred Heart, MN 56285
Epley Bros.	PO Box 310, Shell Rock, IA 50670
Fontanelle	10981 8th ST, Nickerson, NE 68044-9706
Garst	501 N. Oakridge RD, Brandon, SD 57005
Hoegemeyer	1755 Hoegemeyer Rd, Hooper, NE 68031
Hyland	145 Malborough St., Blenheim, Ontario, Nopiao
Interstate Payco	Box 338 1215 Prairie Parkway, West Fargo, ND 58078
Golden Harvest	100 J.C. Robinson Blvd PO Box A, Waterloo, NE 68069
Jacobsen	129 9th St Box 379, Lake View, IA 51450
Kaltenberg	5506 Hwy 19, PO Box 278, Waunakee, WI 53597-0278
Kaystar	PO Box 947, 702 3rd St. SW, Huron, SD 57350
Kruger	Highway 20 East Box A, Dike IA 50624
LG	3551 Country RD F, PO Box 88, Tekamah, NE 68061
Mallard	311 West Broadway, Plainview, MN 55964
Midwest	PO Box 518, Carroll , IA 51401
Mycogen	1340 Corporate Center Curve, St. Paul, MN 55121-1428
NC+	3820 N. 56th, Lincoln, NE 68504
Renze	27410 Kittyhawk Ave., Carroll, IA 51401
Sand	Box 648, Marcus IA 51035
Stauffer	PO Box 68, Aurora, NE 68818
Terra	600 4th St., Sioux City, IA 51101
Top Farm	PO Box 850, Cokato, MN 55321
Wensman	PO Box 190, Wadena, MN 56482
Wilson	1408 Hwy. 44, Harlan, IA 51537

• Table 1. 1998 corn hybrid performance trial results — Watertown, NE Research Farm, early maturity — 95 days or less, plots thinned to a population of 26,136 plants/acre.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
	******* ENTRIES TESTED TWO YEARS *******					
WENSMAN MAX 78	172	171	20	57	26136	1
WENSMAN MAX 007	170	170	19	57	26136	1
WENSMAN W 4146	169	159	20	56	26136	0
WENSMAN MAX 127	166	167	20	58	26136	1
MUSTANG DX403	163	166	21	54	26136	0
DAIRYLAND STEALTH-1297	163	183	21	55	26136	1
DAIRYLAND STEALTH-1496	162	166	20	55	26136	1
DEKALB DK449	160	161	20	55	26136	0
DAIRYLAND STEALTH-1595	159	161	19	54	26136	1
ENESTVEDT'S E-605	154	152	19	54	26136	0
WENSMAN W 4137	154	154	18	57	26136	2
KAYSTAR KX-410	152	155	20	55	26136	3
WENSMAN W 4123	149	164	20	57	26136	1
MYCOGEN 2395	146	154	20	57	26136	2
GOLDEN HARVEST H-2265	143	150	18	55	26136	1
ASGROW RX355	141	151	18	56	26136	1
MYCOGEN 2420	140	162	19	56	26136	2
MYCOGEN 2250	139	140	19	59	26136	2
TOP FARM TFSX 2196	133	145	19	55	26136	1
CARGILL 2777	127	151	21	60	26136	1
	******* ENTRIES TESTED ONE YEAR *******					
MUSTANG DX460	.	198	20	53	26136	2
GARST 8830	.	187	21	54	26136	2
DEKALB DK440	.	178	19	54	26136	2
DENBESTEN DB2695	.	176	19	55	26136	0
KALTENBERG 3904	.	176	19	56	26136	1
PAYCO 468	.	172	19	56	26136	3
GARST 8814	.	172	19	57	26136	2
WENSMAN W 5108 BT	.	166	19	61	26136	0
DEKALB DK405	.	165	16	54	26136	1
MUSTANG DX402	.	165	20	54	26136	1
WENSMAN MAX 70	.	160	20	54	26136	0
MALLARD UC-389-A	.	159	20	55	26136	1
MALLARD UC-414-A	.	158	20	54	26136	2
GOLDEN HARVEST H-2292	.	158	19	54	26136	0
MUSTANG 3090	.	157	20	54	26136	1
GOLDEN HARVEST H-2309	.	155	21	54	26136	1
MUSTANG 3093	.	155	18	54	26136	2
ENESTVEDT'S E-601	.	154	20	57	26136	3
DENBESTEN DB2892	.	153	19	54	26136	2
KALTENBERG 3709	.	152	19	55	26136	1

TABLE 1 (CONTINUED). WATERTOWN, EARLY MATURITY - 95 DAYS OR LESS.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
WENSMAN W 5088 BT	.	152	19	57	26136	0
DENBESTEN DB2890	.	152	19	54	26136	1
DAIRYLAND STEALTH-1292	.	150	20	56	26136	2
EPLEY EX1122	.	149	19	54	26136	3
M-W GENETICS G 6920	.	148	17	55	26136	1
KRUGER K-9896	.	148	19	54	26136	3
DAIRYLAND DST-9047	.	148	18	55	26136	2
KRUGER K-9995	.	148	20	55	26136	1
GARST N6901	.	147	20	60	26136	3
ASGROW RX352	.	146	19	57	26136	1
TERRA E857	.	144	20	57	26136	2
DAIRYLAND DST-9044	.	139	18	54	26136	3
MUSTANG 2085	.	139	18	58	26136	1
TERRA E858	.	129	16	55	26136	1
AVERAGE:	153	158	19	56	26136	1
LSD (5%):	26	16	2	2	NS**	2
MIN. TOP YIELD VALUE*:	147	183				
COEF. OF VARIATION#:	7	6				

*TOP YIELD - YIELDS WITHIN ONE LSD VALUE OF HIGHEST YIELD.
**YIELD DIFFERENCES WITHIN A COLUMN ARE NOT SIGNIFICANT (NS).
#A MEASURE OF EXPERIMENTAL ERROR; A VALUE OF 15% OR LESS IS DESIRABLE.

