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Michigan Corn Production Hybrids Compared

Michigan State University Extension Service

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2001 Michigan Corn Hybrids Compared



MICHIGAN STATE
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Michigan Corn Performance Trials

Introduction

The Department of Crop and Soil Sciences conducts hybrid corn trials each year in cooperation with MSU Extension, seed corn companies, and farmers.

Entries

Each year seed companies are invited to enter hybrids in the trials. A fee is charged to cover expenses.

Separate indexes for grain and silage present a list of all hybrids entered in the 2001 trials. At 12 grain and 8 silage locations, 271 hybrids from 33 seed companies (35 Brand names) were tested for yield as 1,088 individual county entries. Company names used in association with hybrid numbers refer to the brand. The numbers are the companies' designations. Numbers in parentheses refer to the tables in which each hybrid appears.

How to Use This Bulletin

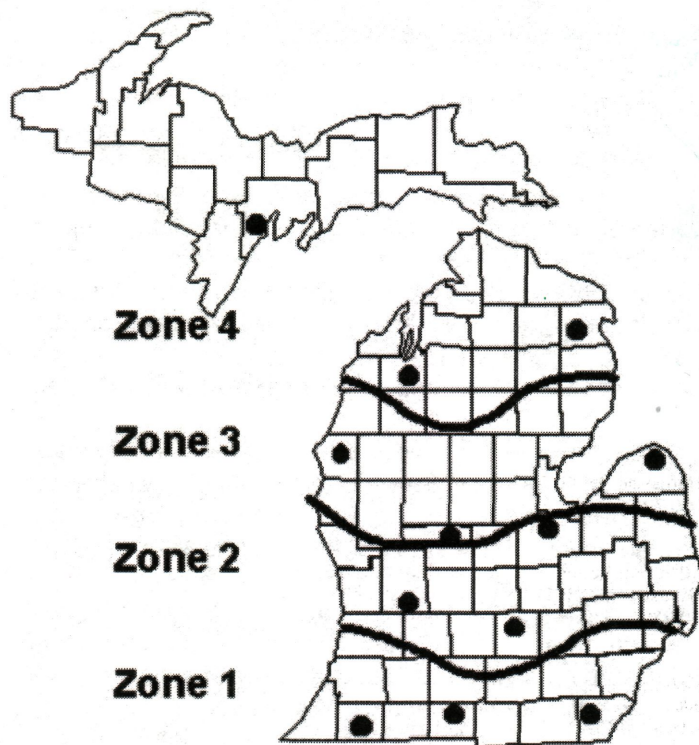
Tables list hybrids alphabetically and have two sections. 2001 yields averaged over three locations are presented first with two-, and three-year averages (2000 and 1999) wherever data are available. Results for individual locations contain 2001 data plus multi year data on yield are presented in the second section. One-year single site results are less reliable than two- or three-year and multiple location averages and should be interpreted with more caution. Confidence in corn performance data increases with the number of years and locations of testing. For complete two- and three-year single site data, please visit our web site at:

www.css.msu.edu/varietytrials/

The tables report the following information about the hybrids tested:

1. Moisture content at harvest.
2. Test weight at harvest moisture.
3. Yield (in bushels) of shelled corn at 15.5 percent moisture.
4. Percent of stalk lodging (plants broken below the ear and/or 45° off vertical at harvest).
5. Percent stand of target population
6. Percent protein, starch, and oil content

The results shown are the average of four replications grown in close proximity to each other. Two or more plots of the same hybrid in the same field may produce somewhat different results because of uncontrolled variability in the



2001 Grain Trial Locations

soil and other environmental factors. Replication and randomization of the entries are two methods used to reduce these errors. Because these methods do not eliminate all of these variables, the magnitude of difference necessary for statistical significance has been calculated for yield, moisture content, and test weight. The value calculated as the "least significant difference" or "LSD" is the amount that an individual hybrid would have to differ from another hybrid in the same test to be considered significantly different from that hybrid.

Hybrids, which are not significantly different from the highest yielding hybrid, are marked with an asterisk (*) in each table. Other agronomic information relative to each trial is given in Tables B and C. Fertilizer amounts are shown as total pounds per acre of nitrogen, P_2O_5 and K_2O applied during the season.

Grain Performance Trials

Methods

The grain trials had 236 hybrids from 30 companies (32 Brand names) entered and accounted for 999 individual county entries. Three trial locations were planted in each of four maturity zones. These zones are based on available growing degree-day units established from long-term weather records. Hybrids entered in each zone are all tested in the three designated locations. Entries for zones 1, 2, and 3 are divided into two-maturity groups (early and late)

based on maturity ratings provided by the seed companies. Zone 4 tests all hybrids in one group.

Four-row plots were used at all grain locations. The two center rows were harvested for yield. Plots were 22-feet long with 30-inch row spacing.

Experimental design, data acquisition, analysis of variance, and data summarization were facilitated in part by ADaM, a software package developed jointly by MSU, CIMMYT (Mexico), and the Scottish Agricultural Statistics Service. The field research layout is a four-replication, lattice design. Hybrid performance is reported as the adjusted mean averaged together from four replicated plots.

All hybrids were grown under similar conditions at each location. They were grown in farmers' fields with equal fertilizer, population, date of planting, and other management practices. In the field, hybrids were identified only by a plot number to assure unbiased comparisons. Trials in Branch, Cass, Montcalm, and Mason counties were irrigated. The Grand Traverse County trial was harvested for silage due to severe drought conditions. A column giving the percentage of grain in the silage gives an indication of hybrid grain yield potential under the drought conditions experienced in the 2001 season.

Stand Counts were recorded in June. Plots with stand counts higher than the desired population were thinned at this time. Desired population rates are listed in Table B (grain) and Table C (silage). Lodging measurements were made at harvest, counting all plants broken below the ear and/or leaning more than 45 degrees. Plots were harvested mechanically for both grain and silage. Moisture content and field weight were measured by a GrainGage™, a HarvestMaster System™ mounted on the plot combine. Grain yield is reported at a standard 15.5 percent moisture. Grain test weight is reported at harvest moisture. Automated test weight equipment loses some accuracy as harvest moistures increase. Test weight values should be used to determine relative rank and not as a precise weight.

Replicated grain samples were collected from one location in each zone and were tested for protein, starch, and oil content. The results are presented in the table presenting three-year yield results.

Growing Conditions

All yield trials were planted between April 27, and May 9, and harvested between October 17, and November 6. Mild weather and dry field conditions made for excellent planting conditions in the early season. Rainy conditions throughout Michigan starting the second week of May and continuing into the third week kept many farmers out of the fields until late May. This resulted in significant acreage to be planted late, similar to conditions experienced in 2000. This late planted corn lagged behind the earlier planted corn throughout the growing season. Dryer than normal

weather during most of July and August throughout Michigan resulted in very poor yields in the stricken areas. Mild temperatures during the summer helped to prevent a total burn up of the crop. Silage harvest and early grain harvest was hindered by wetter than normal conditions as September and October rains tried to make up for the earlier drought. The return of good weather in late October and November helped in getting the harvest completed. Although some corn still remains in the field throughout Michigan, most of the corn crop came off in a timely manner. Yields of course varied greatly around the state. Drought areas in the state recorded yields from 0 to 40 bushel. Yet irrigated corn and the few areas that received timely rains recorded yields in excess of 200 bushels.

How to Choose a Hybrid

Adaptation

The map on page 4 shows the locations of the grain trials, and divides Michigan into four generalized maturity zones. Local variations in weather, soil type and fertility, time of planting, and other conditions all affect adaptation. Corn hybrids are often adapted to more than one zone.

In the selection of a hybrid there is no real substitute for observing individual characteristics while plants are growing. The best time to compare plants is usually in late August or early September as they approach maturity. Each year, at a limited number of locations, demonstration plantings of each hybrid are planted at the front of the test field. In 2001, three locations had a scheduled field day plot tour, and the public was invited to view the hybrids. Examining plant and ear characteristics can help in selecting hybrids suitable for your production system. Yield results are not taken from the demonstration plot.

Planting Rate

The number of seeds sown per acre in Michigan has increased steadily over the past several years. In general, modern corn hybrids can withstand the stress of higher plant populations better than earlier hybrids. However, increased planting rates are not a guarantee of increased yield. Check with your seed dealer for information on which hybrids perform better at the higher populations when grown on your soil type.

Maturity

Early-maturing hybrids are generally lower in moisture content than later-maturing hybrids at harvest. Differences among hybrids in rate of dry down in the field also affect moisture content at harvest.

Please see **Maturity** page 5

2001 Growing Season Weather Summary

Jeff Andresen, Extension Agricultural Meteorologist
Michigan State University

Weather-wise, the 2001 growing season was characterized by extremes of water availability, initially as too much and later in the season, by too little. Drought and moisture stress plagued crops in nearly all of Michigan to some extent, especially during the months of July and August. The drought conditions were 'classic' in an agricultural sense given the poor timing. From late April through early June, much of the state, especially western and southern sections, experienced persistent heavy rain and ironically, some flooding (e.g. more than 10 inches of rain fell in the Grand Rapids area during May alone, a new record total for the month). The early wetness in these areas delayed planting of summer crops and resulted in shallower than normal rooting systems for crops already established. A major change in the configuration of the jet stream across North America in mid-June led to a much drier weather pattern which persisted from late June through mid-August. Statewide, dryness and moisture stress conditions were most intense in northern and eastern sections, with less than 25% of normal precipitation totals in many sections of the northern and eastern Lower Peninsula during July and early August, including some of the Thumb and Saginaw Valley regions, where no rain fell from late June through early August. NOAA's Palmer drought index, which characterizes long term, hydrological surpluses and deficits, categorized conditions in this area during much of late July and August as 'moderate to severe drought'. In many of the worst impacted areas,

precipitation deficits of 3-6 inches or more were common by mid-August. In a meteorological sense, the drought was associated with a large, persistent upper air ridge across the Upper Midwest and warm, dry air aloft, which effectively inhibited convection across the state (this is the reason a series of rainfall-bearing weather disturbances moving into the Michigan from the west rapidly dissipated as they moved into the state, with only sprinkles or light rainfall totals). The abnormal dryness in Michigan was part of a regional pattern, stretching from Michigan eastward through southern Ontario, sections of Ohio, Pennsylvania, New York and into New England., and more recently, into crop production areas of the central Corn Belt region.

In terms of timing, the drought impacted many summer crops during moisture-sensitive growth stages and/or stages of greatest water need (including silk/pollination for corn), leading to moisture stress which peaked in the first half of August. Reported crop damage was highly variable from area to area, with some spots benefitting from very timely rains and/or from soil profiles with greater stored water availability. Plant available moisture from the top 6 feet of the soil profile at field capacity typically ranges from 3-8 inches for soils in Michigan.

A return to an upper air ridging pattern across the Midwest during late September and much of October brought warmer, drier weather, which when combined with a later than normal first killing freeze of the fall allowed many crops slowed by earlier cool temperatures to reach maturity. Overall, for the 5-month May-September period, mean temperatures and growing degree day accumulations ranged from near to below normal statewide. Precipitation was highly variable, ranging from below normal totals in northern sections of the state to much above normal levels in the south.

Weather Table next page

Maturity from page 4

One percent more moisture at harvest reflects a delay in maturity of about two days. Another estimate of physiological corn maturity is when a black layer of cells forms at the base of the kernel. This black layer is an indication of the end of active growth processes. At this time, kernel moisture will be between 32 and 35 percent.

For Grain

When selecting a hybrid, yield should not be the only consideration. Identifying hybrids with lower moisture but above average yield will often have higher net returns than top yielding hybrids with higher moisture. A one-point increase in moisture requires about two more bushels in yield to breakeven. It is often better to choose earlier hybrids (below average moisture content) than later hybrids for grain. Data in the tables show that good yields do not totally depend on later maturity.

Farm advantages of early-maturing hybrids are:

- They usually mature before killing frost.
- Adapted early hybrids can generally yield as much as late hybrids in most areas of Michigan.
- Early hybrids with lower moisture content at harvest reduce drying time and market discounts for high grain moisture.
- Grain test weights are generally higher resulting in reduced market discounts.
- Mature, dry corn makes a superior feed grain when used in swine or poultry rations.
- Harvest can take place earlier in the fall when weather conditions are most favorable. Early harvest may reduce corn losses resulting from broken stalks and dropped ears.
- Fall tillage of corn stubble can be completed on land not subject to erosion.

TABLE A.

GROWING SEASON SUMMARY - TEMPERATURE, PRECIPITATION AND GROWING-DEGREE-DAY

COUNTY		MAY			JUNE			JULY			AUGUST			SEPTEMBER			SEASON			
		OBS	NORM	DEV	OBS	NORM	DEV	OBS	NORM	DEV	OBS	NORM	DEV	OBS	NORM	DEV	OBS	NORM	DEV	
Zone 1	MONROE	TEMP	60.6	58.3	2.3	68.2	67.8	0.4	71.3	71.7	-0.4	71.9	69.9	2.0	60.8	62.6	-1.9	66.6	66.1	0.5
		PPT	4.51	3.04	1.47	2.88	3.30	-0.42	1.38	3.73	-2.35	2.95	3.20	-0.25	3.39	2.62	0.77	15.11	15.89	-0.78
		GDD	378	353	25	545	542	3	638	658	-20	663	616	47	402	432	-30	2626	2601	25
	ST. JOSEPH (Branch & Cass)	TEMP	60.6	59.2	1.4	66.3	68.4	-2.1	70.7	71.9	-1.2	71.7	70.1	1.6	59.5	63.3	-3.8	65.8	66.6	-0.8
		PPT	4.39	3.12	1.27	3.90	3.95	-0.05	3.96	3.79	0.17	5.35	3.16	2.19	4.77	3.01	1.76	22.37	17.03	5.34
		GDD	373	381	-8	526	564	-38	642	670	-28	665	628	37	350	454	-104	2556	2697	-141
Zone 2	KENT	TEMP	60.1	57.4	2.7	66.8	67.1	-0.3	71.9	71.2	0.7	72.1	69.5	2.6	59.6	61.9	-2.3	66.1	65.4	0.7
		PPT	9.94	2.86	7.08	2.95	3.68	-0.73	1.96	2.95	-0.99	3.38	3.14	0.24	3.64	3.24	0.40	21.87	15.87	6.00
		GDD	362	335	27	515	530	-15	673	654	19	674	610	64	339	412	-73	2563	2541	22
Zone 2	INGHAM	TEMP	60.5	57.5	3.0	67.1	67.0	0.1	70.2	70.7	-0.5	70.9	69.0	1.9	59.3	62.0	-2.7	65.6	65.2	0.3
		PPT	7.94	2.73	5.21	3.34	3.54	-0.20	0.94	3.02	-2.08	1.61	3.12	-1.51	4.02	2.50	1.52	17.85	14.91	2.94
		GDD	376	338	38	525	530	-5	631	640	-9	640	598	42	345	418	-73	2517	2524	-7
Zone 2	SAGINAW	TEMP	61.0	58.6	2.4	68.4	68.2	0.1	71.8	72.1	-0.3	72.7	70.2	2.5	60.3	62.9	-2.6	66.8	66.4	0.4
		PPT	2.67	2.49	0.18	2.08	3.09	-1.01	1.92	2.83	-0.91	1.95	3.29	-1.34	3.91	2.76	1.15	12.53	14.46	-1.93
		GDD	375	367	8	551	555	-4	674	670	4	678	623	55	351	438	-87	2629	2653	-24
Zone 3	HURON	TEMP	58.3	55.2	3.1	66.3	64.9	1.3	69.9	69.3	0.6	70.7	67.8	2.9	59.2	61.0	-1.8	64.9	63.6	1.2
		PPT	2.62	2.58	0.04	3.11	2.88	0.23	2.55	2.93	-0.38	3.21	3.01	0.20	6.24	2.67	3.57	17.73	14.07	3.66
		GDD	324	298	26	508	479	29	621	602	19	616	569	47	349	387	-38	2418	2335	83
Zone 3	MONTCALM	TEMP	60.6	57.7	2.9	66.8	67.1	-0.3	72.1	71.0	1.1	72.4	69.3	3.1	59.9	61.6	-1.7	66.4	65.3	1.0
		PPT	5.99	2.88	3.11	2.83	3.43	-0.60	1.06	2.50	-1.44	6.10	3.84	2.26	4.00	3.12	0.88	19.98	15.77	4.21
		GDD	358	351	7	492	536	-44	630	646	-16	615	603	12	329	414	-85	2424	2550	-126
Zone 3	MASON	TEMP	58.7	54.4	4.3	65.5	63.6	1.9	71.8	68.5	3.3	72.0	67.2	4.8	59.8	60.2	-0.4	65.6	62.8	2.8
		PPT	9.45	2.48	6.97	1.76	2.93	-1.17	0.33	2.18	-1.85	3.83	3.79	0.04	5.09	3.25	1.84	20.46	14.63	5.83
		GDD	342	273	69	461	450	11	671	587	84	663	552	111	341	365	-24	2478	2227	251
Zone 4	ALPENA	TEMP	57.5	52.0	5.5	64.6	61.7	2.9	67.4	66.6	0.8	70.0	64.9	5.1	57.9	57.2	0.7	63.5	60.5	3.0
		PPT	4.19	2.78	1.41	1.68	3.12	-1.44	0.33	3.11	-2.78	2.59	3.23	-0.64	6.49	3.08	3.41	15.28	15.32	-0.04
		GDD	311	251	60	463	413	50	548	534	14	604	496	108	317	317	0	2243	2011	232
Zone 4	GRAND TRAVERSE	TEMP	57.5	53.5	4.0	64.4	63.7	0.7	68.3	68.8	-0.5	69.8	67.3	2.5	57.7	59.3	-1.6	63.5	62.5	1.0
		PPT	6.23	2.48	3.75	2.49	3.15	-0.66	0.41	2.88	-2.47	2.46	2.93	-0.47	4.50	3.60	0.90	16.09	15.04	1.05
		GDD	312	273	39	463	454	9	581	587	-6	592	552	40	287	348	-61	2235	2214	21
Zone 4	MENOMINEE (Delta)	TEMP	55.7	53.6	2.1	62.5	62.7	-0.2	67.4	67.4	0.0	69.2	65.5	3.7	56.4	57.0	-0.6	62.2	61.2	1.0
		PPT	2.91	3.57	-0.66	3.03	3.72	-0.69	1.63	3.63	-2.00	3.45	3.86	-0.41	3.13	3.60	-0.47	14.15	18.38	-4.23
		GDD	309	285	24	449	438	11	550	559	-9	590	513	77	320	319	1	2218	2114	104

TEMP = Mean temperature (°F)

PPT = Precipitation (inches)

GDD = Growing Degree Days calculated at base 50°F, with 50°F and 86°F cutoffs

OBS = Totals observed in 2001

NORM = Normals calculated over 30 year period (1951-1980)

DEV = Deviation of observed from normal

Table courtesy of MSU Agricultural Weather Office (517/355-0231)

TABLE B.**AGRONOMIC TABLES FOR GRAIN TRIAL LOCATIONS**

COUNTY		PLANTING DATES	HARVEST DATES	PREVIOUS CROP	100 % STAND	AVERAGE STAND	FERTILIZER N - P - K
Zone 1	MONROE	May 1	Oct. 23	Soybeans	30,096	29,165	172 - 51 - 51
	BRANCH	April 28	Oct. 17	Soybeans	30,096	29,759	203 - 0 - 0
	CASS	April 28	Oct. 18	Soybeans	30,096	29,225	209 - 34 - 18
Zone 2	KENT	April 30	Oct. 31	Alfalfa	30,096	29,066	173 - 0 - 0 + Manure
	INGHAM	May 3	Oct. 17	Soybeans	30,096	29,621	194 - 58 - 58
	SAGINAW	April 29	Nov. 4	Soybeans	30,096	29,066	190 - 57 - 57
Zone 3	HURON	April 27	Oct. 31	Soybeans	21,384	15,365	135 - 15 - 0
	MONTCALM	May 3	Oct. 28	Potatoes	30,096	29,284	227 - 67 - 67
	MASON	May 8	Oct. 29	Corn Silage	30,096	29,225	140 - 0 - 0
Zone 4	ALPENA	May 9	Oct. 17	Alfalfa	30,096	27,878	151 - 51 - 51
	GRAND TRAVERSE	May 8	Sept. 24	Corn	30,096	29,700	151 - 51 - 51
	DELTA	May 9	Nov. 5	Alfalfa	28,512	28,433	201 - 51 - 51

COUNTY		SOIL TYPE	SOIL TEST	FARM COOPERATOR	LOCATION
Zone 1	MONROE	Pewamo Clay Loam	pH 7.2 P 80, K 263	Bob Liedel	Maybee
	BRANCH	Fox Sandy Loam	pH 7.2 P 139, K 200	Remus Riggs	Coldwater
	CASS	Kalamazoo Loam	pH 6.5 P 165, K 316	Dave & Mel Cripe	Cassopolis
Zone 2	KENT	Spinks Loamy Sand	pH 6.5 P 103, K 274	Pleasant Acres Farm Gerald Kayser	Caledonia
	INGHAM	Capac Loam	pH 6.5 P 64, K 205	Jorgensen Farms Jerry Jorgesen & Mike Turner	Williamston
	SAGINAW	Parkhill -Capac Complex	pH 6.4 P 47, K 227	Fred Siler	Merrill
Zone 3	HURON	Kilmanagh Loam	pH 6.6 P 48, K 227	Wil-Le Farms William, Ron & Ed McCrea	Bad Axe
	MONTCALM	McBride Sandy Loam	pH 5.5 P 267, K 444	Troy Sackett	Edmore
	MASON	Ogemaw Sandy Loam	pH 6.6 P 210, K 435	Robert & August Oshe	Scottville
Zone 4	ALPENA	Onaway Loam	pH 7.5 P 58, K 348	Corby & Fred Werth	Alpena
	GRAND TRAVERSE	Karlin Sandy Loam	pH 6.5 P 58, K 163	Richard Dennett	Buckley
	DELTA	Onaway Fine Sandy Loam	pH 7.3 P 168, K 474	Benny Herioux	Bark River

TABLE 1E. AVERAGE OF MONROE, BRANCH & CASS COUNTY GRAIN TRIALS - EARLY (<108 Day) ZONE 1

BRAND	HYBRID	2001									2 Year Avg (2000 / 2001)								3 Year Avg (1999 - 2001)							
		%	TEST			%	%	%	%	%	TEST			%	%	%	%	%	TEST			%	%	%	%	%
		H2O	BU/A	WT	Lodg	prot	oil	starch	STD		H2O	BU/A	WT	Lodg	prot	oil	starch		H2O	BU/A	WT	Lodg	prot	oil	starch	
AGRIGOLD	A6391	25	* 191	53	3	9.1	4.4	70.1	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ANDERSONS	5201	23		172	54	6	9.1	4.6	70.0	98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ANDERSONS	5507	24	* 193	54	3	9.7	4.7	69.9	95	23	193	54	3	10.0	4.4	70.4		--	--	--	--	--	--	--	--	--
ASGROW	RX 601RR-YG	23		176	56	3	8.7	4.6	71.1	98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASGROW	RX 634	22	* 191	55	4	10.3	4.7	68.5	99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAYSIDE	Super 104	21		172	58	11	9.5	4.8	70.5	98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAYSIDE	Super 105	24		176	54	9	8.8	4.8	70.5	96	23	181	54	6	9.0	4.8	70.7		21	182	55	4	8.5	4.4	67.4	
BECK'S	4812	22		174	57	3	9.6	4.3	70.4	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BECK'S	5166	26	* 191	53	3	8.8	4.3	70.4	93	25	200	53	2	9.0	4.4	70.5		--	--	--	--	--	--	--	--	--
BECK'S	5266	23		173	54	7	9.9	4.9	69.5	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BECK'S	5283 Bt 1	24	* 202	54	1	9.7	5.1	69.2	98	23	207	54	1	9.6	5.0	69.9		21	201	55	1	9.0	4.6	66.7		
BRODBECK	SX 106	25	* 189	54	1	8.9	4.4	70.7	97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BROWN	6895 Bt	25	* 192	53	2	9.8	4.3	70.2	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DAIRYLAND	STEALTH-1507	24	* 191	54	4	9.6	4.5	69.7	100	23	189	54	3	10.1	4.4	69.6		22	185	55	2	9.5	4.2	66.3		
DAIRYLAND	STEALTH-1507 Bt	24	* 192	54	2	9.9	4.5	69.8	99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DAIRYLAND	STEALTH-1605	24	* 185	55	2	8.9	4.2	72.1	94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DAIRYLAND	STEALTH-1606	26	* 181	53	2	9.4	4.4	69.9	99	24	195	53	2	9.3	4.4	70.5		--	--	--	--	--	--	--	--	--
DAIRYLAND	STEALTH-1607	24		179	53	3	9.3	5.0	70.4	97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DEKALB	DK 537	21		178	56	5	9.0	4.6	70.3	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DEKALB	DK 567	24	* 199	54	8	10.0	4.7	69.3	100	23	194	55	6	9.9	4.6	69.9		21	194	56	4	9.2	4.4	66.7		
DEKALB	DKC 48-15	20		159	58	9	9.9	4.9	69.7	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DEKALB	DKC 57-38	22		176	57	4	9.2	4.5	71.1	99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DEKALB	DKC 58-78	24	* 189	53	1	9.4	4.5	69.7	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DYNA-GRO	DG-5324	24	* 186	55	4	9.8	4.4	70.1	99	23	182	55	3	10.2	4.4	69.8		--	--	--	--	--	--	--	--	--
GARST	8590 IT	23		178	54	1	8.9	5.1	70.3	96	22	184	55	2	8.9	5.0	70.7		21	187	56	2	8.3	4.7	67.4	
GARST	8640 IT	22		168	55	3	9.4	4.9	69.1	97	21	173	55	3	9.5	4.7	69.9		19	175	56	3	8.8	4.4	66.8	
GEERTSON	GS 1049	22		161	57	3	9.5	4.7	70.0	95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GENESIS	2B06	24	* 181	55	3	9.6	4.4	70.0	99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GENESIS	2M06	24	* 183	54	3	9.0	4.6	70.6	95	23	184	53	3	9.1	4.5	70.9		--	--	--	--	--	--	--	--	--
GOLDEN HARVEST	H-8562	23		177	55	3	10.6	4.4	68.6	97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GREAT LAKES	5555	24	* 184	54	2	8.6	4.9	69.9	99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GREAT LAKES	5668	23		164	54	3	8.9	4.7	70.5	95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GREAT LAKES	5758	24	* 184	55	3	9.5	4.3	69.7	99	23	188	54	2	9.7	4.2	70.4		--	--	--	--	--	--	--	--	--
GRIES	GSF-5306	24	* 184	54	2	9.8	4.4	69.9	96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HIGH CYCLE	HC 350	23	* 181	54	2	8.6	4.7	71.6	97	22	184	54	2	8.8	4.5	71.9		--	--	--	--	--	--	--	--	--
LG SEEDS	LG 2533	23	* 187	54	3	8.8	5.0	69.1	98	22	175	54	3	9.0	5.0	69.8		--	--	--	--	--	--	--	--	--
NEW CENTURY	NC 108A	25	* 186	54	3	9.0	4.5	70.2	97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NK Brand	N45-A6	21	* 184	55	7	9.4	5.8	67.1	96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NK Brand	N58-D1	25	* 192	54	1	9.7	4.5	69.2	99	23	183	54	1	9.6	4.5	69.9		21	184	55	1	8.9	4.1	67.0		
NK Brand	N59-Q9	22	* 192	55	4	9.1	3.9	71.8	99	21	195	55	3	9.3	4.0	71.5		20	190	56	2	8.6	4.0	68.0		
PIONEER	34G82	24	* 200	55	4	9.1	4.6	69.6	97	23	197	55	2	8.9	4.6	70.1		--	--	--	--	--	--	--	--	--
PIONEER	35P12	23	* 195	55	5	9.9	4.1	69.6	100	21	191	55	4	9.9	4.3	70.0		--	--	--	--	--	--	--	--	--
PIONEER	35Y54	24	** 204	53	3	10.2	4.9	68.7	97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RENK	RK 775	24		169	54	8	8.7	4.8	70.4	99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RUPP	XR 1682	24	* 189	54	2	9.9	4.6	69.6	97	23	185	54	2	10.0	4.3	70.2		22	184	55	2	9.5	4.3	66.5		
RUPP	XR 1733	26	* 192	53	2	8.7	4.8	69.8	99	24	185	53	2	9.1	4.9	69.9		22	185	54	2	8.6	4.6	66.8		
RUPP	XR 8682	24	* 188	54	3	9.5	4.3	70.3	99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SEDEX	SX 7401	24		176	54	5	8.9	4.8	70.3	92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TRELAY	7002	23		155	54	3	9.3	4.8	69.8	99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VIGORO	X640001	23		181	56	2	8.1	3.8	72.8	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AVERAGE		24		183	54	4	9.3	4.6	70.0	98	23	188	54	3	9.4	4.5	70.3		21	187	55	2	8.9	4.4	67.0	
HIGHEST		26		204	58	11	10.6	5.8	72.8	100	25	207	55	6	10.2	5.0	71.9		22	201	56	4	9.5	4.7	68.0	
LOWEST		20		155	53	1	8.1	3.8	67.1	92	21	173	53	1	8.8	4.0	69.6		19	175	54	1	8.3	4.0	66.3	
Least Significant Difference (LSD) .05%		2	23	2		0.6	0.4	1.1																		
CV		5	8	2		4.2	6.5	1.1																		

