Michigan Corn Production Hybrids Compared
Michigan State University Extension Service
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Michigan Corn Production

HYBRIDS COMPARED

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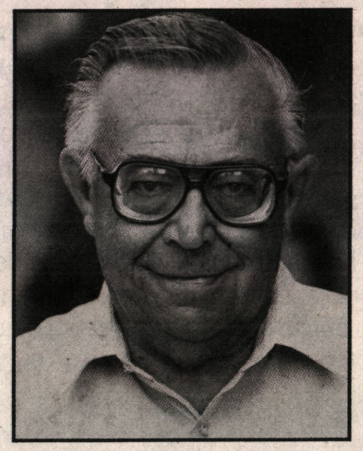
Died November 16, 1989. This bulletin was completed after his death.



Elmer C. Rossman, born November 17, 1919 at Rawlins, Wyoming, received his B.S. in Agronomy from Oregon State University, an M.S. in Farm Crops from Michigan State and a Ph.D. in Plant Breeding from Iowa State University. Elmer joined the staff of MSU in 1948 and remained on the faculty until his death, November 16, 1989.

From 1950-1987, Elmer participated in the annual meeting of the American Seed Trade and was a member of the NCR-2 committee, serving as chairman three times. His annual "Corn Hybrids Compared" was an annual event along with numerous reports for farm magazines, technical journals and newspapers.

He had a major role in increasing corn production in Michigan from 1,729,000 acres in 1950-54 to over 2,830,000 acres in 1982-86. Dr. Rossman released more than 30 corn inbred lines and 30 corn hybrids. His corn production research, coupled with his success as a plant breeder, were major contributions to the doubling of average corn yields in Michigan in less than two decades. His close ties with Extension and farmers resulted in a valuable and productive linkage between excellent science and applied research serving the corn producers of the state of Michigan.

Hybrid corn trials are conducted each year by the Michigan Agricultural Experiment Station in cooperation with the Cooperative Extension Service, seed corn companies, and farmers.

Many different hybrids are offered for sale in Michigan. They differ in yield ability, maturity, lodging resistance, and other characteristics. Choosing the best corn hybrids is an important part of profitable corn production. By planting the best hybrids, farmers can obtain higher yields and other improvements with little or no increase in production costs. Seed of hybrids with the best performance records in Michigan generally cost no more than seed of hybrids with lower performance.

The highest yielding hybrids in the 1989 trials produced 40 bushels more per acre than the average of 373 hybrids tested (Table A) and 84 bushels more than the lowest yielding hybrids. At 19 testing locations, the yields were 177 bushels for the highest, 137 bushels for the average, and 93 bushels for the lowest yielding hybrids. The driest hybrids at harvest contained 5 percent less moisture than the average and 12 percent less moisture than the wettest hybrids tested. Stalk breakage averaged 11 percent for hybrids with the highest amount of stalk lodging, 3 percent for the average and 0.2 percent for the lowest.

Entries

All seed companies are invited to enter hybrids in the trials each year. A fee is charged to cover some of the direct expenses.

Table 25 presents an index of all hybrids entered in the 1989 trials. At the 19 locations, 373 hybrids from 47 seed companies were tested as 2,042 entries. Company names used in association with hybrid numbers refer to the brand. The number is the hybrid designation.

Methods

Scientific methods are used to conduct these trials to give all hybrids equal opportunity to demonstrate their capabilities. The best way to compare a group of corn hybrids is to grow them all in the same field with the same fertilizer, population, date of planting, etc.

Seed companies submitted seed for all entries. Equal numbers of seeds were counted for each plot of all hybrids. Each hybrid was replicated several times in the field. Plots were planted with a standard, two-row corn planter adapted for small plots.

From seed packaging through harvest and data processing, each hybrid was identified only by a code number to reduce the chance of biased results. The code was deciphered after the data had been processed.

Stands and lodging were counted before harvest. Plots were harvested mechanically for both grain and silage yields.

Silage yields were taken on all hybrids in trials of Ingham, Sanilac, Huron, Missaukee, Alpena, and Alger counties (Tables 10, 12, 15, 20, 22, and 24).

Irrigated and non-irrigated comparisons were made in the Montcalm County trial (Table 17). The trials in Hillsdale County (Table 2) and Mason County (Table 18) were irrigated. There were two locations in Cass County—upland soil with irrigation (Table 5) and muck soil (Table 6).

Damage by deer in the Alger County silage trial (Table 24) resulted in unacceptable stand losses. Table 24 was not published in 1989 nor in 1987.

Growing Conditions

All plantings were completed between April 27 and May 22. Planting was timely. Cool, wet growing conditions following planting were not conducive to rapid germination or seedling survival (Table B). These growing conditions were reflected in lower than expected stand counts. The available moisture supply was near the long-term growing season average, a significant change from the extremely dry season of 1988. Total corn acreage planted in 1989 was 2,300,000 with a harvested acreage of 1,970,000, up 23% from 1988. The Michigan Crop Reporting Service estimates the average yield to be 113 bushels per acre. This is a new all-time record yield surpassing the previous high of 107 bushels per acre in 1982. Total corn production was up 114% over the drought decimated 1988 crop.

Area harvested for silage has been estimated to be 300,000 acres with an average yield of 13 tons per acre.

How to Use This Bulletin

One-, two- and three-year averages are presented for all hybrids tested during 1989, 1988, and 1987. One-year data are less reliable than two- or three-year averages and should be interpreted with more caution. Confidence in corn performance data increases with the number of years and locations of testing. Two years' results, or more, are more desirable than one year's.

The tables show the following about the hybrids tested:

1. Average moisture content at harvest.
2. Average yield (in bushels) of shelled corn at 15.5 percent moisture.
3. Average percent of stalk lodging (plants broken below the ear at harvest).

Hybrids are recorded in the tables in order of their approximate maturity (early to late) based on moisture at harvest.

Moisture content was determined from shelled grain samples at all locations harvested for grain and from chopped silage (fodder plus grain) in the silage trials.

Stalk breakage is caused by corn borers and/or stalk rot diseases. Two or more plots of the same hybrid in the same field may produce somewhat different results due to uncontrolled variability in the soil and other environmental factors. Replication and randomization of the entries are two methods used to reduce these errors. Since these methods do not eliminate all of these variables, differences necessary for statistical significance have been calculated for yield and moisture content.

The value calculated as the "least significance difference" or "LSD" is the amount that an individual hybrid would have to differ from the experiment average to be different from that average.

Hybrids with yields significantly better than the average grain yield at each location are marked with an asterisk (*) in each table.

Agronomic information for each trial is given at the bottom of each table. Fertilizer amounts are total pounds per acre of nitrogen, P_2O_5 and K_2O applied during the season.

How to Choose a Hybrid

Adaptation

The following map shows the location of the trials and divides Michigan into four maturity zones, but only in a general way. 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.

Find the zone in which you plan to grow the corn, and refer to the table that gives results for the trials conducted nearest you. Also, refer to the other tables listed in your zone. A hybrid that has done well at two or more locations is more likely to be a good hybrid for your farm, too.

Corn Maturity Zones and Locations (★) of Trials

Planting Rate

High plant populations (20,000 or more per acre) should be considered only for soils consistently producing more than 100 bushels per acre. Rainfall deficiencies with high plant populations usually result in no increase in yield and frequently a decrease compared to 18,000 to 19,000 plants per acre. Lodging and harvest losses are often greater at higher populations.

Maturity

Hybrids are listed in the tables in order of maturity (early to late) based on moisture content of the grain at harvest. This is usually a reasonable, accurate measure of relative maturity in most years in Michigan. Early-maturing hybrids are generally lower in moisture content than later-maturing hybrids. Differences among hybrids in rate of drying in the field also affect moisture content at harvest, but usually do not greatly disturb the relative maturity ratings as determined by moisture content.

One percent more moisture at harvest means a delay in maturity of about two days. Corn is mature when moisture is about 32 percent in the grain or 38 percent in the ear.

For Grain

It is better to choose an early corn (below average moisture content) than a late corn for grain. The tables show that good yields do not depend on later maturity. Advantages of early-maturing hybrids are:

- They usually mature before killing frosts.
- Good-yielding early hybrids generally yield as much or more than late hybrids in most areas of Michigan.
- Early hybrids with lower moisture content at harvest reduce drying costs and market discounts for moisture.
- Mature, dry corn makes better livestock feed.
- You can harvest earlier in the fall when weather conditions are most favorable. Early harvest may reduce corn losses resulting from broken stalks and dropped ears.
- Fall plowing of corn stubble may be possible with early hybrids on land not subject to erosion.

For Silage

The best silage contains a high percentage of grain. Hybrids that produce high yields of grain should be used for silage. High dry-weight production per acre is a better reason for choosing hybrids for silage than tons of green weight.

Corn for silage should reach the early dent stage well before frost in an average year. The early dent stage, when most of the kernels have dented, is the best time to begin harvest for silage. Dry matter production continues to increase until maturity.

Other Considerations

Choose early hybrids for late plantings, low soil fertility, sandy soils, muck soils, and for corn that is to be followed by a winter grain or cover crop.

You can obtain some degree of "crop insurance" by choosing two or three hybrids that differ slightly in their maturity. If one hybrid runs into unfavorable weather at a critical stage of growth, another may be less affected and produce a good crop.

Even though you have been growing a hybrid that has given good results, you may be able to improve your corn yield by trying one or more hybrids with better records in these trials. Well-tested, new hybrids are worth trying. You may want to try a new hybrid in a strip in the same field with your present hybrid.

Ways to Reduce Stalk Lodging

Several stalk-rotting fungi may cause broken stalks at harvest and create a major problem in corn production. Stalk rot occurs when fungi increase rapidly after the plant has matured or when the plant has died prematurely. Highest incidence of stalk rot occurs in years when corn matures early and when harvest is delayed. Infection and disease

Table A. Average, highest and lowest grain yield, moisture content, and stalk lodging at 19 locations in 1989

Location County	Number of Hybrids	Bushels per Acre			% Moisture			% Stalk Lodging		
		Average	*Highest*	*Lowest*	*Average*	*Highest*	*Lowest*	*Average*	*Highest*	*Lowest*
Monroe	123	141	198	88	21	27	16	3	7	0
Hillsdale-*Irrigated*	116	155	200	97	22	27	16	2	8	0
Branch	121	163	209	107	22	27	17	2	7	0
Kalamazoo	98	152	195	105	21	27	17	3	28	0
Cass-*Upland-Irrigated*	105	175	218	101	21	25	16	2	6	0
Cass-*Muck Soil*	59	86	139	60	24	29	20	4	12	0
Kent	84	157	194	118	23	27	20	2	7	0
Ottawa	83	146	195	110	23	31	18	3	10	0
Ingham	100	152	185	103	28	36	19	3	16	0
Sanilac	114	135	175	98	27	37	20	1	5	0
Saginaw	124	147	174	99	21	28	17	3	9	0
Huron	110	166	206	126	25	34	19	1	6	0
Isabella	88	121	158	74	18	28	16	2	6	0
Montcalm-*Irrigated*	79	168	210	117	18	25	15	3	8	0
Montcalm-*Not Irrigated*	79	116	160	70	18	25	15	3	8	0
Mason-*Irrigated*	42	138	169	117	18	22	15	1	5	0
Grand Traverse	48	95	124	45	20	26	16	15	54	3
Alpena	41	87	119	56	23	33	18	1	6	0
Menominee	32	106	126	85	28	40	21	1	9	0
Average		**137**	**177**	**93**	**22**	**29**	**17**	**3**	**11**	**0.2**

development are favored by warm, humid weather and abundant rainfall during the latter part of the growing season.

Hybrid resistance to stalk rot is only one of several factors that determine the extent of stalk breakage. There are no clear-cut cases of specific hybrids that can be depended upon consistently to resist stalk rot under all conditions of soil fertility, plant population, plant stress, and maturity. A major part of the difference in resistance to lodging appears to be mechanical—stiffer stalks do not break as soon when disease attacks.

The most effective practice to reduce losses from stalk rot is to harvest as soon as possible after maturity. Stalk breakage continues to increase rapidly in warm, damp weather when harvest is delayed. Early- maturing hybrids that mature in September will have more stalk breakage than late-maturing hybrids harvested in November and December. There may be little or no advantage to planting early-maturing hybrids if harvest is delayed.

To avoid problems, choose high-yielding, early-maturing hybrids, plant early and harvest early.

Ways to Avoid Moldy Corn in 1990

Use the following recommendations to help prevent moldy corn in 1990.

- Plant early.
- Plant early to medium-early maturing hybrids.
- Harvest early—during October. Weather problems and harvest losses increase with later harvest.
- Plant for adequate artificial drying. Drying in the field and in the crib is slow and undependable in Michigan. Ready access to drying facilities will permit more timely harvest, prevent high harvest loss, and produce greater corn profits.

Seed Supplies for 1990

Production of hybrid seed corn in 1989 was considerably better than in 1988. Milder temperatures and more timely rains in most seed production areas resulted in high quality seed. Supplies of most hybrids should be adequate for planting in 1990.

Table B. Precipitation and temperature summary

Location	*	May		June		July		August	
		AVE.	DEP.	AVE.	DEP.	AVE.	DEP.	AVE.	DEP.
Zone 1	TEMP	56.1	-2.1	66.9	- .5	71.3	.4	68.3	-1.0
(ave 4 loc)	PPT	7.9	3.8	5.5	2.4	4.8	1.2	2.7	- .6
Zone 2	TEMP	55.2	-1.9	66.0	-1.1	71.5	.5	68.3	-1.0
(ave 3 loc)	PPT	5.3	2.7	4.0	.6	1.4	-1.8	5.5	1.5
Zone 3	TEMP	55.3	-1.2	65.3	- .9	71.4	1.0	67.8	- .9
(ave 4 loc)	PPT	4.0	1.4	4.2	1.1	2.0	- .8	4.3	1.2
Zone 4	TEMP	52.9	-1.3	60.8	-1.9	69.3	1.6	65.8	- .2
(ave 4 loc)	PPT	3.6	.8	3.7	.5	1.4	-1.8	2.5	- .8

*TEMP = Temperature

PPT = Precipitation

AVE = Average

DEP = Departure from long term normal

TABLE 1 SOUTHERN MICHIGAN ZONE 1
Monroe County Trial
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
PIONEER 3737	16.1	--	--	128.0	--	--	4.1	--	--
GRIES GSF-226A	16.5	--	--	135.4	--	--	1.7	--	--
PIONEER 3751	16.7	19	--	138.2	131	--	2.5	3	--
KING K499	17.4	--	--	161.9	--	--	2.4	--	--
DEKALB-PFIZER DK535	17.7	20	--	124.6	113	--	3.1	3	--
DEKALB-PFIZER DK547	17.8	21	21	131.2	132	145	1.7	2	2
PIONEER 3374	17.8	--	--	131.8	--	--	0.0	--	--
ASGROW/O'S GOLD RX578	17.9	22	21	118.9	126	136	2.3	3	3
BECK'S 39X	18.0	21	20	114.2	129	138	2.3	1	3
PIONEER 3585	18.2	22	--	152.7	139	--	6.9	4	--
TERRA TR164E	18.5	21	--	140.2	131	--	5.9	4	--
GRIES GSF-X550	18.6	20	--	87.7	95	--	5.7	4	--
RENK RK702	18.6	--	--	136.9	--	--	0.0	--	--
GLENN-GARNO 1003	18.6	20	20	110.8	115	123	0.8	1	3
*PIONEER 3573	18.7	--	--	170.0	--	--	2.3	--	--
*PIONEER 3379	18.7	24	--	171.0	163	--	1.5	1	--
RENK RK627	18.7	21	--	112.9	107	--	1.5	1	--
LEADER SX502	19.0	--	--	155.9	--	--	4.0	--	--
NORTHRUP KING N6321	19.2	22	21	136.2	142	148	3.1	3	3
CROW'S 442	19.2	22	21	133.6	136	136	3.4	3	4
GLENN-GARNO 1006	19.2	--	--	136.8	--	--	0.8	--	--
AMCORN PSX9009	19.2	22	--	149.2	144	--	5.9	4	--
CALLAHAN 21884X	19.2	--	--	158.5	--	--	3.1	--	--
FUNK G-BRAND 4393	19.3	--	--	128.6	--	--	3.1	--	--
GARNO EXP.C	19.5	--	--	146.5	--	--	1.6	--	--
ASGROW/O'S GOLD RX626	19.5	22	21	133.6	119	125	2.3	2	4
PRO-SEED 3108	19.5	23	--	161.5	158	--	3.3	2	--
PAYCO 748	19.5	23	--	154.9	143	--	3.4	2	--
GARNO EXP.A	19.6	--	--	139.6	--	--	1.6	--	--
SUPER CROST 3130	19.7	--	--	142.2	--	--	0.0	--	--
GREAT LAKES GL-582	19.7	23	23	146.8	155	155	3.2	3	4
CROW'S 488	19.7	23	22	146.7	155	158	0.8	0	2
*PAYCO SX872	19.7	22	--	163.5	156	--	5.6	3	--
CALLAHAN C771	19.8	24	--	126.1	134	--	4.0	3	--
*GOLDEN HARVEST EX533	19.9	--	--	197.8	--	--	2.1	--	--
*PIONEER 3343	20.0	--	--	176.2	--	--	1.5	--	--
COUNTRYMARK C660X	20.0	23	--	155.8	148	--	2.5	2	--
CARGILL 6227	20.0	23	--	138.9	138	--	0.0	1	--
*LEADER SX574	20.1	23	--	165.2	167	--	0.0	1	--
*MAUMEE VALLEY MV812	20.1	23	--	168.4	164	--	0.0	0	--
GARNO EXP.B	20.4	--	--	137.6	--	--	0.0	--	--
PIONEER 3475	20.4	21	21	149.8	143	149	1.6	3	4
AGRIPRO AP424	20.4	--	--	153.6	--	--	0.9	--	--
KING K5574	20.4	23	22	147.7	146	141	0.0	0	2
BECK'S 64XA	20.4	24	23	138.2	154	160	0.0	0	3
*PIONEER 3352	20.5	23	23	179.5	166	165	1.7	2	2
MCCURDY 6222	20.5	--	--	104.9	--	--	4.1	--	--
*GOLDEN HARVEST H-2525	20.5	25	--	169.4	162	--	2.6	2	--
GLENN-GARNO 1011	20.5	--	--	119.2	--	--	0.8	--	--
BLANEY B607	20.6	--	--	146.2	--	--	2.3	--	--
DAIRYLAND DX-1107	20.6	23	23	119.2	130	138	2.6	2	4
DAIRYLAND DX-1014	20.7	24	--	136.7	139	--	3.3	2	--
RENK RK64	20.7	23	22	138.0	140	144	2.4	2	3
RENK RK721	20.7	24	--	141.7	141	--	0.0	0	--
TERRA TR1040	20.7	23	22	158.7	150	154	3.1	2	3
CALLAHAN C764	20.7	24	--	150.4	153	--	1.7	2	--
SUPER CROST 4366	20.8	--	--	142.4	--	--	1.6	--	--
GREAT LAKES GL-509	20.8	23	22	145.9	146	148	2.4	2	5
MAUMEE VALLEY MV762	20.8	23	--	158.7	152	--	3.9	3	--
TERRA TR1110	20.8	24	--	128.3	141	--	0.8	1	--
*SELECT 5040	20.8	24	24	177.0	169	159	0.8	0	4
GREAT LAKES GL-579	20.9	23	23	151.5	151	154	0.0	0	2
*PIONEER 3429	20.9	--	--	179.2	--	--	3.1	--	--
AGRIPRO AP525	20.9	24	--	124.1	140	--	1.6	2	--
SELECT 3808	20.9	--	--	159.8	--	--	4.1	--	--
GOLDEN HARVEST H-2528	20.9	--	--	156.2	--	--	4.0	--	--
ANDERSONS PSX420	21.0	--	--	106.9	--	--	0.0	--	--
GLENN-GARNO 1010B	21.0	--	--	125.2	--	--	3.7	--	--
*GOLDEN HARVEST H-2532	21.1	24	--	174.8	172	--	2.4	1	--
GRIES GSF-4460	21.3	--	--	125.4	--	--	1.7	--	--
SELECT 3720	21.3	23	22	138.0	144	142	3.9	2	3
GLENN-GARNO 1007	21.3	23	23	138.7	145	149	4.7	3	5
FUNK G-BRAND 4485	21.4	24	--	144.6	137	--	0.8	1	--
COUNTRYMARK C565X	21.4	23	23	150.5	144	143	4.6	3	4
RUPP EXP.9-164	21.4	--	--	149.0	--	--	3.3	--	--