• Table 2. 1998 corn hybrid performance trial results — Watertown, NE Research Farm, late maturity — 96 days or more, thinned to a population of 26,136 plants/acre.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
******* ENTRIES TESTED TWO YEARS *******						
DEKALB DK477	169	189	19	57	26136	1
CARGILL 3677	167	171	20	54	26136	1
KRUGER K-9705	167	175	22	55	26136	1
MUSTANG DX550	167	184	21	56	26136	1
KRUGER K-9802	166	173	23	55	26136	0
MYCOGEN 2545	166	183	23	54	26136	0
KRUGER K-9904	165	169	25	55	26136	1
GARST 8707	161	170	21	53	26136	1
WENSMAN MAX 88	158	178	21	56	26136	2
CARGILL 4111	156	195	19	58	26136	1
TOP FARM TFSX 2100	156	170	23	54	26136	0
MYCOGEN 2500	153	186	20	57	26136	1
PAYCO 607	151	173	19	56	26136	0
EPLEY EX1160	144	177	19	54	26136	0
TOP FARM TFSX 2201	142	160	21	55	26136	1
******* ENTRIES TESTED ONE YEAR *******						
MYCOGEN 2593	.	188	20	55	26136	2
DENBESTEN DB2702	.	181	23	58	26136	1
GARST 8766	.	181	22	57	26136	1
KALTENBERG 4809	.	180	20	55	26136	0
TERRA E968	.	180	20	56	26136	0
WENSMAN W 4297	.	180	23	55	26136	3
KRUGER K-9901	.	179	20	56	26136	2
WENSMAN W 4237	.	179	22	55	26136	2
KRUGER EX805	.	177	23	54	26136	2
KAYSTAR KX-625	.	177	22	55	26136	1
M-W GENETICS G 6960	.	175	20	55	26136	2
DEKALB DK493BTX	.	174	19	56	26136	2
KALTENBERG 4807	.	174	20	55	26136	1
MUSTANG DX503	.	174	23	55	26136	1
TOP FARM TFSX 2202	.	173	24	56	26136	1
EPLEY EX1460	.	173	23	54	26136	1
KRUGER EX803	.	172	20	55	26136	0
HYLAND SEEDS HL 2507	.	171	21	54	26136	1
HYLAND SEEDS HL 2614	.	168	22	55	26136	1
DENBESTEN DB5101	.	168	20	55	26136	1
HYLAND SEEDS HL 2505	.	168	20	55	26136	1
HYLAND SEEDS HL 2521	.	167	23	55	26136	0
KRUGER K-9902A	.	165	21	55	26136	1
MALLARD UC-595-A	.	165	22	55	26136	1
KRUGER EX902	.	165	21	53	26136	0

TABLE 2 (CONTINUED) WATERTOWN, LATE MATURITY - 96 DAYS OR MORE.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
TERRA E988IT	.	164	22	54	26136	0
EPLEY EX1140	.	164	19	56	26136	1
KRUGER K-9803	.	159	20	53	26136	2
EPLEY EX1125	.	159	20	54	26136	1
DENBESTEN DB2696	.	149	21	55	26136	2
AVERAGE:	159	173	21	55	26136	1
LSD (5%):	NS**	15	2	NS	NS	NS
MIN. TOP YIELD VALUE*:	142	180				
COEF. OF VARIATION#:	6	5				

*TOP YIELD - YIELDS WITHIN ONE LSD VALUE OF HIGHEST YIELD.
**YIELD DIFFERENCES WITHIN A COLUMN ARE NOT SIGNIFICANT (NS).
#A MEASURE OF EXPERIMENTAL ERROR; A VALUE OF 15% OR LESS IS DESIRABLE.

• Table 3. 1998 corn hybrid performance trial results — Frankfort, Steve Masat farm, no-till, early maturity — 100 days or less, plots thinned to a population of 26,136 plants/acre.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE##	1998 STALKS LODGED (%)
******* ENTRIES TESTED TWO YEARS *******						
CARGILL 3677	180	189	16	59	24974	1
DEKALB DK471	175	172	15	58	22215	1
WENSMAN MAX 127	170	191	16	59	25555	1
DEKALB DK477	168	191	16	58	26136	1
GARST 8707	167	194	16	56	25555	2
KRUGER K-9904	165	172	19	57	22942	0
DAIRYLAND STEALTH-1500	165	173	18	57	23667	1
KRUGER K-9802	164	193	17	57	26136	1
WENSMAN MAX 88	164	193	18	60	25846	0
DAIRYLAND STEALTH-1401	160	184	17	57	25846	1
TOP FARM TFSX 2201	158	190	16	56	24974	0
WENSMAN MAX 78	158	172	16	60	25991	1
PAYCO 607	157	169	16	57	22942	0
WENSMAN W 4137	156	180	16	58	24539	0
WENSMAN MAX 007	155	180	16	60	26136	0
MYCOGEN 2500	154	183	17	57	25700	0
TOP FARM TFSX 2196	151	167	15	59	25265	0
WENSMAN W 4123	150	172	16	58	25410	1
KAYSTAR KX-575	148	153	16	58	18731	3
WENSMAN W 4146	144	174	17	59	25991	1
CARGILL 2777	142	175	17	62	25845	1
MYCOGEN 2395	132	154	18	61	25119	1
******* ENTRIES TESTED ONE YEAR *******						
WENSMAN W 5088 BT	.	193	16	59	25846	0
KRUGER K-9902A	.	192	18	56	24829	2
WENSMAN W 4237	.	191	18	56	25555	1
GARST 8830	.	188	16	57	25700	1
KRUGER K-9901	.	187	15	57	25845	0
KRUGER EX902	.	186	16	55	25120	0
GARST 8766	.	185	17	59	25119	1
DENBESTEN DB2890	.	185	15	56	24829	1
DEKALB DK493BTX	.	183	15	57	22651	1
KRUGER K-9803	.	182	18	55	25991	2
DENBESTEN DB2695	.	181	15	58	22797	0
PAYCO 468	.	180	15	57	25700	1
KRUGER K-9896	.	179	16	57	24829	1
DEKALB DK440	.	177	15	57	23958	0
DENBESTEN DB2892	.	174	15	57	23958	0

