

2001 Wisconsin Corn Hybrid Performance Trial Results

**Grain
and
Silage**

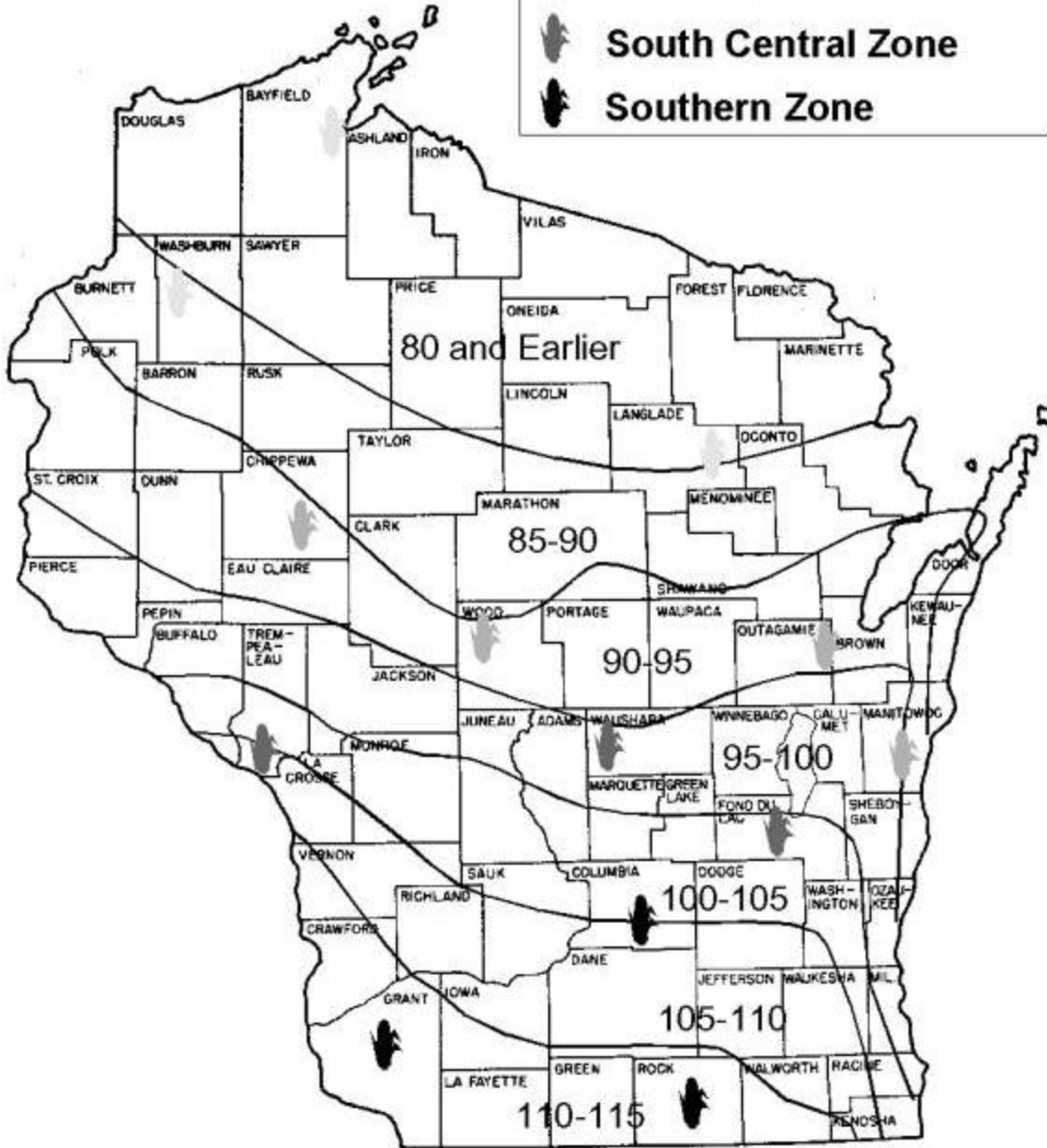
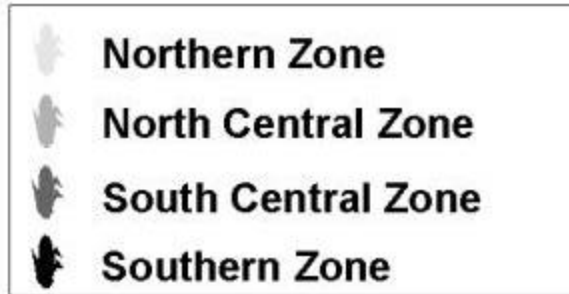


Department of Agronomy
College of Agricultural and Life Sciences
University of Wisconsin
Wisconsin Crop Improvement Association

**LW
Extension**

Wisconsin Relative Maturity Belts

Hybrid Performance Trial Sites



2001 WISCONSIN CORN HYBRID PERFORMANCE TRIALS GRAIN AND SILAGE

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The University of Wisconsin Extension-Madison and College of Agricultural and Life Sciences conduct a hybrid corn evaluation program, in cooperation with the Wisconsin Crop Improvement Association. The purpose of this program is to provide unbiased performance comparisons of hybrid seed corn available in Wisconsin. These trials evaluate corn hybrids for both grain and silage production performance.

TESTING PROCEDURE

In 2001, grain and silage performance trials were planted at thirteen locations in four production zones. Both seed companies and university researchers submitted hybrids. Companies with hybrids included in the 2001 trials are listed in Table 1. At most locations trials were divided into *early* and *late* maturity trials, based on the hybrid Relative Maturities **provided by the companies**. The specific Relative Maturities separating early and late trials are listed below.

Grain		
<i>Southern Zone</i> Arlington, Janesville, Lancaster	Early Maturity Trial: 105-day or earlier	Table 4
	Late Maturity Trial: later than 105-day	Table 5
<i>South Central Zone</i> Fond du Lac, Galesville, Hancock (irrigated)	Early Maturity Trial: 100-day or earlier	Table 6
	Late Maturity Trial: later than 100-day	Table 7
<i>North Central Zone</i> Chippewa Falls, Marshfield, Seymour, Valders	Early Maturity Trial: 90-day or earlier	Table 8
	Late Maturity Trial: later than 90-day	Table 9
<i>Northern Zone</i> Spooner (three sites), White Lake, and Ashland		Table 10
		Table 17
Silage		
<i>Southern Zone</i> Arlington and Lancaster	Early Maturity Trial: 105-day or earlier	Table 11
	Late Maturity Trial: later than 105-day	Table 12
<i>South Central Zone</i> Fond du Lac and Galesville	Early Maturity Trial: 100-day or earlier	Table 13
	Late Maturity Trial: later than 100-day	Table 14
<i>North Central Zone</i> Marshfield and Valders	Early Maturity Trial: 90-day or earlier	Table 15
	Late Maturity Trial: later than 90-day	Table 16
<i>Northern Zone</i> Ashland		Table 18

GROWING CONDITIONS FOR 2001

Seasonal precipitation and temperature at the trial sites are shown in Table 2. Both grain and silage yields were above normal in southern Wisconsin. Both grain and silage yields were variable in northern Wisconsin. Dry conditions during April allowed corn planting to progress

faster than the five-year average. Planting progress slowed in May with much of northern Wisconsin corn acreage delayed significantly. Cool, wet conditions during most of May and early June slowed corn development. Dry, hot weather during pollination lowered yields with drought conditions existing in northeastern Wisconsin. Favorable rainfall patterns

occurred during late August and September and helped some late planted fields. Growing degree unit accumulation was normal throughout the entire growing season. Corn silage harvest started slightly later than normal. A killing frost did not occur until mid-October. Excellent plant standability was observed in most trials. During the fall harvest season, yields were generally good to excellent, and moisture was low decreasing drying costs and somewhat offsetting low corn prices for many farmers. Significant drought occurred at the Valders location, while flooding during May and June affected corn yields at Marshfield. Since all plots of a few hybrids had to be dropped, the Performance Index mean of the North and North Central trials does not equal 100.

CULTURAL PRACTICES

The seedbed at each location was prepared by either conventional or conservation tillage methods. Fertilizer was applied as indicated by soil tests. Herbicides were applied for weed control and supplemented with cultivation when necessary. Corn rootworm insecticide was applied when the previous crop was corn. Information for each location is summarized in Table 3.

PLANTING

Plots were planted with a corn planter except for trials at Ashland in the Northern Zone, which were hand-planted. Two-row plots were planted at all locations except Ashland, where one-row plots were used. Twenty-five foot long plots were over planted and hand thinned to achieve as near a uniform stand as possible. Each hybrid was grown in at least three separate plots (replicates) at each location to account for field variability.

HARVESTING

Grain: Plots were harvested with a self-propelled corn combine or shelled with a portable field sheller. Lodged plants and/or broken stalks were counted, plot grain weights and moisture contents were measured and

yields were calculated and adjusted to 15.5% moisture.

Silage: Whole-plant (silage) plots were harvested using a tractor driven, three-point mounted one-row chopper. At Ashland, plots were hand-harvested. One row was analyzed for whole plant yield and quality. Kernel milk percent, plot weight, and moisture content were measured, and yields were adjusted to tons dry matter / acre. A sub-sample was collected and analyzed using near infra-red spectroscopy by the Marshfield Forage Analysis Laboratory.

PRESENTATION OF DATA

Yield results for individual location trials and for multi-location averages are listed in Tables 4 through 18. Within each trial, hybrids are ranked by moisture, averaged over all 2001 locations conducted in that zone. Yield and moisture data for both 2000 and 2001 are provided if the hybrid was entered previously in the 2000 trials. A hybrid index is lists relative maturity ratings, specialty traits and locations tested for each hybrid.

RELATIVE MATURITY

Seed companies use different methods and standards to classify or rate the maturity of corn hybrids. To provide corn producers a “standard” maturity comparison for the hybrids evaluated, the *average* grain moisture of all hybrids that are rated at appropriate relative maturities by the Minnesota Relative Maturity rating system are shown in each table. Minnesota Relative Maturity ratings are rounded to 5-day increments.

This system categorizes corn hybrids into relative maturity groups by comparing harvest grain moisture of evaluated hybrids to moisture of standard hybrids for each group (see *Minnesota Relative Maturity Rating of Corn Hybrids*, Agriculture Extension Service, University of Minnesota, Agronomy No. 27). Hybrids with **lower** moisture than a particular relative maturity average are likely to be **earlier** than that relative maturity, while those

with **higher** grain moisture are most likely **later** in relative maturity.

In addition, the hybrid index lists company maturity ratings, Minnesota relative maturity ratings, and a Wisconsin comparative relative maturity (CRM) rating. The Wisconsin CRM rating is an average relative maturity rating comparison among commercially available hybrids at the same grain moisture using company maturity ratings.

PERFORMANCE INDEX

Three factors—yield, moisture, and standability—are of primary importance in evaluating and selecting corn hybrids. A **performance index** (P.I.), which combines these factors in one number, was calculated for multi-location averages for grain trials. This performance index evaluates yield, moisture %, and lodged stalks % at a 50 (yield) : 35 (moisture %) : 15 (lodged stalks %) ratio.

The performance index was computed by converting the yield, dry matter, and upright stalk values of each hybrid to a percentage of the test average. Then the performance index for each hybrid that appears in the tables was calculated as follows:

$$PI = [(Yield \% \times 50) + (Dry\ matter\ \% \times 35) + (Upright\ stalks\ \% \times 15)] / 100$$

SILAGE QUALITY

Corn silage quality was analyzed using near infra-red spectroscopy equations derived from previous work of Drs. Jim Coors and Joe Lauer (UW-Madison). Plot samples were dried, ground and analyzed for crude protein (CP), acid detergent fiber (ADF), neutral detergent fiber (NDF), in vitro cell wall digestibility (CWD), in vitro digestibility (IVD), and starch. Spectral groups and outliers were checked using wet chemistry analysis.

MILK2000 silage performance indices, milk per ton and milk per acre, are calculated using an adaptation by Eric Schwab and Randy Shaver (UW-Madison Dairy Science

Department) of the MILK95 model (Undersander, Howard and Shaver; Journal Production Agriculture 6:231-235). In **Milk2000**, the energy content of corn silage was estimated using a modification of a published summative energy equation (Weiss and co-workers, 1992; Animal Feed Science Technology 39:95-110). In the modified summative equation, CP, fat, NDF, starch, and sugar plus organic acid fractions were included along with their corresponding total-tract digestibility coefficients for estimating the energy content of corn silage. A regression equation developed from literature data was used to predict total tract starch digestibility from the samples whole-plant dry matter content. The samples lab measure of CWD was used for the NDF digestibility coefficient. Digestibility coefficients used for the CP, fat, and sugar plus organic acid fractions were constants. Dry matter intake was estimated using the samples NDF content and CWD assuming a 1350 lb. cow consuming a 30% NDF diet. Using National Research Council (NRC, 1989) energy requirements, the intake of energy from corn silage was converted to expected milk per ton. Because the cows maintenance energy requirements were partitioned against the total diet in **MILK2000** rather than against only corn silage as was done in MILK95, there was a base increase in our new estimate of milk per ton which was of equal value across all samples that did not influence ranking. Milk per acre was calculated using milk per ton and dry matter yield per acre estimates.

LEAST SIGNIFICANT DIFFERENCE

Variations in yield and other characteristics occur because of variations in soil and other growing conditions that lower the precision of the results. Statistical analysis makes it possible to determine, with known probabilities of error, whether a difference is real or whether it might have occurred by chance. Use the appropriate LSD (least significant difference) value at the bottom of the tables to determine true differences.

Least significant differences (LSD's) at the 10% level of probability are shown. Where the difference between two selected hybrids within a column is equal to or greater than the LSD value at the bottom of the column, you can be sure in nine out of ten chances that there is a real difference between the two hybrid averages. If the difference is less than the LSD value, the difference may still be real, but the experiment has produced no evidence of real differences. Hybrids that were not significantly lower in performance than the highest hybrid in a particular test are indicated with an asterisk.

HOW TO USE THESE RESULTS TO SELECT TOP-PERFORMING HYBRIDS

The results can be used to provide producers with an *independent, objective* evaluation of performance of unfamiliar hybrids, promoted by seed company sales representatives, compared to competitive hybrids.

Below are suggested steps to follow for selecting top-performing hybrids for next year using these trial results:

1. **Use multi-location average data in shaded areas.** Consider single location results with extreme caution.
2. Begin with trials in the zone(s) nearest you.
3. Compare hybrids with similar maturities within a trial. You will need to divide most trials into at least two and sometimes three groups with similar average harvest moisture—within about 2% range in moisture.
4. Make a list of 5 to 10 hybrids with highest 2001 Performance Index within each maturity group within a trial.
5. Evaluate **consistency of performance** of the hybrids on your list over years and other zones.
 - a) Scan 2000 results. **Be wary** of any hybrids on your list that had a 2000 Performance Index of 100 or lower. Choose two or three of the remaining hybrids that have relatively high Performance Indexes for **both** 2000 and 2001.

- b) Check to see if the hybrids you have chosen were **entered in other zones**. (For example, some hybrids entered in the Southern Zone Trials, Tables 4 and 5, are also entered in the South Central Zone Trials, Tables 6 and 7).
 - c) **Be wary** of any hybrids with a Performance Index of 100 or lower for 2000 or 2001 in any other zones.
6. Repeat this procedure with about three maturity groups to select top-performing hybrids with a range in maturity, to spread weather risks and harvest time.
 7. Observe relative performance of the hybrids you have chosen based on these trial results in several **other reliable, unbiased trials** and **be wary** of any with inconsistent performance.
 8. You might consider including the hybrids you have chosen in your own test plot, primarily to evaluate the way hybrids stand after maturity, dry-down rate, grain quality, or ease of combine-shelling or picking.
 9. Remember that you don't know what weather conditions (rainfall, temperature) will be like next year. Therefore, the most reliable way to choose hybrids with greatest chance to perform best next year on your farm is to consider performance in 2000 and 2001 over a wide range of locations and climatic conditions.

You are taking a tremendous gamble if you make hybrid selection decisions based on 2001 yield comparisons in only one or two local test plots.

OBTAINING DATA ELECTRONICALLY

This report is also available on the internet at <http://corn.agronomy.wisc.edu>. Hybrid performance for the last 10 years can be summarized using **SELECT!** at the above internet address. This book can be downloaded over the internet in a Microsoft Excel format.

Table 1. Companies with hybrids included in 2001 trials

Brand	Company	Address	City	State	Zip
AgriGold	AgriGold Hybrids	R.R. 1 Box 203	St. Francisville	IL	62460
Asgrow	Monsanto Co.	3100 Sycamore Road	Dekalb	IL	60115
Bio Gene	Bio Gene Seeds	5491 Tri-County Hwy	Sardinia	OH	45171
Brown	Brown Seed, Inc	N1279 530th Street P.O. Box 7	Bay City	WI	54723
Brunner	Brunner Seed Farm	W3850 U.S. Hwy 10	Durand	WI	54736
Cargill	Mycogen Seeds	9330 Zionsville Road	Indianapolis	IN	46268
Carhart's Blue Top	Carhart's Blue Top Seed, Inc.	N14743 County Road M	Galesville	WI	54630
Cornelius	Cornelius Seed	31578 150th Street	Bellevue	IA	52031
Croplan Genetics	Croplan Genetics	180 Lynne Trail	Oregon	WI	53575
Crows	Crows Hybrid Corn Co.	P.O. Box 157	Kentland	IN	47951
Dahlco	Dahlco Seeds	14730 15th ST SW	Cokato	MN	55321
Dahlman	Dahlman Seed Co. LLP	73504 200th Street	Dassel	MN	55325
Dairyland	Dairyland Seed	P.O. Box 958	West Bend	WI	53095
Dekalb	Monsanto Co.	3100 Sycamore Road	Dekalb	IL	60115
Dynagro	UAP Great Lakes	5201 Cortland	Midland	MI	48642
Foundation	Foundation Direct Seeds	634 13th Ave N	Onalaska	WI	54150
Garst	Garst Seed Company	5366 Lee Lane	Coon Valley	WI	54623
Geertson	Geertson Seed Farms	1665 Burroughs Road	Adrian	OR	97901
Golden Harvest	Golden Harvest	27525 135th Ave. North	Cordova	IL	61242
Growmark	Growmark, Inc.	1701 Towanda Ave	Bloomington	IL	61701
Gutwein	Gutwein	Rt 1, Box 40	Francesville	IN	47946
High Cycle	Trelay Seeds	11623 Hwy 80	Livingston	WI	53554
Hughes	Hughes Hybrids	206 North Hughes Rd	Woodstock	IL	60098
Hyland Seeds	Hyland Seeds	2 Hyland Drive	Blenheim	Ontario	Canada
Jeske	Jeske Seed Farm	W8598 Cty Rd S	Hortonville	WI	54944
Johnson Seeds	Johnson Seeds Inc.	72700 185th Street	Dassel	MN	55325
Jung	Jung Seed Genetics, Inc.	341 South High Street	Randolph	WI	53956
Kaltenberg	Kaltenberg Seeds	5506 State Hwy 19	Waunakee	WI	53597
Kussmaul	Kussmaul Seed Company	9020 HWY 18	Mt. Hope	WI	53816
La Crosse Forage	La Crosse Forage and Turf Seed	2541 Commerce Street	La Crosse	WI	54602
Lemke	Lemke Seed Farms, Inc.	10220 North Granville	Mequon	WI	53097
LG Seeds	LG Seeds	710 North Main, Suite 201	River Falls	WI	54022
Mallard	Mallard Seed Co, Inc.	P.O. Box 637	Plainview	MN	55964
Midwest	Midwest Seed Genetics	P.O. Box 518	Carroll	IA	51401
Mycogen	Mycogen Seeds	9330 Zionsville Road	Indianapolis	IN	46268
NK Brand	Syngenta Seeds	320 Mohawk Trail	DeForest	WI	53532
North-Gro	North-Gro Seeds, Inc.	613 Randolph Street	Cuba City	WI	53807
O'Brien	O'Brien Farms Inc.	552 Glenway Road	Brooklyn	WI	53521
Ottillie	Ottillie RO Seed	1462 Sanford	Marshalltown	IA	50158
Pioneer	Pioneer Hi-Bred Int'l	W 10564 Rose-Eld Rd.	Rosendale	WI	54974
Quality Traders	Quality Traders, Inc.	2333 North Waukegan Road	Bannockburn	IL	60015
Ragt Semences	Ragt Semences	Site de Bourran, Ave. St. Pierra BP 3357	12 033 Rodez cedex 9		France
Ramy	Ramy International Ltd	1329 Riverfront Drive N	Mankato	MN	56001
Renk	Renk Seed Company	6800 Wilburn Road	Sun Prairie	WI	53590
Silage-Fame	M & M Biotechnologies	P.O. Box 146	Eagle Grove	IA	50533
Spangler	Spangler Seedtech, Inc.	803 West Racine Street	Jefferson	WI	53549
Top Farm	Top Farm Hybrids, Inc	P.O. Box 850	Cokato	MN	55321
Trelay	Trelay Seeds	11623 Hwy 80	Livingston	WI	53554
US Seeds	United Suppliers, Inc.	P.O. Box 538	Eldora	IA	50627
Wensman	Wensman Seed	P.O. Box 190	Wadena	MN	56482
Wyffels	Wyffels Hybrids	P.O. Box 246	Atkinson	IL	61235