(continued below)

TABLE 2 SOUTHERN MICHIGAN ZONE 1
Hillsdale County Trial
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
SEEDEX 995	16.2	19	--	138.5	121	--	0.9	4	--
KING K499	16.6	--	--	161.1	--	--	3.5	--	--
PIONEER 3737	17.1	--	--	149.0	--	--	5.3	--	--
PIONEER 3751	17.5	19	--	167.9	163	--	4.1	4	--
PIONEER 3573	18.3	--	--	175.3	--	--	0.0	--	--
PARKER 53	18.3	--	--	149.5	--	--	3.5	--	--
GRIES GSF-226A	18.4	--	--	147.2	--	--	5.2	--	--
GARST 8599	18.6	--	--	135.0	--	--	2.5	--	--
BETAGOLD HANNA	18.6	20	--	140.4	131	--	0.0	3	--
GLENN-GARNO 1003	18.6	20	20	107.9	111	117	6.3	7	7
MAUMEE VALLEY MV630	18.7	--	--	148.5	--	--	0.9	--	--
TERRA TR164E	18.7	--	--	152.5	--	--	5.5	--	--
GRIES GSF X550	19.1	20	--	137.4	122	--	1.7	5	--
*PIONEER 3585	19.2	21	--	200.3	177	--	0.0	3	--
BETAGOLD MARIA	19.2	20	--	167.7	163	--	2.3	2	--
GREAT LAKES GL-509	19.3	21	--	144.1	165	--	1.9	3	--
GLENN-GARNO 1006	19.3	--	--	144.1	--	--	6.0	--	--
PAYCO 748	19.5	21	--	142.7	155	--	5.1	4	--
AMCORN PSX9009	19.5	20	--	158.9	155	--	1.7	5	--
LEADER SX502	19.6	21	--	126.5	148	--	2.2	3	--
*TERRA TR1040	19.7	--	--	182.6	--	--	1.5	--	--
*DEKALB-PFIZER DK535	19.8	20	--	178.1	170	--	2.3	4	--
PIONEER 3374	20.1	--	--	150.6	--	--	1.7	--	--
DAIRYLAND DX-1107	20.1	21	22	165.5	160	157	0.0	1	1
DEKALB-PFIZER DK572	20.3	--	--	167.5	--	--	0.8	--	--
SEEDEX 1035	20.3	--	--	135.4	--	--	1.8	--	--
RENK RK64	20.3	21	--	172.6	168	--	0.8	4	--
GRIES GSF-4460	20.4	--	--	153.6	--	--	1.6	--	--
COUNTRYMARK C565X	20.4	21	21	167.6	160	143	3.3	6	8
*PIONEER 3379	20.5	22	--	191.9	193	--	2.4	2	--
ASGROW/O'S GOLD RX626	20.5	21	21	172.3	165	145	1.6	3	6
*PARKER 46	20.5	--	--	177.2	--	--	1.6	--	--
PIONEER 3429	20.6	--	--	153.2	--	--	1.9	--	--
KING K5574	20.6	21	21	157.1	143	135	1.6	6	6
PIONEER 3475	20.7	21	21	163.7	162	156	0.0	1	2
PAYCO SX872	20.7	21	21	155.0	164	145	2.4	3	5
FUNK G-BRAND 4393	20.9	--	--	157.4	--	--	0.9	--	--
WOLVERINE W167	20.9	--	--	152.2	--	--	0.9	--	--
BLANEY B607	21.0	--	--	172.2	--	--	2.4	--	--
MAUMEE VALLEY MV762	21.0	--	--	164.6	--	--	1.5	--	--
GARST N6574	21.0	--	--	160.1	--	--	3.8	--	--
RENK RK702	21.0	--	--	166.0	--	--	0.0	--	--
CROW'S 482	21.0	22	22	111.9	136	135	4.3	3	3
*MAUMEE VALLEY MV812	21.1	--	--	178.6	--	--	3.1	--	--
TERRA TR1110	21.2	--	--	128.7	--	--	4.7	--	--
PIONEER 3352	21.3	22	22	163.3	180	168	0.8	3	3
GOLDEN HARVEST EX533	21.3	--	--	147.3	--	--	1.7	--	--
GLENN-GARNO 1007	21.3	21	21	134.2	144	140	2.1	5	5
MCCURDY 4925	21.4	22	--	127.8	136	--	5.3	7	--
CROW'S 488	21.4	--	--	167.2	--	--	4.4	--	--
PARKER 350	21.5	--	--	147.5	--	--	5.0	--	--
RENK RK627	21.5	21	--	163.0	162	--	0.8	2	--
ANDERSONS PSX340	21.5	--	--	148.2	--	--	0.8	--	--
*TERRA TR1060	21.5	--	--	178.0	--	--	0.8	--	--
ASGROW/O'S GOLD RX578	21.6	21	21	146.5	141	135	4.2	6	6
*RENK RK803	21.6	23	--	177.5	159	--	6.8	7	--
*SUPER CROST 4877	21.7	23	--	185.2	190	--	0.0	3	--
PIONEER 3343	21.7	--	--	153.2	--	--	3.1	--	--
GREAT LAKES GL-582	21.9	22	22	160.9	176	162	1.8	3	5
*AGRIPRO AP595	22.1	--	--	177.0	--	--	1.6	--	--
MCCURDY 6660	22.1	23	--	156.2	155	--	1.7	5	--
GLENN-GARNO 1010B	22.1	--	--	97.4	--	--	7.9	--	--
GLENN-GARNO 1011	22.1	--	--	136.4	--	--	1.1	--	--
RUPP XR1739	22.2	22	--	147.9	169	--	1.7	3	--
*GOLDEN HARVEST H-2525	22.2	23	--	196.6	178	--	0.8	4	--
FUNK G-BRAND 4485	22.3	23	--	155.5	156	--	3.3	3	--
GARST 8532	22.3	--	--	150.1	--	--	1.8	--	--
CARGILL 6927	22.3	23	--	152.5	150	--	4.2	5	--
MAUMEE VALLEY MV851	22.5	--	--	159.1	--	--	1.6	--	--
BECK'S 62XA	22.5	23	--	154.0	172	--	0.9	4	--
LEADER SX574	22.6	23	--	141.9	163	--	3.1	6	--
GLENN-GARNO 1010	22.6	23	--	132.4	139	--	1.8	3	--
CALLAHAN C764	22.6	23	--	117.1	158	--	0.0	2	--
*GOLDEN HARVEST H-2528	22.7	--	--	179.0	--	--	5.8	--	--
KING K598	22.8	24	--	146.8	137	--	3.4	3	--

(continued below)

TABLE 1 (CONTINUED) SOUTHERN MICHIGAN ZONE 1
Monroe County Trial
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
AMCORN PSX9292	21.4	--	--	142.1	--	--	4.5	--	--
RENK RK803	21.5	--	--	152.3	--	--	1.6	--	--
TERRA TR1060	21.5	24	23	128.0	135	138	1.7	3	4
BECK'S 62XA	21.5	25	--	146.3	157	--	1.6	1	--
JACQUES 7770	21.6	--	--	129.7	--	--	4.0	--	--
ASGROW/O'S GOLD RX706	21.6	--	--	148.8	--	--	0.0	--	--
GOLDEN HARVEST EX479	21.7	--	--	146.5	--	--	1.6	--	--
BECK'S 66X	21.7	25	--	149.5	161	--	2.4	1	--
*SELECT 4850	21.9	24	23	167.4	159	153	2.3	1	3
MCCURDY 6660	21.9	23	--	159.8	159	--	2.4	2	--
ANDERSONS PSX410	22.0	--	--	141.7	--	--	5.3	--	--
CROW'S 482	22.0	24	23	99.6	122	123	3.8	2	4
GLENN-GARNO 1012	22.0	24	23	137.9	154	161	1.7	2	3
ASGROW/O'S GOLD RX746	22.1	24	--	154.0	135	--	2.3	1	--
DAIRYLAND DX-1015	22.1	25	25	126.5	125	133	0.8	1	3
PRO-SEED 3110	22.2	--	--	146.0	--	--	2.3	--	--
*DAIRYLAND DX-1110	22.2	--	--	172.7	--	--	1.0	--	--
FUNK G-BRAND 4543	22.3	--	--	154.4	--	--	0.0	--	--
PRO SEED 4108	22.3	--	--	144.3	--	--	4.9	--	--
CARGILL 6927	22.4	24	--	146.4	145	--	1.6	2	--
TERRA TR1125	22.5	24	24	135.9	146	143	1.1	1	3
SELECT 4988	22.5	26	--	154.6	160	--	3.1	2	--
GLENN-GARNO 1010	22.5	24	--	141.7	135	--	4.8	2	--
GREAT LAKES GL-595	22.7	--	--	136.5	--	--	0.8	--	--
TERRA TR1120	22.7	25	--	154.1	155	--	1.6	2	--
AGRIPRO AP595	22.8	24	--	137.1	140	--	2.0	1	--
MAUMEE VALLEY MV910	22.9	26	--	106.7	128	--	0.8	0	--
BLANEY B702	23.1	--	--	148.5	--	--	1.6	--	--
KING K598	23.1	25	--	97.1	115	--	3.5	2	--
KING K647	23.3	25	24	120.0	142	134	1.8	1	3
MAUMEE VALLEY MV904	23.3	--	--	148.0	--	--	3.1	--	--
GOLDEN HARVEST H-2583	23.3	--	--	142.5	--	--	0.0	--	--
DAIRYLAND DX-1117	23.5	--	--	131.8	--	--	1.5	--	--
GREAT LAKES GL-599	23.6	25	25	144.6	151	153	1.7	2	2
NORTHRUP KING 7705	23.6	--	--	131.4	--	--	2.4	--	--
MAUMEE VALLEY MV888	23.6	25	--	107.3	138	--	2.4	2	--
RENK RK76	23.7	25	25	153.8	149	152	1.7	1	2
NORTHRUP KING N6348	23.9	27	--	103.5	125	--	3.6	2	--
RUPP XR1829	23.9	--	--	129.4	--	--	2.4	--	--
DEKALB-PFIZER DK636	24.0	--	--	112.8	--	--	3.6	--	--
PRO-SEED 3117	24.1	--	--	139.3	--	--	2.5	--	--
JACQUES 7820	24.3	26	--	134.0	143	--	2.0	2	--
CALLAHAN 21888X	24.4	--	--	136.7	--	--	3.1	--	--
CARGILL 7877	25.1	--	--	137.0	--	--	1.7	--	--
GOLDEN HARVEST H-2572	25.1	26	25	154.8	155	153	0.8	0	2
CARGILL 7993	25.5	26	--	130.8	146	--	0.0	0	--
AGRIPRO AP610	26.4	--	--	98.0	--	--	1.8	--	--
CROW'S 669	26.6	--	--	105.7	--	--	1.8	--	--
AVERAGE	21.0	23	23	141.2	143	145	2.3	2	3
RANGE	16.1 TO 26.6	19 TO 27	20 TO 25	87.7 TO 197.8	95 TO 172	123 TO 165	0.0 TO 6.9	0 TO 4	2 TO 5
LEAST SIGNIFICANT DIFFERENCE	1.4			22.1					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	May 12	May 7	May 1
HARVESTED	October 28	October 24	October 15
SOIL TYPE	Brookston loam	Brookston loam	Brookston loam
PREVIOUS CROP	Soybeans	Soybeans	Corn
POPULATION	19,200	21,500	21,600
ROWS	30"	30"	30"
FERTILIZER	166-61-165	142-73-180	184-104-180
SOIL TEST: pH	6.3	6.6	6.8
P	84 (high)	145 (very high)	85 (high)
K	311 (very high)	400 (very high)	278 (high)

FARM COOPERATOR: Gerald Heath, Milan

COUNTY AGRICULTURAL AGENT: David Pratt, Monroe

TABLE 2 (CONTINUED) SOUTHERN MICHIGAN ZONE 1
Hillsdale County Trial
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
DAIRYLAND DX-1014	22.8	23	--	148.0	153	--	3.2	5	--
AMCORN PSX9292	22.8	--	--	172.1	--	--	1.6	--	--
BETAGOLD 853	22.9	--	--	159.5	--	--	8.3	--	--
ANDERSONS PSX370	22.9	--	--	148.8	--	--	0.9	--	--
JACQUES 7770	23.0	23	23	138.5	141	138	1.7	5	5
KING K647	23.0	24	24	119.4	151	141	0.0	2	3
COUNTRYMARK C660X	23.0	23	--	175.6	162	--	4.0	6	--
DAIRYLAND DX-1110	23.0	--	--	166.3	--	--	2.4	--	--
*GOLDEN HARVEST H-2532	23.0	--	--	183.9	--	--	3.3	--	--
*RENK RK76	23.1	23	--	185.1	170	--	3.0	2	--
*BECK'S 66X	23.3	24	--	181.1	181	--	3.1	4	--
ASGROW/O'S GOLD RX746	23.4	24	--	151.8	155	--	7.7	6	--
*BLANEY B702	23.5	--	--	180.9	--	--	0.0	--	--
GREAT LAKES GL-599	23.5	23	--	127.8	153	--	1.6	2	--
ASGROW/O'S GOLD RX706	23.5	--	--	175.1	--	--	1.5	--	--
RENK RK721	23.5	--	--	156.2	--	--	0.8	--	--
AGRIPRO AP525	23.6	23	--	163.5	170	--	1.8	5	--
GLENN-GARNO 1012	23.6	24	24	132.3	158	153	0.9	2	5
CALLAHAN 21888X	23.6	--	--	174.2	--	--	0.0	--	--
TERRA TR1125	23.7	--	--	150.4	--	--	5.4	--	--
*CARGILL 6227	23.7	24	--	177.5	174	--	0.0	2	--
*TERRA TR1120	23.8	--	--	187.5	--	--	0.0	--	--
DAIRYLAND DX-1117	23.9	--	--	156.2	--	--	2.6	--	--
BECK'S 64XA	24.1	25	24	128.4	138	141	3.3	3	4
DEKALB-PFIZER DK636	24.2	--	--	167.7	--	--	2.2	--	--
WOLVERINE X115	24.2	--	--	155.4	--	--	1.6	--	--
JACQUES 7820	24.3	24	--	145.9	160	--	0.9	3	--
MAUMEE VALLEY MV888	24.3	--	--	159.6	--	--	0.8	--	--
PARKER 63	24.6	25	25	173.4	173	156	0.8	5	5
CROW'S 449	24.6	--	--	169.6	--	--	0.8	--	--
GREAT LAKES EX-89901	24.7	--	--	105.6	--	--	0.8	--	--
AGRIPRO AP610	24.7	--	--	153.3	--	--	2.3	--	--
RUPP XR1827	25.0	--	--	138.0	--	--	1.0	--	--
NORTHRUP KING S7838WX	25.1	--	--	164.1	--	--	1.5	--	--
DAIRYLAND DX-1015	25.3	24	24	134.2	163	154	1.7	3	3
CROW'S 682	25.3	--	--	127.9	--	--	1.8	--	--
SEEDEX 1085	25.6	25	--	168.0	155	--	2.4	5	--
CARGILL 7877	25.6	--	--	166.2	--	--	5.5	--	--
CALLAHAN C771	25.7	25	--	109.3	145	--	4.7	3	--
GOLDEN HARVEST EX479	26.1	--	--	163.3	--	--	0.8	--	--
CROW'S 669	27.2	--	--	124.7	--	--	2.8	--	--
AVERAGE	21.8	22	22	155.1	157	146	2.4	4	5
RANGE	16.2 TO 27.2	19 TO 25	20 TO 25	97.4 TO 200.3	111 TO 193	117 TO 168	0.0 TO 8.3	1 TO 7	1 TO 8
LEAST SIGNIFICANT DIFFERENCE	1.3			20.8					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	May 4	April 30	May 1
HARVESTED	October 27	October 26	October 15
SOIL TYPE	Hillsdale-Riddles sandy loam	Hillsdale-Riddles sandy loam	Hillsdale-Riddles sandy loam
PREVIOUS CROP	Corn	Corn	Corn
POPULATION	18,400	21,800	21,700
ROWS	30"	30"	30"
FERTILIZER	259-39-127	188-45-98	208-33-128
SOIL TEST: pH	6.6	6.8	6.7
P	201 (very high)	268 (very high)	223 (very high)
K	320 (very high)	424 (very high)	437 (very high)
IRRIGATION:	3.25 inches	3.85 inches	5.3 inches