TABLE 3 (CONTINUED). FRANKFORT, EARLY MATURITY - 100 DAYS OR LESS.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
GOLDEN HARVEST H-2309	.	172	16	57	25700	0
DENBESTEN DB2696	.	168	16	57	25410	1
NC+ 1487	.	168	16	57	22361	1
TERRA E988IT	.	167	17	56	24974	1
NC+ 1728	.	166	16	54	24539	1
WENSMAN MAX 70	.	164	16	56	25265	0
GOLDEN HARVEST H-2265	.	163	15	57	25120	0
WENSMAN W 5108 BT	.	161	16	62	25700	1
TERRA E987	.	92	17	58	11906	0
KRUGER EX803	.	88	16	56	11180	0
AVERAGE:	158	174	16	58	24264	1
LSD (5%):	29	33	1	2	3637	NS**
MIN. TOP YIELD VALUE*:	152	162				
COEF. OF VARIATION#:	7	12				

*TOP YIELD - YIELDS WITHIN ONE LSD VALUE OF HIGHEST YIELD.
**YIELD DIFFERENCES WITHIN A COLUMN ARE NOT SIGNIFICANT (NS).
#A MEASURE OF EXPERIMENTAL ERROR; A VALUE OF 15% OR LESS IS DESIRABLE.
##SOME POPULATIONS ARE LOWER THAN THE TARGET POPULATION DUE TO HIGH WINDS ON JULY 18 WHICH CAUSED SOME GREENSNAP.

• Table 4. 1998 corn hybrid performance trial results — Frankfort, Steve Masat farm, no-till, late maturity — 101 days or more, thinned to a population of 26,136 plants/acre.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE##	1998 STALKS LODGED (%)
******* ENTRIES TESTED TWO YEARS *******						
DEKALB DK586	187	206	18	56	23813	1
CARGILL 4111	180	211	17	58	25555	2
CARGILL 4127	179	214	18	59	25410	1
MYCOGEN 2598	174	199	18	55	24394	2
CARGILL 4811	170	192	17	57	25555	1
MYCOGEN 2620	169	188	19	57	24394	3
TOP FARM TFSX 2100	156	174	18	57	25991	0
KAYSTAR KX-625	156	168	18	58	25700	0
TOP FARM TFSX 2103	148	152	19	56	19892	1
******* ENTRIES TESTED ONE YEAR *******						
KRUGER EX807	.	208	20	56	25700	1
DEKALB DK540	.	206	19	60	25846	1
DEKALB DK545BTY	.	205	19	57	25846	1
KRUGER K-9806B	.	205	18	54	25410	4
KRUGER K-9806	.	200	18	56	25410	3
DENBESTEN DB2806	.	200	18	56	25700	2
GOLDEN HARVEST H-2398	.	199	18	57	24975	2
DENBESTEN DB6750	.	197	19	57	26136	1
DENBESTEN DB2702	.	194	17	58	26136	0
KRUGER K-9807	.	193	19	57	25991	1
TOP FARM TFSX 2202	.	193	19	57	24829	1
KRUGER EX808	.	190	17	58	25265	1
WENSMAN W 4297	.	185	20	56	25846	1
ASGROW RX490	.	184	18	60	25846	0
NC+ 2395	.	180	18	57	25700	1
DENBESTEN DB5101	.	174	18	57	24249	3
GOLDEN HARVEST H-2390	.	170	18	56	25555	3
MYCOGEN 2593	.	165	18	57	23668	1
KRUGER EX805	.	146	18	55	20764	5
GARST 8556IT	.	136	18	56	17714	2
AVERAGE:	169	187	18	57	24734	2
LSD (5%):	30	31	1	2	3631	2
MIN. TOP YIELD VALUE*:	158	184				
COEF. OF VARIATION#:	7	10				

*TOP YIELD - YIELDS WITHIN ONE LSD VALUE OF HIGHEST YIELD.
**YIELD DIFFERENCES WITHIN A COLUMN ARE NOT SIGNIFICANT (NS).
#A MEASURE OF EXPERIMENTAL ERROR; A VALUE OF 15% OR LESS IS DESIRABLE.
##SOME POPULATIONS ARE LOWER THAN THE TARGET POPULATION DUE TO HIGH WINDS ON JULY 18 WHICH CAUSED SOME GREENSNAP.

• Table 5. 1998 corn hybrid performance trial results — Brookings, SDSU Agronomy Farm, early maturity — 100 days or less, thinned to a population of 26,136 plants/acre.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
******* ENTRIES TESTED TWO YEARS *******						
KRUGER K-9904	166	171	22	55	26136	1
KRUGER K-9802	165	190	19	57	26136	0
DEKALB DK477	163	168	18	56	26136	1
GARST 8707	161	199	17	57	26136	4
STAUFFER 2420	159	165	19	57	26136	1
SANDS SOI 9991	159	168	20	57	26136	0
M-W GENETICS G 7118	159	165	20	55	26136	0
GARST 8780HPH	159	183	20	55	26136	3
MUSTANG DX550	156	160	19	55	26136	5
DAIRYLAND STEALTH-1500	155	162	18	57	26136	1
DEKALB DK449	155	171	18	55	26136	2
CARGILL 2777	153	161	18	60	26136	2
MYCOGEN 2500	152	156	19	56	26136	2
MYCOGEN 2395	152	164	17	60	26136	1
TOP FARM TFSX 2201	151	167	17	55	26136	0
MUSTANG DX503	150	165	19	55	26136	0
GOLDEN HARVEST H-2315	146	150	17	56	26136	5
KAYSTAR KX-575	146	167	17	56	26136	2
ENESTVEDT'S E-605	146	162	17	57	26136	1
TOP FARM TFSX 2196	145	162	17	54	26136	1
MUSTANG DX403	144	160	17	57	26136	0
CARGILL 3677	137	150	18	60	26136	12
GOLDEN HARVEST H-2382	132	153	20	57	26136	2
******* ENTRIES TESTED ONE YEAR *******						
DEKALB DK440	.	195	17	56	26136	1
HYLAND SEEDS HL 2507	.	187	19	55	26136	1
HYLAND SEEDS HL 2614	.	183	19	54	26136	0
MALLARD UC-585	.	183	17	54	26136	0
HYLAND SEEDS HL 2505	.	182	18	56	26136	6
DEKALB DK493BTX	.	178	18	58	26136	2
DENBESTEN DB2696	.	175	17	59	26136	5
WENSMAN MAX 007	.	173	18	59	26136	0
DAIRYLAND STEALTH-1401	.	173	19	55	26136	1
WENSMAN MAX 88	.	172	19	59	26136	0
JACOBSEN JS4176	.	172	18	57	26136	1
KRUGER EX902	.	172	18	55	26136	1
WENSMAN W 4237	.	171	19	56	26136	0
TERRA E987	.	171	18	55	26136	4
HYLAND SEEDS HL 2521	.	171	19	56	26136	4