Table 2. 2001 Temperature and Precipitation Summary

Location		May		June		July		August		September	
		Average Precipitation	Departure Departure	Average Total	Departure Departure	Average Total	Departure Departure	Average Total	Departure Departure	Average Total	Departure Departure
Arlington	Temperature	59.5	1.6	67.2	0.4	72.1	0.8	71.3	2.4	58.7	-2.2
	Precipitation	4.7	1.6	7.0	3.2	2.9	-0.5	5.3	1.4	5.2	0.9
Ashland	Temperature	54.5	2.9	62.8	1.4	68.7	0.9	69.1	3.5	57.4	0.3
	Precipitation	9.1	7.1	3.4	0.6	2.3	-1.3	4.8	0.7	3.0	-1.0
Chippewa Falls (Eau Claire)	Temperature	57.6	0.3	66.5	0.1	72.4	0.9	71.1	2.5	58.5	-0.5
	Precipitation	5.1	1.3	5.3	1.1	4.2	0.3	5.3	0.8	2.7	-1.2
Fond du Lac	Temperature	58.1	0.6	66.8	-0.2	72.7	0.7	71.9	2.4	59.8	-1.5
	Precipitation	3.8	0.7	3.8	0.3	1.8	-1.4	4.6	0.1	3.8	0.0
Galesville (Trempealeau Dam #6)	Temperature	60.9	1.6	67.9	-0.4	73.9	1.0	73.2	3.0	60.7	-0.7
	Precipitation	5.1	1.3	3.3	-0.8	2.4	-1.7	5.0	0.9	6.1	1.9
Hancock*	Temperature	56.7	-1.0	66.1	-0.5	71.2	0.3	69.8	1.3	57.1	-3.0
	Precipitation	7.2	3.9	4.1	0.5	2.7	-0.9	4.6	0.7	4.6	0.4
	Irrigation	0.0		2.0		6.1		3.8		0.5	
Janesville (Beloit)	Temperature	61.2	3.0	66.8	-1.9	74.2	1.5	71.1	1.2	60.9	-1.1
	Precipitation	3.8	0.7	5.6	1.8	1.0	-2.9	5.6	1.6	7.6	3.7
Lancaster	Temperature	59.0	0.7	65.0	-2.7	72.0	0.0	71.1	1.4	59.0	-2.5
	Precipitation	6.3	2.7	4.9	0.9	1.5	-2.5	4.0	-0.4	7.3	3.5
Marshfield	Temperature	55.9	-0.1	62.6	-2.0	70.7	1.4	70.4	3.6	56.7	-1.5
	Precipitation	5.7	1.6	6.1	2.1	3.2	-0.8	3.9	-0.2	4.1	-0.4
Seymour (Green Bay)	Temperature	57.3	1.8	65.6	1.1	70.6	0.9	70.7	3.6	58.3	-0.7
	Precipitation	4.7	1.9	5.2	1.8	0.9	-2.3	3.4	-0.1	2.4	-1.1
Spooner*	Temperature	58.6	2.7	66.0	1.6	71.4	1.9	70.8	4.2	58.2	0.6
	Precipitation	3.7	0.5	7.3	3.4	3.6	-0.2	4.5	0.2	2.1	-1.8
	Irrigation	0.0		1.0		2.2		1.7		0.0	
Valders (Manitowoc)	Temperature	56.5	2.4	63.9	0.1	70.8	1.0	72.1	3.8	60.3	-0.3
	Precipitation	4.6	1.8	4.1	1.0	1.1	-1.9	3.0	-0.3	3.6	0.2
White Lake (Antigo)	Temperature	55.6	2.4	62.8	0.8	66.8	-0.3	67.7	3.5	55.1	0.3
	Precipitation	5.0	1.7	3.3	-0.6	2.6	-1.1	4.2	0.0	3.2	-1.2

*Irrigation applied at Hancock and Spooner - Irrigated Sand Trials.

Table 3. Individual Trial Information - 2001 Trials

Location	Cooperators	Soil Type	Previous Crop	Row Width (in)	Planting Date	Harvest Dates	Ave. Final Stand (plants/A)	Tillage Operations	--Soil Test-- pH P K --(ppm)--	--Nitrogen Fertilizer-- actual (lb/a)	form	time	Weed Control	Insecticides
Arlington	S. Kraak J. Quimby	Plano Silt Loam	Soybean	30	28-Apr	GE:16-Oct GL:25-Oct S: 14-Sept	G:31026 S:34138	Fall Chisel Field Cultivator	6.5 125 275	150 9	46-0-0 6-24-24	preplant planting	Harness 2.5 pt/A Permit 0.66 oz/A cultivate	None
Ashland	M. Mlynarek	Allendale Loamy Fine Sand	Corn	30	4-May	G: 21-Sept S: 17-Sept	G:32845 S:33200	Moldboard Plow Disk	7.0 165 148	150	46-0-0	preplant	Lasso 2.0 qts/A Bladex 2.0 qts/A Permit 1.33 oz/A cultivate	None
Chippewa Falls	J. Clark	Satre Silt Loam	Corn	30	26-Apr	G: 17-Oct	G:28791	Chisel Plow Field Cultivator	5.8 27 115	150 9	28-0-0 6-24-24	preplant planting	Harness 1.7 qt/A Hornet 2.4 oz/A cultivate	Lorsban 7lbs/A
Fond du Lac	M. Rankin E. Montsma	Virgil Silt Loam	Soybean	30	20-May	G: 29-Oct S: 4-Oct	G:29589 S:31837	Moldboard Plow Field Cultivator	6.9 50 98	107 9 69	82-0-0 6-24-24 46-0-0	preplant planting post	Dual II Mag 0.75pt/A Accent Gold 2.9 oz/A Artazine 0.5 lb/A cultivate	None
Galesville	K. Congdon J. Zander	Downs Silt Loam	Soybean	30	26-Apr	G: 17-Oct S: 11-Sept	G:30122 S:31606	Field Cultivator	6.2 60 310	160 9	46-0-0 6-24-24	preplant planting	Dual II 2.25 pt/A Hornet 5.0 oz/A	None
Hancock Irrigated	J. Breuer C. Kostichka	Plainfield Sand	Soybean	30	25-Apr	G: 12-Oct	G:29820	Moldboard Plow Disk	5.5 80 67	9 204	6-24-24 34-0-0	planting post	Aatrex 4L 0.75 lb/A Lasso 2.0 qt/A	None
Janesville	B. Jaynes D. Nehring	Plano Silt Loam	Soybean	30	30-Apr	G:11-Oct	G:31014	Chisel Plow Field Cultivator	6.9 69 195	160 9	28-0-0 6-24-24	preplant planting	Harness 2.75 qt/A Hornet 4.5 oz/A cultivate	None
Lancaster	T. Wood D. Heimdal	Fayette Silt Loam	G: Soybean	30	27-Apr	G: 15-Oct	G:28598	G:Soil Finisher	G: 7.2 48 125	140 9	46-0-0 6-24-24	preplant planting	Roundup Ultra 1.0 qt/A Aatrex 4L 1.0 qt/A Harness 1.0 qt/A North star 5.0 oz/A	None
Marshfield	D. Wiersma T. Drendel	Loyal Silt Loam	S: Alfalfa Soybean	30	18-May	S: 12-Sept G: 5-Nov S: 9-Oct	S:30762 G:21581 S:21563	S: Moldboard Plow Soil Finisher Field Cultivator 2x	S: 7.5 17 71 7.2 48 147	45 9 120	46-0-0 6-24-24 34-0-0	preplant planting post	Harness 1.0 qt/A Hornet 2.4 oz/A cultivate	None
Seymour	R. Vanden Heuvel Z. Miller	Clay Loam	Corn	30	15-May	G: 29-Oct	G:29276	Chisel Plow Soil Finisher	7.1 42 210	9 9000 gal/A	6-24-24 Manure	planting preplant	Accent 0.33 oz/A Northstar 4.0 oz/A cultivate	Lorsban 7lbs/A
Spooner Dryland	M. Bertrum	Cress Sandy Loam	Alfalfa	30	5-May	G:16-Oct	G:26318	Moldboard Plow Disk	6.5 65 296	6 55	5-10-30 46-0-0	planting post	Dual II Mag 1.2 pt/A Northstar 5.0 oz/A cultivate	None
Spooner Irrigated	M. Bertrum	Cress Sandy Loam	Alfalfa	30	5-May	G: 12-Oct	G:32487	Moldboard Plow Disk	6.5 63 121	6 83	5-10-30 46-0-0	planting post	Dual II Mag 1.2 pt/A Northstar 5.0 oz/A cultivate	None
Spooner Silt Loam	M. Bertrum	Antigo Silt Loam	Corn	30	5-May	G: 17-Oct	G:29265	Moldboard Plow Disk	7.0 11 58	23 69	9-23-30 46-0-0	planting post	Roundup Ultra Max 38 oz/A Dual II Mag 1.2 pt/A Northstar 5.0 oz/A cultivate	None
Valders	S. Hendrickson J. Maney T. & B. Maney	Kewaunee Clay Loam	Corn	30	2-May	G: 1-Nov S: 20-Sept	G:29242 S:31336	Moldboard Plow Field Cultivator	7.8 40 204	9 9000 gal/A	6-24-24 Manure	planting preplant	Surpass 1.0 pt/A Accent 0.33 oz/A Distinct 4.0 oz/A cultivate	Lorsban 7lbs/A
White Lake	J. Wahleithner	Antigo Silt Loam	Soybeans	30	8-May	G: 2-Nov	G:28585	Moldboard Plow Disk	6.5 125 95	9 125	6-24-24 28-0-0	planting preplant	Atrazine 1.0 lb/A Harness Xtra 1.5 qt/A	None

Note: G=Grain, S=Silage, E=Early Trial, L=Late Trial.

Table 4. Southern Zone - Early Maturity Grain Trial (page 1 of 2)

105 DAY RELATIVE MATURITY OR EARLIER, BASED ON COMPANY RATING (ARLINGTON = ARL, JANESVILLE = JAN, LANCASTER = LAN)

BRAND	HYBRID	2001					2000										
		AVERAGE					Yield bu/A	Yield bu/A	Yield bu/A	AVERAGE					Yield bu/A	Yield bu/A	Yield bu/A
		Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #				Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #			
Cornelius	C311RR	184	20.4	56	1	96	200	183	167								
Carharts Blue Top	CR102RR	181	20.7	56	1	95	190	187	167	172	21.1	56	10	96	169	183	165
Carharts Blue Top	CX1200A	197	20.9	57	0	99	213	206	172	187	20.4	56	17	99	204	193	164
Wyffels	W1970	203	20.9	57	1	101	234 *	199	177								
Croplan Genetics	364	185	21.0	58	2	96	196	194	165								
Renk	RK622	203	21.0	58	3	100	231	194	184								
NK Brand	N45T5	203	21.3	55	1	101	207	212	189	189	19.9	56	12	100	199	206	162
Wyffels	W2830	199	21.4	57	1	100	210	199	189								
Renk	RK636	201	21.4	55	2	100	212	214	176								
Jung	2573	199	21.5	54	3	99	212	214	170								
OBrien	OB1022	193	21.6	56	1	98	213	197	168								
La Crosse Forage	LC4602	192	21.7	57	1	97	214	196	165								
Hughes	2970	216	21.8	57	1	104 *	229	219	200								
Hughes	3030	202	21.8	56	2	100	214	210	183								
Jung	2565	197	21.9	57	3	98	214	210	167	191	22.7	56	9	100	214	197	163
Spangler	5300	213	21.9	57	3	102	229	242 *	168	205	22.4	56	20	102	222 *	222 *	170
Wyffels	W3160	195	21.9	56	1	98	209	208	167								
Croplan Genetics	441	191	22.2	56	1	97	210	194	169								
Midwest	G7101B	214	22.2	57	1	103	217	234 *	190	214 *	20.8	58	9	107 *	216	222 *	204 *
Hughes	3431	209	22.2	55	1	101	220	216	190								
NK Brand	N45A6	201	22.2	54	1	100	212	209	182								
Top Farm	TFSX2300	206	22.3	55	1	101	219	215	182								
Renk	RK668	202	22.3	58	2	99	219	216	170	203	23.2	58	14	102	227 *	206	175
Garst	8707	198	22.4	54	2	98	223	207	164	205	23.5	55	8	103 *	228 *	218	170
Cornelius	C377YG	215	22.4	56	0	103	230	219	196								
100-DAY HYBRID TRIAL AVERAGE##			22.5														
Pioneer	36R11	211	22.6	56	1	102	213	232 *	189								
Geertson	GS1020	206	22.6	56	1	100	218	217	182								
Jung	6580Bt	208	22.6	58	1	101	231	211	183								
Croplan Genetics	503	205	22.7	56	1	100	234 *	208	172								
Golden Harvest	H7895	192	22.7	55	1	97	209	194	174	201	22.7	55	9	102 *	217	208	177
Quality Traders	QC9664	202	22.8	56	1	100	208	205	193								
Cornelius	C407	211	23.0	55	1	102	218	227 *	188								
Carharts Blue Top	CX1056A	196	23.0	55	2	98	216	201	172	193	26.3	55	7	99	207	202	171
Hughes	3799	207	23.0	57	1	100	231	211	178	179	26.8	56	13	94	194	191	151
Kaltenberg	K5808	198	23.0	56	1	98	209	209	177	205	24.6	56	12	102	220	218	176
Trelay	5020	198	23.0	54	2	98	204	215	176								
Pioneer	35R57	215	23.0	55	2	102	231	228 *	187	210 *	23.6	57	12	104 *	208	227 *	195 *
Brown	6079	210	23.0	54	2	101	223	231 *	176								
Wyffels	W4570	198	23.1	54	1	98	214	212	169								
Golden Harvest	H8123	205	23.1	53	1	100	214	216	184								
North-Gro	5982	204	23.1	56	2	99	229	209	173								
LG Seeds	LG2512	208	23.1	56	1	101	223	219	182	200	25.8	55	11	101	218	208	175
Otilie	4393	208	23.1	55	1	101	209	228 *	188								
North-Gro	5909	208	23.2	55	2	101	222	218	183								
Kussmaul	K404	194	23.3	54	3	97	210	201	172								
AgriGold	A6257	200	23.3	57	1	99	212	209	179								
Jung	2612	195	23.3	55	1	98	201	205	179	210 *	25.2	56	8	104 *	216	216	198 *
Quality Traders	QC9621	206	23.3	55	1	100	221	218	180								
105-DAY HYBRID TRIAL AVERAGE##			23.4														
Top Farm	TFSX105Bt	214	23.4	56	1	102	232 *	221	190								
Dairyland	Stealth 1605	209	23.4	55	1	101	220	220	187								
Cornelius	C408YG	208	23.4	56	1	101	222	210	192	220 *	24.4	56	14	106 *	226 *	225 *	207 *
AgriGold	A6382	220 *	23.6	54	1	104 *	250 *	223	188	220 *	25.4	53	12	106 *	241 *	235 *	184
Dekalb	DKC5332	227 *	23.6	54	1	105 *	234 *	234 *	213 *	187	24.0	55	15	97	205	207	148

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Table 4. Southern Zone - Early Maturity Grain Trial (page 2 of 2)

105 DAY RELATIVE MATURITY OR EARLIER, BASED ON COMPANY RATING (ARLINGTON = ARL, JANESVILLE = JAN, LANCASTER = LAN)

BRAND	HYBRID	2001					2000			2000					ARL Yield bu/A	JAN Yield bu/A	LAN Yield bu/A
		AVERAGE					Yield bu/A	Yield bu/A	Yield bu/A	AVERAGE							
		Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #				Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #			
Carharts Blue Top	CX1055A	205	23.8	54	4	99	215	210	190								
Asgrow	RX592RR	211	23.8	54	1	101	223	227 *	185								
Trelay	6200	201	23.8	54	1	99	212	213	177								
US Seeds	USC1051ND	200	23.8	56	5	98	212	204	184	183	26.3	55	13	96	204	192	153
Pioneer	35R58	232 *	23.9	55	0	107 *	239 *	237 *	219 *	217 *	24.3	56	13	106 *	210	225 *	215 *
Cornelius	C443	199	24.0	54	1	98	221	202	175								
Garst	8647	200	24.0	54	1	98	239 *	209	154								
Growmark	FS4882	200	24.1	54	0	99	211	203	187								
Wyffels	W4828	198	24.2	54	1	98	207	199	187	207 *	24.9	55	10	103 *	206	228 *	187
LG Seeds	LG2521	208	24.2	53	1	100	223	220	181	175	26.9	53	14	93	188	197	140
Asgrow	RX601RRYG	223 *	24.3	55	1	104 *	242 *	242 *	186								
Dairyland	Stealth 1607	203	24.3	54	2	99	227	198	184								
Renk	RK775	201	24.3	54	3	98	217	207	179								
North-Gro	6612	198	24.3	54	1	98	220	204	171								
US Seeds	USC1071	204	24.4	54	1	99	238 *	211	163								
Gutwein	2400	193	24.4	54	4	96	184	223	172	209 *	24.0	54	16	103 *	220	203	203 *
Dynagro	5324	213	24.4	54	2	101	244 *	221	175								
Pioneer	36B09	201	24.4	56	0	99	218	212	173								
Dairyland	Stealth 1606	210	24.5	53	2	101	231	223	177	197	26.9	53	25	97	193	226 *	171
US Seeds	USE1042	208	24.6	53	1	100	231	217	176								
Ottillie	4404	207	24.6	53	1	100	232 *	214	177								
LG Seeds	LG2533	224 *	25.2	53	1	104 *	234 *	233 *	206 *	190	27.2	53	4	98	222 *	207	139
MEAN		204	23.0	55	1	100	219	213	180	194	23.9	55	13	100	207	204	171
LSD(0.10)**		12	0.7	1	1	3	18	15	14	14	1.3	1	7	4	19	15	20

P.I. = Performance Index, evaluates hybrids by combining yield, moisture, and lodged % at a 50(yield) : 35(moisture) : 15(lodged) ratio.