FARM COOPERATOR: Richard Godfrey, Jonesville

EXTENSION FIELD CROPS AGENT: Natalie Rector, Marshall

COUNTY EXTENSION DIRECTOR: Jim Pelham, Hillsdale

TABLE 3 — SOUTHERN MICHIGAN — Branch County Trial — ZONE 1

ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
PIONEER 3737	17.1	--	--	139.6	--	--	2.6	--	--
PIONEER 3751	17.6	19	--	166.0	156	--	0.9	0	--
GRIES GSF-226A	18.0	--	--	148.8	--	--	4.7	--	--
KING K499	18.3	--	--	174.6	--	--	2.6	--	--
GLENN-GARNO 1003	18.3	19	19	129.5	130	143	1.9	2	2
CROW'S 195	18.4	19	--	140.6	142	--	0.9	1	--
GRIES GSF X550	18.5	20	--	126.4	118	--	1.6	1	--
*DEKALB-PFIZER DK535	19.0	--	--	184.6	--	--	5.2	--	--
TERRA TR164E	19.0	20	--	141.0	139	--	0.0	0	--
NORTHRUP KING N6321	19.4	20	20	179.2	175	171	0.8	2	1
DEKALB-PFIZER DK524	19.5	20	20	165.8	166	161	1.7	1	2
*PIONEER 3585	19.6	21	--	184.2	158	--	6.3	3	--
MCCURDY 4925	19.6	21	--	147.7	155	--	3.6	2	--
AGRIPRO AP424	19.7	--	--	175.8	--	--	0.0	--	--
RENK RK702	19.7	--	--	181.6	--	--	0.0	--	--
GREAT LAKES GL-509	19.8	21	--	143.9	153	--	1.9	2	--
PIONEER 3573	19.8	--	--	144.1	--	--	1.9	--	--
PIONEER 3374	19.8	--	--	149.6	--	--	1.8	--	--
FUNK G-BRAND 4393	19.9	--	--	156.1	--	--	1.0	--	--
GRIES GSF-4460	20.0	--	--	139.4	--	--	4.1	--	--
DEKALB-PFIZER DK572	20.1	21	21	141.7	153	157	1.7	2	3
KING K5574	20.1	21	21	174.6	166	155	5.4	3	3
ASGROW/O'S GOLD RX578	20.2	21	20	167.7	155	158	2.3	2	2
CROW'S 210	20.2	--	--	158.7	--	--	1.8	--	--
AMCORN PSX9009	20.2	21	--	155.4	157	--	0.0	1	--
CARGILL 116627	20.3	--	--	173.9	--	--	2.3	--	--
PAYCO SX872	20.3	21	--	161.2	154	--	0.8	1	--
JACQUES 6770	20.4	--	--	172.4	--	--	1.6	--	--
MAUMEE VALLEY MV762	20.4	21	21	158.5	145	149	3.4	2	2
BLANEY B607	20.5	--	--	130.8	--	--	0.0	--	--
GLENN-GARNO 1006	20.5	--	--	136.9	--	--	0.0	--	--
GLENN-GARNO 1007	20.5	21	21	138.5	151	157	0.0	0	1
PIONEER 3475	20.6	21	21	162.1	160	162	2.9	1	2
RENK RK64	20.6	--	--	173.0	--	--	1.9	--	--
GREAT LAKES GL-579	20.7	21	21	149.1	158	163	0.0	1	2
PIONEER 3352	20.7	23	22	156.4	164	167	1.9	1	1
HERITAGE GOLD RUSH	20.7	--	--	155.0	--	--	1.0	--	--
ASGROW/O'S GOLD RX626	20.9	21	21	144.0	142	145	0.0	1	2
COUNTRYMARK C565X	20.9	22	21	163.2	152	151	1.7	2	3
ANDERSONS PSX380	20.9	--	--	175.6	--	--	0.0	--	--
PIONEER 3429	21.0	--	--	165.3	--	--	2.4	--	--
CROW'S 488	21.1	22	21	172.5	175	172	3.9	2	3
TERRA TR1040	21.1	22	21	122.4	128	136	0.0	2	2
*PIONEER 3379	21.2	22	--	194.4	190	--	0.8	2	--
RUPP EXP.9-164	21.2	--	--	159.2	--	--	0.0	--	--
*SELECT 4988	21.4	23	--	185.1	185	--	1.6	1	--
CROW'S 555	21.5	--	--	165.4	--	--	1.7	--	--
GLENN-GARNO 1010B	21.5	--	--	106.6	--	--	0.0	--	--
*BECK'S 54XA	21.5	--	--	202.7	--	--	0.0	--	--
GREAT LAKES GL-582	21.6	22	22	179.2	185	180	1.6	1	2
TERRA TR1110	21.6	23	--	155.0	165	--	2.4	1	--
TERRA TR1060	21.6	23	23	178.2	169	174	0.0	1	1
WOLVERINE X115	21.7	--	--	176.3	--	--	0.8	--	--
GLENN-GARNO 1011	21.7	--	--	146.3	--	--	2.5	--	--
ASGROW/O'S GOLD RX706	21.9	--	--	176.1	--	--	2.4	--	--
CARGILL 6227	21.9	22	--	171.7	169	--	2.5	2	--
MCCURDY 6660	21.9	23	--	183.3	169	--	4.7	3	--
CROW'S 482	21.9	--	--	120.1	--	--	2.3	--	--
*BECK'S 62XA	21.9	--	--	201.7	--	--	2.3	--	--
*RENK RK721	22.0	22	--	200.3	172	--	0.0	0	--
*COUNTRYMARK C660X	22.1	22	--	201.6	174	--	2.3	2	--
*SELECT 3808	22.1	--	--	209.1	--	--	2.9	--	--
NORTHRUP KING N6348	22.2	--	--	169.6	--	--	4.7	--	--
ANDERSONS PSX410	22.2	--	--	150.0	--	--	3.8	--	--
JACQUES 7770	22.3	23	23	165.7	160	162	4.0	2	3
SELECT 5015	22.3	23	22	169.8	172	172	0.0	0	1
GOLDEN HARVEST H-2532	22.3	23	--	164.0	174	--	2.4	2	--
*AGRIPRO AP525	22.4	23	--	200.8	170	--	0.9	0	--
SELECT 4850	22.4	23	23	178.9	160	161	4.9	2	4
*PIONEER 3343	22.5	--	--	192.5	--	--	0.0	--	--
*SELECT 5040	22.5	23	23	187.3	177	171	3.2	2	2
DAIRYLAND DX-1110	22.5	--	--	156.6	--	--	1.6	--	--
*AMCORN PSX9292	22.5	--	--	186.6	--	--	3.1	--	--
MCCURDY 6222	22.6	--	--	161.5	--	--	2.3	--	--
PAYCO SX800	22.6	--	--	148.1	--	--	0.0	--	--

(continued below)

TABLE 4 — SOUTHERN MICHIGAN — Kalamazoo County Trial — ZONE 1

ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
PIONEER 3737	17.5	20	19	132.5	100	99	2.3	3	3
DAIRYLAND DX-1104	17.8	20	--	135.4	100	--	1.7	1	--
GREAT LAKES GL-500	17.9	--	--	155.4	--	--	2.5	--	--
PIONEER 3751	18.1	--	--	133.4	--	--	2.7	--	--
PAYCO 648	18.4	21	--	105.7	93	--	5.2	5	--
PIONEER 3585	18.5	21	--	157.6	110	--	2.4	4	--
TERRA TR164E	18.7	21	--	131.6	91	--	26.5	15	--
CROW'S 195	18.7	20	--	105.1	81	--	4.7	4	--
PIONEER 3374	18.8	--	--	140.6	--	--	3.6	--	--
DEKALB-PFIZER DK547	18.9	21	--	138.8	97	--	1.6	2	--
*PIONEER 3573	18.9	--	--	193.2	--	--	0.8	--	--
KING K499	19.0	--	--	162.6	--	--	4.1	--	--
RUPP XR1527	19.0	--	--	138.9	--	--	8.8	--	--
DEKALB-PFIZER DK535	19.1	--	--	153.3	--	--	2.3	--	--
GLENN-GARNO 1003	19.1	21	20	114.6	97	93	3.5	2	2
DAIRYLAND DX-1103	19.2	22	21	105.4	81	86	5.6	4	4
BLANEY B607	19.4	--	--	161.6	--	--	0.0	--	--
GRIES GSF-4460	19.4	--	--	150.6	--	--	2.4	--	--
RUPP EXP.9-164	19.4	--	--	145.2	--	--	5.6	--	--
NORTHRUP KING N6321	19.5	21	21	165.7	130	119	3.3	4	3
GOLDEN HARVEST H-2465	19.5	22	21	163.4	107	95	2.5	3	3
*AGRIPRO AP424	19.6	--	--	176.5	--	--	0.0	--	--
*KING K5574	19.6	22	21	174.4	128	112	1.7	1	2
CARGILL 6027	19.6	--	--	146.3	--	--	3.2	--	--
GLENN-GARNO 1006	19.6	--	--	144.6	--	--	1.7	--	--
GRIES GSF-226A	19.7	--	--	117.5	--	--	28.1	--	--
PIONEER 3429	19.7	--	--	161.1	--	--	0.0	--	--
GREAT LAKES GL-509	19.8	22	--	168.7	121	--	4.7	3	--
RENK RK627	20.0	22	--	141.3	105	--	2.6	2	--
DEKALB-PFIZER DK572	20.1	--	--	161.1	--	--	1.7	--	--
GRIES GSF-X550	20.1	21	--	114.2	88	--	3.2	3	--
RENK RK702	20.1	--	--	149.4	--	--	8.6	--	--
RUPP EXP.9.163	20.1	--	--	141.5	--	--	2.6	--	--
GLENN-GARNO 1007	20.1	22	22	135.2	101	100	3.4	2	3
FUNK G-BRAND 4393	20.2	--	--	146.0	--	--	2.8	--	--
*COUNTRYMARK C565X	20.2	22	22	175.1	109	92	3.8	5	4
DAIRYLAND DX-1106	20.4	22	--	133.7	102	--	1.8	2	--
PAYCO 748	20.4	22	--	151.2	112	--	1.6	4	--
*PIONEER 3379	20.5	23	--	175.6	126	--	3.2	3	--
ASGROW/O'S GOLD RX578	20.5	21	21	169.6	109	91	0.0	1	2
AMCORN PSX9009	20.5	22	--	152.1	102	--	1.7	4	--
*PIONEER 3352	20.6	23	22	172.7	132	119	0.8	1	1
ASGROW/O'S GOLD RX626	20.7	22	21	157.7	109	97	2.4	2	3
RENK RK64	20.7	23	22	144.4	112	100	4.6	5	5
GOLDEN HARVEST EX533	20.7	--	--	116.3	--	--	1.7	--	--
*PIONEER 3475	20.8	22	22	180.9	124	115	0.0	1	2
GLENN-GARNO 1011	20.8	--	--	132.7	--	--	2.5	--	--
CROW'S 227	20.9	--	--	122.9	--	--	3.4	--	--
TERRA TR1040	21.0	22	22	164.1	123	114	0.7	2	2
CARGILL 6227	21.1	24	--	166.7	114	--	4.8	3	--
*MCCURDY 6222	21.1	--	--	178.3	--	--	2.3	--	--
GLENN-GARNO 1010B	21.4	--	--	120.6	--	--	3.8	--	--
CROW'S 488	21.5	--	--	153.7	--	--	2.4	--	--
*BECK'S 54XA	21.5	23	--	172.3	119	--	4.9	4	--
GREAT LAKES GL-582	21.7	24	23	126.7	108	104	2.6	2	2
*CARGILL SX269	21.7	23	--	188.5	122	--	1.7	3	--
*ANDERSONS PSX370	21.7	--	--	177.0	--	--	1.6	--	--
*ANDERSONS PSX380	21.7	--	--	177.3	--	--	0.0	--	--
GLENN-GARNO 1012	21.7	25	24	149.2	117	110	0.0	0	1
KING K647	21.8	24	24	121.2	101	96	1.9	2	2
TERRA TR1110	21.8	23	--	131.8	97	--	1.9	1	--
TERRA TR1060	21.8	24	23	155.8	108	96	0.0	0	1
GREAT LAKES GL-590	21.9	23	--	143.5	118	--	3.4	2	--
ASGROW/O'S GOLD RX706	22.0	--	--	147.6	--	--	1.6	--	--
MCCURDY 6660	22.0	23	--	137.9	108	--	1.7	2	--
BECK'S 64XA	22.0	23	23	167.1	129	115	3.9	5	4
RENK RK721	22.1	23	--	151.1	106	--	1.6	2	--
NORTHRUP KING N6348	22.2	--	--	141.2	--	--	5.0	--	--
COUNTRYMARK C660X	22.2	24	--	169.6	117	--	0.0	1	--
TERRA TR1125	22.2	23	22	150.0	117	108	2.4	2	3
*AMCORN PSX9292	22.2	--	--	171.8	--	--	0.8	--	--
ASGROW/O'S GOLD RX749	22.3	--	--	154.9	--	--	0.0	--	--
*LEADER SX574	22.4	24	--	178.5	132	--	3.1	2	--
*PIONEER 3343	22.4	--	--	172.2	--	--	0.8	--	--
AGRIPRO AP525	22.5	24	--	150.0	116	--	1.6	3	--

(continued below)

TABLE 3 (CONTINUED) SOUTHERN MICHIGAN ZONE 1
Branch County Trial
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
MAUMEE VALLEY MV888	22.7	23	23	163.7	170	169	0.0	0	2
*RENK RK76	22.7	23	23	205.9	198	190	1.5	1	2
CALLAHAN C764	22.7	23	--	122.3	137	--	5.0	3	--
MAUMEE VALLEY MV851	22.8	23	22	157.6	159	163	6.6	3	3
MAUMEE VALLEY MV812	22.8	24	--	182.1	169	--	0.8	2	--
DAIRYLAND DX-1015	22.8	23	23	154.7	158	158	2.6	2	2
RENK RK803	22.8	--	--	163.5	--	--	4.0	--	--
GLENN-GARNO 1012	22.8	23	23	152.0	166	164	4.2	3	2
MAUMEE VALLEY MV904	23.0	--	--	160.7	--	--	1.7	--	--
TERRA TR1125	23.0	23	23	146.7	154	152	5.7	3	3
SELECT 4972	23.0	24	23	182.1	174	168	6.6	4	3
KING K598	23.1	24	--	146.9	159	--	3.3	2	--
BECK'S 64XA	23.1	24	23	156.1	170	169	2.4	2	2
RENK RK627	23.2	22	--	149.5	135	--	1.7	1	--
GLENN-GARNO 1010	23.2	24	--	153.5	159	--	3.5	2	--
HERITAGE BANKER SPANKER	23.3	--	--	165.4	--	--	0.8	--	--
CALLAHAN C771	23.3	24	--	139.0	151	--	1.9	1	--
CALLAHAN 21888X	23.3	--	--	143.5	--	--	0.8	--	--
DEKALB-PFIZER DK636	23.4	--	--	159.3	--	--	1.6	--	--
SELECT 5188	23.4	24	--	183.0	173	--	0.0	0	--
*GOLDEN HARVEST H-2572	23.4	24	23	184.0	184	177	3.3	2	3
SUPER CROST 4877	23.5	24	--	179.0	183	--	0.8	0	--
KING K647	23.5	23	23	132.0	157	149	1.1	1	1
TERRA TR1120	23.5	23	--	161.2	167	--	3.3	2	--
CARGILL 6927	23.5	24	--	152.2	139	--	1.6	1	--
HERITAGE TOP GUN	23.5	--	--	153.8	--	--	6.4	--	--
*GOLDEN HARVEST H-2583	23.5	--	--	184.3	--	--	0.0	--	--
*NORTHRUP KING 7705	23.6	--	--	191.6	--	--	0.0	--	--
CARGILL 7877	23.6	--	--	167.5	--	--	0.0	--	--
BECK'S 63X	23.6	24	23	172.6	175	173	1.6	1	2
NORTHRUP KING PX9540	23.7	24	23	177.2	182	171	2.3	1	1
AGRIPRO AP510	23.7	24	23	167.2	162	158	4.8	2	2
CARGILL 7993	23.7	24	--	183.0	177	--	0.7	1	--
CARGILL 8027	23.9	--	--	146.5	--	--	2.5	--	--
DAIRYLAND DX-1014	23.9	24	--	160.5	162	--	1.6	2	--
DAIRYLAND DX-1117	23.9	--	--	161.0	--	--	1.6	--	--
BLANEY B702	24.0	--	--	183.8	--	--	0.0	--	--
FUNK G-BRAND 4485	24.0	24	--	177.0	171	--	4.1	2	--
AGRIPRO AP610	24.3	--	--	146.8	--	--	2.3	--	--
CROW'S 682	24.3	--	--	130.8	--	--	1.7	--	--
RUPP XR1827	24.4	25	--	150.8	168	--	4.6	2	--
BECK'S 66X	24.5	--	--	183.2	--	--	3.1	--	--
HERITAGE CHAIRMAN	24.9	--	--	163.1	--	--	1.9	--	--
DAIRYLAND DX-1018	25.2	--	--	160.2	--	--	0.0	--	--
CROW'S 669	25.4	--	--	146.2	--	--	1.6	--	--
MAUMEE VALLEY MV910	26.5	--	--	173.7	--	--	1.5	--	--
AVERAGE	21.8	22	22	163.2	162	162	2.0	1	2
RANGE	17.1 TO 26.5	19 TO 25	19 TO 23	106.6 TO 209.1	118 TO 198	136 TO 190	0.0 TO 6.6	0 TO 4	1 TO 4
LEAST SIGNIFICANT DIFFERENCE	0.9			20.8					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	May 4	April 30	May 6
HARVESTED	October 27	October 26	October 16
SOIL TYPE	Sibewa loam	Gilford sandy loam	Gilford sandy loam
PREVIOUS CROP	Corn	Corn	Corn
POPULATION	18,500	22,000	21,800
ROWS	30"	30"	30"
FERTILIZER	185-74-180	226-92-0	216-92-180
SOIL TEST: pH	5.9	6.4	6.5
P	186 (very high)	258 (very high)	264 (very high)
K	303 (very high)	301 (very high)	181 (medium)

FARM COOPERATOR: David LaBar, Union City

EXTENSION FIELD CROPS AGENT: Natalie Rector, Marshall

COUNTY EXTENSION DIRECTOR: Ray Fast, Coldwater

TABLE 4 (CONTINUED) SOUTHERN MICHIGAN ZONE 1
Kalamazoo County Trial
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
DAIRYLAND DX-1110	22.5	--	--	153.5	--	--	1.6	--	--
RENK RK803	22.5	24	--	140.2	106	--	4.2	3	--
*GOLDEN HARVEST H-2525	22.5	24	--	194.9	121	--	5.2	3	--
BECK'S 62XA	22.5	--	--	156.1	--	--	3.1	--	--
FUNK G-BRAND 4485	22.6	24	--	144.3	111	--	3.3	2	--
TERRA TR1120	22.6	24	--	155.5	102	--	1.6	2	--
CARGILL 6927	22.6	24	--	160.1	123	--	3.9	3	--
JACQUES 7770	22.7	--	--	155.7	--	--	1.7	--	--
DAIRYLAND DX-1014	22.7	24	--	143.4	98	--	3.4	2	--
CROW'S 555	22.7	--	--	144.3	--	--	3.5	--	--
KING K598	22.8	24	--	153.6	112	--	4.1	2	--
*GLENN-GARNO 1010	22.8	24	--	174.7	125	--	3.3	3	--
*AGRIPRO AP595	22.9	--	--	185.4	--	--	5.7	--	--
BLANEY B702	23.4	--	--	154.7	--	--	1.9	--	--
*SUPER CROST 4877	23.4	24	--	178.3	132	--	3.1	2	--
GOLDEN HARVEST H-2532	23.5	25	--	140.8	113	--	3.4	3	--
*NORTHRUP KING PX9540	23.9	--	--	173.4	--	--	0.0	--	--
DAIRYLAND DX-1015	23.9	25	24	156.8	120	104	1.6	2	2
GOLDEN HARVEST H-2528	23.9	--	--	159.4	--	--	4.7	--	--
JACQUES 7820	24.0	25	--	135.0	107	--	1.6	3	--
RENK RK76	24.8	26	24	151.9	123	105	6.1	4	3
GOLDEN HARVEST EX479	25.2	--	--	144.8	--	--	3.1	--	--
AGRIPRO AP610	26.8	--	--	158.5	--	--	4.0	--	--
AVERAGE	21.1	23	22	151.9	111	103	3.2	3	2
RANGE	17.5 TO 26.8	20 TO 26	19 TO 24	105.1 TO 194.9	81 TO 132	86 TO 119	0.0 TO 28.1	0 TO 15	1 TO 5
LEAST SIGNIFICANT DIFFERENCE	1.3			18.0					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	May 5	May 4	May 6
HARVESTED	October 27	October 27	October 16
SOIL TYPE	Kalamazoo loam	Kalamazoo loam	Kalamazoo loam
PREVIOUS CROP	Corn	Corn	Corn
POPULATION	19,000	21,800	21,500
ROWS	30"	30"	30"
FERTILIZER	137-48-24	137-48-24	116-64-32
SOIL TEST: pH	5.8	5.9	6.2
P	182 (very high)	218 (very high)	158 (very high)
K	290 (high)	364 (very high)	203 (medium)