TABLE 5 (CONTINUED). BROOKINGS, EARLY MATURITY - 100 DAYS OR LESS.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
MUSTANG DX402	.	169	18	55	26136	2
KRUGER K-9901	.	167	17	57	26136	2
WENSMAN W 5108 BT	.	166	19	62	26136	0
SANDS SOI 9008	.	166	17	54	26136	3
EPLEY EX1140	.	165	17	56	26136	1
WENSMAN W 4137	.	162	19	59	26136	3
WENSMAN W 5088 BT	.	162	17	60	26136	1
GARST 8766	.	161	19	58	26136	1
DENBESTEN DB2695	.	161	17	56	26136	0
WENSMAN MAX 127	.	160	18	59	26136	0
KALTENBERG 4809	.	160	17	55	26136	1
KALTENBERG 4807	.	160	17	54	26136	2
DENBESTEN DB2892	.	160	17	55	26136	0
KRUGER EX803	.	160	20	55	26136	2
M-W GENETICS G 6960	.	160	18	56	26136	3
DENBESTEN DB2890	.	159	17	55	26136	2
WENSMAN W 4146	.	158	18	57	26136	1
WENSMAN MAX 70	.	158	17	57	26136	1
WENSMAN MAX 78	.	158	17	59	26136	2
KRUGER K-9803	.	157	19	56	26136	3
EPLEY EX1122	.	154	16	55	26136	2
WENSMAN W 4123	.	154	17	58	26136	2
TERRA E988IT	.	154	18	55	26136	2
KRUGER K-9902A	.	150	19	55	26136	2
AVERAGE:	153	166	18	56	26136	2
LSD (5%):	26	18	1	2	NS**	3
MIN. TOP YIELD VALUE*:	141	182				
COEF. OF VARIATION#:	7	7				

*TOP YIELD - YIELDS WITHIN ONE LSD VALUE OF HIGHEST YIELD.
**YIELD DIFFERENCES WITHIN A COLUMN ARE NOT SIGNIFICANT (NS).
#A MEASURE OF EXPERIMENTAL ERROR; A VALUE OF 15% OR LESS IS DESIRABLE.

• Table 6. 1998 corn hybrid performance trial results — Brookings, SDSU Agronomy Farm, late maturity — 101 days or more, thinned to a population of 26,136 plants/acre.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
******* ENTRIES TESTED TWO YEARS *******						
MYCOGEN 2598	175	192	19	55	26136	0
GARST 8640	169	184	19	58	26136	2
KRUGER K-9806	161	153	19	58	26136	3
KAYSTAR KX-777	157	158	23	56	26136	2
MYCOGEN 2620	157	157	20	58	26136	1
ASGROW RX530	157	169	18	56	26136	1
KRUGER K-9709	156	160	21	56	26136	3
CARGILL 4127	151	151	21	59	26136	3
MYCOGEN 2545	151	164	19	57	26136	2
CARGILL 4111	150	151	20	61	26136	1
TOP FARM TFSX 2103	147	152	20	60	26136	2
EPLEY EX1460	145	154	19	58	26136	1
EPLEY EX1500	144	147	20	59	26136	2
SANDS SOI 9045	143	149	20	56	26136	2
EPLEY EX2422	142	159	20	56	26136	3
CARGILL 4811	141	152	19	56	26136	0
******* ENTRIES TESTED ONE YEAR *******						
EPLEY E2434	.	182	20	57	26136	1
DENBESTEN DB2702	.	177	18	57	26136	2
TOP FARM TFSX 2202	.	176	20	58	26136	2
KRUGER EX809	.	172	23	56	26136	1
KRUGER EX808	.	171	22	58	26136	0
KAYSTAR KX-675	.	169	18	54	26136	5
DEKALB DK525	.	166	19	60	26136	1
MYCOGEN 2616IMI	.	166	20	58	26136	2
KRUGER K-9808	.	164	20	59	26136	2
TOP FARM TFSX 2100	.	161	19	57	26136	1
DENBESTEN DB6750	.	161	20	56	26136	2
DENBESTEN DB5101	.	161	18	57	26136	0
MALLARD UC-2660	.	160	18	57	26136	0
SANDS SOI 9067	.	158	20	59	26136	1
MUSTANG DX661	.	158	19	58	26136	1
TERRA TR 1047	.	158	19	57	26136	3
KALTENBERG 5009	.	156	19	57	26136	1
GOLDEN HARVEST H-2390	.	156	19	57	26136	2
MYCOGEN 2593	.	154	19	58	26136	6
KRUGER K-9807	.	153	21	60	26136	1

TABLE 6 (CONTINUED). BROOKINGS, LATE MATURITY - 101 DAYS OR MORE.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
DENBESTEN DB2806	.	153	18	58	26136	3
WENSMAN W 4297	.	152	19	57	26136	1
STAUFFER 2500	.	150	18	57	26136	3
DEKALB DK540	.	146	20	59	26136	3
KRUGER EX807	.	145	24	55	26136	1
ENESTVEDT'S E-690	.	142	18	59	26136	1
DEKALB DK545BTY	.	142	21	59	26136	1
ASGROW RX490	.	141	19	60	26136	2
KALTENBERG 5109	.	140	20	56	26136	1
AVERAGE:	153	159	20	58	26136	2
LSD (5%):	22	18	1	2	NS**	3
MIN. TOP YIELD VALUE*:	154	175				
COEF. OF VARIATION#:	7	7				

*TOP YIELD - YIELDS WITHIN ONE LSD VALUE OF HIGHEST YIELD.
**YIELD DIFFERENCES WITHIN A COLUMN ARE NOT SIGNIFICANT (NS).
#A MEASURE OF EXPERIMENTAL ERROR; A VALUE OF 15% OR LESS IS DESIRABLE.