Average grain moisture of all hybrids in this trial as rated by the Minnesota Relative Maturity Rating System. Ratings are rounded to 5-day increments.

* Hybrids which did not perform significantly less than the highest hybrid in the test.

Shaded results provide the best estimate of relative hybrid performance.

Table 5. Southern Zone - Late Maturity Grain Trial (page 1 of 2)

106 DAY RELATIVE MATURITY OR LATER, BASED ON COMPANY RATING (ARLINGTON = ARL, JANESVILLE = JAN, LANCASTER = LAN)

BRAND	HYBRID	2001					2000					ARL Yield bu/A	JAN Yield bu/A	LAN Yield bu/A			
		AVERAGE					AVERAGE										
		Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #	Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #						
OBrien	OB1062	209	22.1	55	2	101	223	217	188								
Spangler	6300	188	22.6	56	6	95	172	206	186	197	23.5	57	13	101	212	199	182
Cornelius	C507	192	22.9	53	2	96	205	211	160	214 *	24.9	53	17	103 *	231 *	230 *	181
Golden Harvest	H8562	209	23.0	52	1	100	226 *	223	176	210	26.2	53	12	103 *	220	229 *	180
NK Brand	N59Q9	197	23.1	53	1	98	202	219	172	207	26.5	53	13	101	212	225 *	185
Dekalb	DKC5740	200	23.1	56	3	98	205	219	177								
Growmark	FS5308	194	23.2	54	2	97	189	212	182	204	26.3	54	10	101	212	230 *	169
Mycogen	2652	212	23.2	53	1	101	217	233	187	209	26.0	53	16	102	222	236 *	169
Mycogen	5320Bt	215	23.2	54	3	102	211	217	217 *	222 *	25.2	55	11	107 *	236 *	228 *	203 *
Top Farm	TFSX2111	192	23.3	53	2	96	191	210	174								
Dairyland	Stealth 1507	212	23.5	53	2	101	230 *	230	176	210	27.0	53	12	102	236 *	232 *	163
Kaltenberg	K6789	215	23.6	53	1	102	244 *	225	177	216 *	26.0	53	11	104 *	233 *	231 *	185
Garst	8590IT	205	23.6	54	1	99	221	219	174	204	26.2	54	11	101	218	234 *	161
Hughes	4411	187	23.6	53	1	95	195	201	163								
Gutwein	2444	219	23.6	53	2	102	232 *	228	196								
Brunner	S5610RR	177	23.6	52	1	93	166	202	162								
Hughes	5121	199	23.7	54	2	98	198	220	180								
Ramy	R1590	212	23.7	53	1	101	223	227	185								
Hughes	5597	192	23.7	53	5	95	194	216	165	188	25.8	53	18	97	199	189	177
Growmark	FS5221	213	23.8	53	2	101	234 *	223	181	214 *	27.0	53	14	103 *	245 *	228 *	169
La Crosse Forage	LC7512	194	23.8	53	4	96	203	199	179								
105-DAY HYBRID TRIAL AVERAGE##			23.8														
Kussmaul	KHC	186	24.0	53	2	94	187	205	165	190	26.2	54	11	98	204	206	161
Carharts Blue Top	CX1079A	192	24.0	53	2	96	197	206	172								
Jung	2674	197	24.1	54	2	97	203	206	183								
Quality Traders	QC9680	183	24.1	57	1	94	190	203	157								
Pioneer	35Y55	230 *	24.1	52	0	105 *	232 *	237 *	222 *								
AgriGold	A6391	213	24.1	53	1	101	219	223	197								
Renk	RK806	208	24.2	53	1	100	210	226	187	208	27.5	53	16	101	224 *	221	180
Kussmaul	K410	202	24.2	53	3	98	201	211	193								
Pioneer	34B23	225	24.3	56	3	103 *	231 *	251 *	194	216 *	27.1	57	19	102	226 *	240 *	184
Dekalb	DKC5878	227	24.3	53	0	104 *	236 *	231	214								
Hughes	5150	210	24.4	53	2	100	214	220	196	187	27.8	52	15	96	187	205	169
Brown	6895Bt	226	24.4	52	1	104 *	241 *	232	205								
Trelay	8100	215	24.5	53	3	101	237 *	223	186								
Cornelius	C590YG	219	24.5	52	1	102	232 *	230	195								
Dairyland	Stealth 1507Bt	227	24.5	52	2	104 *	245 *	240 *	197								
Spangler	5901	194	24.6	52	1	96	197	209	174								
Wyffels	W5460	217	24.6	52	0	102	239 *	222	190	216 *	28.2	52	15	103 *	231 *	236 *	182
AgriGold	A6333Bt	220	24.8	52	1	102	240 *	231	191								
Ottillie	4777Bt	223	24.9	52	1	103 *	241 *	236 *	191	226 *	29.1	52	10	106 *	236 *	234 *	207 *
Crows	C438B	223	24.9	52	0	103 *	236 *	234	201								
Geertson	GS1099	208	24.9	55	1	100	214	229	183								
Carharts Blue Top	CX1080A	204	25.0	53	3	98	216	223	172	197	28.2	52	14	98	210	202	180
Trelay	9300	215	25.1	52	1	101	238 *	232	175								
LG Seeds	LG2540	217	25.1	52	2	101	225	228	198								
110-DAY HYBRID TRIAL AVERAGE##			25.1														
North-Gro	6800	220	25.3	52	1	102	230 *	233	199								
Wyffels	W5540	197	25.3	53	1	96	202	215	173	200	29.2	53	17	98	220	204	176
Wyffels	W7180	214	25.4	53	2	100	225	226	191								
US Seeds	USC1111	209	25.4	52	2	99	219	225	184								
Pioneer	34G13	206	25.4	55	1	99	206	233	178	209	26.6	56	12	102	227 *	221	180
OBrien	OB1102	213	25.4	53	1	100	219	223	197								
NK Brand	N58D1	223	25.5	54	0	103 *	240 *	226	204	210	28.7	53	9	102	211	232 *	187
Growmark	FS5632	198	25.6	53	1	97	213	205	177								

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Table 5. Southern Zone - Late Maturity Grain Trial (page 2 of 2)

106 DAY RELATIVE MATURITY OR LATER, BASED ON COMPANY RATING (ARLINGTON = ARL, JANESVILLE = JAN, LANCASTER = LAN)

BRAND	HYBRID	2001						2000									
		AVERAGE					ARL	JAN	LAN	AVERAGE					ARL	JAN	LAN
		Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A
Kaltenberg	K7337	220	25.6	52	1	102	231 *	226	205								
LG Seeds	LG2569	202	25.7	53	1	98	205	218	184								
Asgrow	RX708	219	25.7	53	1	102	234 *	233	191								
Dairyland	Stealth 1410	225	25.7	52	3	103 *	238 *	236 *	200	212	27.4	52	11	103 *	219	217	200
Kussmaul	K412	210	25.7	52	1	99	228 *	217	184								
Cornelius	C600RR	210	25.7	51	2	99	214	226	191	215 *	27.6	52	14	103 *	224 *	219	204 *
US Seeds	USC1119RR	205	25.8	51	2	98	207	224	185	214 *	27.7	52	11	103 *	223	227 *	192
NK Brand	N60N2	194	25.8	51	1	96	196	212	174								
Trelay	8200	200	25.8	53	0	97	200	217	183								
Dekalb	DKC5852	232 *	25.9	53	1	105 *	237 *	241 *	217 *	193	30.4	53	14	96	203	201	176
Jung	2710	212	26.0	53	1	100	224	221	191	211	29.3	53	10	102	224 *	221	187
NK Brand	N67T4	220	26.0	53	0	102	232 *	226	201								
Crows	C4908	216	26.0	51	2	101	226 *	230	191	216 *	30.5	52	16	101	222	225 *	201 *
Geertson	GS1117	214	26.0	53	1	100	221	232	189								
Midwest	G7706	215	26.0	51	2	100	233 *	220	192	205	30.7	52	20	98	217	215	183
Dekalb	DKC5671	228	26.1	53	1	104 *	233 *	236 *	216 *								
AgriGold	XA4112	191	26.1	53	1	95	195	210	170								
Mallard	UC657	215	26.2	53	1	101	231 *	218	196								
North-Gro	6988	212	26.3	53	0	100	221	225	190								
Brown	7044	226	26.3	51	1	103 *	244 *	234	199								
Dairyland	Stealth 1611	230 *	26.3	51	2	104 *	234 *	229	226 *	218 *	30.8	52	21	101	211	240 *	204 *
AgriGold	A6445	219	26.4	52	2	101	226 *	228	203								
Jung	6700Bt	227	26.5	52	4	103 *	240 *	230	210								
Spangler	7558	211	26.5	52	1	99	228 *	222	183	214 *	28.8	53	9	103 *	231 *	222	188
North-Gro	6996	228	26.6	52	2	103 *	239 *	243 *	201								
Wyffels	W6570	218	26.7	51	2	101	225	231	199	220 *	29.6	52	18	103 *	229 *	230 *	201 *
Dynagro	5467	220	26.7	52	2	101	243 *	225	193								
Garst	8464	216	26.7	52	1	100	230 *	228	190	202	29.7	53	16	98	218	227 *	162
US Seeds	USC1119ND	192	26.7	53	8	94	183	207	185								
Wyffels	W6980	190	26.8	52	1	94	195	208	168	197	30.1	52	12	98	209	214	167
Ottillie	5267Bt	225	27.0	52	1	102	227 *	238 *	209	221 *	29.9	53	16	103 *	236 *	221	207 *
Golden Harvest	H8977Bt	205	27.2	53	0	98	194	212	210								
Pioneer	33A14	242 *	28.0	54	2	106 *	242 *	251 *	234 *								
MEAN		210	25.0	53	2	100	219	223	189	205	27.8	53	14	100	215	217	183
LSD(0.10)**		12	0.9	1	2	3	19	15	18	13	1.5	1	6	4	21	16	22

P.I. = Performance Index, evaluates hybrids by combining yield, moisture, and lodged % at a 50(yield) : 35(moisture) : 15(lodged) ratio.

Average grain moisture of all hybrids in this trial as rated by the Minnesota Relative Maturity Rating System. Ratings are rounded to 5-day increments.

* Hybrids which did not perform significantly less than the highest hybrid in the test.

Shaded results provide the best estimate of relative hybrid performance.

Table 6. South Central Zone - Early Maturity Grain Trial (page 1 of 2)

100 DAY RELATIVE MATURITY OR EARLIER, BASED ON COMPANY RATING (FOND DU LAC = FON, GALESVILLE = GAL, HANCOCK = HAN)

BRAND	HYBRID	2001							2000								
		AVERAGE					FON	GAL	HAN	AVERAGE					FON	GAL	HAN
		Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A
Brunner	EXP95	175	20.2	58	1	97	146	176	203								
OBrien	OB902	155	20.4	58	1	92	125	163	177								
NK Brand	N32L9	187	20.5	55	1	101	165	197	197								
Spangler	3303	172	20.6	58	0	97	145	181	191								
Mallard	UC2420	180	21.2	55	1	98	149	187	204								
Carharts Blue Top	CX9500AA	166	21.4	54	1	95	139	176	184								
La Crosse Forage	LC7345	190	21.4	53	3	100	164	178	228								
Dekalb	DKC4442	190	21.5	53	2	101	163	217 *	191	182	24.1	53	5	103 *	195	164	186 *
Golden Harvest	H6775Bt	183	21.7	57	1	99	166	186	197								
Trelay	4009	168	22.0	54	2	95	146	170	190								
Dekalb	DKC4815	191	22.1	54	0	100	141	198	232								
Dekalb	DKC4222	182	22.1	54	1	99	159	197	192								
NK Brand	N43C4	190	22.2	54	1	101	165	196	209	182	22.5	55	6	103 *	215 *	168	164
Foundation	FDSX101	215 *	22.2	55	0	107 *	176 *	220 *	250 *								
LG Seeds	LG2481RR	186	22.3	53	0	99	149	195	213								
Jung	6555RR	193	22.3	54	0	101	161	212 *	206								
95-DAY HYBRID TRIAL AVERAGE##			22.4														
Top Farm	TFSX2201	184	22.4	55	1	99	149	201	202	174	24.3	54	15	98	186	168	167
Growmark	FS3969	213 *	22.4	56	1	106 *	170	222 *	247 *	192 *	23.7	56	5	106 *	206 *	189	181 *
Top Farm	TFSX8201RR	189	22.5	55	1	100	164	212 *	192								
Midwest	G7101B	222 *	22.5	55	0	109 *	187 *	221 *	259 *	199 *	24.6	55	8	107 *	211 *	200 *	188 *
Johnson Seeds	2245RR	189	22.6	54	1	100	158	203	205								
Top Farm	TFSX8103RR	189	22.6	54	1	100	143	206	219								
High Cycle	7419Bt	195	22.6	54	0	102	162	198	224	175	22.5	54	7	101	196	156	173 *
Brunner	S4801E	193	22.7	54	1	101	162	198	220								
Kaltenberg	K5151Bt	218 *	22.7	55	0	107 *	171	226 *	257 *								
Mycogen	2461	178	22.7	53	1	97	143	188	203								
Crows	C217B	211 *	22.8	55	1	106 *	178 *	227 *	228	196 *	24.6	55	8	106 *	200	207 *	181 *
LG Seeds	LG2473	199	22.8	54	0	102	158	219 *	218	178	23.2	55	6	102	194	173	167
US Seeds	USC971CL	178	22.9	54	1	97	138	188	207								
Renk	RK622	205	22.9	55	1	104	172	209	233								
Top Farm	TFSX2297	188	22.9	54	1	100	153	193	219								
Kussmaul	K99+	190	23.0	55	1	100	157	210	202								
Renk	RK556	200	23.0	54	0	103	156	222 *	223								
Jung	6455Bt	211 *	23.0	53	1	106 *	177 *	219 *	236								
Carharts Blue Top	CR102RR	197	23.0	53	0	102	160	211 *	220	166	27.4	52	8	96	176	157	165
Renk	RK569	198	23.1	53	1	102	159	198	237 *	176	22.8	55	5	102	193	161	174 *
Lemke	4060A	189	23.2	53	1	100	150	195	223	165	24.0	55	7	97	183	144	168
AgriGold	XA6105	195	23.2	54	1	101	156	207	224								
Dekalb	DKC4626	198	23.3	55	1	102	170	200	223								
Jung	2488A	187	23.3	56	1	99	149	193	218	175	25.1	56	4	100	185	168	173 *
Top Farm	TFSX2299	180	23.3	56	1	97	142	189	209	183	24.6	57	6	103 *	200	182	166
Bio Gene	BT098	192	23.4	53	1	100	147	221 *	209								
Dahlman	D5001	188	23.4	54	0	99	153	213 *	199								
Trelay	5600	188	23.4	57	1	99	152	196	217								
100-DAY HYBRID TRIAL AVERAGE##			23.4														
Kussmaul	K395RR	192	23.5	52	1	100	150	195	231								
La Crosse Forage	LC7415	181	23.5	56	1	97	148	180	216								
Lemke	4040	187	23.5	56	1	99	152	193	216	185	25.0	57	5	103 *	201	183	171
Kussmaul	K101AA	182	23.6	56	1	97	143	193	211								
North-Gro	5515	191	23.6	54	0	100	158	214 *	200								
Renk	RK606	188	23.6	56	1	99	152	191	220	172	24.8	57	5	100	185	169	164
Garst	8779	194	23.6	54	1	101	153	195	235								
Dairyland	Stealth 1598	190	23.6	55	1	100	154	210	206								
Carharts Blue Top	CX1200A	191	23.7	54	1	100	153	209	211	170	25.1	53	11	98	180	168	164

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Table 6. South Central Zone - Early Maturity Grain Trial (page 2 of 2)

100 DAY RELATIVE MATURITY OR EARLIER, BASED ON COMPANY RATING (FOND DU LAC = FON, GALESVILLE = GAL, HANCOCK = HAN)

BRAND	HYBRID	2001									2000								
		AVERAGE					FON	GAL	HAN	AVERAGE					FON	GAL	HAN		
		Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A		
Ragt Semences	PG006	194	23.8	55	1	101	168	196	219										
Dynagro	5257	201	23.8	54	1	102	156	220 *	226										
North-Gro	5633RR	191	23.9	53	0	100	149	210	213										
Lemke	4066RR	184	24.0	52	1	98	147	193	212	185	24.4	53	10	103 *	187	185	184 *		
Top Farm	TFSX2301	189	24.1	54	0	99	146	208	215										
Dairyland	Stealth 1502	206	24.2	54	2	103	165	220 *	233										
Mallard	UC6171	190	24.3	54	0	99	142	210	219										
Pioneer	37H26	193	24.3	57	0	100	159	204	217										
LG Seeds	LG2474	195	24.5	54	0	101	156	214 *	214										
Brown	4630Bt	175	24.5	54	0	95	140	192	193										
Dahlco	2502	194	24.6	54	2	100	166	207	210	181	26.0	54	2	102	211 *	165	166		
LG Seeds	LG2488	196	24.7	54	1	101	166	205	218	195 *	28.5	54	8	104 *	215 *	200 *	170		
Kaltenberg	K5123	194	25.0	54	3	100	148	222 *	213										
Garst	8790Bt	193	25.3	53	1	100	160	203	216	187 *	28.2	53	14	101	205	176	180 *		
Johnson Seeds	2287	188	25.4	53	0	98	141	197	225										
Dairyland	Stealth 1503	207	25.5	53	1	103	165	221 *	236										
AgriGold	A6257	198	25.5	54	1	101	155	200	240 *	198 *	28.2	55	7	105 *	223 *	198 *	174 *		
Asgrow	RX452YG	200	25.6	54	1	101	153	209	237 *	174	28.0	54	8	98	198	161	162		
North-Gro	5622	178	25.9	53	1	95	142	181	213										
Trelay	5020	196	26.4	52	1	100	155	215 *	219										
Brunner	EXP100	186	27.2	52	1	97	136	215 *	207										
MEAN		191	23.2	54	1	100	155	202	216	173	24.0	55	7	100	189	166	166		
LSD(0.10)**		13	1.7	1	1	4	14	16	22	12	1.8	1	7	4	17	16	15		

P.I. = Performance Index, evaluates hybrids by combining yield, moisture, and lodged % at a 50(yield) : 35(moisture) : 15(lodged) ratio.

Average grain moisture of all hybrids in this trial as rated by the Minnesota Relative Maturity Rating System. Ratings are rounded to 5-day increments.

* Hybrids which did not perform significantly less than the highest hybrid in the test.

Shaded results provide the best estimate of relative hybrid performance.