FARM COOPERATOR: Richard Van Vrancken, Climax

COUNTY AGRICULTURAL AGENT: Maurice Kaercher, Kalamazoo

TABLE 5 SOUTHERN MICHIGAN ZONE 1
Cass County Trial - Irrigated
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
PIONEER 3751	16.2	--	--	157.1	--	--	0.8	--	--
PIONEER 3737	16.3	--	--	144.9	--	--	1.5	--	--
KING K499	16.6	--	--	143.2	--	--	0.8	--	--
PARKER 53	16.8	--	--	116.6	--	--	3.3	--	--
PIONEER 3374	17.2	20	--	134.4	158	--	2.4	1	--
GLENN-GARNO 1003	17.4	19	20	100.7	116	131	3.3	2	2
PIONEER 3585	18.0	--	--	165.8	--	--	3.9	--	--
DEKALB-PFIZER DK535	18.4	20	--	189.5	170	--	3.9	4	--
PIONEER 3573	18.4	--	--	176.6	--	--	0.0	--	--
GREAT LAKES GL-509	18.6	20	--	156.5	174	--	0.0	2	--
*PIONEER 3352	18.6	21	23	211.7	198	200	2.8	1	1
DAIRYLAND DX-1107	18.7	21	23	155.3	158	166	3.3	3	2
GOLDEN HARVEST H-2465	18.7	20	22	170.2	165	163	1.6	2	2
AMCORN PSX7450	18.7	--	--	179.9	--	--	1.5	--	--
DEKALB-PFIZER DK572	18.8	21	22	182.1	189	184	2.3	3	3
RENK RK627	18.8	20	--	170.0	148	--	1.6	3	--
CROW'S 442	18.8	--	--	132.7	--	--	4.6	--	--
ASGROW/O'S GOLD RX578	19.0	20	22	178.5	169	166	3.2	2	2
BLANEY B607	19.3	--	--	156.9	--	--	1.6	--	--
MAUMEE VALLEY MV762	19.3	21	22	183.7	169	169	1.5	2	2
GLENN-GARNO 1007	19.3	21	22	168.0	177	176	0.8	4	3
RENK RK702	19.4	--	--	156.6	--	--	0.8	--	--
MCCURDY 5750	19.4	20	--	154.9	163	--	4.8	4	--
AMCORN PSX9009	19.4	21	--	162.3	162	--	5.5	5	--
PIONEER 3475	19.5	21	22	179.6	166	172	4.4	3	2
ASGROW/O'S GOLD RX626	19.6	21	22	176.7	159	158	1.6	2	2
KING K5574	19.6	20	22	167.6	165	165	2.3	3	2
PARKER 350	19.6	--	--	155.9	--	--	5.0	--	--
RENK RK64	19.7	21	--	179.0	170	--	1.6	2	--
GLENN-GARNO 1006	19.7	--	--	166.8	--	--	3.2	--	--
NORTHRUP KING N6873	19.8	21	--	165.6	173	--	1.6	1	--
PAYCO 748	19.8	21	--	162.3	167	--	0.0	0	--
*GREAT LAKES GL-582	20.0	21	23	196.6	192	199	0.0	1	1
*GOLDEN HARVEST H-2525	20.0	22	--	209.8	193	--	0.8	4	--
ANDERSONS PSX380	20.2	--	--	169.9	--	--	3.9	--	--
ASGROW/O'S GOLD RX706	20.3	--	--	177.3	--	--	3.0	--	--
*PIONEER 3379	20.4	22	--	207.5	195	--	0.0	1	--
*MAUMEE VALLEY MV812	20.4	22	--	198.6	188	--	1.5	1	--
PRAIRIE STREAM M4400	20.5	22	24	140.5	146	158	3.1	2	2
RENK RK721	20.5	--	--	177.1	--	--	3.1	--	--
MCCURDY 6660	20.5	22	--	168.7	171	--	2.3	2	--
CROW'S 488	20.5	22	23	185.8	171	171	2.3	2	2
PIONEER 3429	20.6	--	--	166.4	--	--	0.7	--	--
GLENN-GARNO 1010	20.6	22	--	154.6	158	--	2.3	2	--
*SELECT 5015	20.9	--	--	199.0	--	--	1.5	--	--
SELECT 4988	21.0	--	--	178.8	--	--	0.0	--	--
ANDERSONS PSX410	21.0	--	--	155.1	--	--	4.0	--	--
*GOLDEN HARVEST H-2532	21.0	23	--	217.3	214	--	3.1	3	--
*CARGILL SX269	21.1	22	--	197.2	192	--	4.8	4	--
MAUMEE VALLEY MV851	21.1	23	23	156.6	157	159	4.1	4	3
JACQUES 7770	21.2	--	--	163.3	--	--	1.6	--	--
GOLDEN HARVEST EX533	21.2	--	--	131.5	--	--	4.9	--	--
GOLDEN HARVEST H-2528	21.2	--	--	190.9	--	--	0.8	--	--
*AGRIPRO AP525	21.3	22	--	203.2	192	--	0.8	2	--
KING K598	21.3	24	--	160.2	155	--	1.6	3	--
PARKER 56	21.3	--	--	167.5	--	--	3.2	--	--
*PRAIRIE STREAM SX703	21.3	--	--	202.9	--	--	0.0	--	--
FUNK G-BRAND 4485	21.4	--	--	159.3	--	--	1.6	--	--
PIONEER 3343	21.4	--	--	173.5	--	--	4.7	--	--
AGRIPRO AP595	21.4	23	--	172.4	163	--	2.3	2	--
RENK RK803	21.4	--	--	173.8	--	--	1.6	--	--
GLENN-GARNO 1011	21.5	--	--	167.2	--	--	3.9	--	--
RUPP XR1739	21.6	23	--	164.7	170	--	1.6	2	--
PAYCO SX800	21.6	--	--	162.5	--	--	2.6	--	--
KING K647	21.7	23	24	134.9	149	155	0.9	1	1
DAIRYLAND DX-1110	21.7	--	--	181.7	--	--	0.8	--	--
BECK'S 62XA	21.7	--	--	187.6	--	--	2.3	--	--
*CARGILL 6227	21.8	23	--	196.8	185	--	2.2	1	--
MAUMEE VALLEY MV888	21.9	22	24	191.4	187	183	2.5	2	1
*AGRIPRO AP510	22.0	23	24	204.7	188	188	1.5	2	2
CALLAHAN 21888X	22.1	--	--	180.1	--	--	0.7	--	--
JACQUES 7820	22.2	24	--	167.4	181	--	1.5	2	--
MAUMEE VALLEY MV904	22.2	--	--	190.0	--	--	0.0	--	--
*BECK'S 63X	22.2	24	25	213.6	208	200	3.1	2	2
*FUNK G-BRAND 4543	22.3	--	--	207.8	--	--	0.0	--	--

(continued below)

TABLE 6 SOUTHERN MICHIGAN ZONE 1
Cass County Trial - Muck Soil
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
GLENN-GARNO 1011	19.8	--	--	66.3	--	--	11.9	--	--
*KING K598	20.0	24	--	110.6	131	--	0.9	1	--
*PIONEER 3737	20.8	21	21	127.7	121	129	2.0	3	3
MAUMEE VALLEY MV630	21.1	22	22	80.6	96	117	6.1	5	3
CARGILL 4227	21.4	23	--	78.2	104	--	0.9	2	--
GREAT LAKES GL-509	21.5	24	23	91.4	122	136	4.8	3	3
KING K499	21.6	--	--	89.4	--	--	3.4	--	--
GLENN-GARNO 1007	21.6	--	--	79.1	--	--	2.6	--	--
KING K5574	21.7	24	24	95.0	118	125	5.7	3	2
PIONEER 3379	21.8	--	--	90.5	--	--	2.5	--	--
ASGROW/O'S GOLD RX578	22.1	24	23	62.5	105	122	1.7	1	1
CALLAHAN C764	22.2	--	--	60.4	--	--	4.3	--	--
PIONEER 3585	22.5	23	--	77.3	108	--	6.6	3	--
MAUMEE VALLEY MV812	22.6	25	--	80.1	118	--	1.9	1	--
GLENN-GARNO 1003	22.7	23	23	82.0	116	126	10.3	6	4
NORTHRUP KING N6348	22.8	27	--	86.8	121	--	2.4	2	--
*GLENN-GARNO 1006	22.8	--	--	129.0	--	--	1.0	--	--
DEKALB-PFIZER DK547	22.9	--	--	88.7	--	--	2.8	--	--
FUNK G-BRAND 4309	23.1	23	--	94.9	121	--	3.6	3	--
*AGRIPRO AP610	23.1	--	--	105.3	--	--	3.9	--	--
MAUMEE VALLEY MV762	23.1	25	24	93.6	109	127	0.0	0	0
CROW'S 199	23.1	--	--	76.3	--	--	0.9	--	--
GLENN-GARNO 955	23.3	--	--	83.7	--	--	4.2	--	--
PIONEER 3374	23.5	--	--	86.2	--	--	0.8	--	--
CROW'S 227	23.5	--	--	95.9	--	--	2.7	--	--
ANDERSONS PSX340	23.6	--	--	88.0	--	--	5.5	--	--
CROW'S 488	23.6	27	--	83.7	109	--	3.5	2	--
PIONEER 3343	23.7	--	--	83.8	--	--	0.0	--	--
*PAYCO 748	23.7	25	--	118.1	134	--	4.3	2	--
ANDERSONS PSX380	23.9	--	--	97.2	--	--	4.0	--	--
FUNK G-BRAND 4393	24.0	--	--	85.2	--	--	1.7	--	--
*CARGILL 5157	24.2	25	--	138.7	130	--	5.3	3	--
PIONEER 3573	24.3	--	--	68.8	--	--	4.2	--	--
PAYCO 648	24.5	24	--	79.7	119	--	5.7	6	--
AGRIPRO 680	24.6	25	--	93.6	126	--	3.3	2	--
AMCORN PSX5555	24.7	--	--	80.9	--	--	1.8	--	--
JACQUES 5700	24.8	--	--	69.1	--	--	5.5	--	--
AMCORN PSX7450	24.8	--	--	82.0	--	--	2.2	--	--
GREAT LAKES GL-582	24.9	26	--	64.8	104	--	3.1	2	--
GLENN-GARNO 900	24.9	--	--	92.7	--	--	2.0	--	--
KING K647	25.0	28	27	70.9	109	113	3.3	2	2
GLENN-GARNO 888	25.0	--	--	100.0	--	--	7.3	--	--
PIONEER 3475	25.1	25	24	70.8	109	129	2.4	2	1
PIONEER 3429	25.2	--	--	82.9	--	--	3.1	--	--
CALLAHAN C748	25.2	25	--	88.9	116	--	2.4	2	--
PIONEER 3352	25.3	--	--	76.5	--	--	3.4	--	--
BLANEY B702	25.4	--	--	79.9	--	--	5.6	--	--
AGRIPRO AP525	25.5	28	--	89.4	110	--	1.7	2	--
GOLDEN HARVEST H-2525	25.7	27	--	84.3	124	--	9.1	5	--
GOLDEN HARVEST H-2465	26.3	27	25	82.3	109	131	1.7	1	1
*GLENN-GARNO 878	26.6	--	--	103.3	--	--	1.8	--	--
*AGRIPRO AP595	26.7	--	--	103.8	--	--	2.6	--	--
BLANEY B607	27.1	--	--	68.5	--	--	0.8	--	--
JACQUES 7770	27.3	--	--	71.6	--	--	0.8	--	--
CARGILL 4327	27.4	--	--	90.0	--	--	5.6	--	--
ASGROW/O'S GOLD RX626	27.5	26	25	85.6	113	116	4.0	2	1
PIONEER 3751	27.6	24	--	68.4	94	--	3.3	4	--
MAUMEE VALLEY MV888	28.1	--	--	64.4	--	--	5.0	--	--
ASGROW/O'S GOLD RX706	28.5	--	--	77.6	--	--	1.7	--	--
AVERAGE	24.1	25	24	86.4	115	125	3.5	2	2
RANGE	19.8 TO 28.5	21 TO 28	21 TO 27	60.4 TO 138.7	94 TO 134	113 TO 136	0.0 TO 11.9	0 TO 6	0 TO 4
LEAST SIGNIFICANT DIFFERENCE	3.1			16.8					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	May 17	May 14	May 27
HARVESTED	October 25	October 27	October 17
SOIL TYPE	Houghton Muck	Palms Muck	Palms Muck
PREVIOUS CROP	Corn	Corn	Corn
POPULATION	17,700	22,300	22,200
ROWS	30"	30"	30"
FERTILIZER	111-74-120	18-62-0	20-68-72
SOIL TEST: pH	5.7	5.8	5.8
P	55 (medium)	107 (very high)	104 (very high)
K	416 (very high)	596 (very high)	345 (very high)

FARM COOPERATOR: Ken Peterson, Niles (1989)
Warren Wooden, Cassopolis (1988, 1987)

COUNTY AGRICULTURAL AGENT: Wayne Hothem, Cassopolis

TABLE 5 (CONTINUED) SOUTHERN MICHIGAN ZONE 1
Cass County Trial - Irrigated
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
*NORTHRUP KING 7705	22.3	--	--	198.3	--	--	2.3	--	--
CALLAHAN C764	22.3	23	--	143.4	166	--	2.4	2	--
DEKALB-PFIZER DK636	22.4	--	--	188.0	--	--	2.3	--	--
RUPP XR1829	22.4	--	--	161.8	--	--	1.6	--	--
*BLANEY B702	22.5	--	--	202.1	--	--	3.1	--	--
*SUPER CROST 4877	22.5	24	--	202.2	194	--	4.5	5	--
*SELECT 5040	22.6	--	--	202.5	--	--	3.8	--	--
PRAIRIE STREAM SX7182	22.6	--	--	159.1	--	--	5.9	--	--
RENK RK76	22.6	24	--	189.8	185	--	3.9	3	--
MCCURDY 7277	22.6	--	--	189.5	--	--	1.5	--	--
GLENN-GARNO 1010B	22.6	--	--	145.3	--	--	3.8	--	--
BECK'S 65X	22.7	23	24	179.7	188	187	0.7	1	1
DAIRYLAND DX-1018	22.8	--	--	171.8	--	--	1.6	--	--
GOLDEN HARVEST H-2572	22.8	24	25	194.9	190	194	0.0	1	1
*GOLDEN HARVEST H-2583	22.9	--	--	217.7	--	--	2.2	--	--
*SELECT 5188	23.1	--	--	211.0	--	--	0.7	--	--
*CARGILL 7993	23.1	24	--	199.3	197	--	3.0	2	--
CROW'S 682	23.1	--	--	121.7	--	--	1.6	--	--
CARGILL 7877	23.2	--	--	187.2	--	--	4.6	--	--
*PARKER 63	23.2	24	25	197.3	184	184	3.0	2	1
GLENN-GARNO 1012	23.2	24	26	145.4	160	166	3.3	2	2
DAIRYLAND DX-1117	23.3	--	--	177.2	--	--	4.4	--	--
*CARGILL 8027	23.5	--	--	201.9	--	--	1.4	--	--
DAIRYLAND DX-1015	23.5	24	25	180.8	181	178	0.8	1	1
MAUMEE VALLEY MV910	23.9	--	--	194.5	--	--	0.0	--	--
CARGILL 8127	24.0	--	--	191.6	--	--	0.7	--	--
CROW'S 449	24.0	--	--	177.0	--	--	1.5	--	--
CROW'S 669	24.3	--	--	149.0	--	--	0.8	--	--
AGRIPRO AP610	24.4	--	--	172.9	--	--	1.6	--	--
GOLDEN HARVEST EX479	24.7	--	--	189.8	--	--	0.7	--	--
AVERAGE	21.0	22	23	174.8	174	174	2.2	2	2
RANGE	16.2 TO 24.7	19 TO 24	20 TO 26	100.7 TO 217.7	116 TO 214	131 TO 200	0.0 TO 5.9	0 TO 5	1 TO 3
LEAST SIGNIFICANT DIFFERENCE	1.1			20.8					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	May 5	April 30	May 6
HARVESTED	October 24-25	October 21	September 23
SOIL TYPE	Oshtemo sandy loam	Oshtemo sandy loam	Oshtemo sandy loam
PREVIOUS CROP	Corn	Corn	Corn
POPULATION	20,200	22,500	22,600
ROWS	30"	30"	30"
FERTILIZER	214-40-8 + Sulfur & Zinc	139-40-128	212-40-70
SOIL TEST: pH	6.8	7.0	6.7
P	200 (very high)	294 (very high)	217 (very high)
K	372 (very high)	408 (very high)	265 (high)
IRRIGATION:	3 inches	8 inches	6 inches