• Table 7. 1998 corn hybrid performance trial results — Colton, Greg Vanzanten farm, early maturity — 105 days or less, thinned to a population of 27,878 plants/acre.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
******* ENTRIES TESTED TWO YEARS *******						
KRUGER K-9806	194	231	19	58	27878	3
MYCOGEN 2620	184	224	19	60	27878	1
NC+ 2395	177	211	18	59	27878	1
MYCOGEN 2545	177	197	18	58	27878	1
GARST 8640	176	204	19	58	27878	3
CARGILL 4111	176	206	18	59	27878	4
KRUGER K-9709	175	208	20	57	27878	5
HOEGEMEYER 2591	169	186	19	59	27878	1
TOP FARM TFSX 2100	168	189	18	58	27878	1
CARGILL 4811	168	196	18	59	27878	1
CARGILL 4127	164	200	18	61	27878	5
SANDS SOI 9027	162	193	18	60	27878	1
SANDS SOI 9045	160	185	18	55	27878	4
TOP FARM TFSX 2201	159	178	16	57	27878	2
CARGILL 3677	156	185	18	58	27878	5
******* ENTRIES TESTED ONE YEAR *******						
DEKALB DK545BTY	.	227	19	62	27878	2
TERRA TR 1047	.	227	19	59	27878	4
DEKALB DK525	.	226	19	59	27878	5
KRUGER EX809	.	224	21	58	27878	0
RENZE 8158BT	.	223	20	59	27878	1
DEKALB DK551	.	223	18	58	27878	3
KRUGER K-9806B	.	220	19	58	27878	2
KRUGER EX807	.	219	20	58	27878	0
KRUGER EX808	.	218	19	60	27878	1
TOP FARM TFSX 2202	.	211	19	58	27878	2
WENSMAN W 4237	.	211	19	59	27878	3
WENSMAN MAX 88	.	210	20	60	27878	0
GARST 8707	.	209	17	59	27878	3
KRUGER K-9807	.	208	19	61	27878	1
M-W GENETICS G 7118	.	204	17	59	27878	2
WENSMAN W 4297	.	203	19	59	27878	3
KRUGER EX803	.	202	18	57	27878	4
MYCOGEN 2593	.	201	18	57	27878	5
DEKALB DK493BTX	.	201	18	58	27878	3
MUSTANG DX661	.	200	19	59	27878	6
KRUGER EX902	.	198	18	59	27878	2
DEKALB DK540	.	197	19	60	27878	1
GOLDEN HARVEST H-2398	.	196	19	56	27878	2
KALTENBERG 5109	.	195	18	58	27878	3
DENBESTEN DB6750	.	195	19	57	27878	3

TABLE 7 (CONTINUED). COLTON, EARLY MATURITY - 105 DAYS OR LESS.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
WENSMAN MAX 127	.	193	18	60	27878	0
KALTENBERG 5009	.	192	18	58	27878	2
KRUGER K-9808	.	190	20	56	27878	3
RENZE 6167	.	189	18	57	27878	1
DENBESTEN DB5101	.	189	18	58	27878	3
DENBESTEN DB2702	.	188	18	59	27878	0
WENSMAN W 4146	.	187	17	59	27878	2
HOEGEMEYER 2567	.	183	17	58	27878	1
ASGROW RX490	.	181	19	60	27878	3
KAYSTAR KX-625	.	177	19	57	27878	2
WENSMAN MAX 007	.	172	19	60	27878	1
GOLDEN HARVEST H-2390	.	168	18	58	27878	4
KRUGER K-9803	.	160	19	57	17424	1
AVERAGE:	171	200	18	58	27681	2
LSD (5%):	22	20	1	2	1011	3
MIN. TOP YIELD VALUE*:	173	211				
COEF. OF VARIATION#:	6	6				

*TOP YIELD - YIELDS WITHIN ONE LSD VALUE OF HIGHEST YIELD.
**YIELD DIFFERENCES WITHIN A COLUMN ARE NOT SIGNIFICANT (NS).
#A MEASURE OF EXPERIMENTAL ERROR; A VALUE OF 15% OR LESS IS DESIRABLE.

• Table 8. 1998 corn hybrid performance trial results — Colton, Greg Vanzanten farm, late maturity — 106 days or more, thinned to a population of 27,878 plants/acre.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
******* ENTRIES TESTED TWO YEARS *******						
DEKALB DK586	202	251	21	56	27878	3
MYCOGEN 2598	201	222	19	56	27878	2
KAYSTAR KX-777	191	245	22	56	27878	1
MYCOGEN 2725	189	241	22	57	27878	3
TERRA TR 1087	184	226	21	60	27878	2
TOP FARM TFSX 2111	182	220	20	57	27878	6
KRUGER K-9910A	182	198	22	56	27878	2
MYCOGEN 7250	177	221	24	55	27878	2
CARGILL 6303	172	221	20	56	27878	2
M-W GENETICS G 7480	170	198	20	58	27878	2
SANDS SOI 9067	169	208	19	58	27878	5
******* ENTRIES TESTED ONE YEAR *******						
GOLDEN HARVEST H-2516	.	256	22	56	27878	0
GOLDEN HARVEST H-2547	.	242	23	56	27878	2
DENBESTEN DB2611	.	234	24	58	27878	2
DENBESTEN DB5112	.	234	22	57	27878	3
ASGROW RX505BT	.	229	21	58	27878	0
DEKALB DK595BTX	.	228	21	57	27878	0
DEKALB DK580BTY	.	226	19	57	27878	0
RENZE 6318	.	225	21	58	27878	1
RENZE 8248BT	.	224	22	57	27878	1
RENZE 6287	.	223	20	58	27878	2
KRUGER K-9910	.	223	20	57	27878	1
DENBESTEN DB2608	.	222	20	55	27878	4
HOEGEMEYER 2612	.	220	21	56	27878	2
GARST 8585 GLS/IT	.	216	21	58	27878	1
ASGROW RX601	.	216	19	60	27878	3
DENBESTEN DB2806	.	216	20	55	27878	4
TERRA TR 1097	.	215	23	56	27878	3
TERRA E1089IT	.	213	21	57	27878	3
KALTENBERG 6301	.	213	20	56	27878	5
KALTENBERG 6106	.	209	20	58	27878	4