** HIGHEST YIELDING HYBRID

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID

TABLE 1E. INDIVIDUAL COUNTY GRAIN TRIALS - MONROE, BRANCH & CASS - EARLY (<108 Day) ZONE 1

BRAND	HYBRID	MONROE							BRANCH							CASS						
		% H2O	Bushels/Acre 2001	2Yr	3Yr	TEST WT	% Lodg	% STD	% H2O	Bushels/Acre 2001	2Yr	3Yr	TEST WT	% Lodg	% STD	% H2O	Bushels/Acre 2001	2Yr	3Yr	TEST WT	% Lodg	% STD
AGRIGOLD	A6391	21	126	--	--	57	2	100	27	213	--	--	50	3	99	28	233	--	--	54	3	100
ANDERSONS	5201	20	115	--	--	58	9	100	25	180	--	--	51	3	99	26	221	--	--	54	6	96
ANDERSONS	5507	22	136	167	--	56	4	88	25	211	209	--	51	3	99	24	231	202	--	56	2	99
ASGROW	RX 601RR-YG	21	128	--	--	56	5	97	24	188	--	--	53	1	99	23	212	--	--	58	3	98
ASGROW	RX 634	20	130	--	--	56	4	99	24	208	--	--	52	3	99	23	* 236	--	--	57	5	100
BAYSIDE	Super 104	19	115	--	--	59	9	97	21	185	--	--	55	9	98	23	216	--	--	59	15	98
BAYSIDE	Super 105	23	126	162	165	57	18	99	25	177	182	186	51	5	94	25	224	201	196	55	5	95
BECK'S	4812	20	120	--	--	59	2	100	24	201	--	--	53	2	100	22	200	--	--	59	4	99
BECK'S	5166	22	134	178	--	55	2	94	26	213	215	--	50	3	96	28	227	207	--	54	3	89
BECK'S	5266	24	125	--	--	53	0	100	24	206	--	--	51	5	100	22	188	--	--	57	17	99
BECK'S	5283 Bt 1	22	** 155	192	190	55	0	100	24	216	213	210	52	1	99	25	* 237	216	204	56	2	93
BRODBECK	SX 106	22	133	--	--	55	0	97	27	211	--	--	51	2	100	28	224	--	--	55	2	95
BROWN	6895 Bt	23	134	--	--	55	4	100	26	216	--	--	50	0	100	26	228	--	--	55	2	99
DAIRYLAND	STEALTH-1507	22	136	168	168	56	6	100	25	207	199	206	51	4	100	25	232	199	183	56	2	99
DAIRYLAND	STEALTH-1507 Bt	22	128	--	--	56	4	100	26	216	--	--	50	1	100	25	233	--	--	55	1	98
DAIRYLAND	STEALTH-1605	22	131	--	--	57	0	99	25	206	--	--	52	3	92	25	217	--	--	56	3	92
DAIRYLAND	STEALTH-1606	23	112	171	--	54	0	100	26	200	204	--	51	2	99	28	231	210	--	54	4	98
DAIRYLAND	STEALTH-1607	21	133	--	--	55	2	97	26	193	--	--	50	3	98	26	211	--	--	55	3	95
DEKALB	DK 537	19	102	--	--	56	10	100	23	212	--	--	53	2	100	22	221	--	--	58	4	99
DEKALB	DK 567	20	116	161	166	57	16	100	26	* 227	213	217	51	6	100	26	* 254	209	198	55	2	99
DEKALB	DKC 48-15	18	106	--	--	60	10	100	22	149	--	--	54	9	100	20	220	--	--	60	7	100
DEKALB	DKC 57-38	20	96	--	--	59	8	100	23	204	--	--	54	3	100	24	227	--	--	58	2	98
DEKALB	DKC 58-78	23	110	--	--	52	1	100	25	215	--	--	51	1	100	24	* 243	--	--	56	0	100
DYNA-GRO	DG-5324	23	114	150	--	56	4	100	25	* 218	206	--	52	3	99	24	226	188	--	57	4	99
GARST	8590 IT	21	133	165	170	55	1	99	24	191	195	202	52	2	99	25	211	192	189	56	2	91
GARST	8640 IT	21	115	154	159	57	3	100	23	180	180	184	53	4	97	24	209	183	181	55	2	93
GEERTSON	GS 1049	21	102	--	--	58	5	99	23	178	--	--	54	1	95	23	205	--	--	59	2	90
GENESIS	2B06	22	121	--	--	57	3	100	26	201	--	--	52	3	99	25	223	--	--	56	3	98
GENESIS	2M06	22	136	170	--	56	4	94	25	198	194	--	51	1	96	26	215	189	--	55	3	94
GOLDEN HARVEST	H-8562	20	120	--	--	58	5	98	25	195	--	--	51	2	99	23	216	--	--	55	2	94
GREAT LAKES	5555	23	115	--	--	55	2	100	24	211	--	--	51	3	99	25	227	--	--	55	1	97
GREAT LAKES	5668	21	124	--	--	56	2	90	25	151	--	--	51	4	100	23	216	--	--	56	2	96
GREAT LAKES	5758	21	107	159	--	57	2	98	25	210	205	--	51	5	100	25	* 236	200	--	56	2	99
GRIES	GSF-5306	22	102	--	--	56	3	96	25	* 219	--	--	51	2	98	25	231	--	--	56	1	94
HIGH CYCLE	HC 350	21	123	164	--	57	0	100	25	202	197	--	51	2	97	25	218	191	--	55	2	93
LG SEEDS	LG 2533	20	133	168	--	55	4	100	23	193	171	--	52	3	94	24	235	186	--	56	2	99
NEW CENTURY	NC 108A	21	118	--	--	57	5	95	26	207	--	--	51	2	99	28	234	--	--	54	1	98
NK Brand	N45-A6	18	* 154	--	--	55	15	95	23	190	--	--	52	3	98	21	209	--	--	57	2	97
NK Brand	N58-D1	24	128	158	164	55	1	100	27	* 219	198	200	50	1	99	24	228	192	187	57	1	99
NK Brand	N59-Q9	21	* 140	176	175	56	2	100	22	205	203	199	54	6	99	24	232	205	196	56	2	99
PIONEER	34G82	20	124	170	--	57	6	95	26	** 236	223	--	51	2	100	26	* 241	200	--	56	3	97
PIONEER	35P12	22	126	165	--	56	11	100	23	* 226	200	--	52	2	100	23	234	209	--	56	2	99
PIONEER	35Y54	20	127	--	--	54	5	98	26	* 228	--	--	50	2	98	26	** 256	--	--	55	1	95
RENK	RK 775	22	102	--	--	57	11	100	25	189	--	--	51	3	100	25	217	--	--	55	10	97
RUPP	XR 1682	22	127	164	168	56	3	92	25	214	199	205	51	2	100	25	227	191	179	56	1	100
RUPP	XR 1733	25	130	163	164	54	1	100	27	206	193	200	50	3	99	27	* 241	199	191	54	3	98
RUPP	XR 8682	22	127	--	--	55	5	98	25	206	--	--	51	4	100	26	231	--	--	55	1	99
SEDEX	SX 7401	21	121	--	--	57	7	92	25	193	--	--	50	4	96	25	215	--	--	55	4	89
TRELAY	7002	20	115	--	--	57	1	100	26	123	--	--	50	9	100	24	227	--	--	56	0	98
VIGORO	X640001	22	122	--	--	57	0	100	25	215	--	--	53	1	100	24	205	--	--	57	5	100
AVERAGE		21	123	166	169	56	5	98	25	201	200	201	51	3	99	25	225	198	190	56	3	97
HIGHEST		25	155	192	190	60	18	100	27	236	223	217	55	9	100	28	256	216	204	60	17	100
LOWEST		18	96	150	159	52	0	88	21	123	171	184	50	0	92	20	188	183	179	54	0	89
Least Significant Difference (LSD) .05%		2	18			2			1	19			1			1	20			1		
CV		5	9			2			4	7			1			3	6			1		

** HIGHEST YIELDING HYBRID

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID

TABLE 1L. AVERAGE OF MONROE, BRANCH & CASS COUNTY GRAIN TRIALS - LATE (>107 Day) ZONE 1

BRAND	HYBRID	2001									2 Year Avg (2000 / 2001)								3 Year Avg (1999 - 2001)							
		%	TEST			%	%	%	%	%	%	TEST			%	%	%	%	%	TEST			%	%	%	%
		H2O	BU/A	WT	Lodg	prol	oil	starch	STD		H2O	BU/A	WT	Lodg	prol	oil	starch		H2O	BU/A	WT	Lodg	prol	oil	starch	
AGRIGOLD	A6445	26	* 198	52	4	8.9	5.0	69.8	99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AGRIGOLD	XA5033	25	183	55	4	10.4	4.5	69.8	98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ANDERSONS	5509 Bt	24	* 197	53	4	9.3	4.5	70.0	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ANDERSONS	5811	25	* 199	53	3	9.1	4.8	69.7	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASGROW	RX 708	25	* 191	53	2	9.7	4.9	69.7	100	23	193	54	2	9.8	4.7	70.1	--	--	--	--	--	--	--	--	--	--
BAYSIDE	Super 107	23	182	54	3	8.8	5.0	70.4	95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BECK'S	5322	25	* 197	53	4	9.6	4.9	69.3	97	25	201	52	3	9.3	4.8	70.3	--	--	--	--	--	--	--	--	--	--
BIO GENE	BG 307	26	* 192	53	2	8.8	4.9	69.9	100	24	189	53	2	9.0	4.6	70.9	--	--	--	--	--	--	--	--	--	--
BIO GENE	BG 309	25	184	53	3	9.0	4.7	70.4	99	24	177	53	3	9.2	4.7	70.3	--	--	--	--	--	--	--	--	--	--
BIO GENE	BT 311	26	180	52	5	9.2	5.0	69.3	99	25	184	52	3	9.3	4.9	69.8	--	--	--	--	--	--	--	--	--	--
BIO GENE	BG 1091	26	* 189	53	1	9.4	4.4	70.6	98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BIO GENE	BG 1100	26	182	52	4	9.2	4.8	69.6	99	24	180	52	3	9.1	4.7	70.7	--	--	--	--	--	--	--	--	--	--
BIO GENE	BG 1111	25	* 195	52	3	9.0	4.8	69.7	98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BIO GENE	BG 1119	25	* 194	53	3	9.1	4.3	71.3	96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BROWN	7044	26	* 196	52	4	9.1	4.9	69.6	98	25	200	52	3	9.3	5.0	69.9	--	--	--	--	--	--	--	--	--	--
CORNBELT	C 599	24	* 206	53	5	8.5	4.7	70.7	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CORNBELT	C 629	29	* 191	52	5	10.3	4.6	69.8	96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CROW'S	C 4908	25	* 203	52	4	9.4	4.9	69.6	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DAIRYLAND	STEALTH-1412	26	184	53	2	8.9	4.4	71.0	98	24	188	53	1	9.0	4.3	71.7	--	--	--	--	--	--	--	--	--	--
DAIRYLAND	STEALTH-1611	25	* 185	53	3	9.3	5.1	69.0	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DEKALB	DKC 58-52	25	* 197	53	3	9.6	4.7	70.1	100	23	195	54	2	9.3	4.9	70.4	--	--	--	--	--	--	--	--	--	--
DEKALB	DKC 60-08	24	* 202	55	2	9.8	4.9	69.1	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DEKALB	DKC 61-24	25	* 200	54	2	10.1	4.4	70.3	100	24	189	54	2	10.0	4.4	70.6	--	--	--	--	--	--	--	--	--	--
DYNA-GRO	DG-5467	26	* 196	52	3	8.7	4.8	70.7	96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GARST	8464 IT	26	* 186	52	0	8.6	5.3	70.1	99	25	190	52	0	9.0	5.6	69.8	--	--	--	--	--	--	--	--	--	--
GARST	N9523 IT	25	* 197	55	1	9.4	4.5	70.8	98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GEERTSON	GS 1117	25	* 201	53	3	8.9	4.5	70.1	100	24	196	53	2	8.9	4.4	71.1	--	--	--	--	--	--	--	--	--	--
GENESIS	4B110	23	182	54	6	9.4	4.8	71.0	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GOLDEN HARVEST	H-8799	25	* 190	53	2	8.6	4.3	71.1	99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GOLDEN HARVEST	H-8906	25	** 209	53	6	9.3	5.0	69.5	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GREAT LAKES	5963	25	181	53	3	8.7	4.1	71.8	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GREAT LAKES	6032	26	* 205	51	6	8.6	4.8	70.6	98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GRIES	GSF-6310	25	* 197	53	4	9.2	4.8	70.2	97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LG SEEDS	LG 2569	25	* 187	53	1	10.3	5.3	68.6	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LG SEEDS	LG 2585	25	* 198	53	2	9.0	4.7	70.2	100	24	203	53	2	9.1	4.9	70.5	--	--	--	--	--	--	--	--	--	--
MIDWEST GENETIC	G 7706	24	* 200	53	6	9.4	4.9	69.2	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NK Brand	N60-N2	25	149	51	3	7.9	4.7	71.1	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NK Brand	N67-T4	25	182	53	1	9.1	4.6	70.8	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NK Brand	N70-D5	28	* 192	53	1	10.1	4.1	69.7	99	27	192	53	1	10.3	4.1	69.9	--	--	--	--	--	--	--	--	--	--
PIONEER	34B23	26	* 198	56	4	10.1	4.0	70.4	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PIONEER	34G13	26	* 201	54	2	9.8	5.1	69.7	99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PIONEER	34M94	25	184	55	3	11.0	4.5	68.9	99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RENK	RK 806	26	178	52	2	9.2	4.3	70.3	100	25	192	52	2	9.2	4.3	70.6	--	--	--	--	--	--	--	--	--	--
RENK	RK 867	24	177	53	5	10.0	5.0	70.2	99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RUPP	XR 1744	25	* 200	52	4	9.1	4.7	70.2	99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RUPP	XR 1778	26	156	52	4	8.3	4.9	70.6	96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TRELAY	8100	24	180	53	4	10.0	4.9	69.9	95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TRELAY	8200	26	* 199	53	1	10.1	5.2	68.9	98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TRELAY	9300	25	* 187	53	2	8.8	4.3	71.9	99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VIGORO	V4910	25	* 187	53	2	9.3	4.8	69.6	95	24	194	53	2	9.3	4.6	70.2	--	--	--	--	--	--	--	--	--	--
AVERAGE		25	190	53	3	9.3	4.7	70.1	99	24	191	53	2	9.3	4.7	70.4	--	--	--	--	--	--	--	--	--	--
HIGHEST		29	209	56	6	11.0	5.3	71.9	100	27	203	54	3	10.3	5.6	71.7	--	--	--	--	--	--	--	--	--	--
LOWEST		23	149	51	0	7.9	4.0	1.0	95	23	177	52	0	8.9	4.1	69.8	--	--	--	--	--	--	--	--	--	--

Least Significant Difference (LSD) .05%

CV 5 8 1 5.6 7.3 1.4

** HIGHEST YIELDING HYBRID

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID

TABLE 1L. INDIVIDUAL COUNTY GRAIN TRIALS - MONROE, BRANCH & CASS - LATE (>107 Day) ZONE 1

BRAND	HYBRID	MONROE							BRANCH							CASS						
		% H2O	Bushe 2001	ls/Acre 2Yr	TEST 3Yr	% WT	% Lodg	% STD	% H2O	Bushe 2001	ls/Acre 2Yr	TEST 3Yr	% WT	% Lodg	% STD	% H2O	Bushe 2001	ls/Acre 2Yr	TEST 3Yr	% WT	% Lodg	% STD
AGRIGOLD	A6445	25	* 162	--	--	53	4	100	26	213	--	--	50	4	99	27	219	--	--	53	4	98
AGRIGOLD	XA5033	22	133	--	--	56	4	97	26	204	--	--	52	3	99	26	211	--	--	57	5	100
ANDERSONS	5509 Bt	22	* 152	--	--	54	3	100	26	210	--	--	49	3	100	25	* 228	--	--	55	5	100
ANDERSONS	5811	23	140	--	--	54	0	100	25	214	--	--	50	4	99	26	** 242	--	--	54	4	100
ASGROW	RX 708	22	135	174	--	55	2	100	27	215	208	--	49	1	100	25	* 223	197	--	56	2	100
BAYSIDE	Super 107	20	140	--	--	55	1	84	25	192	--	--	51	9	100	25	213	--	--	56	0	100
BECK'S	5322	24	142	182	--	53	4	98	25	* 228	215	--	50	4	97	26	220	205	--	54	3	97
BIO GENE	BG 307	25	144	173	171	54	1	100	26	202	193	194	51	3	100	27	* 230	201	193	54	2	100
BIO GENE	BG 309	21	120	155	161	54	5	100	27	208	194	200	50	4	99	27	* 224	183	183	53	2	99
BIO GENE	BT 311	25	123	163	--	53	10	100	28	201	200	--	49	4	98	27	216	191	--	53	1	98
BIO GENE	BG 1091	25	137	--	--	53	0	97	27	208	--	--	50	2	98	26	* 221	--	--	55	2	100
BIO GENE	BG 1100	24	127	161	--	53	4	98	26	196	189	--	49	6	99	27	* 222	191	--	53	1	99
BIO GENE	BG 1111	23	139	--	--	53	3	98	26	208	--	--	50	4	100	26	* 237	--	--	54	4	97
BIO GENE	BG 1119	22	148	--	--	55	4	98	26	214	--	--	50	3	99	26	220	--	--	55	1	91
BROWN	7044	25	131	177	--	52	3	95	26	* 221	216	--	50	5	98	25	* 235	208	--	55	3	100
CORNBELT	C 599	22	** 173	--	--	54	7	100	25	212	--	--	50	3	100	26	* 234	--	--	55	4	99
CORNBELT	C 629	26	142	--	--	53	7	93	30	213	--	--	50	4	99	30	218	--	--	54	3	94
CROW'S	C 4908	24	* 162	--	--	53	2	100	25	* 228	--	--	50	4	100	27	220	--	--	54	5	100
DAIRYLAND	STEALTH-1412	24	135	169	172	54	1	99	27	192	187	195	50	3	98	27	* 224	209	198	54	1	98
DAIRYLAND	STEALTH-1611	23	100	--	--	54	4	100	26	* 221	--	--	50	3	100	26	* 233	--	--	54	3	100
DEKALB	DKC 58-52	22	132	174	--	54	4	99	27	* 220	203	--	50	4	100	27	* 240	209	--	55	0	100
DEKALB	DKC 60-08	21	* 155	--	--	57	4	100	27	212	--	--	50	2	100	25	* 238	--	--	57	1	99
DEKALB	DKC 61-24	22	147	169	--	55	2	100	26	* 219	202	--	51	3	100	25	* 234	195	--	56	1	100
DYNA-GRO	DG-5467	26	139	--	--	52	4	94	25	216	--	--	50	2	97	26	* 233	--	--	54	3	97
GARST	8464 IT	22	120	168	171	54	0	100	28	210	202	205	49	1	99	28	* 228	201	193	54	0	99
GARST	N9523 IT	22	* 167	--	--	55	1	97	26	202	--	--	52	1	100	26	* 221	--	--	57	2	97
GEERTSON	GS 1117	23	* 160	181	180	54	5	100	26	207	196	201	50	3	100	27	* 237	211	202	55	1	100
GENESIS	4B110	22	138	--	--	54	1	100	24	205	--	--	52	4	100	22	203	--	--	57	12	100
GOLDEN HARVEST	H-8799	22	139	--	--	54	1	99	27	211	--	--	50	3	98	27	* 221	--	--	54	3	100
GOLDEN HARVEST	H-8906	23	* 163	--	--	54	9	100	25	* 223	--	--	50	5	100	26	* 239	--	--	54	4	100
GREAT LAKES	5963	24	122	--	--	56	2	100	26	205	--	--	50	3	100	27	216	--	--	55	2	100
GREAT LAKES	6032	23	* 163	--	--	53	9	99	28	* 218	--	--	48	6	97	28	* 233	--	--	53	4	98
GRIES	GSF-6310	23	* 155	--	--	54	1	99	25	215	--	--	50	6	99	26	220	--	--	54	3	94
LG SEEDS	LG 2569	21	140	--	--	55	0	100	27	209	--	--	50	1	100	26	213	--	--	54	3	100
LG SEEDS	LG 2585	22	141	187	--	54	1	100	26	* 221	218	--	50	3	100	26	* 232	202	--	54	2	100
MIDWEST GENETIC	G 7706	23	145	--	--	54	11	99	25	216	--	--	50	3	100	25	* 239	--	--	55	3	100
NK Brand	N60-N2	21	127	--	--	54	1	100	28	91	--	--	47	6	100	27	* 228	--	--	53	1	100
NK Brand	N67-T4	23	118	--	--	54	0	100	26	211	--	--	51	2	100	27	216	--	--	54	1	100
NK Brand	N70-D5	24	123	163	169	54	1	99	30	* 223	214	217	51	2	100	30	* 230	198	190	56	1	99
PIONEER	34B23	22	150	--	--	57	3	100	27	215	--	--	54	4	100	27	* 230	--	--	58	5	99
PIONEER	34G13	23	* 161	--	--	55	5	100	28	217	--	--	51	2	98	26	* 223	--	--	57	0	99
PIONEER	34M94	21	107	--	--	57	5	100	28	** 234	--	--	51	1	100	26	211	--	--	56	1	98
RENK	RK 806	23	119	172	--	53	1	100	27	203	205	--	50	3	100	27	211	200	--	54	2	100
RENK	RK 867	25	126	--	--	53	0	99	24	207	--	--	51	3	100	23	198	--	--	56	12	98
RUPP	XR 1744	24	* 153	--	--	54	5	99	26	216	--	--	49	3	100	26	* 230	--	--	54	4	97
RUPP	XR 1778	22	114	--	--	54	0	96	28	143	--	--	49	9	96	28	211	--	--	53	2	97
TRELAY	8100	23	128	--	--	52	2	93	25	202	--	--	51	3	98	24	211	--	--	57	7	95
TRELAY	8200	22	* 160	--	--	54	2	98	28	210	--	--	50	1	98	27	* 229	--	--	54	0	99
TRELAY	9300	25	132	--	--	53	1	96	26	211	--	--	50	3	100	25	217	--	--	55	2	100
VIGORO	V4910	21	144	178	--	54	3	99	27	210	209	--	50	2	94	28	208	193	--	54	2	94
AVERAGE		23	139	172	171	54	3	98	26	208	203	202	50	3	99	26	224	200	193	55	3	98
HIGHEST		26	173	187	180	57	11	100	30	234	218	217	54	9	100	30	242	211	202	58	12	100
LOWEST		20	100	155	161	52	0	84	24	91	187	194	47	1	94	22	198	183	183	53	0	91
Least Significant Difference (LSD) .05%		2	22			2			1	16			1			2	21			1		
CV		5	10			2			3	5			1			4	6			1		