FARM COOPERATOR: Dave and Melvin Cripe, Cassopolis

COUNTY AGRICULTURAL AGENT: Wayne Hothem, Cassopolis

TABLE 7 SOUTH CENTRAL MICHIGAN ZONE 2
Kent County Trial
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
DAIRYLAND DX-1095	20.5	20	19	144.3	128	124	0.0	2	2
MAUMEE VALLEY MV509	20.7	21	--	177.7	126	--	3.4	4	--
PIONEER 3718	20.8	--	--	149.6	--	--	0.9	--	--
KING K416	20.8	21	20	147.2	124	109	1.8	2	2
WOLVERINE W163	20.9	22	21	153.1	120	126	0.0	1	2
PIONEER 3573	21.0	--	--	170.8	--	--	0.8	--	--
KING K499	21.1	--	--	159.9	--	--	2.6	--	--
TERRA TR975	21.2	--	--	144.5	--	--	0.0	--	--
GLENN-GARNO 1003	21.2	22	21	136.0	127	133	4.8	3	3
GRIES GSF-226A	21.5	--	--	161.9	--	--	1.7	--	--
PIONEER 3585	21.6	22	--	174.4	156	--	3.5	5	--
MAUMEE VALLEY MV630	21.6	23	--	147.3	119	--	0.0	1	--
TERRA TR164E	21.6	--	--	154.6	--	--	0.9	--	--
TERRA TR880	21.6	--	--	122.5	--	--	0.0	--	--
CROW'S 199	21.6	--	--	137.4	--	--	6.5	--	--
GOLDEN HARVEST EX.694	21.7	--	--	150.4	--	--	0.8	--	--
WOLVERINE W156	21.8	22	21	158.7	132	119	3.4	4	3
BLANEY B405	22.0	--	--	148.6	--	--	2.8	--	--
ASGROW/O'S GOLD RX406	22.0	21	--	162.9	123	--	2.6	5	--
GLENN-GARNO 1007	22.0	23	22	170.2	142	142	0.0	6	4
CROW'S 227	22.1	--	--	148.4	--	--	0.8	--	--
*PAYCO 748	22.1	--	--	186.4	--	--	3.3	--	--
GLENN-GARNO 1006	22.1	--	--	165.5	--	--	1.0	--	--
*SUPER CROST 2277	22.2	--	--	190.3	--	--	0.8	--	--
CROW'S 210	22.2	23	--	149.7	133	--	1.8	4	--
CROW'S 380	22.2	--	--	152.0	--	--	1.7	--	--
AMCORN PSX5555	22.2	23	--	153.9	138	--	4.2	4	--
BLANEY B505	22.3	--	--	136.5	--	--	3.9	--	--
*FUNK G-BRAND 4385	22.3	--	--	188.9	--	--	0.8	--	--
DAIRYLAND DX-1104	22.4	23	--	155.5	139	--	1.8	1	--
GREAT LAKES GL-509	22.6	23	22	126.2	133	137	2.1	4	4
CARGILL 5157	22.6	--	--	149.5	--	--	6.3	--	--
DEKALB-PFIZER DK547	22.7	23	--	139.0	132	--	3.3	2	--
GRIES GSF-X550	22.7	22	--	123.6	118	--	2.8	2	--
DAIRYLAND DX-1106	22.7	24	--	146.5	131	--	3.3	2	--
GOLDEN HARVEST H-2410	22.7	22	--	163.2	135	--	1.7	4	--
GOLDEN HARVEST H-2438	22.7	24	--	154.5	140	--	0.0	0	--
KING K448	22.8	23	--	127.5	110	--	3.4	3	--
RENK RK627	22.8	22	--	118.3	107	--	1.9	2	--
ANDERSONS PSX360	22.9	--	--	144.5	--	--	2.8	--	--
*DEKALB-PFIZER DK535	23.0	23	--	183.3	159	--	0.0	2	--
GRIES GSF-4460	23.0	--	--	141.7	--	--	1.1	--	--
PIONEER 3429	23.1	--	--	151.7	--	--	0.9	--	--
PIONEER 3751	23.1	22	--	173.4	152	--	1.7	1	--
BLANEY B607	23.2	--	--	154.5	--	--	0.0	--	--
FUNK G-BRAND 4393	23.2	--	--	173.5	--	--	5.6	--	--
*GREAT LAKES GL-482	23.2	23	22	180.7	148	144	0.0	3	3
ASGROW/O'S GOLD RX578	23.2	24	22	178.0	134	138	1.7	2	2
MAUMEE VALLEY MV762	23.2	24	--	179.4	159	--	2.4	3	--
*JACQUES 6770	23.3	--	--	189.4	--	--	5.1	--	--
GOLDEN HARVEST H-2404	23.3	23	--	148.4	124	--	2.6	2	--
*TERRA TR1040	23.3	--	--	187.6	--	--	0.0	--	--
*SUPER CROST 2979	23.4	--	--	191.8	--	--	3.3	--	--
NORTHRUP KING N4545	23.5	23	--	142.9	131	--	0.0	1	--
AGRIPRO AP424	23.5	--	--	161.7	--	--	0.0	--	--
RENK RK64	23.5	23	--	163.9	135	--	2.9	5	--
JACQUES 5700	23.6	--	--	149.4	--	--	0.0	--	--
KING K5574	23.6	23	23	148.6	146	137	0.9	5	4
DAIRYLAND DX-1103	23.6	23	22	127.6	126	116	0.9	1	1
PIONEER 3475	23.7	23	--	159.1	140	--	1.5	1	--
PAYCO 648	23.7	23	--	131.1	126	--	1.7	1	--
MAUMEE VALLEY MV611	24.2	23	--	126.4	112	--	0.9	0	--
RENK RK702	24.2	--	--	129.8	--	--	1.0	--	--
DEKALB-PFIZER DK572	24.3	--	--	145.2	--	--	0.0	--	--
GREAT LAKES GL-582	24.3	25	24	177.7	162	151	1.8	1	1
MAUMEE VALLEY MV812	24.3	25	--	165.3	144	--	2.5	2	--
CARGILL 6027	24.3	--	--	174.0	--	--	1.0	--	--
ASGROW/O'S GOLD RX626	24.4	24	23	145.0	119	121	0.0	1	1
TERRA TR1060	24.5	--	--	176.0	--	--	0.0	--	--
*AMCORN PSX7450	24.7	--	--	182.7	--	--	0.8	--	--
GLENN-GARNO 1010	25.0	25	--	159.7	147	--	4.3	3	--
AGRIPRO AP595	25.1	--	--	162.1	--	--	2.5	--	--
RENK RK721	25.3	--	--	161.9	--	--	0.9	--	--
CROW'S 442	25.5	--	--	131.1	--	--	1.0	--	--
GLENN-GARNO 1012	25.6	27	--	124.5	135	--	0.0	0	--

(continued next page)

TABLE 7 (CONTINUED) SOUTH CENTRAL MICHIGAN Kent County Trial ZONE 2
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
GLENN-GARNO 1011	25.8	--	--	146.6	--	--	0.8	--	--
*ANDERSONS PSX370	26.3	--	--	193.9	--	--	0.8	--	--
DAIRYLAND DX-1110	26.5	--	--	158.2	--	--	1.6	--	--
CARGILL 6227	26.6	26	--	160.0	145	--	0.9	3	--
*AGRIPRO AP525	26.8	26	--	181.8	157	--	4.5	6	--
*TERRA TR1120	26.8	--	--	187.4	--	--	0.7	--	--
*ASGROW/O'S GOLD RX706	26.9	--	--	186.3	--	--	0.0	--	--
TERRA TR1110	26.9	--	--	152.6	--	--	0.8	--	--
GLENN-GARNO 1010B	26.9	--	--	135.0	--	--	0.9	--	--
AVERAGE	23.2	23	22	156.8	134	131	1.7	2	2
RANGE	20.5 TO 26.9	20 TO 27	19 TO 24	118.3 TO 193.9	107 TO 162	109 TO 151	0.0 TO 6.5	0 TO 6	1 TO 4
LEAST SIGNIFICANT DIFFERENCE	1.4			23.4					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	May 9	May 4	May 4
HARVESTED	October 24	October 20	October 19
SOIL TYPE	Bellville loam	Bellville loam	Bellville loam
PREVIOUS CROP	Corn	Alfalfa	Corn
POPULATION	18,100	20,900	19,500
ROWS	30"	30"	30"
FERTILIZER	100-0-0 + 5 ton manure	33-31-0 + manure	195-41-60
SOIL TEST: pH	6.4	6.7	6.7
P	141 (very high)	140 (very high)	85 (high)
K	613 (very high)	400 (very high)	236 (high)

FARM COOPERATOR: Gerald Kayser, Caledonia

COUNTY AGRICULTURAL AGENT: Lyman Baker, Grand Rapids

TABLE 8 SOUTH CENTRAL MICHIGAN Ottawa County Trial* ZONE 2
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
ASGROW/O'S GOLD RX406	18.4	21	--	131.9	86	--	2.7	9	--
DAIRYLAND DX-1194	18.7	23	--	133.7	88	--	1.8	5	--
*PIONEER 3751	18.8	--	--	164.4	--	--	1.7	--	--
BLANEY B405	19.1	--	--	137.2	--	--	4.2	--	--
BETAGOLD KARLA	19.2	22	--	135.8	90	--	2.5	1	--
GOLDEN HARVEST H-2344	19.3	22	21	141.2	92	94	3.6	5	5
KING K416	19.5	23	22	115.8	76	85	4.2	6	6
GRIES GSF-226A	19.7	--	--	150.1	--	--	3.3	--	--
PAYCO SX686	19.8	--	--	116.0	--	--	2.8	--	--
*CARGILL 4327	19.9	--	--	172.1	--	--	2.3	--	--
WOLVERINE W156	20.0	23	22	121.4	81	91	9.3	6	7
SEEDEX 995	20.2	24	--	149.1	91	--	0.8	1	--
GOLDEN HARVEST H-2343	20.2	24	22	148.4	95	99	6.1	4	5
COUNTRYMARK C434X	20.4	--	--	132.2	--	--	4.3	--	--
BETAGOLD KATRINA	20.4	--	--	147.3	--	--	2.5	--	--
HERITAGE EASY MONEY	20.5	--	--	135.7	--	--	0.8	--	--
DAIRYLAND DX-1104	20.5	25	--	127.1	86	--	2.5	2	--
WOLVERINE W163	20.6	23	--	132.1	90	--	4.0	2	--
PIONEER 3718	20.6	--	--	147.7	--	--	2.4	--	--
GRIES GSF-X550	20.7	23	--	143.0	88	--	3.6	3	--
NORTHRUP KING N4545	20.7	23	--	131.5	84	--	6.5	4	--
*PIONEER 3573	20.7	--	--	194.7	--	--	0.8	--	--
KING K448	20.9	23	--	150.7	92	--	3.2	2	--
*GREAT LAKES GL-482	21.0	23	22	171.2	113	114	5.6	3	3
GLENN-GARNO 1006	21.1	--	--	154.6	--	--	3.7	--	--

(continued below)

TABLE 9 SOUTH CENTRAL MICHIGAN Ingham County Trial - Grain ZONE 2
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
ASGROW/O'S GOLD RX406	19.0	22	--	137.8	128	--	0.8	1	--
KING K416	21.5	24	23	125.9	112	123	4.5	3	4
GRIES GSF-226A	22.1	--	--	169.3	--	--	3.0	--	--
GOLDEN HARVEST EX.694	22.2	--	--	163.3	--	--	2.4	--	--
COUNTRYMARK C434X	22.7	--	--	135.3	--	--	1.6	--	--
MAUMEE VALLEY MV630	23.3	24	24	155.0	140	145	2.9	1	2
PAYCO SX686	23.4	--	--	129.8	--	--	4.5	--	--
GOLDEN HARVEST H-2404	23.5	25	--	141.9	127	--	6.0	3	--
FUNK G-BRAND 4309	23.8	24	--	154.7	140	--	2.9	1	--
*PIONEER 3718	23.9	--	--	176.1	--	--	2.7	--	--
DEKALB-PFIZER DK485	24.0	--	--	143.6	--	--	4.8	--	--
RENK RK650	24.0	--	--	148.2	--	--	3.7	--	--
GREAT LAKES GL-482	24.1	25	24	135.1	136	145	6.5	3	4
PIONEER 3751	24.2	25	--	103.2	114	--	16.1	8	--
BETAGOLD HANNA	24.3	25	--	143.5	135	--	2.4	1	--
RUPP XR1527	24.3	25	23	152.9	150	150	3.0	2	2
KING K448	24.5	26	--	147.7	134	--	3.1	2	--
GLENN-GARNO 1003	24.6	25	24	138.1	140	147	1.8	2	2
GOLDEN HARVEST H-2410	24.8	26	--	169.9	146	--	0.8	1	--
*DEKALB-PFIZER DK535	24.9	26	--	177.8	156	--	4.2	2	--
GRIES GSF-X550	25.0	--	--	125.0	--	--	1.0	--	--
*PIONEER 3573	25.2	--	--	170.0	--	--	5.6	--	--
*KING K499	25.2	--	--	170.7	--	--	1.5	--	--
GRIES GSF-4460	25.4	--	--	165.8	--	--	1.4	--	--
AMCORN PSX7450	25.7	--	--	158.1	--	--	2.4	--	--
AMCORN PSX5555	25.8	27	--	122.3	119	--	10.5	5	--
PIONEER 3585	25.9	26	--	161.0	151	--	0.7	0	--
DAIRYLAND DX-1103	25.9	26	24	150.8	135	135	4.9	2	2
KING K5574	26.0	27	26	158.3	146	152	2.2	1	2
RUPP EXP.9-163	26.2	--	--	147.4	--	--	2.3	--	--
ASGROW/O'S GOLD RX578	26.4	27	25	161.1	147	146	1.6	2	2
RENK RK627	26.4	28	--	144.2	140	--	1.0	1	--
CROW'S 195	26.4	26	--	134.8	127	--	0.0	0	--
FUNK G-BRAND 4393	26.7	--	--	157.1	--	--	1.6	--	--
*MAUMEE VALLEY MV762	26.7	27	26	184.6	149	149	0.8	1	3
*DEKALB-PFIZER DK524	26.8	26	24	173.4	145	142	2.6	2	4
*ANDERSONS PSX360	26.8	--	--	174.0	--	--	3.6	--	--
NORTHRUP KING N4545	27.0	27	--	154.0	145	--	2.1	1	--
DAIRYLAND DX-1107	27.0	27	25	159.3	143	137	5.5	3	4
GOLDEN HARVEST H-2465	27.0	27	26	158.1	139	145	0.7	1	1
DAIRYLAND DX-1015	30.8	30	--	145.1	134	--	1.7	2	--
DAIRYLAND DX-1110	31.0	--	--	167.5	--	--	1.5	--	--
BLANEY B702	31.1	--	--	160.7	--	--	1.6	--	--
*CARGILL 6227	31.1	--	--	171.6	--	--	2.3	--	--
*AGRIPRO AP525	31.2	30	--	171.3	153	--	2.1	1	--
ASGROW/O'S GOLD RX706	31.2	--	--	135.3	--	--	1.6	--	--
RENK RK721	31.5	--	--	149.1	--	--	3.0	--	--
GREAT LAKES GL-582	32.5	31	--	147.6	135	--	0.8	1	--
CROW'S 442	32.5	--	--	136.1	--	--	3.4	--	--
ANDERSONS PSX380	32.6	--	--	135.5	--	--	4.8	--	--
CROW'S SL38	32.6	--	--	134.5	--	--	5.1	--	--
MAUMEE VALLEY MV812	32.9	31	--	161.7	150	--	1.5	1	--
CROW'S 449	33.5	--	--	138.0	--	--	1.6	--	--
ASGROW/O'S GOLD RX749	33.7	--	--	158.1	--	--	3.4	--	--
GLENN-GARNO 1010B	33.7	--	--	132.8	--	--	0.0	--	--
GLENN-GARNO 1011	33.9	--	--	143.6	--	--	1.6	--	--
GLENN-GARNO 1012	34.5	31	--	119.1	125	--	0.0	0	--
MAUMEE VALLEY MV910	35.6	--	--	141.6	--	--	0.8	--	--
NORTHRUP KING N6348	36.0	32	--	151.7	140	--	1.7	2	--
AGRIPRO AP610	36.2	--	--	155.3	--	--	4.3	--	--
GOLDEN HARVEST H-2438	27.0	28	--	165.9	138	--	4.5	2	--
FUNK G-BRAND 4385	27.1	--	--	164.1	--	--	1.5	--	--
CARGILL 5157	27.1	28	26	151.8	144	140	7.0	4	4
CROW'S 199	27.2	--	--	133.8	--	--	1.9	--	--
GLENN-GARNO 1006	27.2	--	--	148.0	--	--	1.6	--	--
GLENN-GARNO 1007	27.2	27	26	149.8	139	145	2.3	1	2
*BETAGOLD MARIA	27.4	27	--	171.7	149	--	2.2	1	--
*BLANEY B607	27.5	--	--	172.3	--	--	3.1	--	--
PIONEER 3475	27.5	26	--	152.6	146	--	5.6	4	--
*COUNTRYMARK C565X	27.5	27	26	182.4	150	149	4.8	3	4
NORTHRUP KING S5987WX	27.8	29	--	149.9	138	--	4.6	2	--
JACQUES 6770	27.8	28	--	146.5	133	--	2.4	1	--
GREAT LAKES GL-579	27.8	28	26	156.3	143	148	0.8	0	2
NORTHRUP KING N6321	27.8	27	26	165.1	152	151	0.8	0	2
CROW'S 380	27.8	--	--	135.6	--	--	1.6	--	--

(continued below)