Table 7. South Central Zone - Late Maturity Grain Trial (page 1 of 2)

101 DAY RELATIVE MATURITY OR LATER, BASED ON COMPANY RATING (FOND DU LAC = FON, GALESVILLE = GAL, HANCOCK = HAN)

BRAND	HYBRID	2001					2000										
		AVERAGE					FON Yield bu/A	GAL Yield bu/A	HAN Yield bu/A	AVERAGE					FON Yield bu/A	GAL Yield bu/A	HAN Yield bu/A
		Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #				Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #			
Jung	6560RRBt	191	22.4	52	1	101	164	209	199								
Dahlman	D5102Bt	205 *	22.6	53	0	105 *	177 *	227 *	211								
NK Brand	N45T5	197	22.7	52	1	103 *	167	208	215	175	22.9	54	6	101 *	195	165	166
La Crosse Forage	LC4531	179	22.9	53	1	98	152	190	193								
Cargill	4111	200	23.0	54	1	103 *	167	203	229 *	185 *	23.2	56	5	104 *	196	190	170
NK Brand	N45A6	200	23.1	52	0	104 *	180 *	216	203								
Cargill	4521Bt	211 *	23.2	54	1	106 *	183 *	228 *	222	190 *	22.9	56	9	104 *	217 *	178	173
Dekalb	DKC5188	187	23.6	53	1	100	155	198	209								
OBrien	OB1012	187	23.7	52	1	100	157	203	202								
Dahlco	X0012	182	23.9	53	1	98	147	199	200								
Pioneer	36R11	206 *	23.9	53	0	105 *	177 *	228 *	214	191 *	26.2	55	13	103 *	213 *	186	175 *
Brown	5969RR	189	24.0	52	0	100	161	202	203								
Top Farm	TFSX2203	186	24.2	52	1	99	157	203	196	160	22.8	54	3	97	172	161	146
Lemke	5070	205 *	24.3	54	1	104 *	171	224 *	220								
100-DAY HYBRID TRIAL AVERAGE##			24.5														
Jung	2507	182	24.5	53	1	98	148	205	195								
Renk	RK636	197	24.6	51	1	101	155	209	227 *								
Spangler	4777	174	24.7	53	0	96	139	202	182	174	24.4	55	11	99	177	180	164
Renk	RK668	199	24.7	54	1	102 *	160	222 *	214	183	25.8	56	4	102 *	198	194 *	158
Brunner	EXP103	190	24.7	53	0	100	160	203	208								
Spangler	5300	209 *	24.8	53	1	105 *	175 *	221 *	231 *								
Spangler	4300	196	24.8	53	1	101	165	206	216	179	24.6	54	3	102 *	193	179	166
Kussmaul	K203	198	24.9	53	1	102 *	159	223 *	211								
Bio Gene	BT103	189	24.9	52	0	99	159	196	211								
North-Gro	5818	191	25.1	53	1	100	154	209	211								
Dairyland	DST10220	183	25.1	51	1	98	145	206	196								
Kussmaul	K202	185	25.1	53	1	98	144	201	210								
Brown	5130	176	25.4	52	0	96	149	205	174								
Golden Harvest	H7773Bt	171	25.4	51	1	95	139	181	193	179	27.3	52	5	100	194	175	168
Asgrow	RX508	197	25.6	51	1	101	159	215	218								
Ramy	R1534	181	25.6	52	1	97	156	190	197								
US Seeds	USC1029Bt	204	25.7	53	0	103 *	166	216	229 *	185 *	25.7	53	9	101 *	210 *	184	161
Lemke	5010	184	25.7	54	1	98	148	196	209								
Garst	8647	206 *	25.8	51	0	104 *	171	209	239 *								
Golden Harvest	H7895	176	25.9	52	1	96	145	192	192	172	26.6	53	13	97	170	176	169
OBrien	OB1041	186	25.9	54	1	98	141	204	214								
Growmark	FS4481	203	26.2	52	1	102 *	156	219 *	233 *	184	27.9	53	4	101 *	203	187	163
105-DAY HYBRID TRIAL AVERAGE##			26.2														
Golden Harvest	H8123	179	26.4	50	1	96	145	185	208								
Quality Traders	QC9621	182	26.6	53	1	97	144	193	208								
Carharts Blue Top	CX1056A	185	26.6	52	0	97	146	190	218	172	28.3	53	4	98	192	171	153
Dairyland	Stealth 1607	202	26.7	51	0	102 *	161	226 *	220								
Mallard	UC2681	184	26.7	53	0	97	142	204	205								
Mallard	UC2682	186	26.8	52	1	98	148	196	214	175	28.5	53	6	98	190	175	161
Quality Traders	QC9664	190	26.9	53	0	99	153	207	209								
Growmark	FS4882	183	26.9	51	0	97	151	200	198								
Growmark	FS4322	184	27.0	52	0	97	139	206	208								
Dahlco	2680	193	27.0	52	1	99	158	223 *	197	177	26.1	54	6	100	195	171	164
Pioneer	36B09	189	27.1	53	0	98	153	210	203								
Dahlco	2660	196	27.1	51	1	100	151	203	234 *	187 *	27.3	52	5	102 *	197	188	177 *
Trelay	6200	174	27.2	51	1	94	141	194	187								
Garst	8590IT	204	27.3	52	1	102 *	152	228 *	233 *	188 *	27.2	53	8	102 *	196	185	182 *
AgriGold	XA5109	194	27.3	52	0	100	167	219 *	197								
Johnson Seeds	5450	192	27.3	52	0	99	153	216	208								
North-Gro	6406Y	191	27.4	52	0	99	158	212	202								

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Table 7. South Central Zone - Late Maturity Grain Trial (page 2 of 2)

101 DAY RELATIVE MATURITY OR LATER, BASED ON COMPANY RATING (FOND DU LAC = FON, GALESVILLE = GAL, HANCOCK = HAN)

BRAND	HYBRID	2001									2000								
		AVERAGE					FON	GAL	HAN	AVERAGE					FON	GAL	HAN		
		Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A		
Crows	C3520B	204	27.5	52	0	102 *	175 *	231 *	207										
Carharts Blue Top	CX1055A	188	27.5	52	1	98	152	217	194										
US Seeds	USE1052RR	207 *	27.6	50	0	102 *	156	225 *	238 *										
Midwest	G7494B	200	27.7	53	1	101	176 *	222 *	202										
Dairyland	Stealth 1605	189	27.8	52	0	98	161	210	196										
Top Farm	TFSX2300	184	27.9	52	1	97	151	213	189										
Carharts Blue Top	CX1079A	187	28.0	52	1	97	139	206	217										
Kaltenberg	K6396	196	28.2	51	1	100	160	211	218										
Dairyland	Stealth 1606	202	28.3	51	1	101	154	216	237 *	188 *	28.2	52	16	100	201	182	180 *		
Pioneer	35Y55	218 *	28.4	50	1	105 *	188 *	233 *	232 *										
North-Gro	5909	183	28.5	52	1	96	151	206	192										
Dynagro	5324	207 *	28.7	51	1	102 *	154	220 *	249 *										
Dairyland	Stealth 1507	200	28.8	51	0	100	145	208	246 *	191 *	30.1	52	6	102 *	205 *	187	181 *		
NK Brand	N58D1	216 *	28.8	52	0	105 *	183 *	226 *	239 *	198 *	30.1	53	1	105 *	192	211 *	191 *		
AgriGold	A6333	192	29.1	51	1	98	157	220 *	199										
Renk	RK775	203	29.2	51	1	101	155	229 *	226										
Dairyland	Stealth 1507Bt	204	30.0	50	1	100	156	221 *	234 *										
Carharts Blue Top	CX1080A	204	30.2	51	1	101	179 *	215	219	180	28.9	52	9	99	189	191	159		
Lemke	SL68	204	31.0	51	0	100	171	216	224										
MEAN		193	26.2	52	1	100	157	210	212	178	26.4	53	7	100	193	176	166		
LSD(0.10)**		13	1.6	1	1	4	13	15	22	13	1.7	1	6	4	18	18	16		

P.I. = Performance Index, evaluates hybrids by combining yield, moisture, and lodged % at a 50(yield) : 35(moisture) : 15(lodged) ratio.

Average grain moisture of all hybrids in this trial as rated by the Minnesota Relative Maturity Rating System. Ratings are rounded to 5-day increments.

* Hybrids which did not perform significantly less than the highest hybrid in the test.

Shaded results provide the best estimate of relative hybrid performance.

Table 8. North Central Zone - Early Maturity Grain Trial (page 1 of 2)

90 DAY RELATIVE MATURITY OR EARLIER, BASED ON COMPANY RATING (CHIPPEWA FALLS = CHP, MARSHFIELD = MAR, SEYMOUR = SEY, VALDERS = VAL)

BRAND	HYBRID	2001										2000							
		AVERAGE					CHP	MAR	SEY	VAL	AVERAGE					CHP	MAR	SEY	VAL
		Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A
Cargill	2670	119	18.6	56	0	98	148 *	143	144	51									
Top Farm	TFSX2184	127	19.1	55	1	104	135	151	152 *	80									
Top Farm	TFSX8184RR	125	19.1	55	1	105 *	138	145	129	99									
Dahlco	X9841	115	19.3	52	1	98	140	131	131	68	125	18.5	58	2	92	144 *	123	122	111
Dairyland	Stealth 1585	126	19.5	55	1	104	132	143	147	91	165	20.5	59	1	104 *	160 *	165	176	158
Brown	1967	142 *	19.5	55	1	111 *	170 *	154	153 *	102	159	19.4	57	4	102	145 *	162	167	162
LG Seeds	LG2354	121	19.7	55	1	100	133	149	150	64									
Golden Harvest	H6355	130	19.7	54	1	104	146	140	166 *	78	161	20.9	57	2	103 *	134	185 *	166	158
Renk	RK232	131	19.7	56	1	107 *	145	146	145	99	164	21.0	57	4	104 *	158 *	174	168	157
Trelay	2002	133	19.7	55	1	108 *	140	146	154 *	103									
Lemke	2030	118	19.7	55	1	100	129	136	136	82									
Carharts Blue Top	CX8500A	131	19.8	51	0	105 *	163 *	162	135	76	160	20.9	57	2	103 *	155 *	172	164	150
Kussmaul	K292	122	19.8	53	1	102	149 *	146	118	85									
North-Gro	3712	118	19.8	54	2	99	124	133	156 *	68									
Mallard	UCX2400	133	19.8	54	1	109 *	145	146	140	113									
North-Gro	3620	121	19.8	56	1	99	143	145	154 *	55									
Dekalb	DKC3308	101	19.9	59	1	93	108	121	118	68									
LG Seeds	LG2402	129	20.0	57	2	104	150 *	139	158 *	80									
Kaltenberg	K3303	120	20.0	56	1	100	140	149	137	66	163	20.5	58	2	104 *	151 *	171	169	162
Dairyland	Stealth 1089	123	20.1	56	2	102	134	148	138	84									
Dahlco	X0851	126	20.1	55	1	102	149 *	148	151	67									
Top Farm	TFSX2183	126	20.1	55	1	103	141	129	161 *	83									
La Crosse Forage	LC4185	115	20.2	54	1	98	133	141	125	71									
Kussmaul	K2989	127	20.2	55	1	105 *	146	145	134	95									
85-DAY HYBRID TRIAL AVERAGE##		20.3																	
Renk	RK383	129	20.3	56	1	105 *	150 *	147	145	86									
LG Seeds	LG2400RR	138 *	20.3	54	1	108 *	158 *	160	155 *	89									
Dahlman	D4301	126	20.4	54	2	103	152 *	140	136	86									
Jung	2370	130	20.5	51	1	105 *	135	149	158 *	88	156	19.5	57	5	101	125	171	169	158
Carharts Blue Top	CX290A	135	20.5	54	1	109 *	154 *	147	146	105	165	20.9	56	4	104 *	145 *	173	177	167
Carharts Blue Top	CX8900A	128	20.6	56	1	102	149 *	151	158 *	65									
Dairyland	Stealth 1089B1	125	20.6	53	0	101	146	153	146	67	160	21.5	55	4	102	140 *	180 *	168	153
Brunner	B2495	138 *	20.6	53	2	107 *	157 *	164	155 *	85									
Ramy	R1356	111	20.6	51	1	95	135	131	133	58									
Spangler	2777	123	20.6	56	1	100	157 *	136	142	67	162	20.5	57	2	103 *	140 *	181 *	167	161
Trelay	2009	125	20.7	53	1	102	140	147	141	81	157	19.7	57	3	102	141 *	162	173	152
Ragt Semences	PG005	119	20.7	50	1	100	117	143	152 *	75									
Pioneer	39K40	119	20.9	56	1	99	123	151	148	66									
Dairyland	Stealth 1592	117	20.9	55	0	99	134	149	123	74									
Ramy	R1465	123	20.9	53	1	102	127	157	142	78									
Carharts Blue Top	CX1185A	115	21.0	54	0	99	123	125	143	80	143	21.4	57	2	97	136	158	150	127
Dahlman	D4501	120	21.1	52	1	99	144	145	135	67	160	19.6	57	6	102	151 *	161	167	160
Jung	6210RRBt	134	21.1	52	1	108 *	134	156	151	106									
High Cycle	7290Bt	144 *	21.1	54	1	110 *	162 *	158	174 *	92									
90-DAY HYBRID TRIAL AVERAGE##		21.2																	
Dahlco	2335	129	21.3	52	2	104	141	148	147	89									
Lemke	2040A	117	21.4	56	1	96	141	140	146	51									
Brown	2P16	126	21.5	51	1	103	151 *	141	136	85									
North-Gro	3844	123	21.6	51	1	99	152 *	144	147	58									
Dahlman	1488	126	21.6	51	2	102	140	150	147	78	166	20.8	54	5	104 *	151 *	165	171	177

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Table 8. North Central Zone - Early Maturity Grain Trial (page 2 of 2)

90 DAY RELATIVE MATURITY OR EARLIER, BASED ON COMPANY RATING (CHIPPEWA FALLS = CHP, MARSHFIELD = MAR, SEYMOUR = SEY, VALDERS = VAL)

BRAND	HYBRID	2001										2000							
		AVERAGE					CHP	MAR	SEY	VAL	AVERAGE					CHP	MAR	SEY	VAL
		Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A
Wensman	W5088Bt	131	21.7	54	0	102	159 *	147	168 *	60	159	21.9	57	2	102	150 *	162	170	154
Top Farm	TFSX2390	126	22.1	52	0	102	152 *	138	141	83									
Dekalb	DKC3947	150 *	22.1	55	1	112 *	161 *	187 *	171 *	90									
NK Brand	N2555BT	136	22.1	56	2	106 *	147 *	155	171 *	82	165	21.1	58	3	104 *	142 *	171	185 *	161
Johnson Seeds	2235	125	22.3	51	1	101	146	155	143	68									
Kaltenberg	K4458	127	22.3	51	1	103	155 *	127	149	88									
Garst	N9946	126	22.3	45	2	100	170 *	139	139	66									
Jung	6320RR	125	22.5	50	1	102	156 *	131	133	89									
Bio Gene	BG090A	129	22.5	50	2	105 *	149 *	155	129	95									
Golden Harvest	H6675	128	22.6	50	1	104	140	146	150	88	180 *	23.6	58	4	107 *	154 *	193 *	177	195 *
Lemke	3090	114	22.7	49	1	94	122	146	162 *	39	156	21.3	55	5	101	149 *	147	173	156
Dahlco	2140RR	115	22.7	45	1	97	131	123	144	73									
Growmark	FS3091	129	23.2	54	1	104	148 *	137	143	98	156	22.3	57	5	100	129	173	175	149
Garst	N9943	128	23.3	52	1	102	170 *	132	140	80									
Lemke	3050	125	23.3	55	1	101	147 *	138	142	83									
Johnson Seeds	2235RR	125	23.4	51	1	100	154 *	144	144	67									
Ragt Semences	PG003	115	23.5	53	1	100	102	141	127	101									
Brown	3P32	136	23.8	52	1	106 *	153 *	157	150	93									
Ragt Semences	PG002	121	23.9	51	1	100	122	142	146	84									
MEAN		125	21.0	53	1	102	143	145	145	80	153	21.0	57	4	100	138	161	163	149
LSD(0.10)**		13	1.2	4	1	7	23	15	22	NS	11	0.9	1	3	4	20	14	13	14

P.I. = Performance Index, evaluates hybrids by combining yield, moisture, and lodged % at a 50(yield) : 35(moisture) : 15(lodged) ratio.

Average grain moisture of all hybrids in this trial as rated by the Minnesota Relative Maturity Rating System. Ratings are rounded to 5-day increments.

* Hybrids which did not perform significantly less than the highest hybrid in the test.

Shaded results provide the best estimate of relative hybrid performance.

Table 9. North Central Zone - Late Maturity Grain Trial (page 1 of 2)

91 DAY RELATIVE MATURITY OR LATER, BASED ON COMPANY RATING (CHIPPEWA FALLS = CHP, MARSHFIELD = MAR, SEYMOUR = SEY, VALDERS = VAL)

BRAND	HYBRID	2001								2000								
		AVERAGE					CHP	SEY	VAL	AVERAGE					CHP	MAR	SEY	VAL
		Yield	Moist	Test	Lodged	P.I.	Yield	Yield	Yield	Yield	Moist	Test	Lodged	P.I.	Yield	Yield	Yield	Yield
bu/A	%	Wt.	%	#	bu/A	bu/A	bu/A	bu/A	%	Wt.	%	#	bu/A	bu/A	bu/A	bu/A		
Spangler	3303	126	19.5	57	1	107	162	132	83									
La Crosse Forage	LC7345	126	20.5	52	2	103	152	159	67									
Brunner	EXP93	134	20.7	54	1	110 *	160	157	87									
Brunner	B3901	115	20.9	52	1	99	129	153	63									
Renk	RK404	118	20.9	55	1	100	144	146	66									
Kussmaul	K296	130	21.0	52	1	108	141	165	85									
Carharts Blue Top	CX9500AA	106	21.2	52	1	92	131	141	46									
Top Farm	TFSX2295	134	21.3	52	1	106	172 *	160	68	149	21.5	54	4	96	140	159	179	117
LG Seeds	LG2442	133	21.4	52	1	106	154	172 *	72	182 *	23.6	53	7	104 *	179 *	176	202 *	173 *
Jeske	SX224	122	21.5	52	0	101	148	150	67	152	23.8	54	4	96	151	159	157	140
Dairyland	Stealth 1496	145 *	21.5	52	1	116 *	169 *	165	100 *	180 *	24.0	52	6	104 *	180 *	181	186	172
NK Brand	N32L9	141 *	21.6	53	1	111 *	161	176 *	85									
Pioneer	38P06	144 *	22.0	54	0	116 *	145	183 *	104 *									
Renk	RK622	137 *	22.0	53	1	114 *	153	154	104 *									
Pioneer	37R71	155 *	22.1	52	0	123 *	166	174 *	123 *									
Golden Harvest	H6775Bt	117	22.1	56	0	96	157	145	49	173	24.6	56	1	102	168	164	197 *	163
Top Farm	TFSX2297	129	22.1	52	1	102	180 *	149	58	177	25.8	53	4	102	180 *	180	191	157
Carharts Blue Top	CX1200A	123	22.2	52	1	104	130	161	77	184 *	23.9	52	2	106 *	179 *	184 *	195 *	179 *
Growmark	FS3382	126	22.2	54	1	104	153	149	76									
Brown	4630Bt	128	22.3	43	1	103	159	159	67									
Dahlco	2475	132	22.3	51	1	104	158	170	67	180 *	24.2	53	4	104 *	184 *	171	185	182 *
Garst	N9803	135	22.4	53	1	107	168 *	162	76									
US Seeds	USC1009RR	129	22.4	51	0	101	177 *	151	58	182 *	25.0	52	1	105 *	189 *	182	191	166
Dekalb	DKC4222	139 *	22.4	53	1	111 *	146	179 *	91	178	22.8	55	0	105 *	178 *	168	185	181 *
Brunner	S3870RR	128	22.5	52	1	103	156	162	67									
Dahlman	1699	140 *	22.6	52	1	110 *	171 *	165	85	185 *	23.5	53	6	106 *	182 *	186 *	186	186 *
Dahlco	2480	122	22.6	52	1	98	149	164	51									
95-DAY HYBRID TRIAL AVERAGE##			22.6															
Mycogen	2461	122	22.6	51	1	102	150	142	74									
Dekalb	DKC4442	154 *	22.6	51	2	119 *	178 *	182 *	104 *	188 *	26.1	51	1	106 *	184 *	182	212 *	172
Jung	2432	135	22.7	53	1	108	180 *	144	82									
Growmark	FS3969	138 *	22.7	54	0	108	183 *	155	77	179 *	25.8	53	3	103	185 *	175	209 *	150
NK Brand	N3030BT	136 *	22.7	54	1	105	165	179 *	64	166	22.3	56	4	101	157	177	176	154
Wensman	W5258Bt	134	22.8	55	1	107	164	157	80	162	22.4	57	6	99	158	170	172	146
Brown	4680wx	121	22.8	52	1	102	143	145	75									
Kaltenberg	K4848Bt	129	22.9	51	0	97	164	188 *	36	190 *	24.6	52	6	106 *	178 *	194 *	208 *	181 *
Dahlco	X0012	137 *	22.9	52	1	110 *	160	164	87									
Garst	8801	127	23.0	52	1	104	162	145	74									
Kaltenberg	K4829	144 *	23.0	53	1	111 *	172 *	177 *	84									
Lemke	4038A	120	23.1	50	1	97	141	170	50									
Dekalb	DKC4815	133	23.1	52	1	103	167 *	170	62									
Renk	RK569	127	23.1	52	1	102	186 *	134	62	184 *	25.7	52	4	104 *	190 *	195 *	192	160
Dahlco	2475RR	129	23.2	49	1	99	183 *	155	48									
Growmark	FS3621	116	23.2	52	1	94	161	147	41									
Johnson Seeds	2165	115	23.2	51	0	94	137	168	42									
Kaltenberg	K4664	137 *	23.3	52	1	109	167 *	156	86									
Dahlco	X9963	130	23.3	52	1	101	176 *	162	53									
Pioneer	38T28	150 *	23.3	55	1	112 *	190 *	181 *	78									
Renk	RK556	123	23.4	52	0	96	156	168	43									
Dairyland	Stealth 1099RR	141 *	23.4	52	1	114 *	163	158	102 *	175	27.3	51	2	101	175	172	187	167

CONTINUED.