** HIGHEST YIELDING HYBRID

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID

TABLE 2E. AVERAGE OF KENT, INGHAM & SAGINAW COUNTY GRAIN TRIALS - EARLY (<101 Day) ZONE 2

BRAND	HYBRID	%	2001							2 Year Avg (2000 / 2001)							3 Year Avg (1999 - 2001)						
			TEST	%	%	%	%	%	%	TEST	%	%	%	%	%	%	TEST	%	%	%	%	%	%
		H2O	BU/A	WT	Lodg	prot	oil	starch	STD	H2O	BU/A	WT	Lodg	prot	oil	starch	H2O	BU/A	WT	Lodg	prot	oil	starch
ANDERSONS	5201	20	* 161	57	23	9.3	4.1	71.6	99	—	—	—	—	—	—	—	—	—	—	—	—	—	—
BAYSIDE	Super 93	18	153	59	16	10.2	4.7	70.1	99	18	168	57	9	9.5	4.6	71.2	18	176	58	7	8.9	4.4	67.6
BAYSIDE	Super 97	20	146	60	16	10.3	4.3	69.5	99	—	—	—	—	—	—	—	—	—	—	—	—	—	—
BAYSIDE	Super 100	20	* 165	59	8	10.4	4.5	69.6	98	20	171	57	5	9.8	4.3	70.5	19	176	57	3	9.1	4.2	67.1
BAYSIDE	1700	20	* 161	59	6	10.9	4.6	69.2	91	—	—	—	—	—	—	—	—	—	—	—	—	—	—
BAYSIDE	1792	19	156	58	18	9.7	4.5	70.6	98	18	169	57	11	9.0	4.3	72.2	18	175	57	7	8.4	4.2	68.4
BAYSIDE	1795	19	* 162	59	8	10.5	4.5	69.9	87	—	—	—	—	—	—	—	—	—	—	—	—	—	—
BAYSIDE	1899	21	* 168	58	11	10.5	4.3	69.7	96	—	—	—	—	—	—	—	—	—	—	—	—	—	—
BROWN	5341	21	* 163	56	13	11.3	4.3	68.4	99	21	177	54	7	10.9	4.2	69.2	21	182	55	5	10.1	4.0	66.2
BROWN	6079	20	* 177	56	30	9.2	4.1	71.7	96	—	—	—	—	—	—	—	—	—	—	—	—	—	—
CROW'S	C 217 B	19	158	60	25	11.0	5.1	68.3	100	19	176	58	13	9.9	4.9	70.0	—	—	—	—	—	—	—
DAIRYLAND	STEALTH-1496	19	* 159	59	15	9.9	4.8	70.3	100	19	173	57	9	9.5	4.8	71.1	18	177	57	6	8.8	4.5	67.6
DEKALB	DKC 42-22	18	* 169	58	25	10.1	5.1	67.9	100	18	177	58	13	9.2	5.0	69.3	—	—	—	—	—	—	—
DEKALB	DKC 44-42	19	* 160	57	29	10.1	5.3	68.1	99	18	172	56	15	9.4	5.4	69.0	—	—	—	—	—	—	—
DEKALB	DKC 46-26	20	** 178	60	17	10.0	5.3	68.5	100	18	173	59	9	9.2	5.0	69.8	—	—	—	—	—	—	—
DEKALB	DKC 48-15	19	* 162	60	15	10.7	5.2	69.1	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DEKALB	DKC 48-83	19	* 169	59	18	9.9	4.9	70.1	99	19	175	58	10	9.4	5.0	70.7	—	—	—	—	—	—	—
DEKALB	DKC 50-72	20	* 170	60	5	10.6	5.6	67.2	98	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DYNA-GRO	DG-5258	19	155	58	26	10.5	5.0	68.7	92	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DYNA-GRO	DG-5222 RR	19	146	60	30	10.5	4.7	70.3	98	19	163	58	16	9.8	4.7	71.3	—	—	—	—	—	—	—
DYNA-GRO	DG-5257	20	* 159	59	28	11.2	5.1	68.4	99	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DYNA-GRO	DG-5212 RR	19	156	59	7	9.8	4.4	69.6	92	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DYNA-GRO	DG-5346 RR	19	151	58	15	10.1	4.3	70.1	99	—	—	—	—	—	—	—	—	—	—	—	—	—	—
GARST	8779	19	* 161	59	19	11.0	5.0	68.6	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—
GARST	8790 Bt	20	150	58	28	9.9	4.4	70.6	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—
GENESIS	1996	18	153	58	34	10.5	5.0	68.8	93	18	167	57	18	9.9	4.9	69.8	18	175	57	12	9.3	4.7	66.5
GENESIS	2B98	19	154	59	16	10.9	5.4	68.3	97	—	—	—	—	—	—	—	—	—	—	—	—	—	—
GENESIS	2B98 MT	18	151	58	24	10.1	4.7	70.1	99	—	—	—	—	—	—	—	—	—	—	—	—	—	—
GENESIS	2B98 RR	19	156	58	17	11.2	5.1	68.8	99	—	—	—	—	—	—	—	—	—	—	—	—	—	—
GENESIS	2B100	20	* 161	58	4	10.7	4.6	69.6	97	—	—	—	—	—	—	—	—	—	—	—	—	—	—
GENESIS	2M100	21	150	56	19	10.3	4.9	68.4	98	19	155	55	10	10.3	4.7	68.7	19	172	55	7	9.5	4.3	66.0
GENESIS	2M101 YG	20	* 165	58	12	10.8	4.5	68.9	92	—	—	—	—	—	—	—	—	—	—	—	—	—	—
GENESIS	4B100	20	* 163	58	18	10.8	4.7	68.9	98	—	—	—	—	—	—	—	—	—	—	—	—	—	—
GREAT LAKES	4526	19	* 159	59	16	9.6	4.3	71.3	97	18	172	57	9	9.4	4.5	71.8	—	—	—	—	—	—	—
GREAT LAKES	4676	19	* 168	59	13	10.2	4.4	70.2	99	—	—	—	—	—	—	—	—	—	—	—	—	—	—
GREAT LAKES	4964	20	156	57	14	11.6	5.3	66.5	95	21	173	55	8	11.0	5.1	67.6	—	—	—	—	—	—	—
GREAT LAKES	4979	21	* 168	59	8	10.7	4.5	69.9	98	—	—	—	—	—	—	—	—	—	—	—	—	—	—
HIGH CYCLE	7419 Bt	19	* 165	56	9	11.1	5.6	66.6	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—
HIGH CYCLE	7434 RR	19	151	59	31	10.4	4.6	70.2	98	—	—	—	—	—	—	—	—	—	—	—	—	—	—
HYTEST	HT 7415	20	147	61	15	10.4	4.1	69.8	94	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LG SEEDS	LG 2473	20	* 163	57	15	10.3	5.5	67.5	99	19	171	57	9	9.7	5.5	68.4	19	177	57	6	9.1	4.9	65.8
LG SEEDS	LG 2474	19	* 163	59	10	10.0	4.3	70.9	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LG SEEDS	LG 2484	21	* 170	58	17	10.8	6.2	65.8	100	21	173	57	10	10.2	6.0	67.3	21	183	57	7	9.3	5.2	65.2
LG SEEDS	LG 2488	21	152	59	13	11.5	5.1	66.9	100	23	166	57	7	11.0	5.0	67.9	—	—	—	—	—	—	—
MIDWEST GENETIC	G 7101B	19	* 163	60	29	10.6	5.0	69.2	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NEW CENTURY	NC 95	18	158	59	13	10.2	4.8	69.6	92	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NK Brand	N35-R7	18	* 167	58	32	10.1	5.0	68.1	100	18	171	57	17	9.9	5.0	69.4	—	—	—	—	—	—	—
NK Brand	N43-C4	19	* 170	56	8	11.1	4.6	67.0	94	19	178	56	4	10.6	4.6	67.9	—	—	—	—	—	—	—
PIONEER	37H26	22	156	60	26	10.7	4.9	67.6	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—
PIONEER	37M34	20	* 173	60	19	11.2	4.4	67.9	100	20	179	58	11	10.6	4.1	69.1	19	185	59	8	9.9	3.9	66.2
PIONEER	37R71	19	* 168	57	13	10.3	5.5	67.8	99	19	184	56	7	9.8	5.4	68.7	19	185	56	5	9.1	5.0	65.9
PIONEER	38A24	19	* 160	60	32	10.0	4.9	69.3	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RENK	RK 606	20	147	61	14	10.4	4.1	69.6	99	20	159	59	8	9.8	4.1	70.9	20	168	59	5	9.0	4.0	67.5
RENK	RK 622	19	155	60	18	11.0	4.9	69.1	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RENK	RK 636	19	154	57	16	10.3	4.8	69.1	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—
SEEDEX	SX 5701	19	146	59	9	10.2	4.7	70.5	89	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TRELAY	4002	18	* 160	59	17	9.8	4.8	70.6	100	18	170	57	9	9.5	4.6	71.4	18	176	57	6	8.8	4.4	67.8
TRELAY	5020	21	154	57	23	10.1	4.2	69.6	98	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TRELAY	5600	20	152	60	16	9.9	4.0	70.0	100	20	168	59	9	9.5	4.0	70.8	20	174	59	6	8.8	3.9	67.5
VIGORO	V3820	19	* 164	59	6	10.8	4.6	69.4	86	—	—	—	—	—	—	—	—	—	—	—	—	—	—
AVERAGE		19	160	59	17	10.4	4.8	69.1	97	19	171	57	10	9.9	4.8	69.8	19	177	57	6	9.2	4.4	66.8
HIGHEST		22	178	61	34	11.6	6.2	71.7	100	23	184	59	18	11.0	6.0	72.2	21	185	59	12	10.1	5.2	68.4
LOWEST		18	146	56	4	9.2	4.0	65.8	86	18	155	54	4	9.0	4.0	67.3	18	168	55	3	8.4	3.9	65.2
Least Significant Difference (LSD) .05%		1	19	1		0.6	0.4	1.2															
CV		3	8	2		4.3	6.4	1.2															

** HIGHEST YIELDING HYBRID

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID

TABLE 2E. INDIVIDUAL COUNTY GRAIN TRIALS - KENT, INGHAM & SAGINAW - EARLY (<101 Day)

ZONE 2

BRAND	HYBRID	KENT							INGHAM							SAGINAW						
		% H2O	Bushels/Acre	TEST	%	%			% H2O	Bushels/Acre	TEST	%	%			% H2O	Bushels/Acre	TEST	%	%		
ANDERSONS	5201	21	215	—	—	55	11	99	19	144	—	—	58	37	100	20	* 124	—	—	58	19	97
BAYSIDE	Super 93	19	* 230	203	198	58	6	99	18	132	160	172	59	31	99	18	98	140	160	59	11	100
BAYSIDE	Super 97	20	204	—	—	60	16	97	20	125	—	—	60	26	99	18	109	—	—	61	6	99
BAYSIDE	Super 100	20	220	192	193	59	6	95	20	153	171	177	58	12	99	19	* 124	149	159	59	6	100
BAYSIDE	1700	20	218	—	—	58	3	94	20	* 163	—	—	59	7	94	18	103	—	—	60	7	86
BAYSIDE	1792	19	212	192	191	59	4	95	19	141	166	170	57	37	98	18	* 116	150	164	59	14	100
BAYSIDE	1795	19	200	—	—	57	5	86	20	* 169	—	—	59	15	92	18	* 118	—	—	61	3	81
BAYSIDE	1899	20	214	—	—	58	4	94	22	* 178	—	—	57	16	99	21	111	—	—	60	12	96
BROWN	5341	21	* 233	210	208	55	7	97	21	140	169	174	56	26	99	20	* 116	152	165	57	6	99
BROWN	6079	20	* 227	—	—	55	21	100	20	** 180	—	—	54	57	98	19	* 123	—	—	59	10	91
CROW'S	C 217 B	19	* 231	215	—	59	8	99	20	132	166	—	61	56	100	19	111	148	—	61	10	100
DAIRYLAND	STEALTH-1496	19	219	197	192	59	9	100	19	148	173	176	59	29	100	18	111	148	162	60	6	100
DEKALB	DKC 42-22	20	* 237	213	—	59	15	100	19	152	170	—	57	54	100	17	* 120	147	—	60	5	100
DEKALB	DKC 44-42	20	* 222	199	—	58	11	98	20	139	170	—	56	65	100	17	* 119	146	—	58	12	100
DEKALB	DKC 46-26	20	** 238	205	—	59	19	100	19	* 166	170	—	60	23	100	19	* 128	144	—	61	10	100
DEKALB	DKC 48-15	19	* 234	—	—	59	10	100	18	143	—	—	60	25	100	19	108	—	—	60	11	100
DEKALB	DKC 48-83	20	* 236	200	—	58	6	99	20	* 176	183	—	59	39	100	18	95	142	—	59	10	99
DEKALB	DKC 50-72	20	* 230	—	—	59	1	99	20	* 166	—	—	61	3	97	19	* 115	—	—	61	11	99
DYNA-GRO	DG-5258	19	205	—	—	58	6	86	20	141	—	—	58	57	98	17	* 119	—	—	58	13	92
DYNA-GRO	DG-5222 RR	20	197	179	—	59	20	98	18	138	167	—	59	57	100	18	102	144	—	61	11	96
DYNA-GRO	DG-5257	19	* 227	—	—	58	8	99	21	136	—	—	59	59	100	18	114	—	—	60	16	100
DYNA-GRO	DG-5212 RR	19	212	—	—	59	4	96	19	140	—	—	59	11	93	18	* 116	—	—	60	6	86
DYNA-GRO	DG-5346 RR	19	206	—	—	59	16	99	19	146	—	—	58	25	100	17	102	—	—	59	5	100
GARST	8779	19	205	—	—	59	14	100	19	156	—	—	57	32	100	19	* 121	—	—	61	11	100
GARST	8790 Bt	21	* 225	—	—	57	11	100	20	120	—	—	58	57	99	20	104	—	—	58	16	100
GENESIS	1996	19	210	199	201	58	14	97	19	138	154	161	58	67	92	17	112	148	162	58	20	91
GENESIS	2B98	20	200	—	—	57	7	94	20	154	—	—	59	36	99	18	109	—	—	61	5	97
GENESIS	2B98 MT	19	216	—	—	58	17	98	18	134	—	—	56	45	100	18	103	—	—	59	9	100
GENESIS	2B98 RR	20	217	—	—	57	9	99	19	149	—	—	60	26	98	17	102	—	—	59	16	99
GENESIS	2B100	20	206	—	—	57	4	95	20	* 177	—	—	58	0	100	19	99	—	—	60	9	97
GENESIS	2M100	20	207	180	188	55	5	94	22	139	149	165	54	42	100	20	103	136	162	59	8	99
GENESIS	2M101 YG	20	205	—	—	58	1	92	21	* 166	—	—	57	19	93	19	* 123	—	—	59	15	92
GENESIS	4B100	20	* 223	—	—	57	4	95	21	154	—	—	58	36	99	19	112	—	—	60	14	98
GREAT LAKES	4526	19	209	191	—	58	5	96	19	151	176	—	59	33	97	18	* 117	150	—	59	10	98
GREAT LAKES	4676	19	220	—	—	58	3	98	21	* 173	—	—	57	31	100	18	111	—	—	61	4	100
GREAT LAKES	4964	21	191	190	—	56	8	93	22	* 159	179	—	57	15	96	19	* 118	149	—	58	19	96
GREAT LAKES	4979	21	217	—	—	58	4	96	22	156	—	—	58	7	99	20	** 130	—	—	60	13	99
HIGH CYCLE	7419 Bt	20	* 227	—	—	57	2	100	19	155	—	—	56	14	99	17	112	—	—	56	9	100
HIGH CYCLE	7434 RR	20	203	—	—	59	19	100	19	156	—	—	59	63	95	18	93	—	—	60	10	99
HYTEST	HT 7415	20	207	—	—	61	12	92	21	123	—	—	59	28	96	19	112	—	—	62	7	93
LG SEEDS	LG 2473	21	220	200	196	57	6	98	19	157	170	175	57	20	100	19	110	143	160	58	18	98
LG SEEDS	LG 2474	19	220	—	—	58	4	100	20	* 168	—	—	58	16	100	18	101	—	—	60	9	100
LG SEEDS	LG 2484	22	* 224	198	203	57	4	100	22	* 162	171	180	58	33	100	21	* 124	150	166	59	16	100
LG SEEDS	LG 2488	21	219	194	—	58	8	100	22	142	166	—	58	28	100	19	96	139	—	61	3	100
MIDWEST GENETIC	G 7101B	20	* 232	—	—	59	9	100	19	141	—	—	60	61	100	18	* 117	—	—	61	17	100
NEW CENTURY	NC 95	19	217	—	—	59	4	97	18	141	—	—	59	24	90	18	* 117	—	—	59	10	91
NK Brand	N35-R7	19	* 232	200	—	57	6	100	19	156	163	—	58	60	100	17	113	150	—	57	28	100
NK Brand	N43-C4	20	* 231	207	—	55	4	91	19	149	173	—	57	13	96	18	** 130	155	—	58	9	95
PIONEER	37H26	22	* 233	—	—	60	6	100	23	120	—	—	59	55	100	20	* 115	—	—	61	17	100
PIONEER	37M34	20	* 233	208	206	59	8	99	21	* 170	176	182	60	24	100	18	* 115	154	168	60	23	100
PIONEER	37R71	19	* 225	210	202	56	0	100	20	* 163	187	186	57	22	100	18	* 117	155	167	57	17	97
PIONEER	38A24	20	* 229	—	—	60	4	100	19	146	—	—	60	71	100	18	104	—	—	60	20	100
RENK	RK 606	21	192	176	183	60	17	100	21	136	158	164	61	21	100	18	112	144	156	61	3	99
RENK	RK 622	20	220	—	—	60	11	100	19	139	—	—	61	39	100	18	105	—	—	61	6	100
RENK	RK 636	20	* 224	—	—	56	5	100	20	138	—	—	57	38	100	18	101	—	—	59	5	100
SEDEX	SX 5701	19	188	—	—	58	3	90	19	143	—	—	59	16	88	18	106	—	—	60	7	90
TRELAY	4002	19	213	189	192	59	5	100	18	* 163	177	178	58	38	100	17	105	144	159	60	9	100
TRELAY	5020	22	214	—	—	55	8	100	21	122	—	—	58	55	100	19	* 125	—	—	59	6	95
TRELAY	5600	21	209	193	193	60	11	100	20	142	169	170	59	32	99	19	107	141	159	61	5	100
VIGORO	V3820	19	214	—	—	58	3	86	20	* 172	—	—	58	12	86	18	106	—	—	61	4	85
AVERAGE		20	217	198	196	58	8	97	20	150	169	173	58	33	98	18	112	147	162	59	11	97
HIGHEST		22	238	215	208	61	21	100	23	180	187	186	61	71	100	21	130	155	168	62	28	100
LOWEST		19	188	176	183	55	0	86	18	120	149	161	54	0	86	17	93	136	156	56	3	81
Least Significant Difference (LSD) .05%		1	16			1			2	22			2			1	15			1		
CV		2	5			1			5	10			3			4	9			1		

** HIGHEST YIELDING HYBRID

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID

TABLE 2L. AVERAGE OF KENT, INGHAM & SAGINAW COUNTY GRAIN TRIALS - LATE (>100 Day) ZONE 2

BRAND	HYBRID	2001								2 Year Avg (2000 / 2001)								3 Year Avg (1999 - 2001)							
		TEST		%	%	%	%	%	TEST		%	%	%	%	TEST		%	%	%	%					
		H2O	BU/A	WT	Lodg	prot	oil	starch	STD	H2O	BU/A	WT	Lodg	prot	oil	starch	H2O	BU/A	WT	Lodg	prot	oil	starch		
ANDERSONS	5507	23	160	55	11	12.0	4.8	67.2	100	25	171	53	6	10.9	4.4	69.2	24	182	53	5	9.9	4.2	66.2		
ANDERSONS	5509 Bt	23	162	54	15	11.0	4.9	68.0	100	-	-	-	-	-	-	-	-	-	-	-	-	-			
BAYSIDE	Super 104	20	148	58	19	10.2	4.8	70.3	99	21	163	56	10	9.9	4.8	70.9	21	174	56	7	9.3	4.5	67.3		
BAYSIDE	Super 105	23	* 173	55	15	10.2	4.5	70.1	99	23	179	53	8	9.5	4.5	71.2	-	-	-	-	-	-	-		
BAYSIDE	SX 104CL	23	155	55	24	10.0	4.5	71.2	100	-	-	-	-	-	-	-	-	-	-	-	-	-			
BIO GENE	BG 1020	19	156	59	7	9.6	4.9	70.8	96	20	168	56	4	9.2	4.7	71.7	-	-	-	-	-	-	-		
BIO GENE	BG 1041	21	* 169	58	4	10.5	4.6	69.8	96	-	-	-	-	-	-	-	-	-	-	-	-	-			
BIO GENE	BG 1050	20	160	58	16	10.1	4.7	70.6	100	21	170	56	8	9.5	4.4	71.8	-	-	-	-	-	-	-		
BRODBECK	SX 106	21	* 168	56	16	10.3	4.4	69.6	99	-	-	-	-	-	-	-	-	-	-	-	-	-			
BRODBECK	SX 804	21	165	57	4	10.5	4.9	68.7	99	-	-	-	-	-	-	-	-	-	-	-	-	-			
BRODBECK	SX 902	21	162	57	5	10.6	4.7	69.6	95	-	-	-	-	-	-	-	-	-	-	-	-	-			
BROWN	6850 Bt	24	153	56	21	11.7	5.0	68.8	99	24	169	54	11	10.4	4.8	70.2	23	184	54	8	9.5	4.4	67.0		
BROWN	6895 Bt	23	* 170	54	19	11.3	4.7	68.1	100	26	180	52	11	10.7	4.5	69.2	25	189	53	7	9.8	4.3	66.2		
CORNBELT	C 570	22	* 177	55	14	10.0	4.7	69.4	100	-	-	-	-	-	-	-	-	-	-	-	-	-			
CORNBELT	C 57B8 Bt	23	* 174	55	7	11.8	4.8	67.4	96	-	-	-	-	-	-	-	-	-	-	-	-	-			
DAIRYLAND	STEALTH-1605	21	* 168	57	4	10.0	4.4	70.6	96	-	-	-	-	-	-	-	-	-	-	-	-	-			
DAIRYLAND	STEALTH-1606	22	* 166	56	19	10.3	4.5	69.7	100	24	179	53	10	9.7	4.4	70.1	-	-	-	-	-	-	-		
DAIRYLAND	STEALTH-1607	22	161	55	8	10.7	5.1	69.4	96	-	-	-	-	-	-	-	-	-	-	-	-	-			
DEKALB	DK 537	20	165	57	8	10.0	4.8	69.4	99	-	-	-	-	-	-	-	-	-	-	-	-	-			
DEKALB	DK 567	23	* 170	55	12	10.5	4.8	69.1	100	24	184	53	7	9.9	4.6	69.9	24	195	54	5	9.2	4.3	66.8		
GARST	8590 IT	21	* 166	57	9	10.9	5.1	68.5	100	24	175	54	6	10.0	4.8	69.9	23	189	54	5	9.0	4.5	66.9		
GARST	8640 IT	20	157	57	6	10.8	4.8	68.9	98	21	173	55	4	9.8	4.7	69.5	-	-	-	-	-	-	-		
GARST	8720	21	159	58	6	9.6	4.6	70.4	100	-	-	-	-	-	-	-	-	-	-	-	-	-			
GARST	9466	22	163	55	24	11.3	4.8	67.9	100	-	-	-	-	-	-	-	-	-	-	-	-	-			
GEERTSON	GS 1049	22	157	57	5	11.0	4.8	69.1	96	-	-	-	-	-	-	-	-	-	-	-	-	-			
GOLDEN HARVEST	H-8123	21	158	54	5	12.1	5.5	66.4	100	-	-	-	-	-	-	-	-	-	-	-	-	-			
GOLDEN HARVEST	H-8562	21	* 169	56	18	11.4	4.8	68.2	99	-	-	-	-	-	-	-	-	-	-	-	-	-			
GOLDEN HARVEST	H-8799	22	* 177	55	9	10.2	4.6	69.3	98	-	-	-	-	-	-	-	-	-	-	-	-	-			
GREAT LAKES	5162	23	160	54	16	11.4	4.9	68.0	99	23	168	52	9	11.0	4.7	68.6	-	-	-	-	-	-	-		
GREAT LAKES	5555	23	* 170	55	7	11.2	5.1	66.7	99	-	-	-	-	-	-	-	-	-	-	-	-	-			
GREAT LAKES	5668	20	* 167	56	5	10.4	5.0	68.7	100	23	177	54	4	9.6	4.9	69.4	-	-	-	-	-	-	-		
GREAT LAKES	5758	22	163	56	13	11.8	4.9	67.2	100	-	-	-	-	-	-	-	-	-	-	-	-	-			
GRIES	GSF-5306	22	164	56	17	11.6	4.9	67.2	98	-	-	-	-	-	-	-	-	-	-	-	-	-			
GRIES	GSF-6310	25	** 184	54	19	11.2	5.1	68.2	98	-	-	-	-	-	-	-	-	-	-	-	-	-			
HYTEST	HT 4602	23	165	55	25	10.8	4.8	69.3	99	-	-	-	-	-	-	-	-	-	-	-	-	-			
HYTEST	HT 7550 Bt	21	158	57	10	12.1	5.7	66.8	100	-	-	-	-	-	-	-	-	-	-	-	-	-			
LG SEEDS	LG 2499	20	* 170	57	10	11.1	4.6	68.7	100	22	181	54	6	11.2	4.5	68.7	22	183	54	4	10.4	4.2	65.6		
NK Brand	N45-A6	19	162	55	9	10.4	5.5	67.6	99	-	-	-	-	-	-	-	-	-	-	-	-	-			
NK Brand	N45-T5	20	148	56	14	10.6	5.5	67.5	100	19	164	55	8	9.8	5.5	68.3	-	-	-	-	-	-	-		
NK Brand	N58-D1	23	* 181	54	11	10.8	4.8	68.9	100	25	180	52	6	9.8	4.7	70.0	24	191	53	4	9.0	4.3	67.1		
NK Brand	N59-Q9	21	* 180	56	6	9.7	4.4	71.4	100	-	-	-	-	-	-	-	-	-	-	-	-	-			
PIONEER	34G82	23	* 178	55	17	10.6	4.5	69.6	100	25	183	53	9	9.6	4.6	70.8	24	191	54	6	8.9	4.3	67.5		
PIONEER	35P12	21	* 175	56	16	10.8	4.5	68.9	99	23	184	54	9	10.3	4.5	69.8	-	-	-	-	-	-	-		
PIONEER	35Y54	22	* 175	52	15	11.3	5.0	67.9	99	-	-	-	-	-	-	-	-	-	-	-	-	-			
PIONEER	36B08	21	* 173	57	10	10.5	4.6	69.4	100	23	180	56	5	9.9	4.2	70.6	-	-	-	-	-	-	-		
PRO SEED TECH	PST-467-A	25	* 181	55	11	10.4	4.5	70.2	100	26	179	52	6	9.7	4.3	71.1	-	-	-	-	-	-	-		
PRO SEED TECH	PST-467-C	25	* 167	54	10	11.0	4.6	69.1	100	26	172	52	5	10.0	4.4	70.4	-	-	-	-	-	-	-		
RENK	RK 668	20	* 166	61	24	10.0	4.7	70.0	100	-	-	-	-	-	-	-	-	-	-	-	-	-			
RENK	RK 775	23	157	56	19	11.4	4.8	69.2	100	-	-	-	-	-	-	-	-	-	-	-	-	-			
RENK	RK 806	22	* 178	55	16	10.1	4.6	70.0	100	25	185	53	9	9.5	4.5	70.4	-	-	-	-	-	-	-		
RUPP	XR 1609	22	164	57	6	10.2	4.4	70.8	100	-	-	-	-	-	-	-	-	-	-	-	-	-			
RUPP	XR 1682	23	* 166	55	11	11.5	4.8	67.0	99	25	171	53	6	10.6	4.5	69.0	24	182	53	5	9.8	4.3	65.9		
RUPP	XR 8682	23	* 175	55	18	11.5	4.6	67.6	100	-	-	-	-	-	-	-	-	-	-	-	-	-			
SEEDEX	SX 6101	19	156	57	7	10.8	4.6	69.9	98	-	-	-	-	-	-	-	-	-	-	-	-	-			
SEEDEX	SX 6201	20	154	58	10	10.8	4.5	69.4	94	-	-	-	-	-	-	-	-	-	-	-	-	-			
SEEDEX	SX 7401	23	165	55	21	11.3	4.7	69.0	96	-	-	-	-	-	-	-	-	-	-	-	-	-			
TRELAY	6200	20	* 168	56	4	10.4	5.1	69.1	100	-	-	-	-	-	-	-	-	-	-	-	-	-			
TRELAY	7002	21	164	57	4	10.4	4.8	69.2	99	-	-	-	-	-	-	-	-	-	-	-	-	-			
VIGORO	V4510	21	159	56	21	9.5	4.3	70.4	99	-	-	-	-	-	-	-	-	-	-	-	-	-			
VIGORO	X449001	22	155	56	4	11.3	5.0	68.2	96	-	-	-	-	-	-	-	-	-	-	-	-	-			
AVERAGE		22	166	56	12	10.8	4.8	69.0	99	24	183	56	8	10.0	4.6	70.0	23	186	54	6	9.5	4.3	66.7		
HIGHEST		25	184	61	25	12.1	5.7	71.4	100	26	185	56	11	11.2	5.5	71.8	25	195	56	8	10.4	4.5	67.5		
LOWEST		19	148	52	4	9.5	4.3	66.4	94	19	163	52	4	9.2	4.2	68.3	21	174	53	4	8.9	4.2	65.6		
Least Significant Difference (LSD) .05%		2	18	1		0.8	0.4	1.3																	