TABLE 8 (CONTINUED) SOUTH CENTRAL MICHIGAN ZONE 2
Ottawa County Trial
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	% MOISTURE 2 YR	% MOISTURE 3 YR	BUSHELS PER ACRE 1989	BUSHELS PER ACRE 2 YR	BUSHELS PER ACRE 3 YR	% STALK LODGING 1989	% STALK LODGING 2 YR	% STALK LODGING 3 YR
BETAGOLD HANNA	21.2	--	--	140.6	--	--	5.7	--	--
DEKALB-PFIZER DK547	21.3	24	--	146.7	109	--	1.6	8	--
*FUNK G-BRAND 4385	21.3	--	--	168.3	--	--	4.2	--	--
BLANEY B505	21.4	--	--	142.5	--	--	4.1	--	--
DAIRYLAND DX-1103	21.4	25	24	149.3	98	97	2.7	2	2
DEKALB-PFIZER DK535	21.5	23	--	150.8	95	--	1.7	8	--
KING K499	21.5	--	--	146.1	--	--	1.7	--	--
*PIONEER 3585	21.6	23	--	171.2	103	--	1.5	2	--
CARGILL 4227	21.6	23	--	145.9	101	--	4.1	3	--
GLENN-GARNO 1003	21.6	25	24	119.0	81	93	4.9	4	4
JACQUES 6770	21.7	24	--	153.1	115	--	0.0	2	--
PAYCO 648	21.7	--	--	154.2	--	--	2.5	--	--
SUPER CROST 2979	21.8	--	--	150.0	--	--	0.8	--	--
GREAT LAKES GL-509	21.8	--	--	139.6	--	--	6.5	--	--
AMCORN PSX5555	21.8	24	--	138.5	87	--	2.5	2	--
GARST 8599	21.9	--	--	146.3	--	--	2.5	--	--
*GOLDEN HARVEST H-2465	21.9	25	24	167.6	105	101	2.2	3	3
PIONEER 3429	22.0	--	--	156.6	--	--	2.5	--	--
PIONEER 3475	22.0	24	--	156.4	107	--	2.4	1	--
SUPER CROST 3130	22.1	--	--	161.8	--	--	1.7	--	--
RENK RK64	22.1	25	--	163.1	106	--	2.4	2	--
SEEDEX 1035	22.2	--	--	130.9	--	--	0.8	--	--
HERITAGE FAST FILLY	22.5	--	--	124.9	--	--	2.7	--	--
BETAGOLD MARIA	22.7	--	--	132.7	--	--	2.4	--	--
ASGROW/O'S GOLD RX578	22.8	25	24	116.8	92	101	0.0	2	4
DAIRYLAND DX-1106	22.8	25	--	145.4	94	--	2.7	3	--
RENK RK702	22.8	--	--	137.8	--	--	0.0	--	--
FUNK G-BRAND 4393	22.9	--	--	147.7	--	--	1.6	--	--
ASGROW/O'S GOLD RX626	22.9	25	24	148.5	99	94	1.7	2	2
WOLVERINE W167	23.0	--	--	150.0	--	--	2.5	--	--
AGRIPRO 680	23.1	25	24	156.9	114	111	3.3	4	4
RENK RK627	23.1	24	--	141.2	96	--	0.8	2	--
AMCORN PSX7450	23.1	--	--	162.3	--	--	7.5	--	--
KING K5574	23.2	26	25	150.7	100	104	1.7	2	3
DAIRYLAND DX-1107	23.2	--	--	151.7	--	--	1.6	--	--
NORTHRUP KING S5340	23.3	26	25	137.8	101	112	4.1	3	3
GLENN-GARNO 1007	23.3	25	24	128.4	90	100	3.8	2	3
AGRIPRO AP424	23.4	--	--	138.8	--	--	6.2	--	--
JACQUES 7700	23.7	26	25	110.0	93	106	10.3	6	5
BLANEY B607	23.9	--	--	139.2	--	--	4.2	--	--
HERITAGE CHUBBY BUTTS	24.1	--	--	147.6	--	--	3.6	--	--
CARGILL 6027	24.5	--	--	141.2	--	--	2.3	--	--
ANDERSONS PSX360	24.5	--	--	154.8	--	--	1.6	--	--
GRIES GSF-4460	24.7	--	--	137.7	--	--	1.6	--	--
*CARGILL SX269	24.9	29	--	186.5	129	--	2.4	1	--
COUNTRYMARK C565X	25.3	27	26	142.2	92	100	4.9	3	4
GREAT LAKES GL-582	25.6	27	--	154.8	104	--	5.8	3	--
CROW'S 414	25.6	--	--	141.3	--	--	7.4	--	--
RENK RK721	25.7	--	--	149.5	--	--	2.5	--	--
GLENN-GARNO 1010	25.9	26	--	134.8	95	--	0.0	1	--
AGRIPRO AP595	26.2	--	--	162.4	--	--	3.9	--	--
*ANDERSONS PSX370	26.2	--	--	172.0	--	--	0.0	--	--
*AGRIPRO AP525	26.5	29	--	178.7	122	--	1.4	1	--
ASGROW/O'S GOLD RX706	28.3	--	--	146.5	--	--	2.5	--	--
GLENN-GARNO 1010B	28.3	--	--	126.3	--	--	3.9	--	--
GLENN-GARNO 1011	28.4	--	--	133.4	--	--	0.0	--	--
SEEDEX 1085	30.7	31	--	148.6	94	--	3.3	2	--
GLENN-GARNO 1012	30.8	30	--	122.6	95	--	0.8	0	--
AVERAGE	22.5	25	24	145.6	97	100	3.0	3	4
RANGE	18.4 TO 30.8	21 TO 31	21 TO 26	110.0 TO 194.7	76 TO 129	85 TO 114	0.0 TO 10.3	0 TO 9	2 TO 7
LEAST SIGNIFICANT DIFFERENCE	1.3			18.2					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	May 9	May 4	May 8
HARVESTED	October 24	October 20	October 19
SOIL TYPE	Gilford & Sibewa loam	Gilford & Sibewa loam	Gilford & Sibewa loam
PREVIOUS CROP	Set aside	Corn	Corn
POPULATION	18,600	21,600	20,900
ROWS	30"	30"	30"
FERTILIZER	112-52-52	112-52-52	112-52-52
SOIL TEST: pH	6.2	6.5	6.7
P	182 (very high)	266 (very high)	377 (very high)
K	367 (very high)	410 (very high)	490 (very high)

FARM COOPERATOR: Gerald Geurink, Allendale

COUNTY AGRICULTURAL AGENT: Ira Krupp, Grand Haven

TABLE 9 (CONTINUED) SOUTH CENTRAL MICHIGAN ZONE 2
Ingham County Trial - Grain
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	% MOISTURE 2 YR	% MOISTURE 3 YR	BUSHELS PER ACRE 1989	BUSHELS PER ACRE 2 YR	BUSHELS PER ACRE 3 YR	% STALK LODGING 1989	% STALK LODGING 2 YR	% STALK LODGING 3 YR
RENK RK64	27.9	28	27	146.4	134	143	4.2	3	2
CALLAHAN 21884X	27.9	--	--	139.0	--	--	1.4	--	--
CALLAHAN C754	28.0	27	25	146.8	140	137	1.5	2	2
JACQUES 5700	28.1	27	--	140.0	130	--	1.7	1	--
GARNO EXP.A	28.3	--	--	144.3	--	--	2.3	--	--
GREAT LAKES GL-509	28.3	--	--	139.3	--	--	2.7	--	--
CARGILL 116627	28.3	--	--	151.3	--	--	0.0	--	--
*SUPER CROST 3130	28.5	--	--	170.5	--	--	2.3	--	--
GARNO EXP.B	28.6	--	--	151.6	--	--	0.7	--	--
CARGILL 6027	28.9	--	--	144.5	--	--	2.3	--	--
GLENN-GARNO 1010	29.1	28	--	161.3	150	--	0.7	0	--
CALLAHAN C748	29.1	28	--	152.9	143	--	2.3	1	--
RENK RK702	29.3	--	--	158.1	--	--	1.5	--	--
*AGRIPRO AP424	29.6	--	--	174.1	--	--	2.2	--	--
*AGRIPRO AP510	29.6	31	--	185.2	159	--	4.4	2	--
PAYCO 748	29.7	--	--	142.6	--	--	2.2	--	--
GARNO EXP.C	29.8	--	--	167.1	--	--	3.8	--	--
*CARGILL SX269	30.1	29	--	180.9	148	--	3.0	2	--
PIONEER 3429	30.1	--	--	144.5	--	--	0.0	--	--
CROW'S 444	30.1	--	--	126.6	--	--	1.7	--	--
DAIRYLAND DX-1106	30.4	28	--	125.0	129	--	5.4	3	--
CALLAHAN C764	30.5	30	--	138.4	134	--	1.6	1	--
ASGROW/O'S GOLD RX626	30.7	29	27	148.2	141	140	2.3	1	2
SUPER CROST EXP.8110	30.8	29	--	147.3	146	--	1.9	1	--
MAUMEE VALLEY MV888	30.8	30	28	148.3	134	142	4.9	2	4
AVERAGE	27.9	27	25	151.6	140	143	2.7	2	3
RANGE	19.0 TO 36.2	22 TO 32	23 TO 28	103.2 TO 185.2	112 TO 159	123 TO 152	0.0 TO 16.1	0 TO 8	1 TO 4
LEAST SIGNIFICANT DIFFERENCE	1.4			18.4					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	April 27	May 3	April 25
HARVESTED	October 10	October 6	October 3
SOIL TYPE	Capac loam	Capac loam	Capac loam
PREVIOUS CROP	Corn	Corn	Corn
POPULATION	20,900	22,000	22,200
ROWS	36"	36"	36"
FERTILIZER	165-50-50	165-50-50	165-50-50
SOIL TEST: pH	6.1	6.1	6.4
P	156 (very high)	160 (very high)	140 (very high)
K	228 (high)	240 (high)	224 (high)

FARM COOPERATOR: Michigan State University, East Lansing

COUNTY EXTENSION DIRECTOR: Marvin Preston, Mason

TABLE 10 SOUTH CENTRAL MICHIGAN ZONE 2
Ingham County Trial - Silage
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% DRY MATTER 1989	2 YR	3 YR	TONS PER ACRE GREEN WEIGHT 1989	2 YR	3 YR	DRY WEIGHT 1989	2 YR	3 YR
COUNTRYMARK C434X	36.4	--	--	16.9	--	--	6.2	--	--
ASGROW/O'S GOLD RX406	36.2	39.7	--	16.7	14.4	--	6.1	5.6	--
BETAGOLD HANNA	35.2	36.7	--	18.1	14.7	--	6.4	5.4	--
DEKALB-PFIZER DK524	35.0	39.9	38.0	19.4	15.1	16.2	6.8	5.8	6.0
PAYCO SX686	34.9	--	--	16.7	--	--	5.7	--	--
KING K416	34.8	39.6	40.6	17.4	13.4	13.0	6.2	5.2	5.2
GREAT LAKES GL-482	34.4	38.5	38.4	21.1	17.1	16.3	7.2	6.4	6.1
MAUMEE VALLEY MV630	34.4	37.0	37.0	19.1	17.8	18.0	6.6	6.6	6.6
DAIRYLAND DX-1103	34.4	37.9	35.7	22.3	17.3	17.9	7.7	6.4	6.2
MAUMEE VALLEY MV812	34.2	37.6	--	24.4	18.9	--	8.3	6.9	--
GRIES GSF-226A	34.1	--	--	16.9	--	--	5.8	--	--
PIONEER 3718	33.9	--	--	22.5	--	--	7.6	--	--
GARNO EXP.A	33.8	--	--	21.1	--	--	7.1	--	--
AGRIPRO AP424	33.8	--	--	22.5	--	--	7.7	--	--
CARGILL 5157	33.5	35.8	35.3	21.5	17.3	18.6	7.2	6.1	6.5
CROW'S 199	33.4	--	--	23.7	--	--	7.9	--	--
GOLDEN HARVEST EX.694	33.3	--	--	17.4	--	--	5.8	--	--
DEKALB-PFIZER DK485	33.2	--	--	18.6	--	--	6.2	--	--
AMCORN PSX7450	32.9	--	--	20.3	--	--	6.7	--	--
GARNO EXP B	32.8	--	--	26.3	--	--	8.6	--	--
AMCORN PSX5555	32.8	36.2	--	19.1	16.7	--	6.2	5.9	--
ANDERSONS PSX380	32.7	--	--	23.0	--	--	7.5	--	--
RUPP EXP 9-163	32.6	--	--	20.3	--	--	6.6	--	--
GLENN-GARNO 1007	32.6	33.8	33.9	23.7	19.9	19.6	7.7	6.7	6.6
KING K499	32.5	--	--	20.1	--	--	6.5	--	--
MAUMEE VALLEY MV762	32.4	35.4	34.9	25.9	21.7	21.3	8.4	7.5	7.3
NORTHRUP KING S5987WX	32.3	35.6	--	25.7	19.6	--	8.3	6.8	--
JACQUES 5700	32.3	36.5	--	19.1	16.5	--	6.2	5.9	--
KING K448	32.2	37.0	--	15.7	14.4	--	5.1	5.3	--
GREAT LAKES GL-579	31.9	33.8	34.3	22.0	19.5	19.2	7.0	6.5	6.5
GOLDEN HARVEST H-2404	31.9	35.4	--	18.1	14.2	--	5.8	4.9	--
GRIES GSF-4460	31.8	--	--	23.7	--	--	7.5	--	--
DAIRYLAND DX-1106	31.7	34.3	--	17.9	16.1	--	5.7	5.5	--
CALLAHAN C754	31.7	34.5	33.9	24.0	19.2	20.1	7.6	6.5	6.7
COUNTRYMARK 565X	31.6	34.2	33.9	24.2	18.2	17.8	7.6	6.0	5.9
CROW'S 380	31.4	--	--	20.6	--	--	6.4	--	--
BLANEY B607	31.3	--	--	23.2	--	--	7.3	--	--
CROW'S 195	31.3	35.6	--	20.1	15.1	--	6.3	5.2	--
RENK RK627	31.2	34.5	--	24.4	20.2	--	7.6	6.8	--
PIONEER 3573	31.1	--	--	21.8	--	--	6.8	--	--
PIONEER 3585	31.0	34.6	--	18.9	15.8	--	5.9	5.4	--
PIONEER 3751	31.0	37.5	--	15.2	13.7	--	4.9	5.1	--
BETAGOLD MARIA	30.9	33.3	--	23.7	18.9	--	7.3	6.2	--
ANDERSONS PSX360	30.9	--	--	26.9	--	--	8.3	--	--
RUPP XR1527	30.8	34.6	37.6	18.4	17.5	16.2	5.7	6.0	6.0
GOLDEN HARVEST H-2438	30.8	34.7	--	20.1	16.9	--	6.2	5.7	--
GLENN-GARNO 1006	30.8	--	--	23.0	--	--	7.1	--	--
GRIES GSF-X550	30.7	--	--	21.2	--	--	6.5	--	--
JACQUES 6770	30.6	34.3	--	20.6	17.8	--	6.3	6.0	--
ASGROW/O'S GOLD RX578	30.6	34.4	33.3	21.1	17.9	17.3	6.4	6.0	5.7
ASGROW/O'S GOLD RX626	30.5	33.9	33.1	24.2	18.4	18.7	7.4	6.0	6.0
CALLAHAN 21884X	30.5	--	--	23.5	--	--	7.1	--	--
GREAT LAKES GL-509	30.4	--	--	20.8	--	--	6.4	--	--
KING K5574	30.4	34.0	34.3	25.4	20.1	18.7	7.7	6.6	6.3
GLENN-GARNO 1003	30.4	34.1	33.6	22.3	17.5	17.7	6.7	5.7	5.9
CALLAHAN C748	30.4	32.7	--	21.3	17.8	--	6.5	5.7	--
DEKALB-PFIZER DK535	30.3	33.9	--	25.9	19.6	--	7.9	6.4	--
PIONEER 3475	30.3	33.8	--	25.4	18.4	--	7.7	6.0	--
RENK RK64	30.3	35.4	34.0	24.2	18.6	18.7	7.3	6.3	6.1
GOLDEN HARVEST H-2465	30.2	33.6	33.7	25.9	19.3	19.2	7.8	6.2	6.3
GOLDEN HARVEST H-2410	30.1	34.1	--	24.0	18.6	--	7.1	6.0	--
PAYCO 748	29.7	--	--	23.2	--	--	7.0	--	--
RENK RK650	29.6	--	--	18.4	--	--	5.5	--	--
BLANEY B702	29.4	--	--	27.1	--	--	8.0	--	--
SUPER CROST 3130	29.2	--	--	21.5	--	--	6.3	--	--
DAIRYLAND DX-1107	29.2	32.4	32.9	24.2	17.8	18.0	7.1	5.6	5.8
MAUMEE VALLEY MV888	29.1	31.9	31.7	25.2	21.1	21.9	7.3	6.6	6.8
CROW'S SL38	29.1	--	--	22.0	--	--	6.4	--	--
CROW'S 442	29.1	--	--	19.6	--	--	5.7	--	--
NORTHRUP KING N6321	29.0	33.2	32.7	24.7	20.2	20.9	7.1	6.5	6.7
NORTHRUP KING N4545	28.9	35.6	--	21.1	16.7	--	6.1	5.6	--
PIONEER 3429	28.7	--	--	27.6	--	--	7.9	--	--
AGRIPRO AP610	28.7	--	--	29.0	--	--	8.3	--	--
ASGROW/O'S GOLD RX749	28.7	--	--	24.9	--	--	7.2	--	--
AGRIPRO AP525	28.6	30.4	--	26.6	21.6	--	7.7	6.5	--

(continued below)

TABLE 11 NORTH CENTRAL MICHIGAN ZONE 3
Sanilac County Trial - Grain
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
*KING K 416	20.4	22	23	159.4	131	140	2.3	2	1
GLENN-GARNO 878	20.9	--	--	122.5	--	--	1.8	--	--
BETAGOLD INGRID	21.1	21	22	138.4	130	123	1.7	4	3
PIONEER 3790	21.7	22	23	134.6	121	122	1.7	1	2
JACQUES 4170	21.9	23	--	109.8	108	--	1.9	1	--
*BETAGOLD KARLA	22.2	23	--	155.9	128	--	1.7	2	--
BLANEY B305	22.3	--	--	144.6	--	--	0.0	--	--
COUNTRYMARK C363X	22.3	--	--	134.3	--	--	1.7	--	--
*HY PERFORMER HS-25	22.4	--	--	158.6	--	--	2.5	--	--
*PIONEER 3751	22.7	22	--	159.1	140	--	2.3	2	--
JACQUES 4550	22.8	--	--	134.5	--	--	1.7	--	--
GLENN-GARNO 888	22.8	23	23	143.8	127	133	3.3	2	1
PIONEER 3779	23.1	22	23	149.4	131	133	2.3	2	1
GOLDEN HARVEST H-2344	23.2	24	24	151.1	129	126	2.5	2	1
ASGROW/O'S GOLD RX406	23.4	23	24	119.6	122	121	3.4	2	1
FUNK G-BRAND 4299	23.5	24	--	126.5	123	--	1.7	1	--
PAYCO SX686	23.5	--	--	141.9	--	--	0.8	--	--
DEKALB-PFIZER DK485	23.9	--	--	142.5	--	--	2.5	--	--
PIONEER 3718	23.9	--	--	147.6	--	--	0.0	--	--
*PIONEER 3573	24.0	--	--	159.2	--	--	1.6	--	--
SUPER CROST 2277	24.1	--	--	146.7	--	--	0.0	--	--
DEKALB-PFIZER DK524	24.2	25	25	145.4	121	131	0.8	1	1
GARST 8882	24.3	--	--	147.0	--	--	3.2	--	--
TERRA TR880	24.5	25	--	113.6	111	--	0.9	1	--
DAIRYLAND DX-1101	24.5	24	--	127.3	129	--	2.7	1	--
GRIES GSF-X550	24.8	25	--	126.4	122	--	1.8	1	--
STANFORD HT238	24.8	--	--	126.4	--	--	0.0	--	--
MAUMEE VALLEY MV509	24.8	25	--	121.9	110	--	2.6	3	--
MAUMEE VALLEY MV630	24.9	25	--	142.3	126	--	2.4	2	--
BETAGOLD KATRINA	24.9	--	--	146.7	--	--	0.8	--	--
CALLAHAN C743	24.9	25	--	133.4	124	--	2.5	1	--
COUNTRYMARK C434X	25.0	--	--	138.9	--	--	2.6	--	--
BETAGOLD IRENE	25.0	--	--	133.7	--	--	2.5	--	--
GLENN-GARNO 1003	25.0	26	26	127.2	115	122	0.8	1	1
BLANEY B405	25.1	--	--	140.0	--	--	0.8	--	--
AGRIPRO AP290	25.1	--	--	145.8	--	--	0.0	--	--
AMCORN PSX7450	25.1	--	--	120.4	--	--	0.8	--	--
DAIRYLAND DX-1194	25.2	25	--	130.0	124	--	0.0	0	--
*NORTHRUP KING N4350	25.4	--	--	161.3	--	--	0.0	--	--
GOLDEN HARVEST H-2343	25.4	25	25	152.4	135	139	3.3	2	1
COUNTRYMARK C343X	25.6	24	24	132.9	112	117	2.5	2	2
RENK RK650	25.6	--	--	106.5	--	--	1.8	--	--
CROW'S 380	25.6	--	--	142.1	--	--	0.8	--	--
DAIRYLAND DX-1103	25.9	25	26	151.0	134	141	2.5	2	1
RUPP XR1527	25.9	26	--	111.9	104	--	3.2	2	--
KING K 499	26.0	--	--	116.2	--	--	0.8	--	--
*MAUMEE VALLEY MV762	26.1	28	--	175.1	147	--	1.5	1	--
GRIES GSF-226A	26.2	--	--	139.9	--	--	1.7	--	--
JACQUES 4900	26.2	25	25	139.5	131	132	1.6	1	1
CALLAHAN 21879X	26.6	--	--	98.0	--	--	2.4	--	--
RENK RK528	26.7	--	--	117.9	--	--	0.8	--	--
RENK RK64	26.7	27	28	151.3	146	151	1.6	2	2
*KING K448	26.8	27	--	157.6	126	--	0.0	0	--
GLENN-GARNO 1007	26.8	28	28	136.3	130	137	0.0	1	1
HY PERFORMER HS-35	26.9	--	--	135.4	--	--	0.0	--	--
MAUMEE VALLEY MV611	26.9	27	--	107.5	105	--	0.0	0	--
RENK RK627	26.9	27	--	139.9	140	--	0.0	0	--
FUNK G-BRAND 4309	27.0	26	--	126.4	126	--	0.0	0	--
TERRA TR975	27.0	26	26	139.9	120	123	4.1	3	2
CROW'S 199	27.0	--	--	115.0	--	--	2.6	--	--
GLENN-GARNO 1006	27.0	--	--	120.3	--	--	1.7	--	--
*GREAT LAKES GL-579	27.1	28	28	162.3	145	148	0.0	1	1
NORTHRUP KING N4545	27.1	27	--	143.8	131	--	1.5	2	--
CARGILL 5157	27.2	27	27	143.5	130	138	5.5	3	2
AGRIPRO AP595	27.3	--	--	149.9	--	--	0.8	--	--
CROW'S 195	27.3	--	--	107.2	--	--	2.5	--	--
CARGILL 6027	27.4	--	--	139.4	--	--	1.6	--	--
*PIONEER 3585	27.5	26	--	153.0	149	--	0.8	1	--
TERRA TR164E	27.7	27	--	142.1	125	--	0.8	0	--
GLENN-GARNO 900	27.7	--	--	131.7	--	--	0.0	--	--
GRIES GSF-4460	28.0	--	--	111.7	--	--	0.9	--	--
GARST 8708	28.0	--	--	121.3	--	--	2.7	--	--
GLENN-GARNO 955	28.0	--	--	138.8	--	--	0.0	--	--
AMCORN PSX5555	28.0	28	--	144.1	126	--	0.0	1	--
GREAT LAKES GL-482	28.1	27	26	144.0	138	141	1.6	1	1