Table 9. North Central Zone - Late Maturity Grain Trial (page 2 of 2)

91 DAY RELATIVE MATURITY OR LATER, BASED ON COMPANY RATING (CHIPPEWA FALLS = CHP, MARSHFIELD = MAR, SEYMOUR = SEY, VALDERS = VAL)

BRAND	HYBRID	2001									2000								
		AVERAGE					CHP	SEY	VAL	AVERAGE					CHP	MAR	SEY	VAL	
		Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A	Moist %	Test Wt.	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A	
Golden Harvest	H6573	105	23.4	52	1	88	140	141	32	170	24.0	54	5	101	169	163	170	177 *	
100-DAY HYBRID TRIAL AVERAGE##		23.5																	
Midwest	G6961	136 *	23.5	52	1	110 *	156	160	94 *										
Johnson Seeds	2237RR	133	23.6	51	1	109	162	148	89										
Kussmaul	K395RR	132	23.6	50	1	103	181 *	153	63										
Jung	6455Bt	125	23.8	51	0	95	189 *	151	34										
NK Brand	N43C4	131	23.9	50	0	103	175 *	154	64										
North-Gro	5117	103	23.9	52	0	86	152	132	26										
North-Gro	5800RR	123	24.1	50	1	101	164	134	70										
US Seeds	USE1012RR	117	24.2	51	0	96	159	140	52										
La Crosse Forage	LC7415	139 *	24.2	54	1	111 *	173 *	147	96 *										
Pioneer	38A25	133	24.2	54	1	100	183 *	170	46										
Dekalb	DKC4626	132	24.4	52	1	104	167 *	161	70	181 *	24.8	53	2	104 *	183 *	181	197 *	162	
Bio Gene	BG095A	106	24.7	53	1	89	146	133	38										
Pioneer	37H26	146 *	25.4	55	1	116 *	156	175 *	108 *										
Kaltenberg	K5123	121	25.6	51	1	94	154	167	41	181 *	29.6	52	1	102	178 *	173	194	181 *	
Renk	RK636	131	25.7	49	1	102	176 *	150	66										
Carharts Blue Top	CR102RR	124	25.8	51	0	95	178 *	155	39	177	26.5	51	2	102	179 *	167	187	173 *	
Dahlco	2541RR	100	27.5	50	1	87	110	147	42										
Midwest	G7122	128	27.8	49	1	99	174 *	153	58										
Asgrow	RX452YG	155 *	28.6	52	0	119 *	162	191 *	113 *	164	28.9	52	2	97	160	160	190	144	
MEAN		129	23.0	52	1	104	161	158	69	168	24.7	53	3	100	167	169	181	155	
LSD(0.10)**		19	1.4	3	1	13	23	20	31	11	1.2	1	4	3	13	12	15	13	

P.I. = Performance Index, evaluates hybrids by combining yield, moisture, and lodged % at a 50(yield) : 35(moisture) : 15(lodged) ratio.

Average grain moisture of all hybrids in this trial as rated by the Minnesota Relative Maturity Rating System. Ratings are rounded to 5-day increments.

* Hybrids which did not perform significantly less than the highest hybrid in the test.

Shaded results provide the best estimate of relative hybrid performance.

Table 10. Northern Zone Grain Trial (page 1 of 2)

WHITE LAKE = WHL, SPOONER DRYLAND SAND = SPD, SPOONER IRRIGATED SAND = SPI, SPOONER DRYLAND SILT LOAM = SPS

BRAND	HYBRID	2001								2000							
		AVERAGE				WHL	SPD	SPI	SPS	AVERAGE				WHL	SPD	SPI	SPS
		Yield bu/A	Moist %	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A	Moist %	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A
Top Farm	TFSX8184RR	147	21.1	1	105 *	111	163 *	169	144 *								
Garst	8992	122	21.5	1	96	102	130	139	115								
Kaltenberg	K3303	151	21.7	1	106 *	110	143	197	156 *	122	22.9	0	101	111	127 *	145	105
Kaltenberg	K2789	150	22.1	1	106 *	112 *	164 *	186	136								
Dairyland	Stealth 1585	140	22.2	1	102	109	157	159	134	129	21.7	0	104 *	111	129 *	164	110
Dairyland	Stealth 1280	144	22.3	3	104 *	110	141	176	150 *	127	22.3	0	103	105	125 *	158	118
Renk	RK232	142	22.4	3	102	97	159	175	137	130	21.4	1	104 *	116	125 *	156	121
Top Farm	TFSX2184	146	22.4	1	104 *	108	168 *	156	150 *								
Carharts Blue Top	CX8500A	156 *	22.4	1	108 *	116 *	166 *	194	149 *	131	21.0	0	105 *	120 *	125 *	160	118
Top Farm	TFSX2183	144	22.5	2	103	100	161 *	181	136								
Wensman	W5018Bt	128	22.5	0	98	109	142	137	122	122	24.0	0	100	108	129 *	144	106
NK Brand	N17R3	143	22.6	0	104 *	130 *	139	172	131	127	21.9	0	103	115	114	165	113
Kussmaul	K2989	142	22.6	1	103	112 *	159	167	131								
Johnson Seeds	8350	121	22.7	1	95	95	120	136	134								
Golden Harvest	H6355	149	22.8	1	105 *	118 *	178 *	174	125								
Kussmaul	K2985	128	22.9	1	97	86	159	135	131								
Pioneer	39K40	137	23.0	1	101	96	146	153	156 *								
Renk	RK383	148	23.0	2	104 *	100	167 *	187	140 *								
80-DAY HYBRID TRIAL AVERAGE##		23.0															
Mycogen	2141	132	23.1	1	99	102	142	154	131	129	21.0	0	104 *	107	123 *	162	125 *
85-DAY HYBRID TRIAL AVERAGE##		23.2															
Top Farm	TFSX2178	132	23.3	1	99	104	135	148	140 *								
Golden Harvest	EX06093	130	23.3	1	98	89	166 *	146	119								
Jung	2178	115	23.5	2	92	75	136	129	119	120	23.1	0	100	113	119	137	110
Kussmaul	K2975	117	23.5	2	93	76	125	129	139 *								
Dekalb	DK334BtY	147	23.5	1	105 *	116 *	169 *	168	137								
Top Farm	TFSX2376	119	23.6	1	94	84	128	149	116								
Wensman	W5088Bt	148	23.7	1	105 *	116 *	155	167	153 *	144 *	23.3	0	109 *	123 *	131 *	194 *	128 *
Jung	6240Bt	133	23.7	1	99	101	141	158	132								
Kaltenberg	K2525Bt	133	23.7	1	99	106	138	152	134								
Brunner	B2495	147	23.7	2	103	95	161 *	183	148 *								
Wensman	W5048Bt	137	23.9	0	101	118 *	130	169	131	136 *	23.8	1	106 *	103	139 *	175 *	129 *
Johnson Seeds	8555	146	24.0	1	103	108	152	184	138 *								
Dairyland	Stealth 1485	135	24.2	1	100	107	140	160	135	120	23.9	0	99	117	108	145	109
Garst	8975	139	24.4	3	101	100	161 *	166	131	129	22.5	0	103	118	120	167	109
NK Brand	NX2319	155 *	24.5	1	106 *	103	179 *	177	160 *								
Golden Harvest	H6675	156 *	24.5	2	107 *	109	166 *	195	155 *								
Brown	3M35RR	144	24.7	1	102	90	170 *	176	139 *								
90-DAY HYBRID TRIAL AVERAGE##		24.8															
US Seeds	USC871	133	25.1	1	98	98	133	166	136								
Growmark	FS2131	147	25.3	1	104 *	126 *	168 *	165	131	132	25.5	0	104 *	121 *	129 *	153	123
Pioneer	38K07	154	25.5	2	105 *	114 *	167 *	202	132								
Kaltenberg	K3869	143	25.6	1	101	89	140	198	145 *								
Pioneer	3893	138	25.6	1	100	99	139	164	147 *	131	24.4	1	103	116	121 *	156	130 *
NK Brand	N2555BT	149	26.0	1	105 *	132 *	170 *	167	128	145 *	24.8	0	109 *	135 *	136 *	175 *	134 *

CONTINUED.

Table 10. Northern Zone Grain Trial (page 2 of 2)

WHITE LAKE = WHL, SPOONER DRYLAND SAND = SPD, SPOONER IRRIGATED SAND = SPI, SPOONER DRYLAND SILT LOAM = SPS

BRAND	HYBRID	2001								2000							
		AVERAGE				WHL	SPD	SPI	SPS	AVERAGE				WHL	SPD	SPI	SPS
		Yield bu/A	Moist %	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A	Moist %	Lodged %	P.I. #	Yield bu/A	Yield bu/A	Yield bu/A	Yield bu/A
Johnson Seeds	882	110	26.1	4	88	60	130	142	109								
Brunner	S2851RR	136	26.3	1	98	87	165 *	157	135								
Brunner	S2055RR	145	26.4	1	102	97	167 *	165	151 *								
Geertson	GS870	139	27.1	2	100	106	157	153	138 *								
Growmark	FS1952	120	27.4	1	92	85	134	140	122								
Brown	3P32	152	28.4	1	103	96	187 *	192	135								
Pioneer	37R71	169 *	28.5	0	109 *	114 *	180 *	229 *	151 *								
MEAN		140	24.0	1	101	102	153	166	137	121	23.4	0	100	111	114	148	113
LSD(0.10)**		14	1.8	2	5	20	27	23	22	12	1.2	1	5	15	21	20	13

P.I. = Performance Index, evaluates hybrids by combining yield, moisture, and lodged % at a 50(yield) : 35(moisture) : 15(lodged) ratio.

Average grain moisture of all hybrids in this trial as rated by the Minnesota Relative Maturity Rating System. Ratings are rounded to 5-day increments.

* Hybrids which did not perform significantly less than the highest hybrid in the test.

Shaded results provide the best estimate of relative hybrid performance.

Table 11. Southern Zone - Early Maturity Silage Trial

105 DAY RELATIVE MATURITY OR EARLIER, BASED ON COMPANY RATING (ARLINGTON = ARL, LANCASTER = LAN)

BRAND	HYBRID	2001											2000						
		AVERAGE											AVERAGE						
		Kernel											ARL	LAN	Yield			ARL	LAN
	Yield	Moist	Milk	CP	ADF	NDF	IVD	CWD	Starch	MILK PER		Yield	Yield	Yield	MILK PER		Yield	Yield	
	T/A	%	%	%	%	%	%	%	%	TON	ACRE	T/A	T/A	T/A	TON	ACRE	T/A	T/A	
Dairyland	Stealth 1406	8.8	56.2	30	6.9	24	47	71	38	34	2560	22600	9.4	8.2	8.8 *	2700	23800 *	10.1 *	7.5
Hyland Seeds	HL2507	8.6	57.7	20	7.1	25	49	70	39	33	2590	22200	9.2	8.0					
Wyffels	W1970	8.9	58.7	30	7.3	23	47	71	38	35	2660	23600	9.7	8.0					
Wyffels	W3160	9.1	59.7	40	7.1	23	46	72	39	35	2730 *	25100	10.4 *	7.8					
Renk	RK668	9.9 *	60.0	50	6.7	24	46	71	38	34	2700 *	27100 *	11.5 *	8.4					
Renk	RK775	8.9	60.4	30	7.1	24	48	70	38	34	2620	23300	9.4	8.4					
Growmark	FS4481	8.5	61.3	40	7.5	24	47	71	39	33	2730 *	23100	9.2	7.7	8.7 *	2940 *	25200 *	9.8 *	7.6
AgriGold	A6257	9.3	61.6	30	7.4	25	50	70	40	30	2680	24900	10.1	8.4					
Asgrow	RX601RRYG	9.9 *	62.2	40	7.1	22	43	72	35	39	2740 *	27000 *	11.0 *	8.7 *					
Garst	8647	8.9	62.6	50	7.5	24	48	71	39	31	2740 *	24600	10.7 *	7.2					
Wyffels	W4828	8.7	62.7	30	7.2	24	47	71	39	33	2760 *	24200	9.6	7.9					
Wyffels	W2830	8.7	63.0	30	7.2	25	49	70	39	32	2680	23500	9.6	7.9					
NK Brand	N48V8	10.4 *	63.1	50	7.0	26	51	70	40	28	2660	27800 *	11.5 *	9.4 *	8.7 *	2620	22700 *	8.8	8.6 *
105-DAY HYBRID TRIAL AVERAGE##			63.2																
Carharts Blue Top	CX1055A	8.7	63.4	40	6.7	24	48	71	39	33	2760 *	24100	9.9	7.5					
Wyffels	W4570	8.2	63.8	40	7.2	24	46	71	38	33	2740 *	22500	9.1	7.3					
110-DAY HYBRID TRIAL AVERAGE##			64.0																
Asgrow	RX592RR	8.5	64.4	50	7.5	26	51	69	39	29	2610	22100	9.1	7.8					
Geertson	GS1049	8.8	64.7	50	6.7	24	48	72	41	31	2850 *	25000	10.0	7.5	8.4 *	2810 *	24100 *	8.4	8.5 *
AgriGold	A6382	9.4	64.7	50	7.2	25	48	71	38	31	2720 *	25700 *	11.2 *	7.6					
Growmark	FS4882	8.6	65.0	30	7.6	24	47	70	37	33	2660	23100	9.7	7.6					
Cornelius	C408YG	9.2	65.1	40	7.5	25	48	71	39	30	2750 *	25400 *	10.5 *	7.9	9.5 *	2760	26300 *	9.3 *	9.7 *
Silage-Fame	SF100	7.8	65.3	40	7.1	24	47	72	40	31	2820 *	22000	8.3	7.3					
US Seeds	USC1051ND	10.1 *	65.6	40	7.9	23	47	72	41	33	2840 *	28800 *	10.7 *	9.5 *	8.4 *	2840 *	24000 *	8.4	8.4 *
Carharts Blue Top	CX1056A	8.4	66.2	40	7.0	24	47	71	38	33	2770 *	23200	9.2	7.6	8.2 *	2880 *	23600 *	8.4	8.0
LG Seeds	LG2526SP	9.3	67.4	40	7.0	25	47	71	37	31	2710 *	25300	10.9 *	7.6	9.0 *	2850 *	25600 *	10.3 *	7.7
NK Brand	N64J9	9.2	68.5	60	7.5	25	50	71	43	28	2800 *	25700 *	10.5 *	8.0					
MEAN		9.0	62.9	40	7.2	24	48	71	39	32	2720	24500	10.0	8.0	8.4	2750	23200	9.1	7.8
LSD(0.10)**		0.9	2.3	10	0.6	2	3	2	2	4	160	3400	1.1	0.9	1.4	190	4000	1.2	1.3

Average whole plant moisture of all hybrids in the trial as rated by the Minnesota Relative Maturity Rating System. Ratings are rounded to 5 day increments.

* Hybrids which did not perform significantly less than the highest hybrid in the test.

Shaded results provide the best estimate of relative hybrid performance.

Relationship between Milk per Acre and Milk per Ton of corn hybrids in the Southern Zone during 2001.