** HIGHEST YIELDING HYBRID

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID

TABLE 2L. INDIVIDUAL COUNTY GRAIN TRIALS - KENT, INGHAM & SAGINAW - LATE (>100 Day) ZONE 2

		KENT								INGHAM								SAGINAW							
		%	Bushels/Acre			TEST	%	%	%	Bushels/Acre			TEST	%	%	%	Bushels/Acre			TEST	%	%			
BRAND	HYBRID	H2O	2001	2Yr	3Yr	WT	Lodg	STD	H2O	2001	2Yr	3Yr	WT	Lodg	STD	H2O	2001	2Yr	3Yr	WT	Lodg	STD			
ANDERSONS	5507	22	214	197	205	55	10	100	27	130	159	172	54	16	100	19	* 136	157	170	56	8	100			
ANDERSONS	5509 Bt	23	* 244	--	--	54	3	100	25	134	--	--	53	39	100	20	110	--	--	55	2	100			
BAYSIDE	Super 104	21	214	201	196	56	13	99	21	117	150	163	58	29	100	17	113	138	163	61	14	97			
BAYSIDE	Super 105	24	207	187	--	54	14	98	26	* 164	179	--	55	26	99	20	** 147	172	--	57	7	100			
BAYSIDE	SX 104CL	24	213	--	--	54	24	100	25	129	--	--	55	42	99	20	122	--	--	57	6	100			
BIO GENE	BG 1020	21	227	204	--	57	9	96	20	116	152	--	60	5	94	18	124	147	--	60	6	98			
BIO GENE	BG 1041	22	228	--	--	56	4	95	23	152	--	--	57	6	97	18	128	--	--	60	2	95			
BIO GENE	BG 1050	21	223	199	--	57	17	100	21	136	166	--	59	19	100	18	121	143	--	60	12	100			
BRODBECK	SX 106	22	220	--	--	55	7	100	22	147	--	--	56	37	98	18	* 137	--	--	57	5	99			
BRODBECK	SX 804	22	212	--	--	56	4	98	21	* 154	--	--	57	7	100	19	128	--	--	57	2	100			
BRODBECK	SX 902	23	214	--	--	55	4	95	22	* 156	--	--	57	8	95	19	117	--	--	59	3	96			
BROWN	6850 Bt	24	203	192	200	55	2	99	27	125	159	172	56	50	99	21	129	157	180	58	10	100			
BROWN	6895 Bt	24	230	205	206	53	7	100	25	* 162	177	184	53	42	100	21	117	158	177	55	9	100			
CORNBELT	C 570	22	224	--	--	54	10	99	23	* 163	--	--	55	28	100	19	* 145	--	--	56	6	100			
CORNBELT	C 57B8 Bt	22	231	--	--	55	2	93	27	* 158	--	--	54	16	96	20	* 135	--	--	56	3	99			
DAIRYLAND	STEALTH-1605	22	224	--	--	55	2	95	24	* 158	--	--	57	4	97	18	123	--	--	58	4	97			
DAIRYLAND	STEALTH-1606	23	226	208	--	54	5	100	24	136	165	--	55	47	100	19	* 137	165	--	58	7	99			
DAIRYLAND	STEALTH-1607	24	220	--	--	53	7	98	23	141	--	--	55	8	94	18	122	--	--	57	10	97			
DEKALB	DK 537	21	222	--	--	56	5	98	20	147	--	--	57	12	100	18	125	--	--	58	6	100			
DEKALB	DK 567	24	227	214	218	53	11	100	26	* 155	179	190	56	16	100	19	129	158	179	56	8	100			
GARST	8590 IT	22	231	207	212	56	3	100	23	148	164	179	56	19	100	19	120	153	175	58	5	100			
GARST	8640 IT	21	222	201	--	56	6	94	22	141	171	--	56	8	100	18	108	147	--	59	4	100			
GARST	8720	21	217	--	--	56	5	99	21	145	--	--	58	9	100	19	114	--	--	58	6	100			
GARST	9466	22	222	--	--	55	10	99	24	150	--	--	55	57	100	20	118	--	--	56	5	100			
GEERTSON	GS 1049	25	209	--	--	54	3	91	24	144	--	--	57	9	100	18	118	--	--	60	4	98			
GOLDEN HARVEST	H-8123	20	211	--	--	54	7	100	24	144	--	--	54	3	101	18	119	--	--	55	3	100			
GOLDEN HARVEST	H-8562	21	231	--	--	54	11	100	24	150	--	--	56	37	100	18	124	--	--	59	4	96			
GOLDEN HARVEST	H-8799	23	221	--	--	53	5	97	24	* 169	--	--	55	19	100	19	* 142	--	--	57	3	96			
GREAT LAKES	5162	24	213	196	--	53	10	98	25	149	165	--	54	26	100	18	117	143	--	55	10	100			
GREAT LAKES	5555	22	232	--	--	54	6	97	25	* 162	--	--	56	11	98	21	116	--	--	57	4	100			
GREAT LAKES	5668	22	227	204	--	55	4	100	21	* 159	179	--	57	6	100	18	114	149	--	58	6	100			
GREAT LAKES	5758	23	213	--	--	55	20	100	25	* 158	--	--	55	15	100	20	118	--	--	57	4	100			
GRIES	GSF-5306	22	216	--	--	56	16	97	25	152	--	--	56	33	98	19	124	--	--	57	2	100			
GRIES	GSF-6310	25	* 249	--	--	52	11	97	28	* 155	--	--	54	32	97	21	* 146	--	--	55	12	100			
HYTEST	HT 4602	23	224	--	--	54	13	98	27	128	--	--	55	54	100	20	* 145	--	--	57	8	100			
HYTEST	HT 7550 Bt	21	* 239	--	--	54	6	99	22	108	--	--	57	22	100	18	128	--	--	59	2	100			
LG SEEDS	LG 2499	21	* 235	210	206	55	7	100	21	* 158	180	184	57	16	100	19	116	152	159	58	6	100			
NK Brand	N45-A6	21	233	--	--	55	2	97	20	140	--	--	55	14	100	17	115	--	--	56	11	100			
NK Brand	N45-T5	22	203	188	--	55	4	100	20	127	159	--	56	23	100	17	112	145	--	56	15	100			
NK Brand	N58-D1	25	* 235	203	209	53	1	100	24	* 160	167	181	54	25	100	20	** 147	169	182	57	9	100			
NK Brand	N59-Q9	22	* 238	--	--	56	6	100	23	* 173	--	--	55	9	101	19	* 131	--	--	57	4	100			
PIONEER	34G82	25	* 248	211	211	52	1	100	25	* 160	180	190	57	31	100	20	126	157	172	55	18	99			
PIONEER	35P12	22	230	210	--	54	5	99	22	* 163	179	--	56	31	99	18	* 133	163	--	58	11	99			
PIONEER	35Y54	23	** 251	--	--	52	4	98	23	147	--	--	54	29	99	18	127	--	--	51	13	99			
PIONEER	36B08	22	222	199	--	56	2	100	22	* 166	180	--	57	10	99	19	* 131	161	--	58	17	100			
PRO SEED TECH	PST-467-A	26	* 245	215	--	53	7	100	28	** 177	178	--	55	18	100	21	119	145	--	57	7	100			
PRO SEED TECH	PST-467-C	25	* 236	208	--	54	10	100	28	142	156	--	54	8	100	22	123	152	--	55	11	100			
RENK	RK 668	21	222	--	--	60	18	100	21	150	--	--	61	34	100	18	125	--	--	61	20	100			
RENK	RK 775	23	220	--	--	54	10	99	26	131	--	--	55	38	100	20	120	--	--	58	10	100			
RENK	RK 806	21	* 235	211	--	55	9	100	24	* 173	187	--	54	36	100	19	125	157	--	57	4	100			
RUPP	XR 1609	22	229	--	--	55	3	100	24	* 155	--	--	56	11	100	19	109	--	--	59	3	100			
RUPP	XR 1682	23	216	192	195	54	8	99	25	* 156	171	183	54	19	98	20	125	150	169	57	6	99			
RUPP	XR 8682	23	234	--	--	54	8	100	26	* 165	--	--	54	43	100	20	127	--	--	56	3	100			
SEEDEX	SX 6101	21	210	--	--	57	2	99	20	141	--	--	58	9	94	18	116	--	--	58	10	100			
SEEDEX	SX 6201	20	208	--	--	58	2	95	21	133	--	--	58	17	93	18	120	--	--	58	11	94			
SEEDEX	SX 7401	23	221	--	--	54	15	98	27	140	--	--	55	42	98	20	* 135	--	--	57	5	93			
TRELAY	6200	21	220	--	--	54	3	99	22	* 157	--	--	56	6	100	18	128	--	--	58	4	100			
TRELAY	7002	23	218	--	--	54	3	100	21	148	--	--	58	4	97	18	125	--	--	58	5	100			
VIGORO	V4510	21	206	--	--	54	12	99	22	149	--	--	56	40	100	18	123	--	--	58	10	99			
VIGORO	X449001	24	204	--	--	54	4	92	24	139	--	--	57	3	98	18	123	--	--	58	5	99			
AVERAGE		22	224	212	2060																				

TABLE 3E. AVERAGE OF HURON, MONTCALM & MASON COUNTY GRAIN TRIALS - EARLY (<98 Day) ZONE 3

BRAND	HYBRID	2001								2 Year Avg (2000 / 2001)								3 Year Avg (1999 - 2001)							
		%	TEST		%	%	%	%	%	%	TEST		%	%	%	%	%	%	TEST		%	%	%	%	%
		H2O	BU/A	WT	Lodg	prot	oil	starch	STD	H2O	BU/A	WT	Lodg	prot	oil	starch		H2O	BU/A	WT	Lodg	prot	oil	starch	
BAYSIDE	Super 75	20	159	59	7	10.3	5.5	69.9	97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAYSIDE	Super 93	21	* 192	55	6	9.9	5.0	70.6	94	21	181	53	4	9.5	4.9	71.5		21	183	54	3	8.9	4.6	67.7	
BAYSIDE	1792	21	186	55	7	8.6	4.4	72.5	94	22	174	53	4	8.7	4.3	72.9		22	176	53	3	8.2	4.2	68.8	
BAYSIDE	1795	22	169	55	3	9.9	4.5	70.9	75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
BIO GENE	BG 095A	22	183	58	4	10.2	4.6	69.9	87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
BROWN	4630	23	173	54	6	10.9	4.8	69.5	78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
BROWN	4641	22	* 192	55	10	10.2	6.0	67.9	93	23	182	53	5	10.1	5.9	68.6		23	187	53	4	9.4	5.2	65.8	
DAIRYLAND	STEALTH-1496	21	189	55	7	9.8	4.9	70.4	92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
DEKALB	DKC 39-45	20	176	58	6	9.4	5.3	69.3	88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
DEKALB	DKC 42-22	21	* 200	56	7	8.9	5.0	70.1	91	21	186	55	4	8.9	5.0	70.5		--	--	--	--	--	--	--	
DEKALB	DKC 44-42	21	* 197	55	7	8.5	5.0	70.2	89	22	187	53	4	8.5	4.9	71.2		--	--	--	--	--	--	--	
DEKALB	DKC 46-26	22	* 197	56	12	8.5	4.9	70.8	89	22	179	55	7	8.4	4.8	71.8		--	--	--	--	--	--	--	
DYNA-GRO	DG-5258	20	173	54	12	9.5	5.1	70.1	84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
DYNA-GRO	DG-5222 RR	21	* 192	56	8	9.6	4.7	71.2	96	22	179	54	5	9.6	4.6	71.9		--	--	--	--	--	--	--	
DYNA-GRO	DG-5257	23	** 205	55	11	9.8	4.7	70.4	97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
DYNA-GRO	DG-5212 RR	22	181	56	6	9.2	4.5	70.7	88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
GARST	8830	21	190	55	5	9.0	4.9	71.2	96	22	179	53	3	9.0	4.5	72.5		22	182	53	3	8.3	4.4	68.5	
GARST	N9803	22	189	56	5	8.8	5.3	70.0	89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
GENESIS	2A92	21	184	58	8	10.3	4.5	69.9	98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
GENESIS	3A88	20	173	59	15	10.8	5.0	68.6	92	20	166	58	8	10.6	4.9	69.5		--	--	--	--	--	--	--	
GENESIS	3B89 RR	20	181	59	15	10.6	4.8	69.4	96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
GOLDEN HARVEST	H-6573	22	155	56	7	10.3	5.6	68.6	82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
GOLDEN HARVEST	H-6675	21	179	60	7	10.4	4.0	70.4	93	22	177	58	5	10.6	4.0	70.7		--	--	--	--	--	--	--	
GREAT LAKES	4526	21	187	55	8	9.5	4.7	71.2	91	21	176	54	5	9.6	4.6	71.6		21	181	54	4	9.0	4.4	67.9	
GREAT LAKES	4648	21	184	55	5	8.8	5.3	70.8	94	21	171	54	3	9.0	5.2	70.9		--	--	--	--	--	--	--	
GREAT LAKES	4676	22	188	54	6	10.1	4.8	70.0	92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
HIGH CYCLE	7419 Bt	22	* 194	55	4	10.5	6.2	66.8	93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
HIGH CYCLE	7434 RR	22	* 191	55	8	9.5	4.9	71.0	91	22	182	54	5	9.5	4.8	71.8		--	--	--	--	--	--	--	
LG SEEDS	LG 2402	20	178	59	11	10.9	4.9	68.9	95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
LG SEEDS	LG 2442	21	190	55	7	9.4	4.6	71.2	96	21	184	54	4	9.5	4.6	71.7		21	185	54	3	9.0	4.4	67.8	
LG SEEDS	LG 2473	22	* 191	55	7	11.0	6.1	66.6	91	23	179	53	4	10.3	5.9	68.2		23	185	53	3	9.5	5.2	65.6	
LG SEEDS	LG 2474	22	189	55	4	9.7	4.5	71.0	92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MIDWEST GENETIC	G 6961	21	186	56	5	9.0	5.4	69.3	90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
NK Brand	N2555 Bt	21	* 193	57	13	9.2	5.0	69.6	100	21	177	57	7	9.3	5.0	70.5		21	183	57	5	8.8	4.7	67.1	
NK Brand	N3030 Bt	21	* 195	56	17	10.1	5.3	69.0	97	21	180	56	9	10.0	5.2	70.0		22	186	55	6	9.2	4.8	66.8	
NK Brand	N35-R7	21	* 204	55	16	9.9	4.9	69.0	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PIONEER	37J99	22	188	54	15	10.3	5.2	68.5	94	23	184	52	8	9.8	5.1	69.9		23	188	52	6	9.2	4.8	66.6	
PIONEER	38A24	21	* 195	58	12	9.6	4.6	69.7	92	22	183	56	6	9.4	4.5	70.7		--	--	--	--	--	--	--	
PIONEER	38P06	21	187	56	11	10.5	4.4	69.1	91	21	173	55	6	10.3	4.4	70.0		22	180	55	4	9.7	4.2	66.5	
RENK	RK 556	22	* 198	55	7	9.8	4.6	70.4	94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RENK	RK 569	22	* 193	55	10	10.3	5.9	67.6	98	23	182	54	6	10.2	5.8	68.4		23	188	54	4	9.4	5.2	65.8	
RUPP	XR 1522	22	190	56	8	9.6	5.0	70.4	93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SEDEX	SX 5701	21	173	55	6	9.6	4.8	71.1	75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TRELAY	4002	21	189	55	6	9.9	5.1	70.0	97	21	177	54	4	9.6	4.8	71.1		21	184	54	3	8.9	4.6	67.5	
TRELAY	4009	21	190	56	5	8.8	5.5	69.5	89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
VIGORO	V3200	21	181	58	8	10.4	4.2	70.2	93	21	171	57	5	10.5	4.2	70.5		--	--	--	--	--	--	--	
AVERAGE		21	186	56	8	9.8	5.0	69.9	92	22	179	55	5	9.6	4.9	70.7		22	184	54	4	9.0	4.7	67.1	
HIGHEST		23	205	60	17	11.0	6.2	72.5	100	23	187	58	9	10.6	5.9	72.9		23	188	57	6	9.7	5.2	68.8	
LOWEST		20	155	54	3	8.5	4.0	66.6	75	20	166	52	3	8.4	4.0	68.2		21	176	52	3	8.2	4.2	65.6	
Least Significant Difference (LSD) .05%		1	14	1		0.6	0.5	1.2																	
CV		4	5	1		4.3	6.7	1.2																	

** HIGHEST YIELDING HYBRID

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID

TABLE 3E. INDIVIDUAL COUNTY GRAIN TRIALS - HURON, MONTCALM & MASON - EARLY (<98 Day) ZONE 3

BRAND	HYBRID	HURON								MONTCALM								MASON							
		% H2O	Bushels/Acre			TEST WT	% Lodg	% STD		% H2O	Bushels/Acre			TEST WT	% Lodg	% STD		% H2O	Bushels/Acre			TEST WT	% Lodg	% STD	
BAYSIDE	Super 75	18	114	--	--	60	18	91		21	192	--	--	59	3	99		22	172	--	--	58	2	100	
BAYSIDE	Super 93	18	* 142	157	163	58	11	88		21	227	199	199	55	6	99		24	* 208	187	188	52	1	95	
BAYSIDE	1792	19	137	153	160	58	12	86		21	221	192	189	56	7	99		24	199	178	181	52	1	96	
BAYSIDE	1795	19	104	--	--	57	2	59		21	222	--	--	54	7	86		26	182	--	--	52	2	80	
BIO GENE	BG 095A	20	123	--	--	59	5	69		22	229	--	--	58	6	96		26	197	--	--	56	1	98	
BROWN	4630	20	133	--	--	57	8	69		21	205	--	--	54	8	74		27	183	--	--	52	2	91	
BROWN	4641	20	* 150	161	169	57	19	85		22	233	197	204	55	8	100		24	194	187	189	52	2	93	
DAIRYLAND	STEALTH-1496	19	139	--	--	58	11	77		21	230	--	--	55	6	100		24	197	--	--	52	3	100	
DEKALB	DKC 39-45	18	121	--	--	59	10	66		21	222	--	--	59	5	100		23	184	--	--	56	2	100	
DEKALB	DKC 42-22	19	* 146	158	--	58	10	76		22	* 248	208	--	57	3	100		24	* 205	191	--	54	6	97	
DEKALB	DKC 44-42	19	134	154	--	57	1	68		22	* 250	213	--	55	1	100		23	* 209	194	--	53	18	99	
DEKALB	DKC 46-26	20	135	149	--	59	17	67		22	** 251	206	--	56	8	100		24	* 204	182	--	54	10	100	
DYNA-GRO	DG-5258	19	114	--	--	55	20	71		20	221	--	--	55	8	89		23	183	--	--	52	8	90	
DYNA-GRO	DG-5222 RR	19	* 150	158	--	59	17	91		20	225	197	--	56	4	97		25	201	183	--	53	3	100	
DYNA-GRO	DG-5257	19	* 153	--	--	58	26	91		22	* 244	--	--	55	5	100		26	** 218	--	--	52	3	100	
DYNA-GRO	DG-5212 RR	19	126	--	--	59	9	70		21	226	--	--	56	7	97		26	190	--	--	52	2	98	
GARST	8830	19	* 141	152	160	57	7	89		21	228	199	201	56	5	100		24	201	184	186	52	1	100	
GARST	N9803	19	* 143	--	--	58	3	66		21	231	--	--	56	6	100		24	193	--	--	53	7	100	
GENESIS	2A92	19	* 141	--	--	60	14	95		21	223	--	--	59	8	100		23	189	--	--	55	2	99	
GENESIS	3A88	18	127	143	--	61	30	75		20	209	186	--	60	7	100		21	182	169	--	57	7	100	
GENESIS	3B89 RR	18	132	--	--	60	31	88		20	211	--	--	59	8	100		20	201	--	--	56	5	100	
GOLDEN HARVEST	H-6573	19	87	--	--	57	7	46		22	198	--	--	57	8	100		24	180	--	--	54	7	100	
GOLDEN HARVEST	H-6675	20	130	147	--	61	12	83		22	211	197	--	60	4	98		23	196	187	--	58	6	99	
GREAT LAKES	4526	19	138	148	159	58	12	78		21	228	201	203	56	10	97		24	196	180	181	52	1	99	
GREAT LAKES	4648	19	136	148	--	57	8	84		20	218	189	--	55	4	99		24	197	178	--	53	3	100	
GREAT LAKES	4676	19	* 146	--	--	57	10	79		22	224	--	--	54	7	98		26	195	--	--	52	1	100	
HIGH CYCLE	7419 Bt	20	* 143	--	--	57	9	83		22	231	--	--	55	1	95		23	* 208	--	--	52	2	100	
HIGH CYCLE	7434 RR	20	133	151	--	58	16	75		22	234	204	--	55	7	100		26	* 206	192	--	53	2	100	
LG SEEDS	LG 2402	18	133	--	--	61	22	85		20	222	--	--	60	8	100		22	177	--	--	57	3	100	
LG SEEDS	LG 2442	19	* 144	160	165	58	12	87		20	227	203	202	56	8	100		24	197	189	187	52	2	100	
LG SEEDS	LG 2473	19	139	155	167	57	11	79		22	232	199	201	55	6	96		24	201	183	187	52	5	98	
LG SEEDS	LG 2474	19	124	--	--	58	6	75		21	* 243	--	--	55	4	100		26	202	--	--	52	1	100	
MIDWEST GENETIC	G 6961	19	128	--	--	58	7	70		21	230	--	--	55	5	100		24	200	--	--	53	4	100	
NK Brand	N2555 Bt	20	** 156	161	172	60	31	100		21	* 247	197	199	58	1	100		23	175	172	177	54	9	99	
NK Brand	N3030 Bt	20	** 156	158	170	59	39	92		22	* 241	197	201	56	4	99		23	188	185	187	53	9	100	
NK Brand	N35-R7	19	* 154	--	--	57	39	100		21	* 244	--	--	55	5	100		23	* 214	--	--	52	4	97	
PIONEER	37J99	19	* 149	165	170	57	23	82		22	226	205	204	54	10	100		25	190	182	189	51	11	100	
PIONEER	38A24	20	136	155	--	59	30	78		21	* 236	202	--	58	4	99		23	* 212	192	--	56	2	100	
PIONEER	38P06	19	135	150	159	58	30	76		21	232	197	203	57	2	97		22	195	170	179	54	1	100	
RENK	RK 556	20	* 146	--	--	58	14	85		21	* 245	--	--	55	7	100		26	* 205	--	--	53	0	98	
RENK	RK 569	20	* 145	155	167	57	17	94		21	* 235	201	204	55	10	100		25	197	189	193	52	3	100	
RUPP	XR 1522	19	* 142	--	--	59	15	78		21	228	--	--	56	6	100		25	201	--	--	53	2	100	
SEEDDEX	SX 5701	18	124	--	--	58	5	63		21	212	--	--	55	7	84		25	182	--	--	52	5	78	
TRELAY	4002	19	136	155	166	58	10	91		20	227	201	202	55	7	100		24	* 204	175	182	52	2	100	
TRELAY	4009	19	133	--	--	58	4	67		21	* 238	--	--	56	4	100		24	198	--	--	53	7	100	
VIGORO	V3200	19	137	149	--	60	16	81		21	210	182	--	59	5	99		23	197	181	--	55	4	100	
AVERAGE		19	136	154	165	58	15	79		21	227	199	201	56	6	98		24	196	183	185	53	4	98	
HIGHEST		20	156	165	172	61	39	100		22	251	213	204	60	10	100		27	218	194	193	58	18	100	
LOWEST		18	87	143	159	55	1	46		20	192	182	189	54	1	74		20	172	169	177	51	0	78	
Least Significant Difference (LSD) .05%		1	16			1				1	16			1				1	14			1			
CV		2	8			1				4	5			1				3	5			1			