(continued below)

TABLE 10 (CONTINUED) SOUTH CENTRAL MICHIGAN ZONE 2
Ingham County Trial - Silage
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% DRY MATTER 1989	2 YR	3 YR	TONS PER ACRE GREEN WEIGHT 1989	2 YR	3 YR	DRY WEIGHT 1989	2 YR	3 YR
AGRIPRO AP510	28.5	31.0	--	27.6	22.0	--	7.9	6.7	--
CARGILL 6027	28.3	--	--	27.1	--	--	7.7	--	--
FUNK G-BRAND 4309	28.2	32.1	--	22.5	18.1	--	6.3	5.6	--
FUNK G-BRAND 4393	28.1	--	--	24.2	--	--	6.8	--	--
ASGROW/O'S GOLD RX706	28.0	--	--	28.1	--	--	7.9	--	--
CARGILL 116627	28.0	--	--	24.9	--	--	7.0	--	--
GLENN-GARNO 1010B	27.8	--	--	25.0	--	--	7.0	--	--
DAIRYLAND DX-1015	27.7	30.6	--	24.7	18.9	--	6.8	5.6	--
CALLAHAN C764	27.7	29.8	--	25.4	23.0	--	7.0	6.8	--
MAUMEE VALLEY MV910	27.6	--	--	29.0	--	--	8.0	--	--
GLENN-GARNO 1011	27.4	--	--	22.4	--	--	6.2	--	--
CROW'S 444	27.3	--	--	21.3	--	--	5.8	--	--
GLENN-GARNO 1010	27.3	32.9	--	23.6	20.3	--	6.5	6.5	--
FUNK G-BRAND 4385	27.2	--	--	22.7	--	--	6.4	--	--
SUPER CROST EXP.8110	27.2	29.9	--	24.7	19.3	--	6.7	5.6	--
CARGILL SX269	27.2	30.7	--	25.4	19.9	--	6.9	5.9	--
RENK RK721	27.1	--	--	24.7	--	--	6.7	--	--
NORTHRUP KING N6348	26.8	31.0	--	24.4	20.0	--	6.5	6.0	--
GLENN-GARNO 1012	26.8	30.5	30.1	24.8	20.4	19.9	6.7	6.1	5.9
RENK RK702	26.5	--	--	21.8	--	--	5.8	--	--
GARNO EXP.C	26.3	--	--	27.6	--	--	7.2	--	--
CARGILL 6227	26.2	--	--	28.3	--	--	7.4	--	--
DAIRYLAND DX-1110	25.6	--	--	23.0	--	--	5.9	--	--
CROW'S 449	24.9	--	--	24.4	--	--	6.1	--	--
GREAT LAKES GL-582	24.8	29.8	--	26.9	22.8	--	6.7	6.6	--
AVERAGE	30.5	34.3	34.7	22.7	18.2	18.4	6.9	6.1	6.2
RANGE	24.8 TO 36.4	29.8 TO 39.9	30.1 TO 40.6	15.2 TO 29.0	13.4 TO 23.0	13.0 TO 21.9	4.9 TO 8.6	4.9 TO 7.5	5.2 TO 7.3

	1989	1988	1987
PLANTED	April 27	May 3	April 25
HARVESTED	September 15	September 2	August 20
SOIL TYPE	Capac loam	Capac loam	Capac loam
PREVIOUS CROP	Corn	Corn	Corn
POPULATION	19,400	22,100	21,400
ROWS	36"	36"	36"
FERTILIZER	165-50-50	165-50-50	165-50-50
SOIL TEST: pH	6.1	6.1	6.4
P	156 (very high)	160 (very high)	140 (very high)
K	228 (high)	240 (high)	224 (high)

FARM COOPERATOR: Michigan State University; East Lansing

COUNTY EXTENSION DIRECTOR: Marvin Preston, Mason

TABLE 11 (CONTINUED) NORTH CENTRAL MICHIGAN ZONE 3
Sanilac County Trial - Grain
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
*BETAGOLD HANNA	28.1	--	--	152.7	--	--	0.0	--	--
RENK RK534	28.1	--	--	119.2	--	--	0.9	--	--
*FUNK G-BRAND 4385	28.2	--	--	166.3	--	--	0.8	--	--
SUPER CROST 2979	28.2	--	--	144.0	--	--	0.0	--	--
*PIONEER 3475	28.2	27	27	157.6	157	160	0.0	0	0
BLANEY B505	28.5	--	--	143.2	--	--	1.6	--	--
NORTHRUP KING S5340	28.5	29	29	129.8	127	139	2.3	2	1
HY PERFORMER HS-45	28.5	--	--	112.1	--	--	0.9	--	--
ANDERSONS PSX310	28.6	--	--	102.8	--	--	0.9	--	--
PAYCO 748	28.7	--	--	140.1	--	--	2.4	--	--
ASGROW/O'S GOLD RX626	28.8	--	--	130.6	--	--	0.0	--	--
PIONEER 3429	29.0	--	--	136.8	--	--	0.0	--	--
KING K 5574	29.1	29	28	141.5	138	146	0.0	0	0
RUPP EXP.9-164	29.1	--	--	138.5	--	--	0.0	--	--
RUPP EXP.9-163	29.2	--	--	106.2	--	--	2.7	--	--
ASGROW/O'S GOLD RX578	29.3	--	--	120.0	--	--	3.3	--	--
CARGILL 4327	29.7	--	--	137.9	--	--	0.8	--	--
DAIRYLAND DX-1107	29.9	--	--	138.4	--	--	0.8	--	--
DEKALB-PFIZER DK535	30.7	29	--	139.2	121	--	5.0	3	--
DAIRYLAND DX-1106	30.9	--	--	127.1	--	--	0.0	--	--
HY PERFORMER HS-59	31.0	--	--	145.9	--	--	3.2	--	--
GREAT LAKES GL-509	31.1	30	29	122.4	132	135	4.9	3	2
AGRIPRO AP424	31.6	--	--	130.6	--	--	1.7	--	--
RENK RK721	32.0	--	--	128.4	--	--	2.4	--	--
MAUMEE VALLEY MV812	32.3	31	--	104.8	121	--	0.8	0	--
SUPER CROST 4877	32.4	--	--	140.8	--	--	0.0	--	--
CARGILL 6227	32.4	--	--	136.1	--	--	0.8	--	--
CALLAHAN C748	32.5	31	--	113.7	129	--	3.3	2	--
GLENN-GARNO 1011	32.8	--	--	123.5	--	--	0.8	--	--
TERRA TR1040	32.9	30	29	124.0	122	131	0.0	1	1
ANDERSONS PSX380	33.2	--	--	143.5	--	--	0.0	--	--
CROW'S 488	33.3	--	--	129.9	--	--	0.0	--	--
TERRA TR59	33.4	33	--	132.9	126	--	1.6	2	--
TERRA TR1120	33.6	--	--	133.9	--	--	0.0	--	--
AGRIPRO AP525	33.8	33	--	136.1	136	--	1.6	2	--
CROW'S SL38	33.8	--	--	130.4	--	--	0.0	--	--
CARGILL 115603	34.0	--	--	131.7	--	--	0.0	--	--
TERRA TR1060	34.8	--	--	128.4	--	--	0.0	--	--
TERRA TR1110	36.6	--	--	104.6	--	--	0.0	--	--
AVERAGE	27.2	26	26	134.9	128	135	1.4	1	1
RANGE	20.4 TO 36.6	21 TO 33	22 TO 29	98.0 TO 175.1	104 TO 157	117 TO 160	0.0 TO 5.5	0 TO 4	0 TO 3
LEAST SIGNIFICANT DIFFERENCE	2.7			17.8					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	May 10	May 6	May 9
HARVESTED	October 29	October 28	October 26
SOIL TYPE	Parkhill loam	Parkhill loam	Parkhill loam
PREVIOUS CROP	Corn	Sudan Grass	Corn
POPULATION	19,200	21,900	22,000
ROWS	30"	30"	30"
FERTILIZER	116-64-152	153-58-200	149-52-172
SOIL TEST: pH	6.0	6.4	6.6
P	29 (low)	108 (very high)	148 (very high)
K	227 (high)	475 (very high)	376 (very high)

FARM COOPERATOR: Ray Orchard, Applegate

COUNTY EXTENSION DIRECTOR: Martin Nagelkirk, Sandusky

TABLE 12 NORTH CENTRAL MICHIGAN ZONE 3
Sanilac County Trial - Silage
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% DRY MATTER			TONS PER ACRE GREEN WEIGHT			TONS PER ACRE DRY WEIGHT		
	1989	2 YR	3 YR	1989	2 YR	3 YR	1989	2 YR	3 YR
BLANEY B305	34.8	--	--	17.9	--	--	6.2	--	--
GARST 8708	33.7	--	--	20.7	--	--	6.9	--	--
BLANEY B405	33.5	--	--	21.4	--	--	7.2	--	--
AGRIPRO AP290	33.1	--	--	21.7	--	--	7.1	--	--
JACQUES 4900	32.6	32.9	31.1	21.2	16.2	17.6	6.9	5.3	5.4
JACQUES 4170	32.0	31.8	--	20.3	16.4	--	6.5	5.2	--
HY PERFORMER HS-25	32.0	--	--	22.4	--	--	7.2	--	--
KING K 448	32.0	33.7	--	23.1	17.8	--	7.4	5.9	--
RENK RK528	31.6	--	--	20.5	--	--	6.4	--	--
JACQUES 4550	31.5	--	--	23.8	--	--	7.5	--	--
BETAGOLD IRENE	31.5	--	--	15.5	--	--	4.9	--	--
GOLDEN HARVEST H-2344	31.4	31.6	30.3	20.7	16.9	17.7	6.5	5.3	5.3
DAIRYLAND DX-1101	31.3	31.1	--	16.1	13.8	--	5.0	4.3	--
PIONEER 3790	31.2	34.2	32.8	17.9	15.2	17.1	5.5	5.1	5.5
BETAGOLD KARLA	31.2	32.2	--	22.4	17.4	--	7.0	5.5	--
DAIRYLAND DX-1194	31.2	30.7	--	17.4	14.8	--	5.4	4.5	--
PIONEER 3718	31.0	--	--	22.4	--	--	6.9	--	--
ASGROW/O'S GOLD RX406	30.9	31.7	30.6	20.7	15.3	17.5	6.4	4.8	5.3
COUNTRYMARK C434X	30.8	--	--	22.6	--	--	6.9	--	--
GLENN-GARNO 900	30.8	--	--	23.1	--	--	7.1	--	--
AMCORN PSX5555	30.8	27.9	--	21.4	18.4	--	6.6	5.2	--
DEKALB-PFIZER DK485	30.7	--	--	20.0	--	--	6.1	--	--
GREAT LAKES GL-482	30.7	30.8	29.8	22.6	18.4	19.8	6.9	5.6	5.8
GLENN-GARNO 888	30.7	31.4	31.3	21.0	15.5	16.6	6.4	4.8	5.1
BLANEY B505	30.3	--	--	21.2	--	--	6.4	--	--
PIONEER 3751	30.2	31.6	--	18.8	15.4	--	5.7	4.7	--
MAUMEE VALLEY MV509	30.2	32.2	--	21.9	16.8	--	6.6	5.3	--
CROW'S 199	30.2	--	--	21.2	--	--	6.4	--	--
GLENN-GARNO 955	29.8	--	--	24.5	--	--	7.3	--	--
COUNTRYMARK C343X	29.7	31.6	30.5	20.7	15.6	18.3	6.2	4.9	5.5
GARST 8882	29.7	--	--	22.4	--	--	6.6	--	--
BETAGOLD INGRID	29.7	34.8	33.9	17.2	13.0	14.9	5.2	4.4	4.9
RUPP EXP.9-163	29.7	--	--	22.1	--	--	6.6	--	--
CROW'S 195	29.7	--	--	20.5	--	--	6.1	--	--
BETAGOLD HANNA	29.6	--	--	23.8	--	--	7.0	--	--
KING K 416	29.4	32.5	31.3	21.7	15.7	16.7	6.4	4.9	5.1
NORTHRUP KING N4350	29.2	--	--	21.7	--	--	6.3	--	--
MAUMEE VALLEY MV630	29.2	29.3	--	26.8	18.2	--	7.9	5.3	--
GOLDEN HARVEST H-2343	29.2	30.4	30.3	22.4	16.4	18.7	6.5	4.9	5.6
COUNTRYMARK C363X	29.1	--	--	17.0	--	--	5.0	--	--
TERRA TR1040	28.9	29.2	27.6	26.1	21.3	21.2	7.6	6.2	5.9
TERRA TR975	28.8	30.1	29.4	22.6	15.5	16.5	6.6	4.6	4.8
DAIRYLAND DX-1103	28.8	30.2	28.5	20.5	16.2	20.5	5.9	4.8	5.6
HY PERFORMER HS-35	28.7	--	--	20.3	--	--	5.8	--	--
PIONEER 3475	28.6	28.3	27.1	24.7	18.6	21.4	7.1	5.3	5.8
BETAGOLD KATRINA	28.5	--	--	22.4	--	--	6.4	--	--
DAIRYLAND DX-1107	28.5	--	--	20.7	--	--	5.9	--	--
STANFORD HT238	28.3	--	--	22.8	--	--	6.5	--	--
CALLAHAN C743	28.3	29.7	--	19.5	16.3	--	5.5	4.8	--
HY PERFORMER HS-45	28.2	--	--	24.5	--	--	6.9	--	--
CALLAHAN 21879X	28.2	--	--	20.3	--	--	5.8	--	--
TERRA TR164E	28.1	28.9	--	22.4	16.6	--	6.3	4.7	--
FUNK G-BRAND 4299	28.0	29.4	--	24.0	18.3	--	6.7	5.3	--
SUPER CROST 2979	27.8	--	--	24.0	--	--	6.7	--	--
RENK RK650	27.8	--	--	19.8	--	--	5.5	--	--
DEKALB-PFIZER DK524	27.7	29.9	28.4	22.4	17.4	19.9	6.2	5.2	5.5
RENK RK64	27.6	28.3	26.5	24.5	20.0	19.7	6.8	5.6	5.2
AGRIPRO AP595	27.5	--	--	27.1	--	--	7.5	--	--
GRIES GSF-226A	27.0	--	--	21.9	--	--	5.9	--	--
GREAT LAKES GL-579	27.0	27.7	27.0	26.4	21.6	23.4	7.1	5.9	6.2
KING K 5574	27.0	26.8	26.5	24.3	19.3	22.1	6.6	5.2	5.9
MAUMEE VALLEY MV812	27.0	27.4	--	22.4	18.0	--	6.1	4.9	--
PAYCO 748	27.0	--	--	24.7	--	--	6.7	--	--
DEKALB-PFIZER DK535	26.9	28.3	--	22.4	18.7	--	6.0	5.2	--
PIONEER 3779	26.9	31.3	30.0	22.1	17.7	19.0	6.0	5.4	5.6
TERRA TR880	26.9	27.6	--	21.0	15.3	--	5.7	4.2	--
NORTHRUP KING N4545	26.8	31.5	--	20.7	17.3	--	5.6	5.3	--
MAUMEE VALLEY MV611	26.8	29.4	--	21.0	16.5	--	5.6	4.7	--
ANDERSONS PSX380	26.7	--	--	23.5	--	--	6.3	--	--
CALLAHAN C748	26.7	28.4	--	20.5	16.6	--	5.5	4.6	--
CARGILL 115603	26.6	--	--	25.2	--	--	6.7	--	--
SUPER CROST 4877	26.4	--	--	29.4	--	--	7.8	--	--
PAYCO SX686	26.3	--	--	17.2	--	--	4.6	--	--
GLENN-GARNO 1003	26.3	28.4	27.3	21.8	16.5	18.6	5.8	4.6	5.0
ASGROW/O'S GOLD RX578	26.2	--	--	24.7	--	--	6.5	--	--

(continued below)