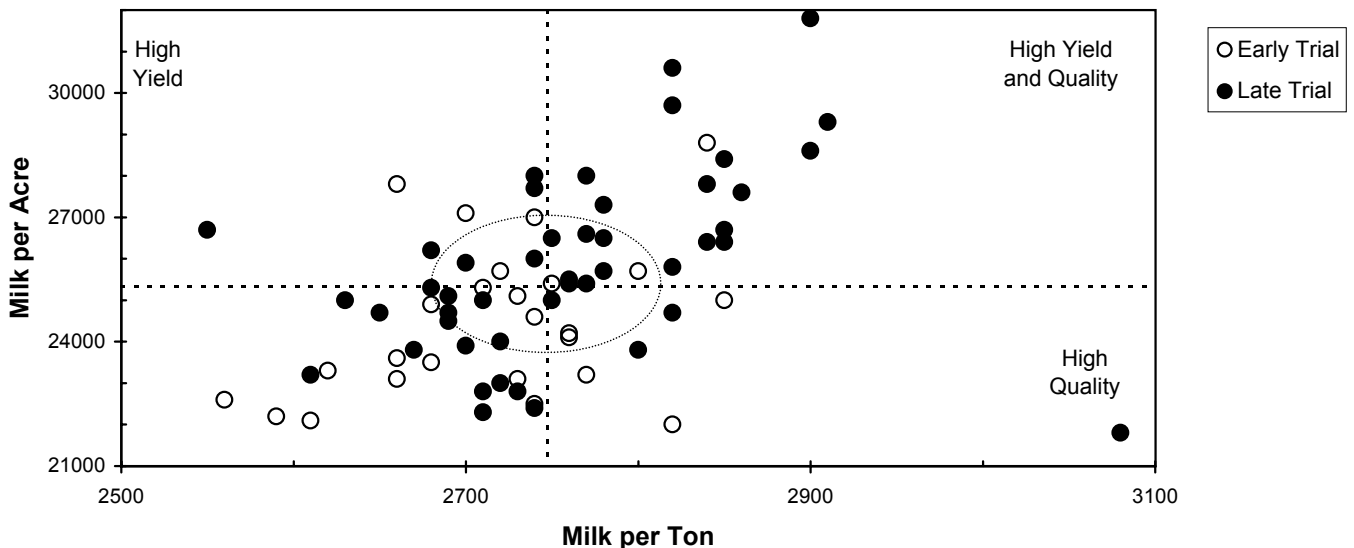


Table 12. Southern Zone - Late Maturity Silage Trial

106 DAY RELATIVE MATURITY OR LATER, BASED ON COMPANY RATING (ARLINGTON = ARL, LANCASTER = LAN)

BRAND	HYBRID	2001											2000						
		AVERAGE											AVERAGE						
		Kernel											ARL		LAN		Yield		Yield
	Yield	Moist	Milk	CP	ADF	NDF	IVD	CWD	Starch	MILK PER		Yield	Yield	Yield	MILK PER		Yield	Yield	
	T/A	%	%	%	%	%	%	%	%	TON	ACRE	T/A	T/A	T/A	TON	ACRE	T/A	T/A	
Dairyland	Stealth 1508	8.9	61.2	30	7.0	24	47	71	39	32	2700	23900	10.8	6.9	8.2	2790	22900	9.7 *	6.7
AgriGold	A6333Bt	9.2	61.7	50	6.8	22	44	73	38	36	2820	25800	10.5	7.8					
Garst	85411T	9.3	61.9	40	6.6	24	46	73	40	33	2850	26400	11.0	7.6					
Carharts Blue Top	CX1080A	9.2	62.0	40	6.9	24	48	71	39	32	2710	25000	10.7	7.7	8.8 *	2730	23900 *	9.4 *	8.3 *
Pioneer	34B23	10.5 *	62.1	50	6.6	24	48	72	42	32	2820	29700 *	11.9 *	9.1 *	9.3 *	2690	25000 *	9.5 *	9.0 *
Dekalb	DK607RR	9.5	62.2	40	6.5	25	49	70	39	33	2680	25300	11.1 *	7.8					
Pioneer	34M95	10.9 *	62.6	50	6.4	24	49	73	44	32	2900	31800 *	12.3 *	9.6 *					
AgriGold	A6391	9.5	62.8	40	6.4	24	47	71	38	34	2740	26000	10.2	8.8 *					
Cornelius	C507	9.3	62.8	50	6.9	23	46	72	39	34	2780	25700	10.2	8.3					
Dekalb	DKC5740	8.8	63.1	40	7.0	25	50	70	40	31	2670	23800	10.2	7.4					
Dekalb	DKC5878	10.1 *	63.3	60	7.0	23	47	73	42	33	2910	29300 *	11.0	9.2 *					
Kaltenberg	K8110LF	10.0 *	63.5	60	7.2	24	49	71	41	30	2770	28000	11.5 *	8.6	9.5 *	2730	26000 *	9.4 *	9.7 *
Golden Harvest	H9230Bt	9.5	63.7	50	6.5	23	46	72	38	36	2780	26500	11.2 *	7.8	8.7 *	2670	23200	9.5 *	7.8
Brown	6895Bt	9.6	63.8	50	6.7	24	47	71	38	34	2750	26500	11.0	8.3					
Wyffels	W5460	10.2 *	63.8	50	6.6	25	48	71	40	32	2740	28000	11.6 *	8.8 *					
Cornelius	C590YG	10.0 *	63.8	50	6.7	23	46	72	40	34	2850	28400	11.4 *	8.5					
Dairyland	Stealth 1507	9.6	63.9	50	6.9	24	47	72	41	31	2860	27600	11.6 *	7.7	8.6 *	2630	22500	9.4 *	7.8
Hyland Seeds	HL5067	10.1 *	64.0	60	7.2	25	50	71	42	29	2740	27700	11.4 *	8.8 *					
110-DAY HYBRID TRIAL AVERAGE##			64.2																
Golden Harvest	H8350Bt	8.4	64.4	40	6.7	24	47	71	38	34	2720	23000	9.1	7.8					
Asgrow	RX738RR	8.9	64.4	50	7.0	25	49	69	38	30	2610	23200	9.5	8.2					
NK Brand	N67T4	9.7	64.6	60	6.7	22	44	73	37	37	2840	27800	11.3 *	8.2	8.8 *	2780	24200 *	9.5 *	8.0
La Crosse Forage	LC7512	8.4	64.7	50	6.9	25	50	70	40	31	2710	22800	9.3	7.5					
High Cycle	HC540	10.9 *	64.9	60	7.9	24	48	72	41	31	2820	30600 *	12.0 *	9.7 *	8.1	2740	22200	9.4 *	6.9
Trelay	9300	9.1	64.9	50	6.5	26	50	71	41	29	2770	25400	10.9	7.3					
Spangler	LFT60	9.5	65.1	50	6.6	26	50	69	38	31	2630	25000	11.0	8.0					
Spangler	7558	9.6	65.2	50	6.6	24	46	71	38	35	2770	26600	11.1 *	8.0	9.3 *	2850 *	26400 *	10.1 *	8.5 *
AgriGold	XA4112	8.7	65.3	50	7.6	23	46	72	40	32	2820	24700	10.0	7.5					
US Seeds	USC1119ND	9.2	65.4	50	7.3	24	47	72	40	34	2840	26400	11.0	7.4					
Trelay	9095	9.0	65.4	60	6.9	24	48	71	39	33	2750	25000	10.8	7.2	8.9 *	2800	25000 *	9.0 *	8.8 *
Midwest	G7711	9.2	65.4	50	6.8	25	48	70	39	32	2690	24700	10.4	7.9	8.3	2810 *	23200	9.2 *	7.4
105-DAY HYBRID TRIAL AVERAGE##			65.5																
Golden Harvest	H8562	8.2	65.7	40	7.1	25	48	71	39	31	2710	22300	9.1	7.3	8.8 *	2850 *	24900 *	9.8 *	7.8
115-DAY HYBRID TRIAL AVERAGE##			65.7																
Dairyland	Stealth 1611	9.2	66.3	50	6.7	24	47	71	39	32	2760	25400	10.0	8.4					
Wyffels	W6570	9.8	66.4	50	6.8	23	46	73	41	34	2900	28600	11.2 *	8.4					
Spangler	LFT50	9.1	66.5	50	6.6	25	49	70	40	28	2690	24500	10.7	7.5					
AgriGold	A6445	9.4	66.7	50	6.7	23	46	72	40	33	2850	26700	10.6	8.1					
Wyffels	W5540	8.4	66.7	50	8.0	23	46	72	38	33	2800	23800	9.4	7.5					
Mycogen	TMF114	10.5 *	66.8	70	6.9	28	54	68	41	23	2550	26700	12.2 *	8.7 *					
Trelay	8100	9.6	66.9	50	7.3	24	47	70	38	32	2700	25900	11.0	8.1					
Brown	7044	9.8	67.4	50	6.8	23	46	71	38	34	2780	27300	10.5	9.1 *					
Cargill	F657	7.1	67.4	40	7.8	23	46	75	46	34	3080 *	21800	8.2	5.9					
Dekalb	DKC5671	8.3	67.5	60	7.4	25	49	71	40	30	2730	22800	9.9	6.7					
Wyffels	W7180	9.2	67.5	50	6.9	26	51	69	40	28	2650	24700	10.8	7.7					
Wyffels	W7303Bt	9.8	67.8	60	7.3	25	49	70	38	30	2680	26200	10.7	8.9 *					
North-Gro	6996	9.2	67.8	50	6.7	24	48	71	40	32	2760	25500	10.1	8.4					
Garst	8342GLSIT	8.5	67.8	50	7.5	26	51	70	41	28	2720	24000	9.2	7.8					
Pioneer	35Y55	8.2	68.6	50	7.8	26	51	71	42	27	2740	22400	9.0	7.3					
Renk	RK896	9.3	68.9	60	7.1	26	52	70	41	28	2690	25100	10.7	7.9	8.9 *	2850 *	25400 *	9.5 *	8.3 *
MEAN		9.3	65.0	50	7.0	24	48	71	40	32	2760	25800	10.6	8.0	8.5	2730	23300	9.1	8.0
LSD(0.10)**		0.9	2.5	10	0.4	2	3	2	2	4	120	2700	1.2	1.1	1.0	170	3400	1.3	1.4

Average whole plant moisture of all hybrids in the trial as rated by the Minnesota Relative Maturity Rating System. Ratings are rounded to 5 day increments.

* Hybrids which did not perform significantly less than the highest hybrid in the test.

Shaded results provide the best estimate of relative hybrid performance.

Table 13. South Central Zone - Early Maturity Silage Trial

100 DAY RELATIVE MATURITY OR EARLIER, BASED ON COMPANY RATING (FOND DU LAC = FON, GALESVILLE = GAL)

BRAND	HYBRID	2001											2000						
		AVERAGE											AVERAGE						
		Kernel											FON	GAL	Yield				FON
Yield	Moist	Milk	CP	ADF	NDF	IVD	CWD	Starch	MILK PER		Yield	Yield	Yield	MILK PER		Yield	Yield		
T/A	%	%	%	%	%	%	%	%	TON	ACRE	T/A	T/A	T/A	TON	ACRE	T/A	T/A		
Growmark	FS3091	8.8	57.0	10	6.4	23	46	73	40	37	2750	24400	7.4	10.2					
LG Seeds	LGX39700	8.5	58.4	20	6.9	24	48	70	37	36	2560	21800	7.4	9.5					
Carharts Blue Top	CX1200A	9.7	60.8	30	6.8	22	43	72	36	38	2750	26900 *	9.1 *	10.4	7.5	2810 *	21200	7.7	7.3
Carharts Blue Top	CX9500AA	7.9	61.5	30	6.7	25	49	69	38	32	2600	20600	6.8	9.0					
Carharts Blue Top	CR102RR	9.1	62.3	30	6.6	24	47	70	35	34	2600	23800	8.5	9.7	8.2	2700	22200	7.8	8.6 *
Hyland Seeds	HL5041	8.3	62.7	40	7.0	25	49	70	39	32	2680	22500	7.3	9.3					
Dairyland	Stealth 1297	8.4	63.4	20	7.2	23	45	73	40	35	2910 *	24600	7.8	9.1	7.8	2820 *	22100	8.1	7.5
LG Seeds	LG2474	9.1	63.9	20	6.8	25	48	70	37	32	2630	24000	8.3	9.9					
LG Seeds	LGX49800	9.9 *	63.9	50	6.8	25	48	72	41	30	2800 *	27800 *	8.7 *	11.1 *					
Brown	5740VPwx	8.3	64.0	30	6.8	24	46	71	38	35	2760	22900	7.6	8.9					
Trelay	5020	9.3	64.5	50	6.4	24	48	71	39	33	2750	25500	8.2	10.3					
100-DAY HYBRID TRIAL AVERAGE##			64.5																
Geertson	GS998	8.2	65.0	30	7.6	24	47	72	40	32	2810 *	23200	8.0	8.5	8.7 *	2810 *	24300 *	9.4 *	7.9 *
AgriGold	A6257	8.9	65.3	30	7.5	24	47	70	36	32	2690	23900	8.1	9.6					
NK Brand	N48V8	10.6 *	65.4	60	6.1	26	50	70	40	29	2720	29000 *	9.7 *	11.6 *					
Garst	8779	8.9	65.5	40	7.1	24	46	71	38	33	2770	24800	7.7	10.2					
Mycogen	3681FQ	8.9	65.6	20	6.9	26	49	69	38	30	2620	23500	7.7	10.2					
La Crosse Forage	LC7415	8.1	65.6	50	6.7	25	48	72	42	29	2870 *	23400	7.7	8.5					
Carharts Blue Top	CX130AA	8.8	65.7	40	6.9	25	48	71	39	31	2760	24300	7.8	9.7	9.2 *	2860 *	26100 *	10.0 *	8.4 *
Dahlco	X100L	8.4	66.3	40	6.9	26	49	69	37	29	2590	21800	7.7	9.1	8.5 *	2760 *	23200 *	9.0 *	8.0 *
Renk	RK622	8.7	66.4	40	6.7	25	48	71	39	31	2740	23900	7.9	9.5					
MEAN		8.8	63.7	30	6.8	24	47	71	38	32	2720	24100	8.0	9.7	8.1	2710	21800	8.4	7.7
LSD(0.10)**		0.7	2.5	10	0.4	2	3	2	2	5	130	2700	1.0	1.1	1.1	150	3100	1.7	1.1

Average whole plant moisture of all hybrids in the trial as rated by the Minnesota Relative Maturity Rating System. Ratings are rounded to 5 day increments.

* Hybrids which did not perform significantly less than the highest hybrid in the test.

Shaded results provide the best estimate of relative hybrid performance.

Relationship between Milk per Acre and Milk per Ton of corn hybrids in the South Central Zone during 2001.

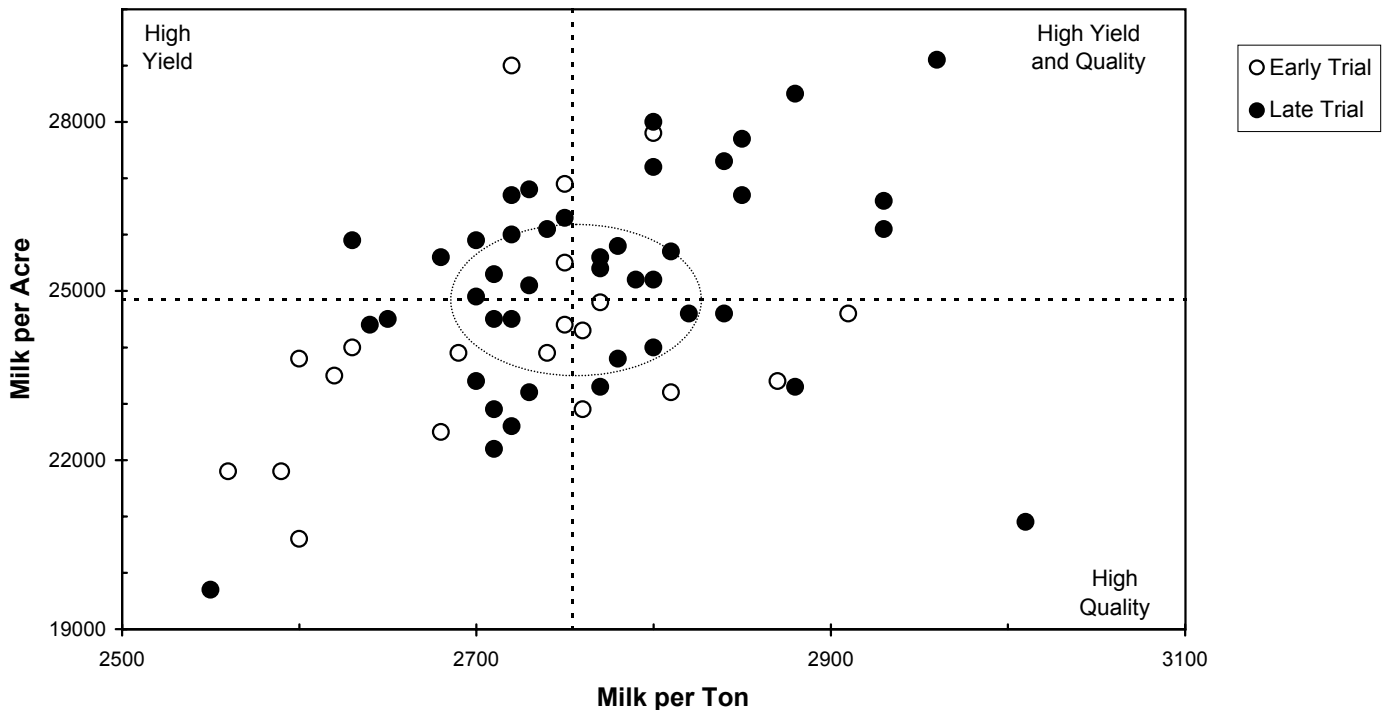


Table 14. South Central Zone - Late Maturity Silage Trial

101 DAY RELATIVE MATURITY OR LATER, BASED ON COMPANY RATING (FOND DU LAC = FON, GALESVILLE = GAL)

BRAND	HYBRID	2001											2000						
		AVERAGE											AVERAGE						
		Kernel											FON	GAL	Yield			FON	GAL
Yield	Moist	Milk	CP	ADF	NDF	IVD	CWD	Starch	MILK PER		Yield	Yield	Yield	TON	ACRE	Yield	Yield		
T/A	%	%	%	%	%	%	%	%	TON	ACRE	T/A	T/A	T/A	TON	ACRE	T/A	T/A		
Hyland Seeds	HL2505	9.5 *	61.4	30	7.1	24	47	71	39	33	2740	26100 *	8.2	10.7 *					
Renk	RK636	9.0	63.0	40	6.0	25	48	71	41	32	2790	25200	8.1	9.9 *					
La Crosse Forage	LC4531	8.3	63.1	40	6.9	23	47	71	38	34	2720	22600	8.2	8.4					
100-DAY HYBRID TRIAL AVERAGE##			64.0																
Pioneer	36R11	9.6 *	64.2	40	7.0	24	47	72	40	31	2840	27300 *	9.1 *	10.1 *	9.0 *	2720	24500 *	9.1 *	8.9 *
Dekalb	DKC5188	8.5	64.3	50	6.3	25	49	71	41	31	2780	23800	8.0	9.1					
NK Brand	N45A6	9.0	64.3	50	6.6	24	46	72	39	33	2800	25200	8.6 *	9.4					
Brown	6341VPwx	8.1	65.8	50	6.8	22	44	73	38	36	2880 *	23300	7.7	8.5					
Dahlco	2660	9.0	65.9	50	6.5	25	47	71	38	32	2710	24500	8.2	9.8 *	9.4 *	2750	26100 *	9.2 *	9.6 *
Renk	RK668	9.8 *	66.0	50	6.6	25	48	71	39	29	2720	26700 *	8.6 *	10.9 *	9.3 *	2730	25500 *	9.7 *	8.9 *
LG Seeds	LG2499	8.5	66.1	50	7.5	25	48	71	39	32	2730	23200	7.9	9.0	8.2	2690	22200	8.2	8.3 *
Mycogen	TMF108	9.5 *	66.1	60	6.5	25	49	71	40	28	2720	26000	9.0 *	10.0 *					
Asgrow	RX508	8.7	66.2	60	6.5	24	47	72	39	33	2820	24600	8.0	9.3					
Dekalb	DKC5878	9.8 *	66.3	60	6.5	23	46	73	43	33	2960 *	29100 *	9.3 *	10.3 *					
Trelay	7002	8.6	66.5	50	7.1	23	45	72	38	34	2840	24600	8.4 *	8.9					
Asgrow	RX592RR	8.4	66.6	50	6.6	25	48	71	38	31	2710	22900	8.1	8.7					
AgriGold	A6391	9.7 *	66.7	60	6.4	25	48	72	42	32	2850	27700 *	9.3 *	10.2 *					
Pioneer	36B09	9.2	66.7	50	6.8	26	50	71	42	26	2770	25600	8.9 *	9.5					
High Cycle	HC350	9.7 *	66.8	50	6.6	26	50	69	39	29	2630	25900	8.5 *	10.9 *	8.9 *	2790	24700 *	9.4 *	8.4 *
Carharts Blue Top	CX1055A	9.1	66.9	50	6.7	24	47	72	40	32	2810	25700	8.2	10.0 *					
Johnson Seeds	5450	9.1	66.9	60	6.5	22	44	73	40	35	2930 *	26600 *	8.7 *	9.4					
North-Gro	6406Y	9.3 *	67.1	50	6.3	24	46	72	39	32	2850	26700 *	8.9 *	9.8 *					
Garst	8590IT	9.7 *	67.1	50	6.0	25	48	71	40	31	2800	27200 *	8.4 *	10.9 *	8.7 *	2770	24100 *	9.6 *	7.9
Golden Harvest	H8123	7.7	67.2	30	7.4	27	51	68	38	27	2550	19700	7.0	8.4					
110-DAY HYBRID TRIAL AVERAGE##			67.2																
Golden Harvest	H8250	8.9	67.2	60	6.7	23	46	73	42	30	2930 *	26100 *	8.3	9.5	8.1	2780	22700	7.6	8.5 *
Golden Harvest	H8562	9.5 *	67.2	60	6.7	25	48	70	38	33	2700	25900	8.6 *	10.5 *	8.6 *	2800	24100 *	8.9	8.2 *
105-DAY HYBRID TRIAL AVERAGE##			67.3																
Dekalb	DK607RR	9.5 *	67.3	60	6.4	25	48	70	38	32	2680	25600	8.4 *	10.6 *					
Renk	RK775	9.2	67.4	50	7.0	24	48	70	38	33	2700	24900	8.8 *	9.7 *	8.7 *	2710	23600	9.6 *	7.9
Dekalb	DKC5740	8.6	67.4	50	6.8	26	51	70	41	28	2700	23400	7.4	9.8 *					
Asgrow	RX601RRYG	9.3 *	67.4	50	6.6	25	48	70	39	30	2710	25300	9.1 *	9.5					
Asgrow	RX738RR	9.6 *	67.5	70	6.5	25	49	71	40	29	2750	26300 *	8.9 *	10.2 *					
Trelay	7001	9.1	67.6	50	6.2	25	48	71	39	31	2770	25400	8.4 *	9.8 *					
Trelay	6900	8.5	67.9	60	6.4	25	48	71	41	29	2800	24000	8.0	9.1	7.9	2790	22300	8.0	7.9
AgriGold	A6365	8.3	68.3	60	6.4	25	48	71	40	29	2770	23300	8.0	8.5					
Trelay	7095	9.2	68.4	70	6.5	26	50	70	39	29	2650	24500	8.3	10.0 *					
Carharts Blue Top	CX1080A	9.2	68.4	60	6.6	25	49	70	38	31	2640	24400	8.5 *	9.9 *	8.5 *	2800	23700	8.9	8.0
NK Brand	N59Q9	9.8 *	68.5	70	6.3	24	47	72	42	31	2880 *	28500 *	9.2 *	10.4 *					
Carharts Blue Top	CX1056A	8.2	68.7	60	6.2	26	49	70	40	28	2710	22200	7.6	8.7	7.8	2940 *	22900	7.2	8.4 *
Dekalb	DKC5671	9.2	68.8	70	6.6	26	49	71	40	28	2730	25100	8.1	10.3 *					
Mycogen	5481FQ	9.8 *	69.5	60	6.9	25	48	71	39	31	2730	26800 *	9.4 *	10.2 *					
Brown	7044	9.2	69.6	70	6.5	24	47	71	39	32	2780	25800	9.1 *	9.4					
Pioneer	35Y55	9.0	70.3	60	7.0	26	49	71	39	29	2720	24500	8.6 *	9.4					
Garst	24X	10.0 *	71.3	70	6.9	25	49	71	42	28	2800	28000 *	9.2 *	10.8 *					
Cargill	F657	6.9	73.9	60	7.4	25	50	74	48	27	3010 *	20900	6.3	7.6					
MEAN		9.0	67.1	50	6.6	25	48	71	40	31	2770	25200	8.4	9.7	8.4	2780	23500	8.6	8.2
LSD(0.10)**		0.7	2.0	10	0.5	2	3	2	2	4	150	3000	1.0	1.2	1.1	150	3400	1.5	1.4