** HIGHEST YIELDING HYBRID

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID

TABLE 3L. AVERAGE OF HURON, MONTCALM & MASON COUNTY GRAIN TRIALS - LATE (>97 Day) ZONE 3

BRAND	HYBRID	2001								2 Year Avg (2000 / 2001)								3 Year Avg (1999 - 2001)							
		%	TEST		%	%	%	%	%	%	TEST		%	%	%	%	%	%	TEST		%	%	%	%	%
		H2O	BU/A	WT	Lodg	prot	oil	starch	STD	H2O	BU/A	WT	Lodg	prot	oil	starch		H2O	BU/A	WT	Lodg	prot	oil	starch	
BAYSIDE	Super 100	22	182	54	2	10.1	4.6	70.0	89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAYSIDE	Super 105	26	** 217	53	7	9.4	4.8	70.6	91	27	194	51	4	9.6	4.6	70.7	--	--	--	--	--	--	--	--	--
BAYSIDE	1700	23	190	54	3	10.5	4.6	69.8	95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAYSIDE	1899	24	186	54	5	10.5	4.6	69.4	89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BIO GENE	BG 098	21	193	55	7	9.6	4.8	71.1	97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BIO GENE	BT 098	22	197	54	5	10.2	5.3	68.8	95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BROWN	5130	24	183	54	5	10.4	4.6	69.8	94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DAIRYLAND	STEALTH-1404	26	178	52	3	10.3	4.2	70.1	94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DAIRYLAND	STEALTH-1598	22	193	55	4	10.3	4.4	70.6	97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DEKALB	DK 537	24	* 204	54	4	9.1	4.7	70.8	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DEKALB	DKC 48-15	22	195	55	13	9.4	5.2	70.1	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DEKALB	DKC 48-83	22	* 205	55	6	9.4	4.8	70.6	99	22	186	54	4	9.4	4.6	71.4	--	--	--	--	--	--	--	--	--
DEKALB	DKC 50-72	24	191	55	3	10.4	5.2	68.0	94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DYNA-GRO	DG-5346 RR	22	196	56	5	9.5	4.5	70.9	95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GARST	8720	23	184	54	5	9.1	4.5	71.6	95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GARST	8779	22	188	56	6	9.7	5.1	70.2	87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GENESIS	2B98	23	185	55	6	10.4	5.1	69.2	89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GENESIS	2B98 MT	22	199	54	4	9.8	4.8	70.1	92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GENESIS	2B98 RR	24	192	55	13	10.3	5.2	69.3	92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GENESIS	2B100	23	193	54	4	10.8	4.8	69.1	89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GOLDEN HARVEST	H-8123	23	201	52	6	9.9	4.9	69.4	97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GREAT LAKES	4964	23	184	54	8	11.1	5.2	67.1	94	24	174	51	5	10.8	5.0	67.8	--	--	--	--	--	--	--	--	--
GREAT LAKES	4979	24	187	54	4	10.3	4.5	69.7	96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GREAT LAKES	5162	26	194	51	9	10.5	5.2	67.8	99	27	176	49	5	10.5	4.9	68.7	--	--	--	--	--	--	--	--	--
HYTEST	HT 4602	26	* 207	53	7	9.0	4.9	70.8	91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HYTEST	HT 7415	22	187	58	7	10.0	4.7	69.9	90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HYTEST	HT 7550 Bt	24	* 205	54	2	9.3	5.5	69.8	91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LG SEEDS	LG 2484	24	199	55	6	10.0	6.0	66.5	94	25	177	53	3	9.9	5.9	67.6	--	--	--	--	--	--	--	--	--
LG SEEDS	LG 2488	23	194	56	6	10.5	5.0	67.9	95	26	181	54	4	10.4	5.0	68.7	--	--	--	--	--	--	--	--	--
NK Brand	N43-C4	22	196	54	2	10.0	4.7	69.3	91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NK Brand	N45-A6	23	198	53	5	10.1	5.9	66.6	89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NK Brand	N45-T5	23	196	54	9	9.5	5.7	68.0	94	23	180	52	5	9.4	5.5	68.9	--	--	--	--	--	--	--	--	--
PIONEER	36B08	25	* 206	55	6	10.1	3.9	70.4	96	25	184	53	4	9.9	3.8	71.0	26	188	53	3	9.4	3.8	67.3	--	--
PIONEER	36N70	23	194	55	7	10.1	4.2	69.2	91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PIONEER	37H26	24	196	57	8	10.3	4.4	68.7	92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PIONEER	37M34	22	198	57	6	11.0	4.6	67.6	94	23	187	55	4	10.5	4.5	69.3	23	191	55	3	9.8	4.2	66.2	--	--
PIONEER	37R71	22	196	54	6	10.1	5.3	68.4	96	24	186	52	3	9.8	5.4	69.3	24	187	52	2	9.2	4.9	66.1	--	--
RENK	RK 606	23	188	57	6	9.8	4.5	70.4	99	23	172	56	4	9.5	4.5	71.1	23	175	56	3	8.7	4.2	67.7	--	--
RENK	RK 622	22	192	56	4	9.8	5.0	69.9	91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RENK	RK 636	23	193	54	5	9.6	5.0	70.1	93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RENK	RK 668	23	* 206	57	8	9.4	4.6	70.9	97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RUPP	XR 1609	25	200	53	3	8.8	4.4	72.2	96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TRELAY	5600	23	187	57	6	9.6	4.3	70.9	95	23	177	56	4	9.5	4.2	71.3	23	178	56	4	8.8	4.1	67.8	--	--
VIGORO	V3820	23	173	54	4	10.8	4.8	69.7	80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AVERAGE		23	194	55	6	10.0	4.8	69.6	93	24	181	53	4	9.9	4.8	69.7	24	184	54	3	9.2	4.2	67.0	--	--
HIGHEST		26	217	58	13	11.1	6.0	72.2	100	27	194	56	5	10.8	5.9	71.4	26	191	56	4	9.8	4.9	67.7	--	--
LOWEST		21	173	51	2	8.8	3.9	66.5	80	22	172	49	3	9.4	3.8	67.6	23	175	52	2	8.7	3.8	66.1	--	--
Least Significant Difference (LSD) .05%		2	14	1		0.6	0.4	1.3																	
CV		4	5	1		4.5	5.8	1.3																	

** HIGHEST YIELDING HYBRID

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID

TABLE 3L. INDIVIDUAL COUNTY GRAIN TRIALS - HURON, MONTCALM & MASON - LATE (>97 Day) ZONE 3

BRAND	HYBRID	HURON							MONTCALM							MASON						
		% H2O	Bushels/Acre 2001	2Yr	3Yr	TEST WT	% Lodg	% STD	% H2O	Bushels/Acre 2001	2Yr	3Yr	TEST WT	% Lodg	% STD	% H2O	Bushels/Acre 2001	2Yr	3Yr	TEST WT	% Lodg	% STD
BAYSIDE	Super 100	18	* 135	--	--	57	1	73	22	221	--	--	55	6	97	27	191	--	--	50	1	99
BAYSIDE	Super 105	22	** 151	164	--	55	5	78	26	** 268	214	--	52	8	98	30	** 231	202	--	52	9	96
BAYSIDE	1700	20	* 142	--	--	57	5	94	22	239	--	--	54	3	95	27	190	--	--	52	1	97
BAYSIDE	1899	20	126	--	--	57	9	74	23	238	--	--	54	4	97	28	193	--	--	51	1	97
BIO GENE	BG 098	19	* 140	--	--	58	10	92	22	228	--	--	56	7	100	24	211	--	--	52	3	99
BIO GENE	BT 098	19	* 150	--	--	58	13	89	22	239	--	--	53	1	96	24	203	--	--	52	2	100
BROWN	5130	20	131	--	--	57	9	86	24	216	--	--	54	4	96	28	201	--	--	50	2	100
DAIRYLAND	STEALTH-1404	21	132	--	--	55	2	89	27	220	--	--	51	4	96	31	182	--	--	49	2	96
DAIRYLAND	STEALTH-1598	19	* 137	--	--	58	5	95	22	230	--	--	54	5	96	25	212	--	--	52	2	99
DEKALB	DK 537	21	* 143	--	--	56	4	100	24	250	--	--	54	2	100	26	* 219	--	--	52	5	100
DEKALB	DKC 48-15	19	* 144	--	--	58	17	100	21	249	--	--	55	8	100	24	193	--	--	53	14	100
DEKALB	DKC 48-83	20	* 150	158	--	57	10	98	22	* 253	208	--	55	6	100	24	212	191	--	53	4	99
DEKALB	DKC 50-72	20	* 137	--	--	58	3	92	23	228	--	--	55	3	94	28	208	--	--	52	3	97
DYNA-GRO	DG-5346 RR	19	* 145	--	--	58	4	87	22	235	--	--	56	4	100	24	207	--	--	53	7	99
GARST	8720	20	* 134	--	--	56	6	92	23	221	--	--	54	5	99	27	197	--	--	52	3	95
GARST	8779	20	112	--	--	59	4	63	22	243	--	--	56	9	99	25	207	--	--	53	6	100
GENESIS	2B98	19	122	--	--	58	5	72	23	229	--	--	55	10	96	28	202	--	--	52	2	98
GENESIS	2B98 MT	19	* 141	--	--	58	6	84	22	* 255	--	--	54	1	98	24	201	--	--	51	5	95
GENESIS	2B98 RR	21	* 144	--	--	57	29	78	23	235	--	--	55	8	99	28	195	--	--	52	3	98
GENESIS	2B100	19	* 135	--	--	56	6	70	23	244	--	--	54	3	98	26	201	--	--	53	3	99
GOLDEN HARVEST	H-8123	19	* 146	--	--	54	9	90	22	249	--	--	53	8	100	28	207	--	--	50	2	100
GREAT LAKES	4964	20	132	151	--	57	9	90	23	224	192	--	53	9	97	25	195	179	--	52	5	96
GREAT LAKES	4979	21	* 143	--	--	57	6	90	23	230	--	--	54	4	98	29	187	--	--	51	3	100
GREAT LAKES	5162	22	* 140	157	--	54	8	99	27	236	194	--	50	7	99	29	207	177	--	51	13	99
HYTEST	HT 4602	22	* 140	--	--	55	4	73	26	* 256	--	--	52	8	100	30	* 226	--	--	51	10	100
HYTEST	HT 7415	20	131	--	--	60	9	79	22	223	--	--	58	8	100	25	205	--	--	55	4	93
HYTEST	HT 7550 Bt	21	133	--	--	57	1	77	23	* 266	--	--	53	1	100	29	* 217	--	--	51	3	96
LG SEEDS	LG 2484	21	* 134	149	--	57	7	85	25	* 252	200	--	55	4	100	27	211	183	--	53	6	97
LG SEEDS	LG 2488	21	129	150	--	60	5	88	24	235	203	--	56	8	100	25	* 218	188	--	53	6	98
NK Brand	N43-C4	19	* 140	--	--	56	3	85	22	245	--	--	53	1	94	26	202	--	--	52	1	95
NK Brand	N45-A6	20	133	--	--	56	12	78	24	* 252	--	--	53	1	98	26	210	--	--	51	2	92
NK Brand	N45-T5	20	* 134	149	--	56	17	85	23	240	205	--	54	8	98	26	* 215	185	--	52	2	99
PIONEER	36B08	21	* 150	161	168	57	9	90	25	248	201	204	55	5	100	28	* 220	191	193	53	2	99
PIONEER	36N70	20	129	--	--	57	13	77	22	246	--	--	55	6	100	26	208	--	--	53	2	97
PIONEER	37H26	21	* 143	--	--	59	19	75	24	242	--	--	57	3	100	27	205	--	--	55	3	99
PIONEER	37M34	20	130	153	164	59	12	81	23	240	205	205	56	4	100	24	* 225	204	203	54	1	100
PIONEER	37R71	19	* 138	153	165	56	18	88	23	244	216	206	53	0	100	23	206	189	189	52	1	99
RENK	RK 606	20	133	147	154	60	6	98	23	231	187	189	58	9	99	26	201	181	182	55	2	100
RENK	RK 622	19	127	--	--	59	5	73	22	238	--	--	56	4	100	25	210	--	--	53	3	100
RENK	RK 636	20	* 134	--	--	57	5	81	23	240	--	--	53	5	100	25	205	--	--	52	5	98
RENK	RK 668	20	* 147	--	--	60	9	91	23	* 261	--	--	57	8	100	26	209	--	--	54	7	100
RUPP	XR 1609	20	* 141	--	--	56	4	88	25	* 253	--	--	53	3	100	29	205	--	--	51	1	100
TRELAY	5600	20	* 139	154	158	59	5	86	23	222	197	193	57	8	98	25	199	181	182	55	4	100
VIGORO	V3820	20	131	--	--	58	4	76	23	198	--	--	53	6	74	26	191	--	--	52	2	89
AVERAGE		20	137	154	162	57	8	85	23	239	202	199	54	5	98	26	205	188	190	52	4	98
HIGHEST		22	151	164	168	60	29	100	27	268	216	206	58	10	100	31	231	204	203	55	14	100
LOWEST		18	112	147	154	54	1	63	21	198	187	189	50	0	74	23	182	177	182	49	1	89
Least Significant Difference (LSD) .05%		1	17			1			1	17			1			1	16			1		
CV		3	9			1			3	5			1			4	6			1		

** HIGHEST YIELDING HYBRID

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID

TABLE 4. AVERAGE OF ALPENA, GRAND TRAVERSE & DELTA COUNTY GRAIN TRIALS (86-94 DAY) ZONE 4

BRAND	HYBRID	2001								2 Year Avg (2000 / 2001)								3 Year Avg (1999 - 2001)												
		%	TEST			%	%	%	%	%	TEST			%	%	%	%	%	TEST			%	%	%	%					
		H2O	BU/A	WT	Lodg	prot	oil	starch	STD	H2O	BU/A	WT	Lodg	prot	oil	starch	H2O	BU/A	WT	Lodg	prot	oil	starch	H2O	BU/A	WT	Lodg	prot	oil	starch
BAYSIDE	Super 75	24	112	54	2	11.6	4.5	69.4	97	24	113	53	1	10.8	4.7	70.5	24	126	54	1	10.4	4.4	66.6							
BAYSIDE	Super 83	24	101	51	3	11.7	4.0	67.8	96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BAYSIDE	Super 86	26 *	122	53	2	12.3	4.7	66.7	97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BROWN	ex3M35 RR	27	106	53	3	11.3	3.9	69.4	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DEKALB	DKC 33-08	22	106	58	9	12.7	4.9	66.6	97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DEKALB	DKC 37-81	25	101	54	4	12.3	4.7	66.6	88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DEKALB	DKC 39-45	28	111	51	2	11.3	4.3	67.6	96	28	116	49	2	10.2	4.7	69.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DEKALB	DKC 39-47	29 *	114	51	3	11.2	4.5	67.9	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DEKALB	DKC 42-22	32 *	134	48	2	11.0	4.7	66.7	99	31	128	47	1	10.3	4.7	68.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DEKALB	DKC 44-42	31 **	137	48	4	9.9	4.7	68.0	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GENESIS	2A92	27 *	122	52	4	12.4	4.6	66.0	97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GENESIS	3A88	26 *	113	52	1	13.1	4.6	65.7	93	24	113	51	1	11.8	4.4	67.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GENESIS	3B89 RR	27 *	117	52	0	12.8	4.8	65.7	98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GOLDEN HARVEST	H-6348	27 *	115	51	5	12.6	4.8	66.2	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GOLDEN HARVEST	EX16465	26 *	117	52	2	12.9	4.6	66.2	97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HIGH CYCLE	7234 RR	28	99	51	1	12.9	4.5	66.1	94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LG SEEDS	LG 2367	29	112	52	6	12.4	4.6	66.1	97	29	112	50	3	11.4	5.0	67.2	27	129	52	2	10.8	4.5	64.6							
PIONEER	38K06	27 *	121	50	1	11.9	4.7	66.0	98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PIONEER	38P05	29 *	126	52	5	11.7	4.4	66.8	96	28	121	50	3	10.9	4.4	68.3	26	124	51	3	10.2	4.1	65.5							
PIONEER	39K40	27	105	51	2	12.4	5.1	66.2	96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RENK	RK 383	27	109	52	1	12.3	4.2	67.5	96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TRELAY	2002	26 *	122	53	2	13.1	4.8	65.5	98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TRELAY	2009	27	111	51	6	12.1	4.9	66.2	97	26	110	49	4	10.8	5.2	67.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AVERAGE		27	114	52	3	12.1	4.6	66.8	96	27	116	50	2	10.9	4.7	68.3	26	126	52	2	10.5	4.3	65.6							
HIGHEST		32	137	58	9	13.1	5.1	69.4	100	31	128	53	4	11.8	5.2	70.5	27	129	54	3	10.8	4.5	66.6							
LOWEST		22	99	48	0	9.9	3.9	65.5	88	24	110	47	1	10.2	4.4	67.2	24	124	51	1	10.2	4.1	64.6							
Least Significant Difference (LSD) .05%		4	24	3		0.6	0.4	1.0																						
CV		7	10	2		3.2	6.0	1.0																						

** HIGHEST YIELDING HYBRID

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID

TABLE 4. INDIVIDUAL COUNTY GRAIN TRIALS - ALPENA, GRAND TRAVERSE & DELTA (86-94 DAY) ZONE 4

		ALPENA								DELTA								GRAND TRAVERSE								
		GRAIN YIELD								GRAIN YIELD								SILAGE YIELD					SILAGE QUALITY - NIR			
		%	Bushels/Acre			TEST	%	%	%	Bushels/Acre			TEST	%	%	%	Green	Dry	% Gr	%	%	%	%	%	%	%
BRAND	HYBRID	H2O	2001	2Yr	3Yr	WT	Lodg	STD	H2O	2001	2Yr	3Yr	WT	Lodg	STD	DM	wt/A	wt/A	in Sil	Stand	TDN	ADF	NDF	CP		
BAYSIDE	Super 75	26	122	112	118	53	2	93	22	101	109	135	55	2	100	35.3	7.5	2.6	19.2	100	68.4	27.8	48.8	9.4		
BAYSIDE	Super 83	29	119	--	--	51	0	93	20	83	--	--	51	7	100	27.1	11.2	*3.0	18.3	99	67.6	28.9	54.0	9.7		
BAYSIDE	Super 86	29	126	--	--	52	1	93	23	*118	--	--	54	3	100	28.0	10.4	*2.9	13.5	100	66.7	30.2	55.3	9.5		
BROWN	ex3M35 RR	30	120	--	--	53	1	97	24	92	--	--	54	5	100	28.0	10.2	*2.9	20.2	100	66.3	30.7	54.8	8.9		
DEKALB	DKC 33-08	24	114	--	--	55	1	95	20	99	--	--	60	16	100	28.9	10.4	*3.0	18.6	100	68.0	28.4	51.1	9.8		
DEKALB	DKC 37-81	29	104	--	--	52	0	77	20	99	--	--	56	8	100	27.7	9.0	2.5	23.8	95	69.4	26.4	49.4	9.5		
DEKALB	DKC 39-45	30	132	117	--	52	0	92	27	90	107	--	51	4	100	26.2	9.4	2.5	15.9	100	68.2	28.1	51.5	9.4		
DEKALB	DKC 39-47	30	125	--	--	51	1	87	27	*103	--	--	51	6	100	26.8	11.3	*3.0	21.7	94	69.6	26.1	49.1	9.1		
DEKALB	DKC 42-22	32	**168	137	--	49	0	99	31	100	112	--	48	3	100	25.1	13.2	*3.3	19.4	100	67.0	29.8	54.6	9.6		
DEKALB	DKC 44-42	31	*153	--	--	48	0	100	30	**121	--	--	48	8	100	24.6	12.6	*3.1	19.1	99	68.3	27.9	52.5	9.4		
GENESIS	2A92	31	138	--	--	51	1	95	22	*106	--	--	53	6	100	27.5	10.3	2.8	19.1	100	67.1	29.6	55.2	9.8		
GENESIS	3A88	29	135	113	--	51	0	85	24	91	105	--	53	2	100	27.4	10.2	2.8	17.4	100	67.7	28.7	53.3	9.8		
GENESIS	3B89 RR	28	139	--	--	51	0	95	25	94	--	--	52	1	100	28.9	11.6	*3.3	12.3	100	67.4	29.2	54.2	9.1		
GOLDEN HARVEST	H-6348	29	120	--	--	50	1	90	25	*110	--	--	51	8	100	29.1	9.9	*2.9	23.4	99	67.1	29.6	54.3	10.1		
GOLDEN HARVEST	EX16465	28	126	--	--	51	1	94	23	*108	--	--	54	3	100	27.3	10.7	*2.9	13.3	100	67.7	28.7	53.3	9.5		
HIGH CYCLE	7234 RR	30	132	--	--	51	0	88	27	66	--	--	50	1	100	27.0	11.2	*3.0	12.4	97	65.4	32.1	57.5	9.6		
LG SEEDS	LG 2367	30	131	111	122	51	2	94	28	93	107	138	53	9	100	30.2	11.3	**3.4	13.7	100	69.0	26.9	50.4	9.0		
PIONEER	38K06	29	136	--	--	49	0	97	24	*106	--	--	51	2	100	30.1	10.5	*3.1	22.2	100	69.7	25.9	47.9	8.8		
PIONEER	38P05	31	140	122	128	52	2	92	28	*111	114	--	52	8	100	28.0	11.3	*3.2	19.6	98	67.8	28.6	52.5	9.3		
PIONEER	39K40	27	128	--	--	52	0	92	27	82	--	--	50	4	100	29.9	10.3	*3.1	20.7	95	69.7	26.0	47.9	8.7		
RENK	RK 383	30	134	--	--	52	0	91	25	83	--	--	52	2	100	29.1	11.7	**3.4	16.2	100	67.0	29.9	54.2	9.2		
TRELAY	2002	30	134	--	--	51	0	98	23	*110	--	--	54	3	98	28.1	10.4	*2.9	11.3	99	67.3	29.4	53.8	9.8		
TRELAY	2009	30	130	108	--	50	2	95	24	93	103	--	51	10	100	26.1	11.0	*2.9	19.6	100	67.7	28.9	52.6	9.6		
AVERAGE		29	131	117	123	51	1	93	25	98	108	136	52	5	100	28.1	10.7	3.0	17.9	99	67.8	28.6	52.5	9.4		
HIGHEST		32	168	137	128	55	2	100	31	121	114	138	60	16	100	35.3	13.2	3.4	23.8	100	69.7	32.1	57.5	10.1		
LOWEST		24	104	108	118	48	0	77	20	66	103	135	48	1	98	24.6	7.5	2.5	11.3	94	65.4	25.9	47.9	8.7		
Least Significant Difference (LSD) .05%		1	15			1			2	18			2			1.5	1.5	0.5	5.7		1.6	2.3	3.0	0.8		
CV		3	8			1			6	13			3			3.6	8.9	10.4	22.2		1.5	5.0	3.5	5.2		

** HIGHEST YIELDING HYBRID

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID

Corn Hybrid Index for Grain Trials

There were 236 hybrids submitted for testing by 30 seed companies (32 Brand names) resulting in 999 individual county entries the 2001 Michigan Corn Hybrid Performance Trials for grain. The zone map of Michigan shows the zone and locations where trials were planted (page 3). Entries in a particular zone were divided into two maturity groups (early and late) based upon the maturity rating submitted by the companies. Results from the early and late trials in each zone are arranged in separate tables that are designated by the zone number and an "E" or "L" along with the zone number. Below is a listing of company names, brand names, and hybrid numbers along with the table designation for each hybrid.

Zone 1 - Tables 1E & 1L

Monroe
Branch
Cass
Zone Average

Zone 2 - Tables 2E & 2L

Kent
Ingham
Saginaw
Zone Average

Zone 3 - Table 3E & 3L

Huron
Montcalm
Mason
Zone Average

Zone 4 - Table 4

Alpena
Grand Traverse
Delta
Zone Average

AgriGold Hybrids

AGRIGOLD A6391* (1E)
AGRIGOLD A6445* (1L)
AGRIGOLD XA5033* (1L)

The Andersons, Inc.

ANDERSONS 5201 (1E,2E)
ANDERSONS 5507 (1E,2L)
ANDERSONS 5509 Bt (1L,2L)
ANDERSONS 5811 (1L)

Monsanto

ASGROW RX 601RR-YG (1E)
ASGROW RX 634 (1E)
ASGROW RX 708 (1L)

Bayside Seeds

BAYSIDE Super 75 (3E,4E)
BAYSIDE Super 83 (4E)
BAYSIDE Super 86 (4E)
BAYSIDE Super 93 (2E,3E)
BAYSIDE Super 97 (2E)
BAYSIDE Super 100 (2E,3L)
BAYSIDE Super 104 (1E,2L)
BAYSIDE Super 105 (1E,2L,3L)
BAYSIDE Super 107 (1L)
BAYSIDE SX 104CL (2L)
BAYSIDE 1700 (2E,3L)
BAYSIDE 1792 (2E,3E)
BAYSIDE 1795 (2E,3E)
BAYSIDE 1899 (2E,3L)

Beck's Superior Hybrids

BECK'S 4812 (1E)
BECK'S 5166 (1E)
BECK'S 5266 (1E)
BECK'S 5283 Bt 1 (1E)
BECK'S 5322* (1L)

Bio Gene Seeds

BIO GENE BG 095A (3E)
BIO GENE BG 098 (3L)
BIO GENE BT 098 (3L)
BIO GENE BG 307 (1L)
BIO GENE BG 309 (1L)
BIO GENE BT 311 (1L)

Bio Gene Seeds (continued)

BIO GENE BG 1020 (2L)
BIO GENE BG 1041 (2L)
BIO GENE BG 1050 (2L)
BIO GENE BG 1091 (1L)
BIO GENE BG 1100 (1L)
BIO GENE BG 1111 (1L)
BIO GENE BG 1119 (1L)

Brodbeck Seeds

BRODBECK SX 106 (1E,2L)
BRODBECK SX 804 (2L)
BRODBECK SX 902 (2L)

Browns Seed Farms

BROWN Ex3M35 RR* (4E)
BROWN 4630* (3E)
BROWN 4641* (3E)
BROWN 5130* (3L)
BROWN 5341* (2E)
BROWN 6079* (2E)
BROWN 6850 Bt* (2L)
BROWN 6895 Bt* (1E,2L)
BROWN 7044* (1L)

Corn Belt Hybrids

CORN BELT C 570 (2L)
CORN BELT C 57B8 Bt (2L)
CORN BELT C 599 (1L)
CORN BELT C 629 (1L)

Crow's Hybrid Corn Company

CROW'S C 217 B (2E)
CROW'S C 4908 (1L)

Dairyland Seed Company, Inc.