TABLE 8 (CONTINUED). COLTON, LATE MATURITY - 106 DAYS OR MORE,

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
KRUGER K-9810	.	204	24	56	27878	2
KAYSTAR KX-675	.	198	18	56	27878	5
DENBESTEN DB3608	.	194	21	60	27878	1
GARST 8686	.	193	19	60	27878	2
CARGILL 5611	.	192	21	57	27878	1
ASGROW RX587	.	186	20	60	27878	2
AVERAGE:	183	219	21	57	27878	2
LSD (5%):	NS**	20	2	3	NS	3
MIN. TOP YIELD VALUE*:	169	237				
COEF. OF VARIATION#:	8	6				

*TOP YIELD - YIELDS WITHIN ONE LSD VALUE OF HIGHEST YIELD.
**YIELD DIFFERENCES WITHIN A COLUMN ARE NOT SIGNIFICANT (NS).
#A MEASURE OF EXPERIMENTAL ERROR; A VALUE OF 15% OR LESS IS DESIRABLE.

• Table 9. 1998 corn hybrid performance trial results — Armour, Robert Clark farm, no-till, early maturity — 105 days or less, thinned to a population of 26,136 plants/acre.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
	******* ENTRIES TESTED TWO YEARS *******					
WILSON 1390	202	197	19	57	26136	1
GARST 8640	191	191	17	56	26136	1
WILSON 1098	189	179	14	55	26136	0
KRUGER K-9709	186	185	19	55	26136	1
KRUGER K-9806	181	174	16	54	26136	1
GARST 8707	180	173	14	56	26136	1
CARGILL 4811	179	181	18	58	26136	0
KRUGER K-9706	179	172	18	58	26136	0
EPLEY EX1500	178	170	18	59	26136	1
MYCOGEN 2620	177	182	17	58	26136	1
EPLEY EX1460	174	171	15	58	26136	0
SANDS SOI 9027	170	168	16	58	26136	0
NC+ 2395	169	159	16	58	26136	1
	******* ENTRIES TESTED ONE YEAR *******					
RENZE 8158BT	.	215	19	57	26136	0
EPLEY E1510BT	.	211	18	58	26136	1
LG SEEDS LG 2530	.	199	18	56	26136	0
TERRA E1058BT	.	197	21	56	26136	0
DEKALB DK551	.	193	17	58	26136	1
KRUGER EX809	.	190	20	55	26136	1
M-W GENETICS G 7350	.	189	18	58	26136	1
JACOBSEN JS4476	.	188	17	57	26136	1
KRUGER K-9808	.	188	19	55	26136	1
KRUGER EX808	.	185	18	57	26136	1
DEKALB DK540	.	185	17	57	26136	1
KRUGER K-9806B	.	184	16	54	26136	1
SANDS SOI 9008	.	182	14	54	26136	1
KRUGER EX807	.	181	21	56	26136	0
TERRA TR 1047	.	181	18	53	26136	1
DENBESTEN DB6750	.	176	17	57	26136	1
DEKALB DK493BTX	.	175	15	57	26136	0
M-W GENETICS G 7118	.	173	16	58	26136	1
EPLEY EX1125	.	173	14	56	26136	1
JACOBSEN JS4247	.	172	20	59	26136	0
KRUGER EX803	.	172	16	55	26136	1
DENBESTEN DB2702	.	172	16	58	26136	0
KRUGER K-9807	.	172	18	57	26136	0
HOEGEMEYER 2591	.	171	17	58	26136	1
RENZE 6167	.	169	17	58	26136	1

TABLE 9 (CONTINUED). ARMOUR, EARLY MATURITY - 105 DAYS OR LESS.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
MUSTANG DX661	.	167	17	56	26136	0
LG SEEDS LG 2473	.	160	16	58	26136	0
LG SEEDS LG 2483	.	160	17	55	26136	1
DENBESTEN DB5101	.	160	15	55	26136	0
KAYSTAR KX-625	.	158	16	58	26136	1
LG SEEDS LG 2447	.	151	17	59	26136	0
GOLDEN HARVEST H-2390	.	147	16	57	26136	1
AVERAGE:	181	178	17	57	26136	1
LSD (5%):	14	21	1	2	NS**	NS
MIN. TOP YIELD VALUE*:	189	195				
COEF. OF VARIATION#:	7	7				

*TOP YIELD - YIELDS WITHIN ONE LSD VALUE OF HIGHEST YIELD.
**YIELD DIFFERENCES WITHIN A COLUMN ARE NOT SIGNIFICANT (NS).
#A MEASURE OF EXPERIMENTAL ERROR; A VALUE OF 15% OR LESS IS DESIRABLE.

• Table 10. 1998 corn hybrid performance trial results — Armour, Robert Clark farm, no-till, late maturity — 106 days or more, thinned to a population of 26,136 plants/acre.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
******* ENTRIES TESTED TWO YEARS *******						
SANDS SOI 9126	212	219	23	55	26136	2
JACOBSEN JS4635	210	206	20	56	26136	0
CARGILL 6888	207	210	23	55	26136	1
CARGILL 5677	206	201	20	57	26136	1
HOEGEMEYER 2623	205	209	20	55	26136	1
GOLDEN HARVEST H-2547	205	204	23	56	26136	1
SANDS SOI 9128	205	204	20	56	26136	0
KRUGER K-9811+	204	199	20	55	26136	1
KRUGER K-9513	204	208	21	55	26136	0
MYCOGEN 2725	204	208	22	56	26136	0
KRUGER K-9813	201	197	22	57	26136	1
MYCOGEN 2598	201	195	18	55	26136	0
KRUGER K-9614A	201	204	22	56	26136	1
KRUGER K-9912	199	191	22	57	26136	1
KAYSTAR KX-777	199	186	20	55	26136	0
EPLEY EX3242	195	198	22	54	26136	0
HOEGEMEYER 2612	191	196	18	55	26136	2
EPLEY EX3608	191	191	21	55	26136	1
MYCOGEN 7250	188	187	23	54	26136	2
EPLEY EX2422	183	179	19	55	26136	1
CARGILL 6303	182	188	21	56	26136	0
******* ENTRIES TESTED ONE YEAR *******						
DENBESTEN DB2611	.	211	23	56	26136	2
JACOBSEN JS4500BT	.	209	22	55	26136	0
ASGROW RX505BT	.	206	20	58	26136	0
RENZE 6386	.	205	22	56	26136	2
GARST 8556IT	.	205	19	57	26136	1
RENZE 8248BT	.	204	22	55	26136	0
CARGILL 5021BT	.	203	22	56	26136	1
TERRA E1089IT	.	201	21	56	26136	1
KRUGER K-9914	.	198	22	54	26136	1
TERRA TR 1097	.	197	23	56	26136	1
LG SEEDS LG 2539	.	196	19	55	26136	1
GOLDEN HARVEST H-2516	.	195	20	55	26136	1
ASGROW RX730	.	194	22	55	26136	1
KRUGER K-9910	.	194	20	56	26136	1
RENZE 6327	.	194	21	55	26136	1