Average whole plant moisture of all hybrids in the trial as rated by the Minnesota Relative Maturity Rating System. Ratings are rounded to 5 day increments.

* Hybrids which did not perform significantly less than the highest hybrid in the test.

Shaded results provide the best estimate of relative hybrid performance.

Table 15. North Central Zone - Early Maturity Silage Trial

90 DAY RELATIVE MATURITY OR EARLIER, BASED ON COMPANY RATING (MARSHFIELD = MAR, VALDERS = VAL)

BRAND	HYBRID	2001										2000							
		AVERAGE										AVERAGE							
		Kernel										MAR	VAL	MILK PER			MAR	VAL	
Yield	Moist	Milk	CP	ADF	NDF	IVD	CWD	Starch	MILK PER		Yield	Yield	Yield	TON	ACRE	Yield	Yield		
T/A	%	%	%	%	%	%	%	%	TON	ACRE	T/A	T/A	T/A	TON	ACRE	T/A	T/A		
Carharts Blue Top	CX290A	6.2 *	57.2	40	7.6	23	48	72	42	31	2700 *	16800 *	7.9 *	4.5 *	7.4	2900 *	21300	7.2	7.5 *
LG Seeds	LG2367	6.6 *	57.3	20	7.8	24	48	73	44	28	2690 *	17800 *	8.6 *	4.7 *	7.3	2700	19800	8.3 *	6.3
Renk	RK232	5.6	57.3	30	8.1	24	49	73	44	28	2680 *	15100	7.0	4.3 *					
85-DAY HYBRID TRIAL AVERAGE##		57.7																	
Renk	RK383	5.7 *	58.5	40	8.4	24	50	72	44	28	2710 *	15500 *	7.7 *	3.8 *					
Golden Harvest	H6355	5.5	58.5	30	8.3	26	53	71	46	24	2680 *	14700	6.8	4.2 *					
Carharts Blue Top	CX8500A	5.1	58.7	40	8.6	24	50	72	44	28	2710 *	13900	5.9	4.3 *	7.4	2770 *	20700	7.9 *	7.0
Dairyland	Stealth 1280	5.5	58.8	20	8.2	25	52	71	44	26	2640 *	14600	7.5 *	3.6 *	7.7 *	2690	20800	8.3 *	7.1
Brown	2900wx	5.4	59.2	30	8.6	24	48	72	42	30	2650 *	14400	7.9 *	3.0					
Garst	N9946	5.5	59.9	40	8.0	22	46	73	43	33	2780 *	15600 *	6.9	4.1 *					
Hyland Seeds	HL2240	5.0	59.9	30	8.9	26	53	72	47	23	2710 *	13800	6.6	3.5					
90-DAY HYBRID TRIAL AVERAGE##		60.0																	
Golden Harvest	H6675	5.9 *	60.0	40	9.2	24	50	71	43	28	2660 *	15700 *	7.2	4.5 *	8.2 *	2780 *	22900 *	8.4 *	8.1 *
Ramy	R1465	5.8 *	60.2	50	8.1	23	49	73	43	30	2740 *	15800 *	7.1	4.5 *					
Carharts Blue Top	CX8900A	5.3	60.4	40	8.5	24	50	72	44	25	2610	14100	7.4	3.2					
Garst	N9943	4.7	60.6	50	8.7	24	50	73	45	30	2740 *	13100	5.7	3.7 *					
Ragt Semences	PG002	4.8	61.3	40	8.9	25	50	72	44	26	2700 *	13200	6.0	3.7 *					
North-Gro	3844	4.8	62.4	50	8.7	25	53	71	44	25	2610	12600	6.1	3.6 *					
Trelay	3900	6.0 *	62.5	50	7.9	26	52	71	45	23	2590	15600 *	7.8 *	4.2 *					
Brown	3M36RR	5.4	62.6	50	7.8	24	49	73	45	27	2780 *	15000	6.7	4.1 *					
NK Brand	NX3360	6.4 *	64.5	70	8.5	27	54	70	44	18	2430	16100 *	8.2 *	4.6 *					
MEAN		5.5	60.0	40	8.3	24	50	72	44	27	2670	14900	7.1	4.0	7.3	2750	20200	7.6	7.1
LSD(0.10)**		0.9	2.0	10	0.6	2	3	2	2	4	150	2500	1.1	1.1	0.9	200	3100	1.1	1.1

Average whole plant moisture of all hybrids in the trial as rated by the Minnesota Relative Maturity Rating System. Ratings are rounded to 5 day increments.

* Hybrids which did not perform significantly less than the highest hybrid in the test.

Shaded results provide the best estimate of relative hybrid performance.

Relationship between Milk per Acre and Milk per Ton of corn hybrids in the North Central Zone during 2001.

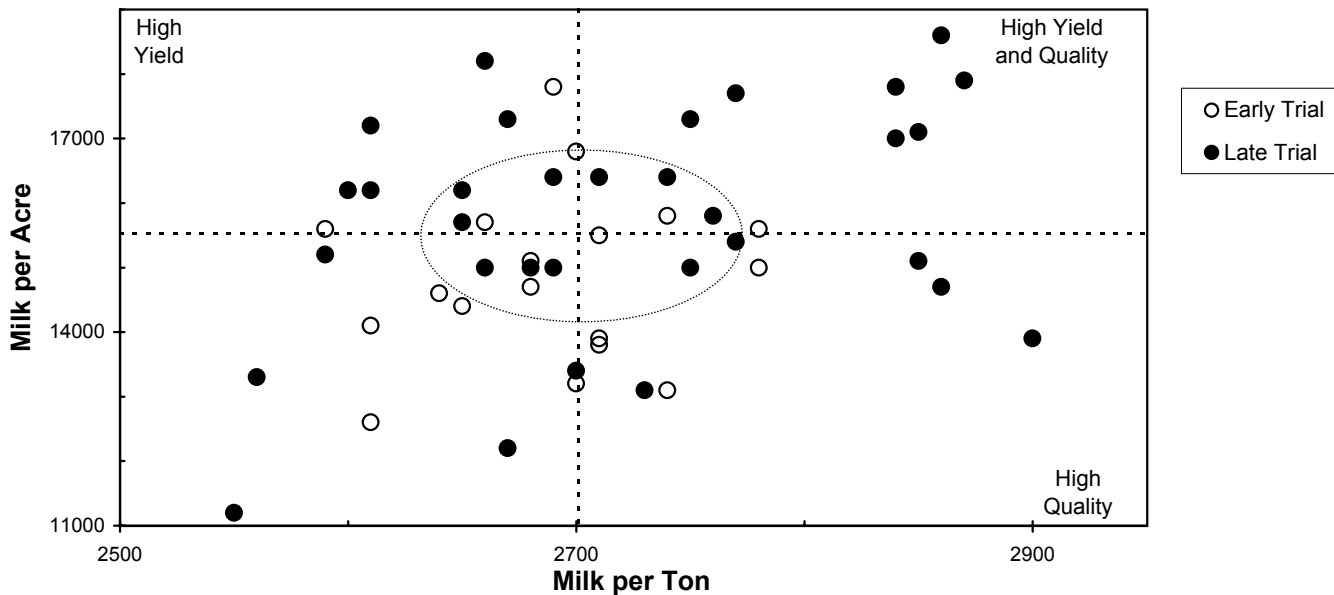


Table 16. North Central Zone - Late Maturity Silage Trial

91 DAY RELATIVE MATURITY OR LATER, BASED ON COMPANY RATING (MARSHFIELD = MAR, VALDERS = VAL)

		2001											2000						
		AVERAGE											AVERAGE						
BRAND	HYBRID	Kernel										MAR	VAL				MAR	VAL	
		Yield	Moist	Milk	CP	ADF	NDF	IVD	CWD	Starch	MILK PER		Yield	Yield	Yield	MILK PER		Yield	Yield
		T/A	%	%	%	%	%	%	%	%	TON	ACRE	T/A	T/A	T/A	TON	ACRE	T/A	T/A
La Crosse Forage	LC7345	6.4 *	59.2	50	7.9	25	50	72	45	28	2770	* 17700	* 7.1	5.7 *					
Trelay	4001	6.5 *	59.8	60	8.3	26	51	71	44	26	2670	17300 *	8.5 *	4.4 *					
Dairyland	DST9209	5.6	60.5	50	8.9	25	52	72	45	25	2690	15000	7.4	3.7					
Pioneer	37R71	5.6	60.6	30	8.1	24	49	74	46	27	2760	* 15800	6.8	4.4 *	8.5 *	2970 *	25300 *	8.0 *	9.0 *
Pioneer	38K07	4.8	60.9	40	8.1	22	46	74	44	32	2900	* 13900	5.8	3.7	7.8 *	2950 *	23100 *	7.3	8.3
Dekalb	DKC4626	6.2	61.0	50	8.2	23	47	74	46	30	2870	* 17900 *	7.6	4.8 *					
Renk	RK556	6.8 *	61.1	60	8.4	26	52	71	45	26	2660	18200 *	7.8	5.9 *					
Golden Harvest	H2387	6.3	61.1	50	8.6	24	49	72	44	26	2750	17300 *	8.0	4.7 *	9.2 *	2830	26100 *	9.2 *	9.2 *
Brown	4680wx	6.6 *	61.5	40	8.3	26	52	71	44	25	2610	17200	9.1 *	4.1					
LG Seeds	LGX41410	6.0	61.9	40	8.5	25	51	72	44	25	2650	16200	7.9	4.1					
Golden Harvest	H6775Bt	5.8	62.0	60	9.2	24	51	71	44	25	2650	15700	7.8	3.8					
Trelay	4002	6.1	62.4	50	9.0	25	52	71	44	25	2610	16200	8.4	3.7					
Pioneer	38T28	6.5 *	62.7	50	8.5	23	48	74	45	29	2860	* 18600 *	8.1	4.9 *					
Brown	4630Bt	5.7	62.9	60	9.1	27	54	70	45	23	2590	15200	8.0	3.4					
95-DAY HYBRID TRIAL AVERAGE##			62.9																
Dairyland	Stealth 1297	5.8	63.3	40	8.8	23	47	74	44	28	2840	* 17000	8.2	3.4	7.7	3010 *	23400 *	7.9 *	7.6
Brown	5288VPwx	4.5	63.5	60	8.8	25	52	71	44	24	2670	12200	5.2	3.8					
Carharts Blue Top	CX9500AA	4.3	63.5	60	8.6	28	57	69	46	20	2550	11200	5.4	3.2					
100-DAY HYBRID TRIAL AVERAGE##			63.9																
Dairyland	HIDF3300	4.8	64.1	50	8.2	26	54	71	47	22	2730	13100	6.3	3.3					
Pioneer	37H26	5.3	64.3	50	9.1	25	52	72	46	27	2750	15000	6.7	4.0					
Dairyland	DST10538	6.3	64.5	60	7.8	25	50	73	47	28	2840	* 17800 *	8.5 *	4.0					
Carharts Blue Top	CX1200A	6.1	64.6	70	9.1	26	53	70	44	23	2600	16200	7.9	4.3	7.7	2720	20900	7.9 *	7.5
Dekalb	DKC4815	6.0	64.6	60	8.5	26	53	73	48	23	2850	* 17100	7.5	4.4 *					
Geertson	GS998	5.2	64.7	80	8.8	24	48	73	45	26	2850	* 15100	6.5	3.9					
Garst	8779	5.5	64.8	60	8.9	25	51	72	45	25	2770	* 15400	6.7	4.2					
Asgrow	RX592RR	5.6	64.9	60	8.3	26	52	71	43	24	2660	15000	6.4	4.7 *					
105-DAY HYBRID TRIAL AVERAGE##			64.9																
Carharts Blue Top	CR102RR	5.1	64.9	60	8.8	27	55	70	45	21	2560	13300	6.9	3.3	8.6 *	2750	24000 *	8.4 *	8.7 *
Hyland Seeds	HL5034	6.1	65.1	70	8.5	27	54	71	46	21	2690	16400	7.5	4.6 *					
Mycogen	TMF94	6.0	65.1	50	8.5	26	52	71	46	21	2710	16400	7.5	4.5 *					
Dairyland	Stealth 1203	5.8	65.1	50	8.9	25	50	73	46	24	2740	16400	8.1	3.6	8.7 *	3040 *	26300 *	9.5 *	7.9
La Crosse Forage	LC7415	4.9	65.2	60	8.8	26	53	71	45	21	2700	13400	6.0	3.7					
Trelay	5600	5.5	65.5	60	9.0	26	53	71	45	23	2680	15000	7.8	3.2					
Mycogen	TMF2450	5.1	66.3	70	8.6	26	52	73	47	23	2860	* 14700	5.5	4.8 *					
NK Brand	N48V8	7.5 *	66.8	70	8.1	28	56	71	49	16	2670	20500 *	10.0 *	5.0 *					
MEAN		5.8	63.3	60	8.6	25	51	72	45	25	2720	15900	7.4	4.2	7.7	2830	22000	7.9	7.5
LSD(0.10)**		1.1	3.4	10	0.8	3	5	2	2	6	140	3200	1.5	1.6	1.4	190	4800	1.6	1.3

Average whole plant moisture of all hybrids in the trial as rated by the Minnesota Relative Maturity Rating System. Ratings are rounded to 5 day increments.

* Hybrids which did not perform significantly less than the highest hybrid in the test.

Shaded results provide the best estimate of relative hybrid performance.

Table 17. Northern Zone Grain Trial - Ashland

BRAND	HYBRID	2001				2000			
		Yield bu/A	Moist %	Lodged %	P.I.#	Yield bu/A	Moist %	Lodged %	P.I.#
Mycogen	2141	144 *	40.0	0	103 *	125 *	47.2	0	110 *
Garst	8992	114	40.6	1	92				
NK Brand	N17R3	149 *	41.2	1	104 *	118 *	50.6	0	104 *
Kaltenberg	K2525Bt	154 *	41.3	1	105 *				
Jung	2178	133	41.5	2	97	115 *	48.2	1	104 *
Top Farm	TFSX2178	152 *	41.8	0	104 *				
80-DAY HYBRID TRIAL AVERAGE##			42.1						
Kussmaul	K2975	127	42.3	3	95				
Wensman	W5018Bt	146 *	42.8	0	102 *	112 *	51.5	0	101
Brown	3M35RR	125	43.5	1	94				
Renk	RK232	159 *	43.7	0	106 *	116 *	58.3	0	98
Dairyland	Stealth 1280	138	44.2	1	98	105	57.2	0	94
Dekalb	DK325	140 *	44.6	1	98				
North-Gro	3620	152 *	45.1	1	102 *				
Carharts Blue Top	CX8500A	160 *	46.5	1	104 *				
Brunner	S2055RR	149 *	46.9	1	100 *				
Growmark	FS1952	123	47.9	1	90				
MEAN		141	43.4	1	100	106	48.8	1	100
LSD(0.10)**		21	2.2	1	7	13	2.9	2	8

Average grain moisture of all hybrids in this trial as rated by the Minnesota Relative Maturity Rating System.

Ratings are rounded to 5-day increments.

* Hybrids which did not perform significantly less than the highest hybrid in the test.

Shaded results provide the best estimate of relative hybrid performance.