DAIRYLAND STEALTH-1404 (3L)
DAIRYLAND STEALTH-1412 (1L)
DAIRYLAND STEALTH-1496 (2E,3E)
DAIRYLAND STEALTH-1507 (1E)
DAIRYLAND STEALTH-1507 Bt (1E)
DAIRYLAND STEALTH-1598 (3L)
DAIRYLAND STEALTH-1605 (1E,2L)
DAIRYLAND STEALTH-1606 (1E,2L)
DAIRYLAND STEALTH-1607 (1E,2L)
DAIRYLAND STEALTH-1611 (1L)

Monsanto

DEKALB DK 537 (1E,2L,3L)
DEKALB DK 567 (1E,2L)
DEKALB DKC 33-08 (4E)
DEKALB DKC 37-81 (4E)
DEKALB DKC 39-45 (3E,4E)
DEKALB DKC 39-47 (4E)
DEKALB DKC 42-22 (2E,3E,4E)
DEKALB DKC 44-42 (2E,3E,4E)
DEKALB DKC 46-26 (2E,3E)
DEKALB DKC 48-15 (1E,2E,3L)
DEKALB DKC 48-83 (2E,3L)
DEKALB DKC 50-72 (2E,3L)
DEKALB DKC 57-38 (1E)
DEKALB DKC 58-78 (1E)
DEKALB DKC 58-52 (1L)
DEKALB DKC 60-08 (1L)
DEKALB DKC 61-24 (1L)

UAP Great Lakes

DYNA-GRO DG-5212 RR (2E,3E)
DYNA-GRO DG-5222 RR (2E,3E)
DYNA-GRO DG-5257 (2E,3E)
DYNA-GRO DG-5258 (2E,3E)
DYNA-GRO DG-5324 (1E)
DYNA-GRO DG-5346 RR (2E,3L)
DYNA-GRO DG-5467 (1L)

Garst Seed Co.

GARST 8464 IT (1L)
GARST 8590 IT (1E,2L)
GARST 8640 IT (1E,2L)
GARST 8720 (2L,3L)
GARST 8779 (2E,3L)
GARST 8790 Bt (2E)
GARST 8830 (3E)
GARST 9466 (2L)
GARST N9523 IT (1L)
GARST N9803 (3E)

Geertson Seed Farms

GEERTSON GS 1049 (1E,2L)
GEERTSON GS 1117 (1L)

Genesis Ag Ltd.

GENESIS 1996 (2E)
GENESIS 2A92 (3E,4E)
GENESIS 2B06 (1E)
GENESIS 2B98 (2E,3L)
GENESIS 2B98 MT (2E,3L)
GENESIS 2B98 RR (2E,3L)
GENESIS 2B100 (2E,3L)
GENESIS 2M06 (1E)
GENESIS 2M100 (2E)
GENESIS 2M101 YG (2E)
GENESIS 3A88 (3E,4E)
GENESIS 3B89 RR (3E,4E)
GENESIS 4B100 (2E)
GENESIS 4B110 (1L)

Golden Harvest / Sommer Bros. Seed Co.

GOLDEN HARVEST H-6348 (4E)
GOLDEN HARVEST H-6573 (3E)
GOLDEN HARVEST H-6675 (3E)
GOLDEN HARVEST H-8123 (2L,3L)
GOLDEN HARVEST H-8562 (1E,2L)
GOLDEN HARVEST H-8799 (1L,2L)
GOLDEN HARVEST H-8906 (1L)
GOLDEN HARVEST EX16465 (4E)

Great Lakes Hybrids, Inc.

GREAT LAKES 4526 (2E,3E)
GREAT LAKES 4648 (3E)
GREAT LAKES 4676 (2E,3E)
GREAT LAKES 4964 (2E,3L)
GREAT LAKES 4979 (2E,3L)
GREAT LAKES 5162 (2L,3L)
GREAT LAKES 5555 (1E,2L)
GREAT LAKES 5668 (1E,2L)
GREAT LAKES 5758 (1E,2L)
GREAT LAKES 5963 (1L)
GREAT LAKES 6032 (1L)

Gries Seed Farms, Inc.

GRIES GSF-5306 (1E,2L)
GRIES GSF-6310 (1L,2L)

Trelay Seed Company / High Cycle Seed Systems

HIGH CYCLE HC 350" (1E)
HIGH CYCLE 7234 RR" (4E)
HIGH CYCLE 7419 Bt" (2E,3E)
HIGH CYCLE 7434 RR" (2E,3E)

Hyttest Seeds

HYTEST HT 4602 (2L,3L)
HYTEST HT 7415 (2E,3L)
HYTEST HT 7550 Bt (2L,3L)

LG Seeds

LG SEEDS LG 2367* (4E)
LG SEEDS LG 2402* (3E)
LG SEEDS LG 2442* (3E)
LG SEEDS LG 2473* (2E,3E)
LG SEEDS LG 2474* (2E,3E)
LG SEEDS LG 2484* (2E,3L)
LG SEEDS LG 2488* (2E,3L)
LG SEEDS LG 2499* (2L)
LG SEEDS LG 2533* (1E)
LG SEEDS LG 2569* (1L)
LG SEEDS LG 2585* (1L)

Midwest Seed Genetics

MIDWEST GENETIC G 6961 (3E)
MIDWEST GENETIC G 7101B (2E)
MIDWEST GENETIC G 7706 (1L)

New Century Seed Express

NEW CENTURY NC 95* (2E)
NEW CENTURY NC 108A (1E)

Pioneer Hi-Bred International, Inc.

PIONEER 34B23 (1L)
PIONEER 34G13 (1L)
PIONEER 34G82 (1E,2L)
PIONEER 34M94 (1L)
PIONEER 35P12 (1E,2L)
PIONEER 35Y54 (1E,2L)
PIONEER 36B08 (2L,3L)
PIONEER 36N70 (3L)
PIONEER 37H26 (2E,3L)
PIONEER 37J99 (3E)
PIONEER 37M34 (2E,3L)
PIONEER 37R71 (2E,3L)
PIONEER 38A24 (2E,3E)
PIONEER 38K06 (4E)
PIONEER 38P05 (4E)
PIONEER 38P06 (3E)
PIONEER 39K40 (4E)

Pro Seed Technologies, Inc.

PRO SEED PST-467-A (2L)
PRO SEED PST-467-C (2L)

Renk Seed Company, Inc.

RENK RK 383 (4E)
RENK RK 556 (3E)
RENK RK 569 (3E)
RENK RK 606 (2E,3L)
RENK RK 622 (2E,3L)
RENK RK 636 (2E,3L)
RENK RK 668 (2L,3L)
RENK RK 775 (1E,2L)
RENK RK 806 (1L,2L)
RENK RK 867 (1L)

Rupp Seeds, Inc.

RUPP XR 1522" (3E)
RUPP XR 1609" (2L,3L)
RUPP XR 1682" (1E,2L)
RUPP XR 1733" (1E)
RUPP XR 1744" (1L)
RUPP XR 1778" (1L)
RUPP XR 8682" (1E,2L)

Seedex, Inc.

SEEDEX SX 5701 (2E,3E)
SEEDEX SX 6101 (2L)
SEEDEX SX 6201 (2L)
SEEDEX SX 7401 (1E,2L)

Syngenta Seeds

NK Brand N2555 Bt (3E)
NK Brand N3030 Bt (3E)
NK Brand N35-R7 (2E,3E)
NK Brand N43-C4 (2E,3L)
NK Brand N45-A6 (1E,2L,3L)
NK Brand N45-T5 (2L,3L)
NK Brand A N58-D1 (1E,2L)
NK Brand N59-Q9 (1E,2L)
NK Brand N60-N2 (1L)
NK Brand N67-T4 (1L)
NK Brand N70-D5 (1L)

Trelay Seed Company, Inc.

TRELAY 2002" (4E)
TRELAY 2009" (4E)
TRELAY 4002" (2E,3E)
TRELAY 4009" (3E)
TRELAY 5020" (2E)
TRELAY 5600" (2E,3L)
TRELAY 6200" (2L)
TRELAY 7002" (1E,2L)
TRELAY 8100" (1L)
TRELAY 8200" (1L)
TRELAY 9300" (1L)

Royster-Clark, Inc.

VIGORO V3200 (3E)
VIGORO V3820 (2E,3L)
VIGORO V4510 (2L)
VIGORO V4910 (1L)
VIGORO X449001 (2L)
VIGORO X640001 (1E)

* Denotes hybrids treated with the seed treatment Prescribe

** Denotes hybrids treated with the seed treatment Gaucho

Silage Performance Trials

Introduction

Eight locations (see map) containing 13 silage tests were harvested. The silage index contains a list of all hybrids planted in the 2001 silage trials. The 13 silage tests included 89 hybrids from 23 seed companies (24 Brand names) accounting for 242 individual county entries. Company names used in association with hybrid numbers refer to their brands. The numbers are the companies' designations. Numbers in parentheses refer to the tables in which each hybrid appears.

Locations in Lenawee and Branch counties (zone 1) were expanded with two maturity groups in 2001, Tables 5E & 5L. Trials conducted in Ionia, Ingham, and Huron counties remained the same with yield data presented in Tables 6E & 6L. Table 7E shows data for Alpena, Osceola (Missaukee 2000 & 1999) and Delta counties.

Harvesting and Handling Silage Data

Silage plots were harvested with a two-row self-propelled forage harvester. Electronic scales mounted on the chopper measure plot weights. After weighing, sub-samples are collected for use in determining percent dry matter and Near Infrared Reflectance (NIR) quality

analysis. There are now two years of data for (NIR) presented in the tables; three-year quality analysis will not be presented this year.

Methods

Testing procedures (randomization, replication, planting rates, etc.) for silage evaluation are the same as those utilized for the grain trials. Plots were four rows wide and the center two rows were harvested for yield and quality. Silage tables are arranged by company in alphabetical order.

The fresh chopped silage (fodder plus grain) samples are weighed, oven dried until weight loss is zero, then weighed again to determine the percent dry matter. The sample is then ground small enough to pass through a 1.0 mm screen before quality analysis is completed.

For complete two- and three-year single site data, again our web site is at:

www.css.msu.edu/varietytrials/

Near Infrared Reflectance (NIR)

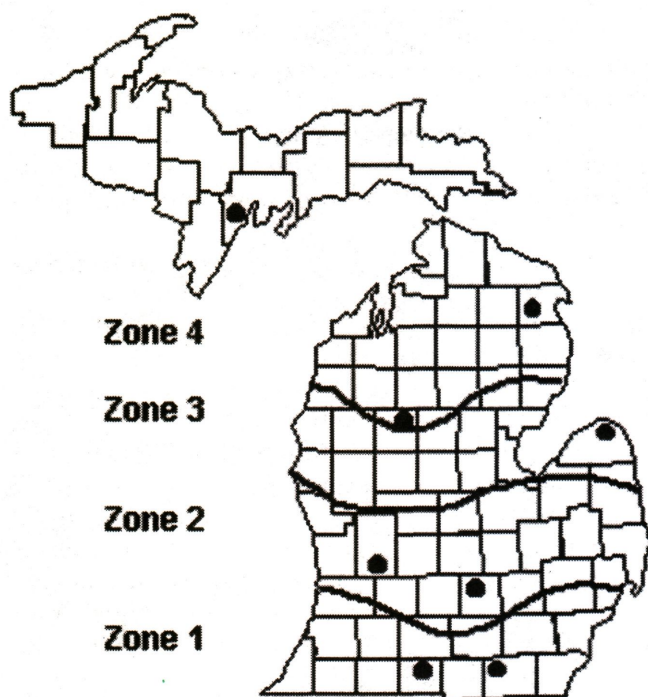
Silage Analysis

Tables 5E, 5L, 6E, 6L, and 7E provide silage quality data as determined by NIR analysis on fresh samples. Data is provided for individual locations and averaged over multiple locations. Near infrared spectral analysis involves irradiating the ground sample with light in the near infrared range (1100 to 2500 nm). The illuminated sample absorbs light energy in the near infrared spectrum proportional to specific chemical and physical properties. The reflected energy is measured and correlated statistically with established forage quality levels. Results of the four quality traits analyzed are presented in the quality tables. The four quality traits are as follows:

1. **TDN=total digestible nutrients.** This is a measure of energy available from the corn forage. The energy content of the corn forage is one of the most important nutritive characteristics. The higher the TDN, The greater the amount of energy that is available for milk or meat production. A high TDN content is desirable.
2. **ADF=acid detergent fiber.** Acid detergent fiber represents the less digestible portion of the corn forage, containing cellulose, lignin and heat damaged protein. ADF is closely related to the

Please see **Silage** page 26

2001 Silage Trial Locations



Plant Population Affects the Yield and Quality of Corn Grain and Silage

Historically, soil nutrient status, weed control, machinery limitations, and power source (horse vs. tractor) all played a role in determining the appropriate plant density for corn. Today, the primary driving force in determining the optimum plant population level for corn is genetics. Research has shown that the primary difference between today's hybrids and the hybrids developed in the early days of hybrid seed corn production, is the ability of the modern hybrids to yield well under the stress of high plant populations. When high yielding modern hybrids are planted at the lower plant population levels commonly used

for their ancestors, they do not yield more. It is only when the plant population levels are increased that the modern hybrids begin to out yield their ancestors. This is because corn genetics have been improved to withstand high plant population stress and not lose yield. These modern hybrids continue to produce grain at plant populations that would have resulted in their ancestors having many barren plants. In other words, the yield increases we have seen since the advent of hybrid seed corn are due to harvesting more ears of corn per acre, not from harvesting longer ears or ears with more kernels on them. This trend will likely continue into the future, which means that the optimum plant population for your fields will likely continue to increase with time.

In addition to yield, plant population also affects the quality of corn grain and silage. The following figures show the results of extensive experiments conducted in Michigan involving over 2600 plots across 11 site-years. The data shows the effect of increasing plant population levels on corn grain and silage yield and quality.

Plant population had a significant effect on grain yield, moisture, test weight and stalk lodging. Grain moisture was negatively correlated and grain test weight was positively correlated with plant population. As corn plant populations increased from lowest to highest, grain moisture dropped 0.4 and 0.7 %, respectively.

Corn plant population also affected corn silage dry weight yield and quality. As plant population increased silage dry weight yield increased but silage quality was adversely affected. Silage dry matter digestibility and crude protein decreased while acid detergent fiber and neutral detergent fiber levels increased. The experiment also showed that silage specialty hybrids reacted to plant population stress similar to dual-purpose hybrids.

How does one go about selecting the best plant population for your fields? The answer is not simple because the optimum population varies with the soil conditions present in each field and with the weather conditions present in any given year. Therefore, your best bet is to base corn plant population rates on typical conditions for your farm.

Normally, seeding rates can be based on historical production levels. Under Michigan conditions, where yields are consistently 130 bushels per acre or more, optimum seeding rates range from 28,000 to 30,000 seeds per acre. When 100 to 120 bushel yields are common, optimum seeding rates begin at about 24,000 seeds per acre. Keep in mind that most studies show that corn plant population generally has what is referred to as a parabolic plateau effect on yield. This simply means that yield will increase with increasing plant population to a maximum level. If you keep increasing the plant population beyond this optimum level, the yield will not increase any more, and, will plateau out but will generally not decrease.

Figures next page

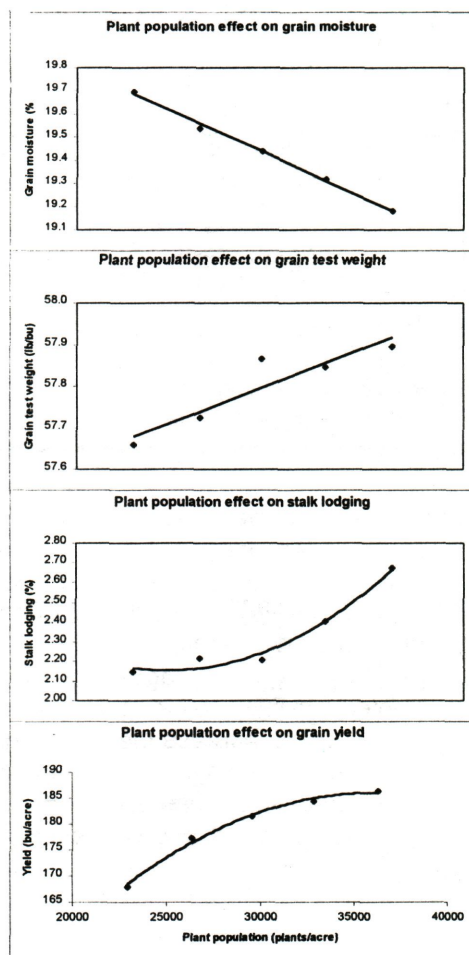


Figure 1. Effect of increasing plant population on grain moisture, test weight, stalk lodging and grain yield.

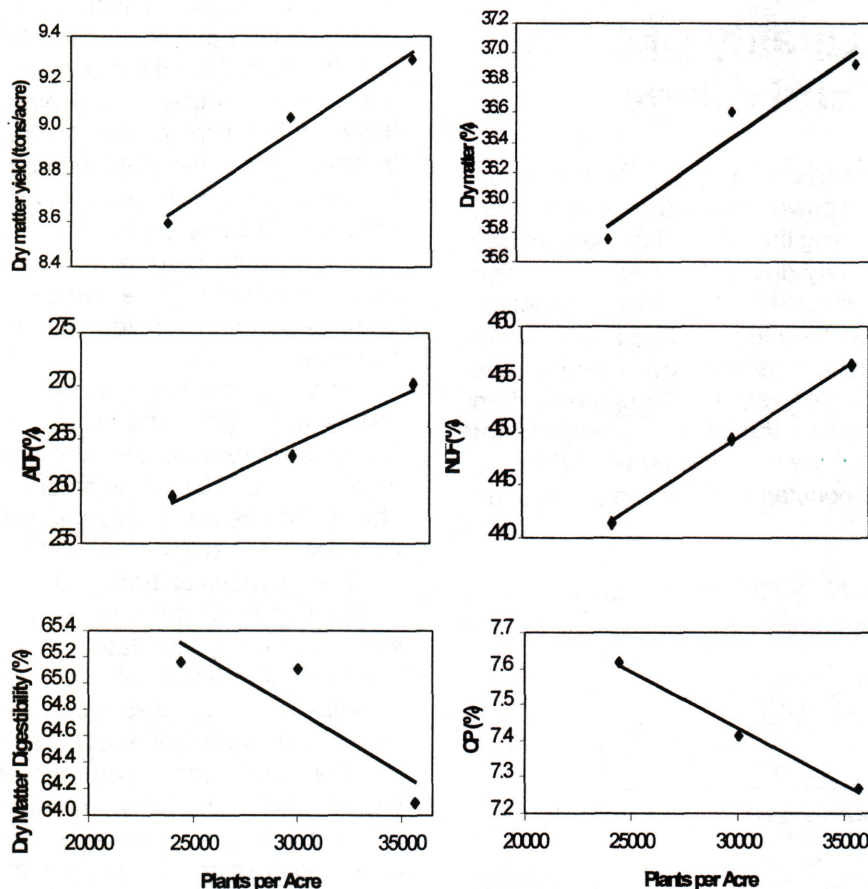


Figure 2. Effect of increasing plant population on corn silage yield and quality.

Silage from page 24

digestibility of forages. The lower the ADF the more digestible the forage. The most mature plant material will contain higher ADF concentrations. A low concentration of ADF is desirable.

3. **NDF=neutral detergent fiber.** This is a measure of the fiber content of the corn forage. It is less digestible than non-fiber constituents of the forage. Forages with high NDF levels have lower energy. It is also a measure of potential forage intake. High

NDF levels decrease the potential forage intake. Low NDF content is desirable.

4. **CP=crude protein.** Forages are generally supplemented with high protein concentration such as soybean meal to increase the protein content of ruminant diets. Corn hybrids with high protein levels require less supplementation and therefore resulting lower feed costs. High protein content is desirable.

TABLE C.

AGRONOMIC TABLES FOR SILAGE TRIAL LOCATIONS

	COUNTY	PLANTING DATES	HARVEST DATES	PREVIOUS CROP	100 % STAND	AVERAGE STAND	FERTILIZER N - P - K
Zone 1	BRANCH	April 28	Sept. 7, 18	Soybeans	30,096	29,641	203 - 0 - 0
	LENAWEE	May 1	Sept. 7	Soybeans	30,096	29,621	201 - 40 - 40
Zone 2	IONIA	April 30	Sept. 5, 14	Corn	31,680	30,512	173 - 46 - 46
	INGHAM	April 30	Aug. 30 Sept. 11	Soybeans	30,096	29,522	207 - 46 - 46
	HURON	April 27	Sept. 13	Soybeans	21,384	16,870	135 - 15 - 0
Zone 4	ALPENA	May 9	Oct. 2	Alfalfa	30,096	29,274	151 - 51 - 51
	OSCEOLA	May 7	Sept. 24	Alfalfa	30,096	27,284	150 - 15 - 0
	DELTA	May 9	Oct. 10	Alfalfa	28,512	28,433	201 - 51 - 51

	COUNTY	SOIL TYPE	SOIL TEST	FARM COOPERATOR	LOCATION
Zone 1	BRANCH	Fox Sandy Loam	pH 7.2 P 149, K 200	Remus Riggs	Coldwater
	LENAWEE	Blount Loam	pH 7.1 P 111, K 311	Bakerlad Farms Blain Baker	Clayton
Zone 2	IONIA	Lapeer Sandy Loam	pH 6.8 P 135, K 362	Clarksville Horticultural Research Station, MSU	Clarksville
	INGHAM	Capac Loam	pH 6.0 P 210, K 284	Crop & Soil Sciences Research Facility, MSU	East Lansing
	HURON	Kilmanagh Loam	pH 6.6 P 48, K 227	Wil-Le Farms William, Ron, & Ed McCrea	Bad Axe
Zone 4	ALPENA	Onaway Loam	pH 7.5 P 58, K 348	Corby & Fred Werth	Alpena
	OSCEOLA	McBride Sandy Loam	pH 6.2 P 320, K 443	Robert E. Lee	Marion
	DELTA	Onaway Fine Sandy Loam	pH 7.3 P 168, K 474	Benny Herioux	Bark River

TABLE 5E.

AVERAGE OF LENAWEE & BRANCH COUNTY SILAGE TRIALS - Early (<111 DAY)

ZONE 1

		2001					2 Year Avg (2000 / 2001)									
BRAND	HYBRID	Yield Data			Silage Quality - NIR				Yield Data			Silage Quality - NIR				
		%DM	Gwt/A	Dwt/A	%Std	%TDN	%ADF	%NDF	%CP	%DM	Gwt/A	Dwt/A	%TDN	%ADF	%NDF	%CP
AGRIGOLD	A6391	40.1	19.2	7.5	100	72.5	22.0	41.6	6.6	--	--	--	--	--	--	--
AGRIGOLD	A6445	40.1	19.2	7.5	100	72.5	22.0	41.6	6.6	--	--	--	--	--	--	--
AGRIGOLD	XA5033	38.6	20.7	7.7	97	71.3	23.7	44.7	7.4	--	--	--	--	--	--	--
ASGROW	RX 708	35.9	21.0	7.5	99	72.3	22.2	42.6	7.1	--	--	--	--	--	--	--
BECK'S	5283 Bt 1	37.6	22.9**	8.6	97	73.0	21.4	40.8	7.1	--	--	--	--	--	--	--
BECK'S	5322	36.7	23.3 *	8.4	98	72.4	22.1	42.1	6.6	--	--	--	--	--	--	--
BROWN	7044	37.8	21.8 *	8.1	100	72.6	21.9	41.5	6.6	38.8	20.9	7.9	72.3	22.3	41.6	6.7
CORNBELT	C 57B8 Bt	37.0	21.5 *	7.9	93	72.0	22.7	43.6	7.0	--	--	--	--	--	--	--
DEKALB	DKC 58-78	38.3	20.9 *	7.9	100	73.3	20.8	40.4	6.9	--	--	--	--	--	--	--
DEKALB	DKC 58-52	40.8	19.1	7.4	99	72.7	21.8	41.2	6.9	--	--	--	--	--	--	--
DEKALB	DKC 60-08	39.1	20.7 *	7.9	99	72.9	21.4	40.7	6.9	--	--	--	--	--	--	--
GREAT LAKES	6032	35.0	23.7 *	8.2	96	72.6	21.9	42.8	6.9	--	--	--	--	--	--	--
HYTEST	HT 4602	41.2	17.8	7.3	99	73.6	21.8	41.8	6.9	--	--	--	--	--	--	--
MYCOGEN	TMF 108	43.7	19.1 *	8.2	100	71.0	24.0	45.3	6.5	--	--	--	--	--	--	--
NK Brand	N48-V8	37.8	22.9**	8.6	100	70.7	24.6	46.7	6.7	--	--	--	--	--	--	--
PIONEER	34B23	37.5	22.0 *	8.1	100	71.8	23.0	43.5	7.3	37.4	23.0	8.5	72.2	22.6	42.7	7.3
PIONEER	34M94	38.7	22.2 *	8.4	100	71.2	23.9	45.1	6.4	--	--	--	--	--	--	--
VIGORO	V5020	36.7	22.1 *	8.0	100	72.8	21.5	40.9	6.7	--	--	--	--	--	--	--
Average		38.5	21.1	8.0	99	72.3	22.4	42.6	6.8	38.1	22.0	8.2	72.2	22.4	42.2	7.0
Highest		43.7	23.7	8.6	100	73.3	24.6	46.7	7.4	38.8	23.0	8.5	72.3	22.6	42.7	7.3
Lowest		35.0	19.1	7.4	93	70.7	20.8	40.4	6.4	37.4	20.9	7.9	72.2	22.3	41.6	6.7
Least Significant Difference (LSD) .05%		5.5	3.3	0.7		1.3	1.8	2.8	0.8							
CV		6.8	7.2	4.0		0.8	3.9	3.0	5.5							

** HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

TABLE 5E.