TABLE 10 (CONTINUED). ARMOUR, LATE MATURITY - 106 DAYS OR MORE.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
DENBESTEN DB5112	.	193	20	55	26136	1
ASGROW RX601	.	193	20	57	26136	1
DAIRYLAND STEALTH-1409	.	192	21	57	26136	0
TERRA TR 1087	.	192	20	55	26136	0
MYCOGEN 2722	.	190	23	55	26136	0
RENZE 6287	.	189	19	54	26136	0
MYCOGEN 2616IMI	.	189	19	58	26136	0
DEKALB DK595BTX	.	188	21	56	26136	0
DENBESTEN DB2608	.	188	19	55	26136	0
CARGILL 5611	.	188	20	58	26136	1
RENZE 6318	.	187	20	57	26136	1
GARST 8585 GLS/IT	.	187	22	56	26136	0
WILSON E3034	.	187	19	56	26136	1
WILSON 1664	.	185	23	56	26136	1
WILSON 1475PT	.	182	19	56	26136	1
EPLEY E2434	.	180	20	57	26136	1
WILSON E6011	.	180	22	59	26136	1
GARST 8600IT	.	179	22	59	26136	1
M-W GENETICS G 7610	.	179	21	56	26136	1
DAIRYLAND STEALTH-1410	.	179	21	55	26136	0
HOEGEMEYER 2618	.	177	21	59	26136	0
TERRA TR 1107IT	.	176	22	58	26136	0
DEKALB DK586	.	172	18	57	26136	2
DENBESTEN DB3608	.	167	23	60	26136	0
DENBESTEN DB2806	.	166	18	56	26136	1
M-W GENETICS G 7480	.	166	21	59	26136	1
KRUGER K-9810	.	165	21	58	26136	1
ASGROW RX587	.	164	18	61	26136	2
AVERAGE:	200	192	21	56	26136	1
LSD (5%):	15	18	2	2	NS**	NS
MIN. TOP YIELD VALUE*:	198	201				
COEF. OF VARIATION#:	6	6				

*TOP YIELD - YIELDS WITHIN ONE LSD VALUE OF HIGHEST YIELD.
**YIELD DIFFERENCES WITHIN A COLUMN ARE NOT SIGNIFICANT (NS).
#A MEASURE OF EXPERIMENTAL ERROR; A VALUE OF 15% OR LESS IS DESIRABLE.

• Table 11. 1998 corn hybrid performance trial results — Beresford, SE Research Farm, early maturity — 110 days or less, thinned to a population of 27,878 plants/acre.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
******* ENTRIES TESTED TWO YEARS *******						
LG SEEDS LG 2583	208	228	19	58	27878	1
KAYSTAR KX-777	204	231	17	57	27878	0
ASGROW RX730	201	214	20	58	27878	1
GARST P834	199	218	17	58	27878	1
KRUGER K-9513	199	200	19	58	27878	1
STAUFFER 2436	198	220	17	57	27878	0
NC+ 4880	197	221	20	58	27878	0
DEKALB DK586	197	217	18	58	27878	1
HOEGEMEYER 2612	196	204	18	56	27878	2
KRUGER K-9614A	196	220	19	60	27878	1
WILSON 1390	190	201	17	58	27878	1
TERRA TR 1087	190	213	19	58	27878	1
DAIRYLAND STEALTH-1406	188	215	18	58	27878	1
CARGILL 5677	187	214	17	59	27878	2
ASGROW RX601	185	194	18	58	27878	0
M-W GENETICS G 7610	184	191	19	57	27878	0
EPLEY EX2422	181	198	18	57	27878	1
SANDS SOI 9087	179	195	18	60	27878	0
SANDS SOI 9067	177	195	17	58	27878	0
FONTANELLE 4567	174	176	17	58	27878	0
FONTANELLE 4997	172	184	19	62	27878	0
MUSTANG DX720	172	192	18	58	27878	2
EPLEY EX1500	172	183	17	60	27878	1
CARGILL 6303	170	182	19	56	27878	0
HOEGEMEYER 2591	167	175	17	58	27878	1
******* ENTRIES TESTED ONE YEAR *******						
DEKALB DK595BTX	.	224	19	58	27878	1
RENZE 6287	.	223	17	56	27878	1
GOLDEN HARVEST H-2515	.	220	18	58	27878	0
KRUGER K-9808	.	219	18	58	27878	1
RENZE 8158BT	.	218	18	60	27878	2
KALTENBERG 6901	.	217	19	56	27878	1
MUSTANG DX705	.	214	18	57	27878	1
TERRA TR 1097	.	214	20	56	27878	0
TERRA TR 1047	.	214	19	56	27878	1
JACOBSEN JS4685	.	214	18	57	27878	1
GOLDEN HARVEST H-2516	.	213	18	58	27878	1
DENBESTEN DB2608	.	211	18	56	27878	1
DAIRYLAND STEALTH-1410	.	211	18	58	27878	2
RENZE 8248BT	.	210	19	58	27878	1
GARST 8556IT	.	210	19	59	27878	0