Table 18. Northern Zone Silage Trial - Ashland

BRAND	HYBRID	2001										2000			
		Yield T/A	Moist %	Kernel							MILK PER		Yield T/A	MILK PER	
				Milk %	CP %	ADF %	NDF %	IVD %	CWD %	Starch %	TON	ACRE		TON	ACRE
Top Farm	TFSX2178	7.3	60.4	30	7.0	23	46	73	40	34	2820	20600			
Kussmaul	K2975	6.6	60.8	30	7.2	23	47	72	41	31	2750	18100			
Dairyland	Stealth 1280	8.4 *	61.6	40	6.5	23	46	72	39	35	2790	23500 *	6.4 *	2750	17500 *
NK Brand	N17R3	7.9 *	61.8	40	7.2	23	46	72	38	35	2740	21700 *	6.1 *	2860	17400 *
Garst	8992	6.1	62.3	30	7.1	23	46	72	39	34	2760	16800			
Carharts Blue Top	CX8500A	8.1 *	62.3	40	7.2	25	48	70	39	32	2660	21400 *			
85-DAY HYBRID TRIAL AVERAGE##		62.4													
Brown	3M35RR	6.8	63.1	30	6.9	25	49	70	40	32	2660	18200			
Renk	RK232	8.1 *	63.4	60	7.1	25	48	71	39	30	2690	22000 *	6.1 *	2800	17200 *
Mycogen	2141	8.1 *	64.0	40	7.5	21	43	75	42	36	3020 *	24500 *	6.3 *	3030 *	19200 *
80-DAY HYBRID TRIAL AVERAGE##		64.2													
Wensman	W5018Bt	7.7 *	64.4	40	6.1	29	54	68	41	26	2560	19700	5.0	2770	13900
Kaltenberg	K2525Bt	7.4	64.9	30	7.4	22	43	74	40	36	2920 *	21700 *			
Jung	2178	6.0	65.0	20	7.0	24	47	74	44	31	2960 *	17700	5.3	3160 *	16800
Growmark	FS1952	6.9	65.5	40	7.4	23	45	72	38	34	2790	19200			
Dekalb	DK325	6.6	65.7	40	7.8	23	45	72	38	32	2790	18400			
Brunner	S2055RR	7.5 *	65.8	50	6.9	25	48	71	41	31	2790	20900			
North-Gro	3620	8.0 *	65.9	60	7.0	24	48	71	38	32	2710	21700 *			
MEAN		7.3	63.5	40	7.1	24	47	72	40	33	2780	20400	5.5	2880	15900
LSD(0.10)**		0.9	3.9	20	0.6	2	3	2	2	4	160	3100	0.7	180	2300

Average whole plant moisture of all hybrids in the trial as rated by the Minnesota Relative Maturity Rating System.

Ratings are rounded to 5 day increments

* Hybrids which did not perform significantly less than the highest hybrid in the test.

Shaded results provide the best estimate of relative hybrid performance.

		Relative Maturity							Relative Maturity				
Brand	Entry	Co.	MN	CRM	Traits	Tables	Brand	Entry	Co.	MN	CRM	Traits	Tables
Dairyland	Stealth 1598	98	98	97		6	Growmark	FS1952	83		86		10,17,18
Dairyland	Stealth 1605	103		104		4,7	Growmark	FS2131	85		85		10
Dairyland	Stealth 1606	105	105	105		4,7	Growmark	FS3091	90		88		8,13
Dairyland	Stealth 1607	105		104		4,7	Growmark	FS3382	94		96		9
Dairyland	Stealth 1611	111	111	110		5,12	Growmark	FS3621	96	100	97		9
							Growmark	FS3969	99	100	97		6,9
Dekalb	DK325	82	82	83		17,18	Growmark	FS4322	102	102	104		7
Dekalb	DK334BtY	83	83	83	Bt	10	Growmark	FS4481	103	105	104		7,11
Dekalb	DK607RR	110	110		RR	12,14	Growmark	FS4882	104	104	104		4,7,11
Dekalb	DKC3308	83	83	86		8	Growmark	FS5221	106		107		5
Dekalb	DKC3947	89	89	88	RR	8	Growmark	FS5308	106		107		5
Dekalb	DKC4222	92	92	96	Bt	6,9	Growmark	FS5632	108		109		5
Dekalb	DKC4442	94	94	96	Bt	6,9							
Dekalb	DKC4626	96	96	97		6,9,16	Gutwein	2400	104	105	105		4
Dekalb	DKC4815	98	98	96		6,9,16	Gutwein	2444	106		107		5
Dekalb	DKC5188	101	101	103		7,14							
Dekalb	DKC5332	103	103	104	Bt	4	High Cycle	7290Bt	89	89	88	Bt	8
Dekalb	DKC5671	106	106	110	Bt	5,12,14	High Cycle	7419Bt	97	97	98	Bt	6
Dekalb	DKC5740	107	107	107	RR	5,12,14	High Cycle	HC350	105	105			14
Dekalb	DKC5852	108	108	110	Bt	5	High Cycle	HC540	111	111			12
Dekalb	DKC5878	108	108	108	Bt	5,12,14							
							Hughes	2970	100		102	Bt	4
Dynagro	5257	94		98		6	Hughes	3030	101		102		4
Dynagro	5324	105	105	105		4,7	Hughes	3431	103		102		4
Dynagro	5467	109		110		5	Hughes	3799	104		103		4
							Hughes	4411	106		107		5
Foundation	FDSX101	100		97		6	Hughes	5121	107		107	IMI	5
							Hughes	5150	107		108		5
							Hughes	5597	108		107		5
Garst	24X	108				14							
Garst	8342GLSIT	114			IMI	12							
Garst	8464	111	111	111		5	Hyland Seeds	HL2240	90	90			15
Garst	8541IT	108	115		IMI	12	Hyland Seeds	HL2505	103	98			14
Garst	8590IT	106	106	106	IMI	5,7,14	Hyland Seeds	HL2507	103	100			11
Garst	8647	105	105	104		4,7,11	Hyland Seeds	HL5034	91				16
Garst	8707	103	103	102		4	Hyland Seeds	HL5041	99				13
Garst	8779	100	100	99		6,13,16	Hyland Seeds	HL5067	110				12
Garst	8790Bt	100	100	100	Bt	6							
Garst	8801	96	96	96		9	Jeske	SX224	95		96		9
Garst	8975	87	87	84		10							
Garst	8992	83	83	82		10,17,18	Johnson Seeds	2165	95		97		9
Garst	N9803	95		96		9	Johnson Seeds	2235	90	90	88		8
Garst	N9943	90		89		8,15	Johnson Seeds	2235RR	90	90	89	RR	8
Garst	N9946	90		88		8,15	Johnson Seeds	2237RR	95	95	97	RR	9
							Johnson Seeds	2245RR	100	100	97	RR	6
Geertson	GS1020	102		103		4	Johnson Seeds	2287	100		100		6
Geertson	GS1049	104	104			11	Johnson Seeds	5450	104		105		7,14
Geertson	GS1099	109	109	109		5	Johnson Seeds	8350	80	80	83		10
Geertson	GS1117	111	111	110		5	Johnson Seeds	8555	85	80	84		10
Geertson	GS870	87		87		10	Johnson Seeds	882	85	85	86		10
Geertson	GS998	99	99			13,16							
							Jung	2178	78	78	83		10,17,18
Golden Harvest	EX06093	82		83		10	Jung	2370	89	90	87		8
Golden Harvest	H2387	100	102			16	Jung	2432	94		96		9
Golden Harvest	H6355	87		85		8,10,15	Jung	2488A	97	99	98		6
Golden Harvest	H6573	92	90	95		9	Jung	2507	101		103		7
Golden Harvest	H6675	89	91	87		8,10,15	Jung	2565	103	103	102		4
Golden Harvest	H6775Bt	91	93	96	Bt	6,9,16	Jung	2573	102		102		4
Golden Harvest	H7773Bt	103	102	104	Bt	7	Jung	2612	105	105	104		4
Golden Harvest	H7895	104	105	103		4,7	Jung	2674	108		108		5
Golden Harvest	H8123	105	104	104		4,7,14	Jung	2710	112	115	110		5
Golden Harvest	H8250	106	106			14	Jung	6210RRBt	86		88	Bt,RR	8
Golden Harvest	H8350Bt	106	106		Bt	12	Jung	6240Bt	83	83	84	Bt	10
Golden Harvest	H8562	108	108	107		5,12,14	Jung	6320RR	90		89	RR	8
Golden Harvest	H8977Bt	110		111	Bt	5	Jung	6455Bt	99		97	Bt	6,9
Golden Harvest	H9230Bt	110	113		Bt	12	Jung	6555RR	97	101	97	RR	6
							Jung	6560RRBt	102	102	103	Bt,RR	7
							Jung	6580Bt	104		103	Bt	4
							Jung	6700Bt	110	110	111	Bt	5

		Relative Maturity							Relative Maturity				
Brand	Entry	Co.	MN	CRM	Traits	Tables	Brand	Entry	Co.	MN	CRM	Traits	Tables
Kaltenberg	K2525Bt	80		83	Bt	10,17,18	Lemke	5070	105		103		7
Kaltenberg	K2789	86		83		10	Lemke	SL68	110		108		7
Kaltenberg	K3303	82	84	85		8,10	Mallard	UC2420	96	96	96		6
Kaltenberg	K3869	88		85		10	Mallard	UC2681	103	103	104		7
Kaltenberg	K4458	90		88		8	Mallard	UC2682	106	106	104		7
Kaltenberg	K4664	96		96		9	Mallard	UC6171	100	100	99		6
Kaltenberg	K4829	97		97		9	Mallard	UC657	112	112	110		5
Kaltenberg	K4848Bt	100		97	Bt	9	Mallard	UCX2400	90		87		8
Kaltenberg	K5123	100		98		6,9	Midwest	G6961	95		96		9
Kaltenberg	K5151Bt	100	101	98	Bt	6	Midwest	G7101B	100	100	100	Bt	4,6
Kaltenberg	K5808	105		103		4	Midwest	G7122	102		99		9
Kaltenberg	K6396	107		105		7	Midwest	G7494B	107		105	Bt	7
Kaltenberg	K6789	109		107		5	Midwest	G7706	110	110	110		5
Kaltenberg	K7337	111		109		5	Midwest	G7711	111	111			12
Kaltenberg	K8110LF	110			leafy	12	Mycogen	2141	81	81	83	Bt	10,17,18
Kussmaul	K101AA	100	102	98		6	Mycogen	2461	91	98	96		6,9
Kussmaul	K202	102	105	103		7	Mycogen	2652	106	106	107		5
Kussmaul	K203	102	105	103		7	Mycogen	3681FQ	98	98			13
Kussmaul	K292	90	92	87		8	Mycogen	5320Bt	106	106	107	Bt	5
Kussmaul	K296	95	95	95		9	Mycogen	5481FQ	105	105			14
Kussmaul	K2975	75	75	83		10,17,18	Mycogen	TMF108	108	108		leafy	14
Kussmaul	K2985	85	85	83		10	Mycogen	TMF114	114	114		leafy	12
Kussmaul	K2989	87	90	85		8,10	Mycogen	TMF2450	96	96		leafy	16
Kussmaul	K395RR	95	95	97	RR	6,9	Mycogen	TMF94	95	94		leafy	16
Kussmaul	K404	104	105	103		4	NK Brand	N17R3	82	82	83	Bt,LL	10,17,18
Kussmaul	K410	110		108		5	NK Brand	N2555BT	88	90	87	Bt,LL	8,10
Kussmaul	K412	110		109		5	NK Brand	N3030BT	91	93	92	Bt,LL	9
Kussmaul	K99+	99	99	98		6	NK Brand	N32L9	93	95	95	Bt,LL	6,9
Kussmaul	KHC	107	107	108		5	NK Brand	N43C4	98	102	97	Bt,LL	6,9
LG Seeds	LG2354	84	84	86		8	NK Brand	N45A6	102	103	102	Bt,LL	4,7,14
LG Seeds	LG2367	85	85			15	NK Brand	N45T5	101	103	102		4,7
LG Seeds	LG2400RR	88	88	87	RR	8	NK Brand	N48V8	98	108		Bt,LL	11,13,16
LG Seeds	LG2402	89		87		8	NK Brand	N58D1	108	108	106	Bt,LL	5,7
LG Seeds	LG2442	95	95	95		9	NK Brand	N59Q9	108	109	107		5,14
LG Seeds	LG2473	96	96	98		6	NK Brand	N60N2	109	110	109		5
LG Seeds	LG2474	97		99		6,13	NK Brand	N64J9	103	110		Bt,LL	11
LG Seeds	LG2481RR	98	97	97	RR	6	NK Brand	N67T4	111	111	110	Bt,LL	5,12
LG Seeds	LG2488	100	100	100		6	NK Brand	NX2319	85		84		10
LG Seeds	LG2499	101	100			14	NK Brand	NX3360	90				15
LG Seeds	LG2512	103	103	103		4	North-Gro	3620	82		86		8,17,18
LG Seeds	LG2521	104	104	105		4	North-Gro	3712	87		87		8
LG Seeds	LG2526SP	105	105			11	North-Gro	3844	88		88		8,15
LG Seeds	LG2533	105	105	106		4	North-Gro	5117	97		96		9
LG Seeds	LG2540	108		109		5	North-Gro	5515	99		98		6
LG Seeds	LG2569	109		109		5	North-Gro	5622	100		101		6
LG Seeds	LGX39700	94				13	North-Gro	5633RR	100		99	RR	6
LG Seeds	LGX41410	92				16	North-Gro	5800RR	99		97	RR	9
LG Seeds	LGX49800	99				13	North-Gro	5818	103		103		7
La Crosse Forage	LC4185	85		87		8	North-Gro	5909	104		104		4,7
La Crosse Forage	LC4531	101		102		7,14	North-Gro	5982	104	104	103		4
La Crosse Forage	LC4602	105		102		4	North-Gro	6406Y	105		105	Bt	7,14
La Crosse Forage	LC7345	91		95		6,9,16	North-Gro	6612	105		105		4
La Crosse Forage	LC7415	95		98		6,9,13,16	North-Gro	6800	109		109		5
La Crosse Forage	LC7512	106		107		5,12	North-Gro	6988	110		110		5
Lemke	2030	85		87		8	North-Gro	6996	112		110		5,12
Lemke	2040A	85		88		8	OBrien	OB1012	101		103		7
Lemke	3050	90		88		8	OBrien	OB1022	102		102		4
Lemke	3090	90		88		8	OBrien	OB1041	104		104		7
Lemke	4038A	98		97		9	OBrien	OB1062	106		106		5
Lemke	4040	100		98		6	OBrien	OB1102	110		109		5
Lemke	4060A	100		98		6	OBrien	OB902	90		95		6
Lemke	4066RR	100		98	RR	6							
Lemke	5010	105		104		7							

		Relative Maturity							Relative Maturity				
Brand	Entry	Co.	MN	CRM	Traits	Tables	Brand	Entry	Co.	MN	CRM	Traits	Tables
Ottilie	4393	103		103		4	Top Farm	TFSX105Bt	104	105	104	Bt	4
Ottilie	4404	104		105		4	Top Farm	TFSX2111	108	110	107		5
Ottilie	4777Bt	107		109	Bt	5	Top Farm	TFSX2178	78	77	82		10,17,18
Ottilie	5267Bt	112		111	Bt	5	Top Farm	TFSX2183	84	85	85		8,10
							Top Farm	TFSX2184	85	85	85		8,10
Pioneer	33A14	113	113	112	Bt	5	Top Farm	TFSX2201	99	100	97		6
Pioneer	34B23	108	108	108		5,12	Top Farm	TFSX2203	103	105	102		7
Pioneer	34G13	109	108	109		5	Top Farm	TFSX2295	95	97	95		9
Pioneer	34M95	110	109		Bt	12	Top Farm	TFSX2297	97	97	97		6,9
Pioneer	35R57	104	104	105		4	Top Farm	TFSX2299	100	100	98		6
Pioneer	35R58	105	105	106	Bt	4	Top Farm	TFSX2300	103		104		4,7
Pioneer	35Y55	106	106	107	Bt	5,7,12,14	Top Farm	TFSX2301	100		98		6
Pioneer	36B09	104	104	105	Bt	4,7,14	Top Farm	TFSX2376	76		83		10
Pioneer	36R11	102	101	103	Bt	4,7,14	Top Farm	TFSX2390	90		89		8
Pioneer	37H26	99	97	98	LL	6,9,16	Top Farm	TFSX8103RR	100	105	98	RR	6
Pioneer	37R71	97	99	91	Bt	9,10,16	Top Farm	TFSX8184RR	85	85	84	RR	8,10
Pioneer	3893	89	90	85		10	Top Farm	TFSX8201RR	100	100	98	RR	6
Pioneer	38A25	96	96	96	Bt	9							
Pioneer	38K07	94	92	85	Bt	10,16	Trelay	2002	84	80	87		8
Pioneer	38P06	94	97	95	Bt	9	Trelay	2009	87	87	88		8
Pioneer	38T28	96	96	96	Bt	9,16	Trelay	3900	90	90			15
Pioneer	39K40	85	85	85		8,10	Trelay	4001	95	95			16
							Trelay	4002	95	95			16
Quality Traders	QC9621	102		104		4,7	Trelay	4009	95	95	97		6
Quality Traders	QC9664	104		104		4,7	Trelay	5020	100	100	102		4,6,13
Quality Traders	QC9680	108		108		5	Trelay	5600	98	98	98		6,16
							Trelay	6200	102	102	104		4,7
							Trelay	6900	103	103			14
Ragt Semences	PG002	82		89		8,15	Trelay	7001	105	105			14
Ragt Semences	PG003	82		88		8	Trelay	7002	105	105			14
Ragt Semences	PG005	89		87		8	Trelay	7095	105	105			14
Ragt Semences	PG006	98		98		6	Trelay	8100	108	108	108		5,12
							Trelay	8200	108	108	110		5
Ramy	R1356	90	90	87		8	Trelay	9095	111	111			12
Ramy	R1465	90	90	87		8,15	Trelay	9300	111	111	109		5,12
Ramy	R1534	106	106	104		7							
Ramy	R1590	109	109	107		5	US Seeds	USC1009RR	100	101	96	RR	9
							US Seeds	USC1029Bt	102	102	103	Bt	7
Renk	RK232	85	85	85		8,10,15,17,18	US Seeds	USC1051ND	105	105	104	ND	4,11
Renk	RK383	90		86		8,10,15	US Seeds	USC1071	105	107	105		4
Renk	RK404	93	93	95		9	US Seeds	USC1111	111		109		5
Renk	RK556	96		97		6,9,16	US Seeds	USC1119ND	111		111	ND	5,12
Renk	RK569	97	97	97		6,9	US Seeds	USC1119RR	111		110	RR	5
Renk	RK606	100	99	98		6	US Seeds	USC871	87	87	85		10
Renk	RK622	100		98		4,6,9,13	US Seeds	USC971CL	97		97	IMI	6
Renk	RK636	101		100		4,7,9,14	US Seeds	USE1012RR	101		98	RR	9
Renk	RK668	105	105	103		4,7,11,14	US Seeds	USE1042	104		105		4
Renk	RK775	105	109	105		4,7,11,14	US Seeds	USE1052RR	105		105	RR	7
Renk	RK806	110	110	108		5							
Renk	RK896	113	113			12	Wensman	W5018Bt	80	80	83	Bt,LL	10,17,18
							Wensman	W5048Bt	83	83	84	Bt,LL	10
Silage-Fame	SF100	100				11	Wensman	W5088Bt	85	85	86	Bt,LL	8,10
							Wensman	W5258Bt	95	95	96	Bt,LL	9
Spangler	2777	89		87		8							
Spangler	3303	94		95		6,9	Wyffels	W1970	100		101		4,11
Spangler	4300	102		103		7	Wyffels	W2830	102		102		4,11
Spangler	4777	103		103		7	Wyffels	W3160	103		102		4,11
Spangler	5300	105		103		4,7	Wyffels	W4570	105		103		4,11
Spangler	5901	108		108		5	Wyffels	W4828	105		104		4,11
Spangler	6300	108		106		5	Wyffels	W5460	107		108	Bt	5,12
Spangler	7558	112		110		5,12	Wyffels	W5540	108		109		5,12
Spangler	LFT50	108				12	Wyffels	W6570	110		110		5,12
Spangler	LFT60	110				12	Wyffels	W6980	111		111		5
							Wyffels	W7180	111		109		5,12
							Wyffels	W7303Bt	112			Bt	12

Notes

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