INDIVIDUAL COUNTY SILAGE TRIALS - LENAWE & BRANCH - EARLY (<111 DAY)

ZONE 1

LENAWEE										BRANCH							
BRAND	HYBRID	YIELD DATA				SILAGE QUALITY - NIR				YIELD DATA				SILAGE QUALITY - NIR			
		%DM	Gwt/A	Dwt/A	%Std	%TDN	%ADF	%NDF	%CP	%DM	Gwt/A	Dwt/A	%Std	%TDN	%ADF	%NDF	%CP
AGRIGOLD	A6391	44.0	15.5	6.7	100	70.9	24.3	45.2	6.6	36.2	22.9	8.3	100	74.1	19.7	38.0	6.5
AGRIGOLD	A6445	44.0	15.5	6.7	100	70.9	24.3	45.2	6.6	36.2	22.9	8.3	100	74.1	19.7	38.0	6.5
AGRIGOLD	XA5033	44.4	15.8	7.0	97	69.9	25.6	47.7	7.1	32.8	25.5	8.4	96	72.6	21.8	41.6	7.6
ASGROW	RX 708	36.9	19.0	6.9	97	70.5	24.8	47.1	7.3	34.9	23.0	8.0	100	74.1	19.6	38.0	6.9
BECK'S	5283 Bt 1	39.4	21.5 **	8.4	94	72.1	22.6	43.3	7.4	35.8	24.2	8.7	99	73.8	20.1	38.3	6.8
BECK'S	5322	40.3	20.0 *	8.0	99	71.4	23.5	44.5	6.7	33.1	26.5 *	8.8	97	73.3	20.7	39.7	6.5
BROWN	7044	42.6	18.0 *	7.7	99	71.3	23.6	44.1	6.7	33.0	25.6	8.4	100	73.8	20.1	38.9	6.4
CORNBELT	C 57B8 Bt	38.8	19.5 *	7.5	94	70.8	24.4	46.1	7.3	35.2	23.4	8.2	93	73.2	20.9	41.0	6.7
DEKALB	DKC 58-78	41.8	18.0 *	7.5	100	72.1	22.5	43.2	6.7	34.8	23.8	8.3	100	74.5	19.1	37.5	7.0
DEKALB	DKC 58-52	47.3	15.6	7.1	100	72.0	22.6	42.7	7.0	34.2	22.6	7.7	97	73.3	20.9	39.7	6.7
DEKALB	DKC 60-08	43.9	17.5 *	7.5	100	71.4	23.5	43.8	6.6	34.3	23.9	8.2	98	74.4	19.2	37.5	7.2
GREAT LAKES	6032	35.8	20.8 *	7.4	94	71.3	23.6	45.8	7.4	34.2	26.5 *	9.0	98	73.8	20.1	39.7	6.3
HYTEST	HT 4602	44.3	15.6	7.0	100	72.6	21.8	41.8	6.9	38.0	20.0	7.6	98	74.5	19.1	37.1	6.7
MYCOGEN	TMF 108	48.2	15.9 *	7.6	100	69.8	25.7	47.8	6.5	39.2	22.3 *	8.8	99	72.2	22.3	42.8	6.5
NK Brand	N48-V8	38.3	20.7 *	7.8	100	68.9	27.1	50.5	6.9	37.3	25.1 **	9.4	99	72.4	22.0	42.9	6.4
PIONEER	34B23	41.4	17.2	7.2	100	70.7	24.5	45.8	7.8	33.5	26.7 *	8.9	100	72.9	21.4	41.2	6.8
PIONEER	34M94	43.2	17.5 *	7.6	100	69.3	26.5	49.0	6.2	34.2	26.8 *	9.1	99	73.0	21.3	41.1	6.5
VIGORO	V5020	38.6	20.2 *	7.7	100	72.6	21.8	41.5	7.0	34.7	23.9	8.3	100	73.0	21.2	40.3	6.3
Average		41.8	18.0	7.4	99	71.0	24.0	45.3	6.9	35.1	24.2	8.5	99	73.5	20.5	39.6	6.7
Highest		48.2	21.5	8.4	100	72.6	27.1	50.5	7.8	39.2	26.8	9.4	100	74.5	22.3	42.9	7.6
Lowest		35.8	15.5	6.7	94	67.0	21.8	41.5	6.2	32.8	22.3	7.7	93	72.2	19.1	37.5	6.3
Least Significant Difference (LSD) .05%		5.7	2.5	1.0		1.9	2.7	4.2	0.8	2.3	1.4	0.6		1.8	2.6	4.2	0.6
CV		9.7	9.6	9.6		1.9	8.0	6.4	7.7	4.6	3.9	4.8		1.7	8.8	7.4	6.4

** HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

TABLE 5L

AVERAGE OF LENAWE & BRANCH COUNTY SILAGE TRIALS - LATE (>110 DAY)

ZONE 1

		2001					2 Year Avg (2000 / 2001)									
BRAND	HYBRID	Yield Data			Silage Quality - NIR			Yield Data			Silage Quality - NIR					
		%DM	Gwt/A	Dwt/A	%Std	%TDN	%ADF	%NDF	%CP	%DM	Gwt/A	Dwt/A	%TDN	%ADF	%NDF	%CP
AGRIGOLD	A6469Bt	43.8	18.0	* 7.8	99	73.0	21.2	39.9	6.5	--	--	--	--	--	--	--
ANDERSONS	5111	44.2	16.5	7.3	100	71.8	22.9	42.7	6.4	42.0	18.1	7.4	71.2	23.8	43.6	6.4
BALDRIDGE	BH-672	37.9	19.3	7.2	95	71.0	24.1	45.4	7.7	--	--	--	--	--	--	--
DAIRYLAND	STEALTH-1412	44.9	18.0	* 8.0	99	73.5	20.5	39.0	6.6	--	--	--	--	--	--	--
DEKALB	DKC 61-24	39.9	21.5	* 8.6	99	73.3	20.9	40.4	6.9	--	--	--	--	--	--	--
GARST	8362 IT	35.8	24.4	** 8.7	98	72.3	22.3	42.7	7.2	--	--	--	--	--	--	--
GOLDEN HARVEST	H-9403	35.5	23.0	* 8.2	99	72.4	22.0	42.2	7.2	--	--	--	--	--	--	--
GREAT LAKES	6214	39.1	19.2	7.6	97	72.7	21.7	41.3	7.1	--	--	--	--	--	--	--
GREAT LAKES	6278	38.2	21.7	* 8.3	97	73.5	20.5	39.5	6.7	--	--	--	--	--	--	--
LG SEEDS	LG 2585	39.6	21.8	* 8.6	99	73.7	20.4	39.4	6.8	--	--	--	--	--	--	--
MIDWEST GENETIC	G 7711	44.0	17.4	7.5	99	73.1	21.2	40.1	6.5	42.0	18.8	7.6	71.9	23.0	42.2	6.6
MYCOGEN	F 697	42.4	17.6	7.3	99	72.2	22.4	42.0	7.4	--	--	--	--	--	--	--
MYCOGEN	F 717	43.7	17.6	7.2	99	73.4	20.8	39.3	7.5	--	--	--	--	--	--	--
MYCOGEN	TMF 114	35.3	24.4	** 8.7	100	69.1	26.8	49.3	6.8	35.8	24.2	8.6	70.0	25.6	47.1	6.7
NK Brand	N70-D5	39.4	22.1	** 8.7	99	72.4	22.2	41.5	6.4	37.7	22.1	8.3	71.6	23.3	43.4	6.7
PIONEER	33J56	35.1	24.0	* 8.5	98	71.9	22.8	43.2	7.6	34.3	24.8	8.5	71.7	23.2	43.4	7.5
Average		39.9	20.4	8.0	99	72.5	22.0	41.7	7.0	38.4	21.6	8.1	71.3	23.8	43.9	6.7
Highest		44.9	24.4	8.7	100	73.7	26.8	49.3	7.7	42.0	24.8	8.6	71.9	25.6	47.1	7.5
Lowest		35.1	16.5	7.2	95	69.1	20.4	39.0	6.4	34.3	18.1	7.4	70.0	23.0	42.2	6.4
Least Significant Difference (LSD)		8.0	6.0	1.0		2.0	2.9	4.0	1.0							
CV		9.4	13.8	8.1		1.3	6.1	4.6	6.6							

** HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

TABLE 5L

INDIVIDUAL COUNTY SILAGE TRIALS - LENAWE & BRANCH - LATE (>110 DAY)

ZONE 1

BRAND	HYBRID	LENAWEE				BRANCH			
		YIELD DATA		SILAGE QUALITY - NIR		YIELD DATA		SILAGE QUALITY - NIR	
		%DM	Gwt/A	Dwt/A	%Std	%ADF	%NDF	%CP	%NDF
AGRIGOLD	A6469Bt	39.3	18.2 *	7.0	99	70.7	24.5	46.1	7.2
ANDERSONS	5111	40.9	15.5	6.3	100	70.2	25.2	47.5	7.0
BALDRIDGE	BH-672	34.6	19.7	6.7	95	70.4	25.0	47.8	8.4
DAIRYLAND	STEALTH-1412	39.2	20.2 **	7.9	98	71.5	23.4	44.6	7.0
DEKALB	DKC 61-24	37.5	19.8 *	7.4	98	71.7	23.0	44.2	7.4
GARST	8362 IT	35.1	22.7 *	7.8	99	71.1	23.9	46.1	7.3
GOLDEN HARVEST	H-9403	32.4	22.0 *	7.1	98	70.5	24.7	47.5	8.2
GREAT LAKES	6214	36.2	16.5	6.0	98	70.5	24.8	46.9	7.6
GREAT LAKES	6278	35.6	20.4 *	7.2	97	71.2	23.8	45.3	7.5
LG SEEDS	LG 2585	37.0	21.8 **	7.9	99	71.8	23.0	44.5	7.7
MIDWEST GENETIC	G 7711	37.2	18.5	6.8	100	70.7	24.6	46.5	7.4
MYCOGEN	F 697	34.0	19.7	6.6	100	71.6	23.2	45.5	8.5
MYCOGEN	F 717	33.7	21.3 *	7.0	100	72.5	21.9	44.0	8.5
MYCOGEN	TMF 114	31.1	22.8 *	7.1	100	67.8	28.6	53.5	7.9
NK Brand	N70-D5	39.3	17.9 *	7.0	98	71.3	23.6	44.0	6.6
PIONEER	33J56	32.7	23.2 *	7.6	96	69.2	26.6	50.0	8.2
Average		36.0	20.0	7.1	98	70.8	24.4	46.5	7.7
Highest		40.9	23.2	7.9	100	72.5	28.6	53.5	8.5
Lowest		31.1	15.5	6.0	95	67.8	21.9	44.0	6.6
Least Significant Difference (LSD) .05%		4.1	2.8	1.0		1.4	2.0	3.6	1.0
CV		8.0	10.0	9.5		1.4	5.7	5.4	9.5

** HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

TABLE 6E.

AVERAGE OF IONIA, INGHAM & HURON COUNTY SILAGE TRIALS - EARLY (<103 Day)

ZONE 2

2001										2 Year Avg (2000 / 2001)						3 Years (99-01)					
BRAND	HYBRID	Yield Data				Silage Quality - NIR				Yield Data			Silage Quality - NIR			Yield Data					
		%DM	Gwt/A	Dwt/A	%Std	%TDN	%ADF	%NDF	%CP	%DM	Gwt/A	Dwt/A	%TDN	%ADF	%NDF	%CP	%DM	Gwt/A	Dwt/A		
DAIRYLAND	STEALTH-1598	37.2	21.0	* 7.8	99	71.6	23.3	43.4	6.9	--	--	--	--	--	--	--	--	--			
DAIRYLAND	DST-10234	35.6	20.9	* 7.5	92	72.6	21.8	41.9	7.5	35.5	19.7	7.0	72.6	21.8	42.2	7.7	37.9	19.3	7.3		
DEKALB	DKC 48-15	34.7	21.5	* 7.4	99	72.2	22.4	42.8	7.6	--	--	--	--	--	--	--	--	--			
GEERTSON	GS 998	35.8	18.7	6.7	90	72.8	21.5	40.1	7.6	36.1	19.7	7.1	72.7	21.8	40.7	7.4	37.1	19.7	7.3		
GOLDEN HARVEST	H-6573	37.2	19.2	7.1	100	72.8	21.4	42.1	8.4	--	--	--	--	--	--	--	--	--			
GOLDEN HARVEST	H-6675	39.1	18.5	7.2	97	72.8	21.5	41.1	7.8	--	--	--	--	--	--	--	--	--			
GREAT LAKES	4964	37.1	20.2	* 7.5	94	72.4	22.0	41.9	7.4	36.8	20.1	7.4	72.8	21.5	41.1	7.4	--	--			
GREAT LAKES	5162	35.6	20.8	* 7.4	98	73.3	20.8	40.3	7.3	--	--	--	--	--	--	--	--	--			
HYTEST	HT 7550 Bt	33.8	22.2	* 7.5	98	72.6	21.8	41.2	8.2	--	--	--	--	--	--	--	--	--			
LG SEEDS	LG 2499	34.3	21.8	* 7.5	99	72.1	22.0	42.2	7.8	33.4	21.9	7.3	72.1	22.3	42.6	7.9	34.4	21.2	7.3		
LG SEEDS	LGX39-700	38.3	18.9	7.2	98	72.2	22.3	42.2	7.2	--	--	--	--	--	--	--	--	--			
LG SEEDS	LGX41-410	39.7	18.4	7.3	94	72.3	22.2	41.7	7.5	--	--	--	--	--	--	--	--	--			
LG SEEDS	LGX49-800	35.0	22.5	* 7.8	99	70.8	24.3	45.2	7.5	--	--	--	--	--	--	--	--	--			
MAIZE	LEAFY 2	33.9	23.0	* 7.7	99	71.5	23.4	44.1	7.6	--	--	--	--	--	--	--	--	--			
MYCOGEN	F 407	36.7	18.4	6.8	99	74.0	19.7	38.7	7.4	--	--	--	--	--	--	--	--	--			
MYCOGEN	3681 FQ	33.5	21.3	7.1	98	70.8	24.4	45.1	7.2	--	--	--	--	--	--	--	--	--			
PIONEER	36G12	34.9	23.3	** 8.1	92	72.8	21.6	41.9	7.4	37.0	21.9	8.0	73.4	20.8	40.4	7.0	38.1	21.3	8.0		
PIONEER	36N70	35.4	22.6	* 7.9	98	72.7	21.7	41.8	7.6	--	--	--	--	--	--	--	--	--			
PIONEER	37R71	39.6	18.4	7.2	99	72.2	22.4	41.7	7.2	38.2	19.4	7.4	72.2	22.4	42.2	7.3	39.1	18.5	7.2		
TRELAY	6900	32.9	23.6	* 7.8	99	73.2	20.9	41.0	7.9	33.1	21.7	7.2	72.7	21.6	42.0	7.6	--	--	--		
VIGORO	X449001	33.7	21.6	7.2	95	72.9	21.3	41.3	7.9	--	--	--	--	--	--	--	--	--	--		
Average		35.9	20.8	7.4	97	72.4	22.0	42.0	7.6	35.7	20.6	7.3	72.6	21.7	41.6	7.5	37.3	20.0	7.4		
Highest		39.7	23.6	8.1	100	74.0	24.4	45.2	8.4	38.2	21.9	8.0	73.4	22.4	42.6	7.9	39.1	21.3	8.0		
Lowest		32.9	18.4	6.7	90	70.8	19.7	38.7	6.9	33.1	19.4	7.0	72.1	20.8	40.4	7.0	34.4	18.5	7.2		
Least Significant Difference (LSD) .05%		2.1	1.9	0.7		1.4	2.0	3.1	0.5												
CV		3.5	5.4	6.0		1.2	5.6	4.5	3.8												

** HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

TABLE 6E.

INDIVIDUAL COUNTY SILAGE TRIALS - IONIA, INGHAM & HURON - EARLY (<103 Day)

ZONE 2

		IONIA						INGHAM						HURON (Zone 3)											
		YIELD DATA			SILAGE QUALITY - NIR			YIELD DATA			SILAGE QUALITY - NIR			YIELD DATA			SILAGE QUALITY - NIR								
BRAND	HYBRID	%DM	Gwt/A	Dwt/A	%Std	%ADF	%NDF	%CP	%DM	Gwt/A	Dwt/A	%Std	%ADF	%NDF	%CP	%DM	Gwt/A	Dwt/A	%Std	%ADF	%NDF	%CP			
DAIRYLAND	STEALTH-1598	36.5	21.8	* 8.0	99	72.0	22.7	42.3	7.4	35.0	20.6	* 7.2	100	70.0	25.5	46.7	6.5	40.0	20.7	* 8.3	na	72.7	21.7	41.3	6.9
DAIRYLAND	DST-10234	33.3	21.1	7.1	88	73.0	21.2	41.2	8.4	33.6	20.9	* 7.0	97	69.8	25.8	47.3	6.7	39.9	20.7	* 8.3	na	74.9	18.5	37.1	7.3
DEKALB	DKC 48-15	31.4	23.3	7.3	98	73.1	21.1	41.3	8.6	33.8	22.4	* 7.6	100	70.7	24.5	45.6	7.0	38.8	18.9	7.3	na	72.8	21.5	41.5	7.3
GEERTSON	GS 998	35.1	19.4	6.8	92	72.6	21.9	40.2	8.0	31.0	19.0	5.9	88	70.0	25.5	46.5	7.8	41.4	17.7	7.4	na	75.9	17.1	33.6	7.2
GOLDEN HARVEST	H-6573	35.9	19.8	7.1	100	72.6	21.8	42.6	8.9	33.9	19.2	6.5	100	70.4	24.9	47.8	8.4	41.7	18.6	7.8	na	75.4	17.5	35.8	7.8
GOLDEN HARVEST	H-6675	36.7	20.3	7.4	97	73.3	20.8	40.6	8.5	37.2	18.0	6.7	97	71.2	23.8	43.6	7.5	43.4	17.1	7.4	na	74.0	19.8	39.2	7.3
GREAT LAKES	4964	37.1	20.5	* 7.6	92	73.9	19.9	38.9	8.0	34.5	20.7	* 7.2	95	69.6	26.1	48.0	6.9	39.8	19.3	7.7	na	73.8	20.1	38.7	7.2
GREAT LAKES	5162	34.5	22.8	* 7.8	99	73.6	20.3	39.9	7.8	33.2	19.7	6.6	98	70.9	24.3	45.5	7.2	39.2	19.8	7.8	na	75.4	17.7	35.6	7.1
HYTEST	HT 7550 Bt	32.3	23.2	7.5	98	73.0	21.2	40.0	8.6	32.3	20.9	6.8	98	70.5	24.8	45.7	8.2	36.8	22.5	* 8.3	na	74.3	19.4	37.8	7.7
LG SEEDS	LG 2499	33.9	22.1	7.5	100	73.6	20.3	39.1	8.4	31.9	22.6	* 7.2	98	70.1	25.4	46.0	7.4	37.2	20.7	7.8	na	72.7	20.4	41.4	7.7
LG SEEDS	LGX39-700	38.3	19.4	7.4	97	73.2	20.9	40.2	7.6	35.9	19.0	6.8	99	71.0	24.0	44.9	7.0	40.6	18.3	7.4	na	72.5	21.9	41.6	7.1
LG SEEDS	LGX41-410	38.1	19.3	7.4	94	73.1	21.1	40.1	8.2	36.9	17.4	6.4	95	69.9	25.6	46.5	7.0	44.0	18.5	8.1	na	73.9	19.9	38.4	7.3
LG SEEDS	LGX49-800	33.1	23.9	* 7.9	97	71.1	23.9	44.6	8.1	32.2	24.1	* 7.8	100	68.6	27.5	50.0	7.2	39.7	19.5	7.7	na	72.8	21.0	41.0	7.1
MAIZE	LEAFY 2	33.7	24.8	** 8.3	100	72.0	22.6	42.9	7.9	30.5	23.2	* 7.1	98	69.2	26.6	49.0	7.8	37.4	20.9	7.8	na	73.2	21.4	40.3	7.0
MYCOGEN	F 407	36.1	17.9	6.5	97	74.0	19.8	38.6	7.6	33.8	17.5	5.9	100	72.2	22.4	42.9	7.7	40.3	19.8	8.0	na	75.9	17.0	34.6	6.9
MYCOGEN	3681 FQ	31.8	24.0	* 7.6	97	71.7	23.1	43.2	7.7	31.5	21.7	6.8	99	68.5	27.7	50.2	6.9	37.3	18.3	6.8	na	72.2	22.3	41.9	7.1
PIONEER	36G12	31.9	24.0	* 7.6	91	73.0	21.3	41.4	7.8	32.3	22.9	* 7.4	92	69.8	25.7	48.0	7.1	40.6	23.1	** 9.3	na	75.5	17.7	36.3	7.3
PIONEER	36N70	33.2	23.2	* 7.7	97	72.8	21.5	41.5	8.2	33.5	23.7	** 7.9	99	71.4	23.5	44.1	7.0	39.6	20.9	* 8.2	na	73.9	20.0	39.9	7.7
PIONEER	37R71	39.5	20.2	* 8.0	98	74.7	18.8	37.2	8.0	35.9	17.8	6.4	100	67.8	28.7	50.2	6.8	43.4	17.2	7.3	na	74.1	19.6	37.7	6.9
TRELAY	6900	31.8	23.5	7.5	99	73.4	20.7	40.6	8.1	29.4	23.6	* 6.9	100	70.8	24.4	46.1	7.9	37.5	23.6	* 8.9	na	75.5	17.6	36.3	7.6
VIGORO	X449001	30.9	23.6	7.3	93	73.4	20.7	40.4	8.4	29.2	22.0	6.4	97	69.6	26.0	48.4	7.6	41.0	19.3	7.9	na	75.8	17.2	35.1	7.6
AVERAGE		34.5	21.8	7.5	96	73.0	21.2	40.8	8.1	33.2	20.8	6.9	98	70.1	25.4	46.8	7.3	40.0	19.8	7.9	na	74.2	19.5	38.3	7.3
HIGHEST		39.5	24.8	8.3	100	74.7	23.9	44.6	8.9	37.2	24.1	7.9	100	72.2	28.7	50.2	8.4	44.0	23.6	9.3	na	75.9	22.3	41.9	7.8
LOWEST		30.9	17.9	6.5	88	71.1	18.8	37.2	7.4	29.2	17.4	5.9	88	67.8	22.4	42.9	6.5	36.8	17.1	6.8	na	72.2	17.0	33.6	6.9
Least Significant Difference (LSD) .05%		2.2	2.0	0.7		1.7	2.4	3.4	0.4	3.3	2.2	1.0		2.2	2.9	4.3	0.7	3.4	2.7	1.1		2.2	2.4	3.4	0.7
CV		4.4	6.4	6.4		1.6	8.1	5.9	3.8	7.0	7.3	9.9		2.2	8.1	6.6	6.6	6.1	9.8	9.9		2.1	8.8	6.3	6.3

** HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

TABLE 6L.

AVERAGE OF IONIA, INGHAM & HURON COUNTY SILAGE TRIALS - LATE (>102 Day)

ZONE 2

BRAND	HYBRID	2001					2 Year Avg (2000 / 2001)					3 Years (99-01)				
		Yield Data		Silage Quality - NIR			Yield Data		Silage Quality - NIR			Yield Data		Yield Data		
		%DM	Gwt/A	Dwt/A	%Std	%TDN	%ADF	%NDF	%CP	%DM	Gwt/A	Dwt/A	%DM	Gwt/A	Dwt/A	
BROWN	6341VPwx	36.2	21.5	7.8	98	74.3	19.4	37.5	7.2	--	--	--	--	--	--	--
CORNBELT	C 570	35.4	24.7	* 8.7	98	74.0	19.8	38.5	7.5	--	--	--	--	--	--	--
CORNBELT	C 592 SS	34.3	25.8	** 8.9	88	71.7	23.0	44.3	7.7	--	--	--	--	--	--	--
DAIRYLAND	STEALTH-1406	35.3	24.9	* 8.8	100	73.4	20.6	39.3	7.2	37.9	22.5	8.4	37.1	21.2	40.3	7.0
DAIRYLAND	STEALTH-1606	35.1	24.7	* 8.7	100	73.6	20.5	39.5	7.5	33.8	24.4	8.3	73.0	21.4	40.9	7.2
DEKALB	DK 537	39.4	20.3	8.0	100	73.3	20.8	39.5	6.6	--	--	--	--	--	--	--
DEKALB	DK 567	35.8	22.4	8.0	99	73.3	20.7	39.3	7.2	--	--	--	--	--	--	--
GARST	8640 IT	35.8	22.2	7.9	96	73.0	21.2	40.5	6.9	--	--	--	--	--	--	--
GEERTSON	GS 1049	35.7	23.7	* 8.5	95	74.5	19.0	37.6	7.3	37.0	21.8	8.0	73.9	20.0	38.9	7.0
GOLDEN HARVEST	H-8123	37.2	21.8	* 8.1	99	74.3	19.3	37.4	8.1	--	--	--	--	--	--	--
GOLDEN HARVEST	H-8562	35.6	24.5	* 8.7	97	73.6	20.4	38.8	7.1	--	--	--	--	--	--	--
GREAT LAKES	6192	31.0	25.5	7.9	97	74.0	20.4	38.7	7.7	--	--	--	--	--	--	--
HYTEST	HT 4602	34.4	24.7	* 8.5	99	73.5	20.5	39.1	7.2	--	--	--	--	--	--	--
LG SEEDS	LG 2526SP	32.7	24.1	7.9	100	72.6	21.9	40.7	7.6	32.8	23.6	7.8	72.1	22.6	42.0	7.3
MIDWEST GENETIC	G 7366	35.0	23.6	* 8.3	98	73.9	20.0	38.1	7.3	35.8	22.0	7.9	73.2	21.0	40.1	7.0
MYCOGEN	5481 FQ	33.9	25.5	* 8.7	100	73.1	21.0	39.9	7.4	--	--	--	--	--	--	--
NK Brand	N48-V8	35.2	25.4	** 8.9	99	71.6	23.2	43.8	7.1	34.9	25.0	8.7	71.0	24.1	45.5	7.0
NK Brand	N59-Q9	35.1	23.0	8.0	99	73.9	20.0	38.9	7.0	35.9	22.2	7.9	73.4	20.8	40.3	6.8
TRELAY	8100	33.9	24.8	* 8.4	93	73.0	21.1	40.5	7.6	--	--	--	--	--	--	--
TRELAY	9095	33.4	26.0	* 8.7	96	73.5	20.6	39.7	7.3	35.3	22.7	8.0	72.7	21.8	41.5	7.0
TRELAY	9300	34.6	24.0	* 8.3	99	73.6	20.3	38.9	7.3	--	--	--	--	--	--	--
Average		35.0	24.0	8.4	98	73.4	20.7	39.5	7.3	35.4	23.0	8.1	72.8	21.6	41.2	7.0
Highest		39.4	26.0	8.9	100	74.5	23.2	44.3	8.1	37.9	25.0	8.7	73.9	24.1	45.5	7.3
Lowest		31.0	20.3	7.8	88	71.6	19.0	37.4	6.6	32.8	21.8	7.8	71.0	20.0	38.9	6.8
Least Significant Difference (LSD) .05%		2.2	2.3	0.8		1.2	1.8	2.7	0.5							
CV		3.8	5.7	5.9		1.0	5.4	4.2	3.9							

** HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

TABLE 6L.