TABLE 11 (CONTINUED). BERESFORD, EARLY MATURITY - 110 DAYS OR LESS.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
KRUGER EX809	.	209	19	58	27878	5
KAYSTAR KX-780	.	209	18	57	27878	0
KRUGER K-9910	.	209	17	57	27878	2
RENZE 6327	.	209	20	57	27878	0
DEKALB DK545BTY	.	208	17	57	27878	1
ASGROW RX505BT	.	208	18	59	27878	1
DEKALB DK566BTX	.	208	16	57	27878	1
KRUGER EX807	.	207	20	57	27878	1
DEKALB DK580BTY	.	206	18	59	27878	0
KALTENBERG 6801	.	206	19	58	27878	0
JACOBSEN JS4500BT	.	205	19	58	27878	2
MYCOGEN 2598	.	204	16	56	27878	1
RENZE 6318	.	204	18	59	27878	0
WILSON E3034	.	204	17	58	27878	0
EPLEY E1510BT	.	204	18	59	27878	2
FONTANELLE 4988	.	203	17	57	27878	0
WILSON 1644	.	203	17	57	27878	2
TERRA E1058BT	.	203	19	57	27878	2
HOEGEMEYER 2641IMI	.	202	20	58	27878	1
CARGILL 5021BT	.	202	19	58	27878	0
GARST 8686	.	200	18	59	27878	0
TERRA E1089IT	.	199	19	57	27878	2
WILSON 1475PT	.	196	19	57	27878	0
DAIRYLAND STEALTH-1505	.	195	18	60	27878	2
MUSTANG DX661	.	194	18	59	27878	1
DENBESTEN DB2806	.	194	17	58	27878	1
GOLDEN HARVEST H-2398	.	193	17	58	27878	1
GARST 8585 GLS/IT	.	193	20	58	27878	1
EPLEY E2434	.	192	19	57	27878	1
DENBESTEN DB3608	.	192	19	61	27878	1
KRUGER K-9810	.	190	19	59	27878	2
KRUGER EX808	.	188	18	59	27878	2
DAIRYLAND STEALTH-1509	.	187	17	58	27878	2
DENBESTEN DB6750	.	187	18	57	27878	1
MYCOGEN 2620	.	184	18	59	27878	2
JACOBSEN JS4247	.	184	19	59	27878	0
CARGILL 5611	.	181	18	58	27878	0
TERRA TR 1107IT	.	179	22	58	27878	1
WILSON E6011	.	179	19	60	27878	1
DENBESTEN DB2702	.	179	17	58	27878	1

TABLE 11 (CONTINUED). BERESFORD, EARLY MATURITY - 110 DAYS OR LESS.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
ASGROW RX587	.	176	17	61	27878	1
HOEGEMEYER 2618	.	175	19	61	27878	1
RENZE 6167	.	175	17	58	27878	1
HOEGEMEYER 592WX	.	174	19	58	27878	1
GOLDEN HARVEST H-2390	.	160	17	56	27878	0
AVERAGE:	187	201	18	58	27878	1
LSD (5%):	22	13	1	2	NS**	2
MIN. TOP YIELD VALUE*:	187	218				
COEF. OF VARIATION#:	6	4				

*TOP YIELD - YIELDS WITHIN ONE LSD VALUE OF HIGHEST YIELD.
**YIELD DIFFERENCES WITHIN A COLUMN ARE NOT SIGNIFICANT (NS).
#A MEASURE OF EXPERIMENTAL ERROR; A VALUE OF 15% OR LESS IS DESIRABLE.

• Table 12. 1998 corn hybrid performance trial results — Beresford, SE Research Farm, late maturity — 111 days or more, thinned to a population of 27,878 plants/acre.

BRAND & HYBRID	YIELDS AT 15.5% MOIST. 2-YR (Bu/A)	YIELDS AT 15.5% MOIST. 1998 (Bu/A)	1998 GRAIN MOIST. (%)	1998 BU. WT. (lb)	1998 PLANTS PER ACRE	1998 STALKS LODGED (%)
******* ENTRIES TESTED TWO YEARS *******						
CARGILL 7770	199	222	21	59	27878	1
KAYSTAR KX-808	197	208	19	56	27878	1
EPLEY EX3608	194	216	18	59	27878	3
STAUFFER 2207	194	213	21	58	27878	1
MYCOGEN 7250	193	209	21	57	27878	1
WILSON 1664	193	208	20	59	27878	0
M-W GENETICS G 7711	191	210	20	58	27878	4
CARGILL 6888	190	209	20	58	27878	1
MYCOGEN 2725	189	200	19	58	27878	1
SANDS SOI 9126	183	208	21	58	27878	1
EPLEY EX3242	181	199	18	57	27878	4
SANDS SOI 9115	179	189	19	58	27878	2
CARGILL 6997	176	191	21	57	27878	1
******* ENTRIES TESTED ONE YEAR *******						
DEKALB DK626BTX	.	219	18	58	27878	1
KALTENBERG 7001	.	219	18	58	27878	0
MYCOGEN 2722	.	215	19	57	27878	1
LG SEEDS LG 2616	.	208	21	58	27878	2
DENBESTEN DB2611	.	208	21	59	27878	1
LG SEEDS LG 2587	.	207	20	60	27878	3
RENZE 6386	.	207	20	58	27878	1
HOEGEMEYER 2645	.	205	18	58	27878	1
DENBESTEN DB5112	.	204	19	59	27878	2
RENZE 6345	.	204	18	58	27878	1
EPLEY EX3620	.	203	20	58	27878	2
KALTENBERG 7101	.	195	21	58	27878	1
AVERAGE:	189	207	20	58	27878	1
LSD (5%):	NS**	16	1	1	NS	2
MIN. TOP YIELD VALUE*:	176	207				
COEF. OF VARIATION#:	5	5				

*TOP YIELD - YIELDS WITHIN ONE LSD VALUE OF HIGHEST YIELD.
**YIELD DIFFERENCES WITHIN A COLUMN ARE NOT SIGNIFICANT (NS).
#A MEASURE OF EXPERIMENTAL ERROR; A VALUE OF 15% OR LESS IS DESIRABLE.

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