INDIVIDUAL COUNTY SILAGE TRIALS - IONIA, INGHAM & HURON - LATE (>102 Day)

ZONE 2

		IONIA								INGHAM								HURON (Zone 3)							
		YIELD DATA				SILAGE QUALITY - NIR				YIELD DATA				SILAGE QUALITY - NIR				YIELD DATA				SILAGE QUALITY - NIR			
BRAND	HYBRID	%DM	Gw/A	Dw/A	%Std	%TDN	%ADF	%NDF	%CP	%DM	Gw/A	Dw/A	%Std	%TDN	%ADF	%NDF	%CP	%DM	Gw/A	Dw/A	%Std	%TDN	%ADF	%NDF	%CP
BROWN	6341VPwx	35.6	21.1	7.5	96	73.8	20.1	38.7	7.8	36.7	20.8	7.6	100	73.7	20.2	38.4	6.7	36.4	22.5	8.2	na	75.4	17.8	35.5	7.1
CORNBELT	C 570	32.7	24.8	* 8.1	99	72.6	21.8	41.3	7.7	36.6	24.1	* 8.8	97	73.0	21.2	40.6	7.0	36.8	25.3	* 9.3	na	76.4	16.4	33.7	7.9
CORNBELT	C 592 SS	32.7	25.3	* 8.3	86	70.6	24.6	46.5	8.1	33.9	24.7	* 8.4	89	69.6	26.1	48.8	7.4	36.3	27.4	** 9.9	na	74.9	18.4	37.5	7.5
DAIRYLAND	STEALTH-1406	33.7	23.4	* 7.9	100	72.5	22.0	41.3	8.1	36.0	25.8	** 9.3	100	73.2	20.9	39.3	6.6	36.2	25.6	* 9.2	na	74.6	18.9	37.4	7.0
DAIRYLAND	STEALTH-1606	33.0	24.4	* 8.1	100	72.6	21.8	41.4	8.0	35.4	23.4	8.2	100	72.4	22.7	42.3	7.0	36.9	26.2	* 9.7	na	75.9	17.1	34.8	7.5
DEKALB	DK 537	36.3	21.6	* 7.8	99	72.6	21.8	41.0	7.3	42.2	20.5	* 8.7	100	72.7	21.7	40.5	5.9	39.6	18.7	7.4	na	74.5	19.0	37.1	6.7
DEKALB	DK 567	32.7	23.9	* 7.8	98	71.7	23.1	42.7	7.7	37.1	20.8	7.7	100	72.8	21.4	39.9	6.8	37.6	22.4	8.4	na	75.5	17.7	35.2	7.1
GARST	8640 IT	33.3	22.9	7.6	96	72.5	22.0	42.2	7.9	37.0	23.8	* 8.8	96	72.9	21.4	39.8	5.9	37.1	20.0	7.4	na	73.7	20.3	39.4	6.9
GEERTSON	GS 1049	34.3	22.2	7.6	93	73.5	20.5	39.7	7.8	35.4	24.9	* 8.8	97	73.4	20.6	39.7	6.9	37.4	24.1	* 9.0	na	76.7	15.9	33.4	7.2
GOLDEN HARVEST	H-8123	33.1	21.9	7.3	99	72.2	22.4	42.0	9.2	40.1	21.2	* 8.5	100	74.5	19.1	36.6	7.2	38.3	22.4	8.6	na	76.3	16.5	33.7	7.9
GOLDEN HARVEST	H-8562	33.3	23.1	* 7.7	96	72.1	22.4	41.8	7.6	38.6	23.8	* 9.2	97	73.3	20.8	39.1	6.3	34.9	26.7	* 9.3	na	75.3	17.9	35.5	7.4
GREAT LAKES	6192	30.3	27.3	* 8.3	95	73.6	20.3	39.4	8.2	30.6	24.9	7.6	99	73.1	22.8	40.4	7.5	32.0	24.3	7.8	na	75.2	18.1	36.4	7.5
HYTEST	HT 4602	31.9	23.6	7.5	98	72.6	21.7	41.2	8.1	37.4	23.5	* 8.7	100	73.2	21.0	39.2	6.2	34.0	27.0	* 9.2	na	74.8	18.7	37.0	7.3
LG SEEDS	LG 2526SP	31.4	22.8	7.2	100	71.8	22.9	42.4	8.5	32.1	25.1	8.0	100	70.7	24.6	44.2	7.0	34.7	24.4	8.4	na	75.2	18.1	35.4	7.2
MIDWEST GENETIC	G 7366	33.6	22.7	7.6	97	73.0	21.2	40.5	7.8	33.9	24.6	* 8.4	99	72.5	21.9	39.6	7.0	37.6	23.4	* 8.8	na	76.1	16.8	34.3	7.2
MYCOGEN	5481 FQ	32.2	25.0	* 8.1	100	72.5	22.0	40.9	7.9	36.2	24.8	* 9.0	99	72.3	22.1	41.2	6.9	33.4	26.6	* 8.9	na	74.5	19.0	37.5	7.5
NK Brand	N48-V8	34.0	23.9	* 8.1	99	70.4	25.0	46.3	7.6	35.6	25.0	* 8.9	100	70.0	25.5	46.9	6.7	36.1	27.2	* 9.8	na	74.5	19.1	38.3	7.0
NK Brand	N59-Q9	32.6	23.7	* 7.7	98	73.2	20.9	40.4	7.9	37.4	22.0	8.2	100	74.0	19.8	38.0	6.2	35.2	23.3	8.2	na	74.4	19.3	38.4	7.0
TRELAY	8100	32.0	24.8	* 7.9	92	72.2	22.3	42.1	8.0	35.1	23.9	* 8.4	93	72.7	21.7	40.9	7.2	34.7	25.6	* 8.9	na	74.2	19.4	38.5	7.5
TRELAY	9095	31.7	23.8	7.6	91	72.2	22.3	42.3	8.1	34.5	25.3	* 8.7	100	72.9	21.4	40.4	6.5	33.9	29.0	** 9.9	na	75.3	18.0	36.4	7.4
TRELAY	9300	34.8	24.1	** 8.4	98	73.1	21.0	40.0	7.7	34.5	24.4	* 8.4	100	72.0	22.6	41.7	6.4	34.5	23.4	8.1	na	75.8	17.2	34.9	7.8
AVERAGE		33.1	23.6	7.8	97	72.4	22.0	41.6	8.0	36.0	23.7	8.5	98	72.6	21.9	40.8	6.7	35.9	24.5	8.8	na	75.2	18.1	36.2	7.3
HIGHEST		36.3	27.3	8.4	100	73.8	25.0	46.5	9.2	42.2	25.8	9.3	100	74.5	26.1	48.8	7.5	39.6	29.0	9.9	na	76.7	20.3	39.4	7.9
LOWEST		30.3	21.1	7.2	86	70.4	20.1	38.7	7.3	30.6	20.5	7.6	89	69.6	19.1	36.6	5.9	32.0	18.7	7.4	na	73.7	15.9	33.4	6.7
Least Significant Difference (LSD) .05%		2.1	1.9	0.7		1.5	2.2	3.3	0.5	2.8	3.4	1.0		1.6	2.2	3.5	0.8	2.2	3.3	1.2		1.7	2.4	3.7	0.7
CV		4.4	5.7	6.2		1.5	7.0	5.5	4.6	4.7	8.6	7.5		1.3	6.2	5.1	7.1	4.3	9.5	9.8		1.5	9.1	7.0	6.2

** HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

TABLE 7.

AVERAGE OF ALPENA, OSCEOLA & DELTA COUNTY SILAGE TRIALS (84-100 DAY)

ZONE 4

BRAND	HYBRID	2001					2 Year Avg (2000 / 2001)					3 Years (99-01)				
		Yield Data			Silage Quality - NIR			Yield Data			Silage Quality - NIR			Yield Data		
		%DM	Gwt/A	Dwt/A	%Std	%TDN	%ADF	%NDF	%CP	%DM	Gwt/A	Dwt/A	%TDN	%ADF	%NDF	%CP
DAIRYLAND	STEALTH-1496	33.3	17.6	5.8	99	72.4	22.1	42.3	9.2	32.8	18.8	5.9	71.4	23.6	44.8	8.8
DAIRYLAND	HI DF-3300	34.2	17.6	6.0	95	72.4	22.0	42.4	8.5	33.4	18.6	6.0	72.1	22.6	43.4	8.4
DEKALB	DKC 37-81	35.6	15.0	5.4	92	72.4	22.0	41.1	8.8	-	-	-	-	-	-	-
DEKALB	DKC 39-47	34.4	16.5	5.6	89	73.1	21.1	40.1	8.3	-	-	-	-	-	-	-
DEKALB	DKC 42-22	32.0	18.5	5.9	94	73.8	20.0	39.4	8.5	-	-	-	-	-	-	-
GREAT LAKES	3474	36.3	15.2	5.5	98	71.6	23.1	42.8	8.6	-	-	-	-	-	-	-
GREAT LAKES	4526	35.1	17.5	* 6.1	92	73.1	21.0	40.9	8.7	33.9	18.5	6.1	72.5	22.0	42.7	8.6
GREAT LAKES	4964	32.9	18.2	6.0	94	72.7	21.7	41.9	9.1	-	-	-	-	-	-	-
LG SEEDS	LG 2367	38.4	15.9	* 6.1	95	72.2	22.3	42.2	8.2	37.6	15.7	5.8	71.6	23.2	43.9	7.9
MYCOGEN	TMF 2450	32.7	20.4	** 6.7	99	71.8	23.0	42.5	8.8	-	-	-	-	-	-	-
NK Brand	N3030 Bt	33.4	17.0	5.7	99	73.1	21.0	41.2	9.0	-	-	-	-	-	-	-
PIONEER	37J99	34.7	16.7	5.8	97	73.3	20.8	40.9	9.7	33.9	17.9	5.9	73.1	21.2	41.3	9.1
PIONEER	38K06	36.0	15.9	5.7	94	74.5	19.1	37.9	9.1	-	-	-	-	-	-	-
PIONEER	38T27	34.4	18.0	* 6.2	95	72.7	21.6	41.4	8.7	34.5	18.4	6.1	72.2	22.5	42.7	8.3
RENK	RK 546	31.6	17.3	5.4	97	70.4	24.9	46.6	8.8	31.8	19.6	5.9	70.6	24.7	46.2	8.3
WOLF RIVER VALLEY	WRV 2096L	32.0	19.0	* 6.1	94	72.5	21.9	41.2	9.0	-	-	-	-	-	-	-
AVERAGE		34.2	17.3	5.9	95	72.6	21.7	41.6	8.8	34.0	18.2	6.0	71.9	22.8	43.5	8.5
HIGHEST		38.4	20.4	6.7	99	74.5	24.9	46.6	9.7	37.6	19.6	6.1	73.1	24.7	46.2	9.1
LOWEST		31.6	15.0	5.4	89	70.4	19.1	37.9	8.2	31.8	15.7	5.8	70.6	21.2	41.3	7.9
Least Significant Difference (LSD) .05%		1.8	1.4	0.6		1.0	1.4	2.2	1.0							
CV		3.2	4.8	6.6		0.8	3.9	3.2	6.6							

** HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

TABLE 7.

INDIVIDUAL COUNTY SILAGE TRIALS - ALPENA, OSCEOLA & DELTA (84-100 DAY)

ZONE 4

		ALPENA								OSCEOLA								DELTA								
		YIELD DATA				SILAGE QUALITY - NIR				YIELD DATA				SILAGE QUALITY - NIR				YIELD DATA				SILAGE QUALITY - NIR				
BRAND	HYBRID	%DM	Gwt/A	Dwt/A	%Std	%TDN	%ADF	%NDF	%CP	%DM	Gwt/A	Dwt/A	%Std	%TDN	%ADF	%NDF	%CP	%DM	Gwt/A	Dwt/A	%Std	%TDN	%ADF	%NDF	%CP	
DAIRYLAND	STEALTH-1496	34.9	14.4	5.0	99	72.6	21.8	43.9	9.6	32.7	21.7	* 7.1	98	74.1	19.7	38.4	8.1	32.2	16.7	5.4	100	70.6	24.7	44.5	10.0	
	HIDF-3300	36.8	15.2	5.6	96	72.8	21.4	42.9	8.4	31.9	20.7	6.6	91	73.8	20.1	39.5	8.4	33.8	16.8	* 5.7	100	70.7	24.5	44.8	8.8	
	DEKALB	DKC 37-81	36.2	12.6	4.6	88	72.5	21.9	42.9	9.5	35.0	16.9	5.9	88	74.9	18.5	35.8	8.4	35.5	15.6	* 5.6	100	69.9	25.7	44.7	8.5
	DEKALB	DKC 39-47	36.5	14.3	5.2	87	73.3	20.8	41.5	8.5	33.0	19.7	6.5	82	75.1	18.2	35.3	7.8	33.6	15.4	5.1	99	70.9	24.2	43.4	8.5
	DEKALB	DKC 42-22	33.7	16.5	5.6	99	73.8	20.1	41.5	8.7	31.5	22.1	* 6.9	83	75.3	17.9	35.3	7.8	30.9	16.8	5.2	99	72.4	22.1	41.5	9.0
GREAT LAKES	3474	38.6	12.2	4.7	95	73.3	20.8	41.4	9.0	34.4	18.7	6.5	99	74.0	19.7	38.6	8.5	36.0	14.7	5.3	100	67.6	28.9	48.5	8.4	
	4526	35.9	15.1	5.4	94	73.3	20.8	42.1	9.4	32.8	20.2	6.6	83	74.8	18.6	37.0	8.3	36.5	17.2	** 6.3	99	71.2	23.7	43.6	8.4	
GREAT LAKES	4964	36.4	16.4	* 6.0	91	73.4	20.7	41.0	8.7	32.4	21.5	* 7.0	91	74.7	18.8	36.9	8.1	30.0	16.8	5.1	100	69.9	25.6	47.9	10.4	
LG SEEDS	LG 2367	39.6	14.6	5.8	96	72.4	22.1	43.1	8.5	37.4	17.5	6.6	88	74.2	19.5	38.2	8.0	38.2	15.5	* 5.9	100	70.0	25.4	45.2	8.0	
MYCOGEN	TMF 2450	36.3	18.5	** 6.7	97	72.3	22.3	42.4	8.1	30.9	23.5	** 7.3	99	73.5	20.5	38.6	8.3	31.0	19.3	* 6.0	100	69.5	26.1	46.6	10.1	
NK Brand	N3030 Bt	35.8	15.5	5.6	100	73.6	20.3	41.6	9.0	32.2	20.7	* 6.7	96	75.5	17.7	35.1	8.1	32.1	14.8	4.8	100	70.3	25.1	47.0	9.9	
PIONEER	37J99	38.4	14.9	5.7	98	73.5	20.5	41.2	9.3	33.3	20.6	* 6.9	94	75.5	17.6	35.1	8.4	32.5	14.7	4.8	100	70.8	24.4	46.3	11.4	
PIONEER	38K06	38.0	12.8	4.9	99	74.9	18.5	38.0	9.4	33.7	19.8	* 6.7	81	75.9	17.1	34.4	8.6	36.4	15.1	5.5	100	72.6	21.8	41.3	9.2	
PIONEER	38T27	36.2	16.5	* 6.0	93	72.7	21.7	42.5	8.7	33.2	21.0	* 7.0	94	74.4	19.2	37.5	8.2	33.7	16.4	5.5	99	71.1	24.0	44.1	9.3	
RENK	RK 546	35.0	15.1	5.3	97	70.6	24.6	47.6	8.5	29.6	21.4	6.4	94	72.6	21.8	41.6	8.0	30.1	15.4	4.6	100	68.1	28.2	50.5	9.8	
WOLF RIVER VAL	WRV 2096L	34.7	17.3	* 6.0	94	72.9	21.3	41.6	8.7	30.5	21.7	6.6	90	73.9	19.9	37.7	8.4	30.9	18.0	* 5.6	99	70.8	24.4	44.2	10.0	
AVERAGE		36.4	15.1	5.5	95	73.0	21.2	42.2	8.9	32.8	20.5	6.7	91	74.5	19.1	37.2	8.2	33.3	16.2	5.4	100	70.4	24.9	45.3	9.4	
HIGHEST		39.6	18.5	6.7	100	74.9	24.6	47.6	9.6	37.4	23.5	7.3	99	75.9	21.8	41.6	8.6	38.2	19.3	6.3	100	72.6	28.9	50.5	11.4	
LOWEST		33.7	12.2	4.6	87	70.6	18.5	38.0	8.1	29.6	16.9	5.9	81	72.6	17.1	34.4	7.8	30.0	14.7	4.6	99	67.6	21.8	41.3	8.0	
Least Significant Difference (LSD) .05%		2.7	1.7	0.7		1.4	2.0	3.3	0.7	2.0	1.4	0.6		1.2	1.6	2.2	2.2	2.5	2.0	0.7		1.8	2.6	4.0	1.1	
CV		5.2	7.8	7.9		1.4	6.8	5.5	5.1	4.4	4.7	6.6		1.1	5.8	4.2	4.2	5.4	8.6	9.6		1.8	7.2	6.1	7.8	

** HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELDING HYBRID IN DRY WEIGHT PER ACRE

HYBRID INDEX FOR SILAGE TRIALS

There were 89 hybrids submitted by 23 seed companies (24 brand names) resulting in 242 individual entries in the 2001 Michigan Corn Performance Trials for silage. The zone map of Michigan shows the zone and locations where the trials were planted (page 24). Entries in a particular zone were divided into two maturity groups (Early and Late) based upon the maturity rating submitted by the companies. Results from the early and late trial in a zone are arranged in separate tables that are designated by an "E" or "L" along with the zone number. Below is a listing of company names, brand names, and hybrid numbers along with the table designation for each hybrid.

Zone 1 - Table 5E & 5L

Lenawee
Branch
Zone Average

AgraGold Hybrids

AGRIGOLD A6391* (5E)
AGRIGOLD A6445* (5E)
AGRIGOLD A6469Bt* (5L)
AGRIGOLD XA5033* (5E)

The Andersons, Inc.

ANDERSONS 5111 (5L)

Monsanto

ASGROW RX 708 (5E)

Baldrige Hybrids

BALDRIDGE BH-672 (5L)

Becks Superior Hybrids

BECK'S 5283 Bt 1 (5E)
BECK'S 5322** (5E)

Browns Seed Farm

BROWN 6341VPwx** (6L)
BROWN 7044** (5E)

Corn Belt Hybrids

CORN BELT C 570 (6L)
CORN BELT C 57B8 Bt (5E)
CORN BELT C 592 SS (6L)

Dairyland Seed Company, Inc.

DAIRYLAND STEALTH-1406 (6L)
DAIRYLAND STEALTH-1412 (5L)
DAIRYLAND STEALTH-1496 (7E)
DAIRYLAND STEALTH-1598 (6E)
DAIRYLAND STEALTH-1606 (6L)
DAIRYLAND Hi DF-3300 (7E)
DAIRYLAND DST-10234 (6E)

Monsanto

DEKALB DK 537 (6L)
DEKALB DK 567 (6L)
DEKALB DKC 37-81 (7E)
DEKALB DKC 39-47 (7E)
DEKALB DKC 42-22 (7E)
DEKALB DKC 48-15 (6E)
DEKALB DKC 58-78 (5E)
DEKALB DKC 58-52 (5E)
DEKALB DKC 60-08 (5E)
DEKALB DKC 61-24 (5L)

Zone 2 - Table 6E & 6L

Ionia
Ingham
Huron - Zone 3
Zone Average

Garst Seed Co.

GARST 8362 IT (5L)
GARST 8640 IT (6L)

Geertson Seed Farms

GEERTSON GS 998 (6E)
GEERTSON GS 1049 (6L)

Golden Harvest / Sommer Bros. Seed Co.

GOLDEN HARVEST H-6573 (6E)
GOLDEN HARVEST H-6675 (6E)
GOLDEN HARVEST H-8123 (6L)
GOLDEN HARVEST H-8562 (6L)
GOLDEN HARVEST H-9403 (5L)

Great Lakes Hybrids, Inc.

GREAT LAKES 3474 (7E)
GREAT LAKES 4526 (7E)
GREAT LAKES 4964 (6E,7E)
GREAT LAKES 5162 (6E)
GREAT LAKES 6032 (5E)
GREAT LAKES 6192 (6L)
GREAT LAKES 6214 (5L)
GREAT LAKES 6278 (5L)

Hytest Seeds

HYTEST HT 4602 (5E,6L)
HYTEST HT 7550 Bt (6E)

LG Seeds

LG SEEDS LG 2367* (7E)
LG SEEDS LG 2499* (6E)
LG SEEDS LG 2526SP* (6L)
LG SEEDS LG 2585* (5L)
LG SEEDS LGX39-700 (6E)
LG SEEDS LGX41-410 (6E)
LG SEEDS LGX49-800 (6E)

Maizex Seeds, Inc.

MAIZEX LEAFY 2 (6E)

Midwest Seed Genetics

MIDWEST GENETIC G 7366 (6L)
MIDWEST GENETIC G 7711 (5L)

Zone 4- Table 7

Alpena
Osceola
Delta
Zone Average

Mycogen Plant Sciences

MYCOGEN F 407 (6E)
MYCOGEN F 697 (5L)
MYCOGEN F 717 (5L)
MYCOGEN 3681 FQ (6E)
MYCOGEN 5481 FQ (6L)
MYCOGEN TMF 108 (5E)
MYCOGEN TMF 114 (5L)
MYCOGEN TMF 2450 (7E)

Pioneer Hi-Bred International, Inc.

PIONEER 33J56 (5L)
PIONEER 34B23 (5E)
PIONEER 34M94 (5E)
PIONEER 36G12 (6E)
PIONEER 36N70 (6E)
PIONEER 37J99 (7E)
PIONEER 37R71 (6E)
PIONEER 38K06 (7E)
PIONEER 38T27 (7E)

Renk Seed Company, Inc.

RENK RK 546 (7E)

Syngenta Seeds

NK Brand N3030 Bt (7E)
NK Brand N48-V8 (5E,6L)
NK Brand N59-Q9 (6L)
NK Brand N70-D5 (5L)

Trelay Seed Company, Inc.

TRELAY 6900** (6E)
TRELAY 8100** (6L)
TRELAY 9095** (6L)
TRELAY 9300** (6L)

Royster-Clark, Inc.

VIGORO V5020 (5E)
VIGORO X449001 (6E)

Wolf River Valley Seeds

WOLF RIVER VAL WRV 2096L (7E)

* Denotes hybrids treated with the seed treatment Prescribe

** Denotes hybrids treated with the seed treatment Gaucho

COMPANY INDEX

<u>Brand</u>	<u>Company Name and Address</u>	<u>Brand</u>	<u>Company Name and Address</u>
AgriGold	AgriGold Hybrids R.R. 1, Box 203 St. Francisville, IL 62460	Great Lakes	Great Lakes Hybrids 9915 W. M-21 Ovid, MI 48866
Anderson Classic	The Andersons, Inc. P.O. Box 119 Maumee, OH 43537	Gries	Gries Seed Farms, Inc. 2348 N. Fifth Street Fremont, OH 43420
Asgrow	Monsanto Seed 3100 Sycamore Rd. DeKalb, IN 60115	High Cycle	Trelay Seed Co. 11623 Hwy 80 Livingston, WI 53554
Baldridge	Baldridge Hybrids P.O. Box 99, SR 137 Cherry Fork, OH 45618	Hytest	Hytest Seeds P.O. Box 5147, Shiremanstown, PA 17011
Bayside	Bayside Seeds 259 Bowker Rd. Munger, MI 48747	LG Seeds	LG Seeds 1122 East 169 th St. Westfield, IN 46074
Beck's	Beck's Hybrids 6767 E. 276 th Street Atlanta, IN 46031	Maizex	Maizex Seeds Inc. 4488 Mint line R. #2 Tilbury, Ontario N0P 2L0
Bio Gene	Bio Gene 5491 Tri County Hwy. Sardinia, OH 45171	Midwest Genetics	Midwest Seed Genetics P.O. Box 518 Carroll, IA 51401
Brodbeck	Brodbeck Seeds 4060 W. 50N Wabash, IN 46992	Mycogen	Mycogen Seeds 9330 Zionsville Road Indianapolis, IN 46268
Brown	Brown Seed Farms P.O. Box 186, 720 St. Croix St. Prescott, WI 54021	New Century	New Century Seed Express P.O. Box 145 Riga, MI 49276
Corn Belt	Corn Belt Hybrids P.O. Box 95 St. Marys, OH 45885	Pioneer	Pioneer Hi-Bred International Inc. 210 Westfield Drive Archibold, OH 43502
Crow's	Crow's Hybrid Corn Co. P.O. Box 157 Kentland, IN 47951	Pro Seed	Pro Seed Technologies, Inc. 25 E. Loop Rd., Suite 312 Stony Brook, NY 11790
Dairyland	Dairyland Seed Company, Inc. P.O. Box 958 West Bend, WI 53095	Renk	Renk Seed Co. 6800 Wilburn Rd. Sun Prairie, WI 53590
Dekalb	Monsanto Seed 3100 Sycamore Rd. DeKalb, IL 60115	Rupp	Rupp Seed Inc. 17919 Co. Ro. B Wauseon, OH 43567
Dyna-gro	UAP- Great Lakes 221 W. Lake Lansing, Ste. 102 East Lansing, MI 48823	Seedex	Seedex, Inc. P.O. Box 1477 Longmont, CO 80502
Garst	Garst Seed Co. 9877 W. Britton Rd. Laingsburg, MI 48848	NK Brand	Syngenta Seeds 12275 S. Sherman Lake Dr. Augusta, MI 49012
Geertson	Geertson Seed Farm 1665 Burroughs Rd. Adrian, OR 97901	Trelay	Trelay Seed Co. 11623 Hwy 80 Livingston, WI 53554
Genesis	Genesis Brand Seed P.O. Box 21085 Lansing, MI 48909	Vigoro	Royster-Clark, Inc. 70 N. Market St. Mt. Sterling, OH 43143
Golden Harvest	Golden Harvest Sommer Bros. Seed Co. P.O. Box 248 Pekin, IL 61555	Wolf River	Wolf River Valley Seeds N2976 County M White Lake, WI 54491

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