TABLE 13 NORTH CENTRAL MICHIGAN ZONE 3
Saginaw County Trial
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE			BUSHELS PER ACRE			% STALK LODGING		
	1989	2 YR	3 YR	1989	2 YR	3 YR	1989	2 YR	3 YR
MAUMEE VALLEY MV509	16.9	19	--	156.9	116	--	4.2	6	--
GOLDEN HARVEST EX.694	17.0	--	--	142.6	--	--	3.6	--	--
KING K499	17.2	--	--	159.2	--	--	4.2	--	--
RENK RK505	17.2	19	--	137.7	112	--	3.5	10	--
GREAT LAKES GL-420	17.3	19	18	153.2	124	131	2.5	8	7
ASGROW/O'S GOLD RX406	17.4	19	--	148.3	122	--	3.4	12	--
*PIONEER 3779	17.6	--	--	166.8	--	--	1.7	--	--
RENK R138	17.6	20	20	160.2	127	133	5.7	7	5
STANFORD HT 238	17.7	--	--	135.6	--	--	1.6	--	--
HY PERFORMER HS-25	17.8	--	--	142.0	--	--	3.4	--	--
*PIONEER 3573	17.8	--	--	168.1	--	--	5.0	--	--
PIONEER 3751	17.8	19	--	156.0	120	--	2.6	3	--
*GREAT LAKES GL-446	17.9	--	--	173.7	--	--	1.7	--	--
KING K416	17.9	20	19	156.7	110	117	6.2	11	8
DAIRYLAND DX-1095	18.0	19	19	151.0	127	129	0.0	4	6
SEEDEX 995	18.1	19	--	149.2	111	--	5.7	7	--
GRIES GSF-X550	18.2	21	--	139.4	113	--	4.4	7	--
PIONEER 3790	18.2	--	--	137.2	--	--	2.6	--	--
TERRA TR880	18.4	20	--	119.9	101	--	5.1	5	--
BLANEY B405	18.8	--	--	161.9	--	--	4.7	--	--
NORTHRUP KING N4545	18.8	20	--	148.0	134	--	3.2	2	--
WOLVERINE X87	18.9	--	--	98.9	--	--	1.9	--	--
BETAGOLD KARLA	18.9	20	--	154.2	126	--	3.3	5	--
WOLVERINE W156	19.1	21	20	159.3	132	138	2.4	7	6
WOLVERINE W163	19.1	21	21	139.3	126	130	2.4	5	3
HY PERFORMER HS-35	19.1	--	--	145.2	--	--	4.4	--	--
PIONEER 3718	19.1	--	--	161.1	--	--	5.0	--	--
MAUMEE VALLEY MV611	19.1	20	--	139.7	108	--	3.3	6	--
PIONEER 3585	19.3	21	--	147.1	131	--	2.4	3	--
RENK RK650	19.4	--	--	132.9	--	--	1.7	--	--
*DEKALB-PFIZER DK524	19.5	21	21	171.5	129	132	3.9	5	5
HERITAGE EASY MONEY	19.6	21	--	139.6	109	--	4.4	5	--
GRIES GSF-226A	19.7	--	--	141.5	--	--	4.1	--	--
GOLDEN HARVEST H-2404	19.8	21	--	154.2	116	--	7.3	7	--
FUNK G-BRAND 4385	19.9	--	--	157.6	--	--	1.6	--	--
SUPER CROST 2277	19.9	--	--	158.4	--	--	6.3	--	--
RUPP XR1527	19.9	21	21	127.4	108	119	4.3	6	5
GOLDEN HARVEST H-2438	19.9	22	--	160.7	126	--	1.7	13	--
PIONEER 3429	20.2	--	--	156.3	--	--	0.0	--	--
PIONEER 3475	20.2	21	21	143.1	130	137	3.3	4	4
CARGILL 4327	20.2	--	--	145.1	--	--	0.0	--	--
DEKALB-PFIZER DK547	20.3	22	22	153.3	134	140	2.4	5	4
TERRA TR975	20.3	21	21	145.3	124	127	0.8	3	3
RUPP EXP.9-163	20.3	--	--	138.7	--	--	3.3	--	--
RENK RK627	20.4	22	--	150.9	120	--	5.0	8	--
SELECT 2772	20.5	21	21	127.5	122	131	1.8	4	4
GLENN-GARNO 1006	20.5	--	--	148.3	--	--	2.4	--	--
GLENN-GARNO 1003	20.5	22	22	112.9	98	111	2.8	4	4
AMCORN PSX5555	20.5	22	--	129.4	124	--	0.8	3	--
HY PERFORMER HS-45	20.6	--	--	145.2	--	--	4.3	--	--
DEKALB-PFIZER DK535	20.7	22	--	153.8	122	--	3.2	5	--
*KING K448	20.7	22	--	165.7	128	--	5.7	4	--
MAUMEE VALLEY MV630	20.7	22	--	130.2	106	--	3.4	5	--
TERRA TR164E	20.7	22	--	145.5	120	--	0.9	2	--
CROW'S 199	20.7	--	--	144.8	--	--	6.6	--	--
GOLDEN HARVEST H-2410	20.7	22	--	152.9	124	--	7.9	13	--
BLANEY B505	20.9	--	--	159.8	--	--	0.0	--	--
DAIRYLAND DX-1103	20.9	22	21	154.1	127	130	2.4	5	4
KING K5574	21.0	23	22	155.8	144	143	2.3	6	5
DAIRYLAND DX-1106	21.0	23	--	150.0	132	--	3.4	3	--
ANDERSONS PSX310	21.0	--	--	133.8	--	--	0.8	--	--
*AMCORN PSX7450	21.0	--	--	163.0	--	--	1.7	--	--
FUNK G-BRAND 4393	21.1	--	--	159.8	--	--	4.0	--	--
BETAGOLD HANNA	21.1	--	--	148.3	--	--	1.6	--	--
GREAT LAKES GL-482	21.2	22	22	156.7	135	141	2.4	5	4
GREAT LAKES GL-509	21.2	22	22	131.6	119	126	0.0	4	4
*CARGILL 116627	21.2	--	--	163.9	--	--	2.3	--	--
CARGILL 5157	21.2	22	22	158.4	146	150	7.1	7	7
PAYCO 648	21.2	22	--	149.2	130	--	4.1	6	--
GARST 8708	21.3	22	--	152.8	118	--	3.3	7	--
ASGROW/O'S GOLD RX578	21.4	23	22	141.4	128	136	1.7	4	3
GRIES GSF-4460	21.5	--	--	147.2	--	--	1.5	--	--
GARST 8555	21.5	--	--	158.8	--	--	1.7	--	--
CROW'S 442	21.5	--	--	138.3	--	--	0.0	--	--
CALLAHAN C743	21.5	--	--	148.0	--	--	5.0	--	--

(continued below)

TABLE 12 (CONTINUED) NORTH CENTRAL MICHIGAN ZONE 3
Sanilac County Trial - Silage
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% DRY MATTER 1989	2 YR	3 YR	TONS PER ACRE GREEN WEIGHT 1989	2 YR	3 YR	DRY WEIGHT 1989	2 YR	3 YR
MAUMEE VALLEY MV762	26.2	27.0	--	24.0	19.2	--	6.3	5.1	--
TERRA TR1060	26.2	--	--	22.6	--	--	5.9	--	--
AGRIPRO AP424	26.1	--	--	25.9	--	--	6.8	--	--
DAIRYLAND DX-1106	26.0	--	--	24.5	--	--	6.4	--	--
SUPER CROST 2277	25.9	--	--	25.9	--	--	6.7	--	--
NORTHRUP KING S534D	25.8	28.1	27.3	21.4	18.8	21.1	5.7	5.3	5.7
GLENN-GARNO 1007	25.8	27.8	27.2	20.7	18.4	21.2	5.4	5.1	5.7
GREAT LAKES GL-509	25.7	25.5	25.9	23.5	19.6	21.0	6.0	5.0	5.4
ASGROW/O'S GOLD RX626	25.6	--	--	25.4	--	--	6.5	--	--
KING K 499	25.5	--	--	22.1	--	--	5.6	--	--
GLENN-GARNO 1006	25.5	--	--	21.1	--	--	5.3	--	--
GRIES GSF-4460	25.4	--	--	22.1	--	--	5.6	--	--
TERRA TR1120	25.4	--	--	26.1	--	--	6.7	--	--
PIONEER 3429	25.3	--	--	30.6	--	--	7.7	--	--
CARGILL 4327	25.3	--	--	24.3	--	--	6.2	--	--
PIONEER 3585	25.1	27.9	--	22.6	18.2	--	5.7	4.9	--
AMCORN PSX7450	25.1	--	--	25.0	--	--	6.3	--	--
FUNK G-BRAND 4385	25.0	--	--	25.9	--	--	6.4	--	--
CROW'S 380	25.0	--	--	24.5	--	--	6.1	--	--
PIONEER 3573	24.9	--	--	21.9	--	--	5.4	--	--
CARGILL 6227	24.9	--	--	25.9	--	--	6.4	--	--
RENK RK721	24.9	--	--	25.4	--	--	6.4	--	--
FUNK G-BRAND 4309	24.8	28.1	--	24.7	19.2	--	6.1	5.2	--
HY PERFORMER HS-59	24.6	--	--	28.3	--	--	7.0	--	--
AGRIPRO AP525	24.6	25.8	--	28.7	20.7	--	7.1	5.2	--
RENK RK534	24.6	--	--	21.0	--	--	5.1	--	--
ANDERSONS PSX310	24.5	--	--	20.5	--	--	5.0	--	--
CARGILL 5157	24.4	28.0	26.8	24.5	21.3	22.1	6.0	5.8	5.8
GRIES GSF-X550	24.3	25.3	--	19.8	15.5	--	4.8	3.9	--
CROW'S 488	24.3	--	--	24.0	--	--	5.9	--	--
GLENN-GARNO 1011	24.3	--	--	23.5	--	--	5.7	--	--
GLENN-GARNO 878	24.3	--	--	17.8	--	--	4.3	--	--
TERRA TR1110	24.1	--	--	21.9	--	--	5.3	--	--
RUPP XR1527	24.0	28.1	--	16.6	13.7	--	4.0	3.7	--
CROW'S SL38	23.7	--	--	20.7	--	--	4.9	--	--
CARGILL 6027	23.5	--	--	23.1	--	--	5.4	--	--
RENK RK627	23.2	24.5	--	26.1	20.3	--	6.1	4.9	--
RUPP EXP.9-164	22.9	--	--	27.8	--	--	6.4	--	--
TERRA TR59	22.7	22.9	--	27.1	22.4	--	6.2	5.1	--
AVERAGE	27.7	29.4	29.1	22.5	17.4	19.3	6.2	5.0	5.5
RANGE	17.0 TO 34.8	22.9 TO 34.8	25.9 TO 33.9	15.5 TO 30.6	13.0 TO 22.4	14.9 TO 23.4	4.0 TO 7.9	3.7 TO 6.2	4.8 TO 6.2

	1989	1988	1987
PLANTED	May 10	May 6	May 9
HARVESTED	September 18	September 8	September 9
SOIL TYPE	Parkhill loam	Parkhill loam	Parkhill loam
PREVIOUS CROP	Corn	Sudan grass	Corn
POPULATION	20,100	21,700	20,300
ROWS	30"	30"	30"
FERTILIZER	116-64-152	153-58-200	149-52-172
SOIL TEST: pH	6.0	6.4	6.6
P	29 (low)	108 (very high)	148 (very high)
K	227 (high)	475 (very high)	376 (very high)

FARM COOPERATOR: Ray Orchard, Applegate

COUNTY EXTENSION DIRECTOR: Martin Nagelkirk, Sandusky

TABLE 13 (CONTINUED) NORTH CENTRAL MICHIGAN ZONE 3
Saginaw County Trial
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
*NORTHRUP KING S5340	21.6	23	22	164.6	140	146	3.1	5	5
AGRIPRO AP424	21.6	--	--	157.6	--	--	1.6	--	--
PRO-SEED 3096	21.6	--	--	145.0	--	--	4.8	--	--
HERITAGE FAST FILLY	21.7	--	--	148.8	--	--	0.0	--	--
SUPER CROST 2989	21.8	25	24	143.6	122	133	1.7	4	3
*CARGILL 6127	21.9	23	--	165.7	136	--	2.3	4	--
PAYCO SX872	21.9	23	22	154.2	134	142	0.0	4	4
MAUMEE VALLEY MV762	22.0	23	--	160.4	143	--	3.8	5	--
SELECT 3720	22.0	23	23	161.4	141	147	2.4	4	5
JACQUES 6770	22.1	23	--	140.9	123	--	5.7	4	--
GREAT LAKES GL-579	22.1	23	23	146.2	130	138	0.0	4	3
ANDERSONS PSX340	22.1	--	--	148.2	--	--	7.9	--	--
MAUMEE VALLEY MV812	22.2	23	--	158.1	139	--	1.6	7	--
DAIRYLAND DX-1107	22.2	24	23	139.3	124	131	1.7	3	3
TERRA TR1040	22.2	23	23	150.6	135	138	0.0	4	5
BLANEY B607	22.3	--	--	159.8	--	--	4.5	--	--
ASGROW/O'S GOLD RX626	22.7	23	23	149.7	143	144	4.9	5	5
GLENN-GARNO 1007	22.7	24	23	139.8	127	136	2.5	3	3
CALLAHAN C748	22.7	23	--	159.8	143	--	2.5	3	--
RENK RK64	22.8	24	23	147.8	134	137	8.9	7	6
GLENN-GARNO 1010	22.8	24	--	150.3	139	--	0.0	3	--
RUPP EXP.9-164	22.9	--	--	159.4	--	--	0.8	--	--
GOLDEN HARVEST H-2465	22.9	24	23	155.0	130	137	0.8	5	5
SEEDEX 1035	23.1	--	--	131.1	--	--	0.0	--	--
TERRA TR1060	23.1	--	--	158.7	--	--	1.6	--	--
GLENN-GARNO 1010B	23.1	--	--	113.6	--	--	4.0	--	--
CARGILL 6027	23.3	--	--	145.1	--	--	0.8	--	--
HERITAGE CHUBBY BUTTS	23.3	--	--	136.0	--	--	3.9	--	--
JACQUES 7770	23.5	--	--	140.2	--	--	0.9	--	--
WOLVERINE W167	23.6	--	--	143.4	--	--	2.5	--	--
HERITAGE TOP GUN	23.7	--	--	137.4	--	--	1.7	--	--
RENK RK721	24.2	--	--	157.3	--	--	1.6	--	--
ANDERSONS PSX380	24.4	--	--	139.8	--	--	0.8	--	--
CALLAHAN C764	24.4	25	--	125.5	125	--	2.5	6	--
AGRIPRO AP525	24.6	--	--	151.3	--	--	3.1	--	--
GREAT LAKES GL-582	24.7	25	--	132.5	134	--	0.0	3	--
DAIRYLAND DX-1110	24.9	--	--	141.9	--	--	3.1	--	--
MAUMEE VALLEY MV888	25.2	--	--	159.9	--	--	0.0	--	--
TERRA TR1110	25.4	--	--	121.7	--	--	1.7	--	--
SEEDEX 1085	25.7	26	--	153.5	136	--	4.1	4	--
PRO-SEED 3098	25.8	--	--	130.0	--	--	3.4	--	--
SELECT 3808	26.1	--	--	134.1	--	--	0.8	--	--
GLENN-GARNO 1012	26.2	--	--	136.4	--	--	1.7	--	--
HY PERFORMER HS-59	26.6	--	--	143.2	--	--	2.5	--	--
CROW'S 449	26.8	--	--	158.3	--	--	2.4	--	--
TERRA TR1120	27.1	--	--	150.3	--	--	3.3	--	--
NORTHRUP KING N6348	27.2	28	--	138.3	137	--	0.0	4	--
CALLAHAN 20775X	27.5	27	--	111.4	121	--	0.9	2	--
GLENN-GARNO 1011	28.0	--	--	127.9	--	--	1.7	--	--
AVERAGE	21.3	22	22	147.1	126	134	2.8	5	5
RANGE	16.9 TO 28.0	19 TO 28	18 TO 24	98.9 TO 173.7	98 TO 146	111 TO 150	0.0 TO 8.9	2 TO 13	3 TO 8
LEAST SIGNIFICANT DIFFERENCE	1.2			15.3					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	May 3	May 5	May 5
HARVESTED	October 30	October 29	October 22
SOIL TYPE	Brookston Clay loam	Parkhill loam	Parkhill loam
PREVIOUS CROP	Sugar beets	Soybeans	Sugar beets
POPULATION	19,100	21,800	22,100
ROWS	28"	28"	30"
FERTILIZER	235-60-50	116-52-52 + 1% Zinc	250-49-84 + Zinc Sulfur & Maganese
SOIL TEST: pH	7.1	7.0	6.8
P	75 (high)	130 (very high)	141 (very high)
K	271 (very high)	259 (very high)	339 (very high)

FARM COOPERATOR: Stuart Reinbold, Reese

COUNTY AGRICULTURAL AGENT: Steve Poindexter, Saginaw

TABLE 14 NORTH CENTRAL MICHIGAN ZONE 3
Huron County Trial
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
BETAGOLD INGRID	19.4	21	21	165.5	135	113	4.1	2	3
ANDERSONS PSX150	19.8	--	--	147.1	--	--	5.8	--	--
*PICKSEED 63-113	20.0	--	--	194.8	--	--	1.6	--	--
RENK RK505	20.2	22	--	147.1	134	--	3.3	2	--
NORTHRUP KING N3624	20.3	--	--	180.7	--	--	0.0	--	--
RENK R129	20.4	22	--	126.5	105	--	4.6	2	--
DAIRYLAND DX-1186	20.8	--	--	156.4	--	--	0.9	--	--
GLENN-GARNO 888	20.8	22	22	171.1	131	116	1.7	3	2
PIONEER 3779	20.9	21	20	165.3	133	107	2.4	2	4
PIONEER 3751	21.0	23	--	180.1	138	--	1.6	4	--
ASGROW/O'S GOLD RX406	21.0	22	--	172.6	143	--	0.0	1	--
MAUMEE VALLEY MV509	21.0	23	--	171.6	126	--	3.3	2	--
GREAT LAKES GL-446	21.2	--	--	169.9	--	--	0.8	--	--
COUNTRYMARK C343X	21.3	22	21	152.1	122	110	0.8	0	0
PICKSEED 5545	21.3	--	--	178.4	--	--	2.3	--	--
JACQUES 4550	21.4	--	--	159.0	--	--	2.5	--	--
KING K416	21.8	21	21	169.5	130	114	0.8	4	4
BETAGOLD IRENE	21.8	--	--	156.3	--	--	0.8	--	--
*BETAGOLD KARLA	21.8	24	--	186.9	148	--	1.5	1	--
TERRA TR880	21.8	24	--	149.1	113	--	0.8	5	--
DAIRYLAND DX-1095	21.8	23	21	154.6	136	123	1.6	5	3
PAYCO SX686	21.8	--	--	155.8	--	--	0.8	--	--
GLENN-GARNO 878	21.8	--	--	142.3	--	--	0.0	--	--
GREAT LAKES GL-420	22.0	23	22	166.1	140	125	0.8	1	1
PIONEER 3718	22.4	--	--	165.9	--	--	0.0	--	--
COUNTRYMARK C363X	22.6	--	--	157.1	--	--	0.8	--	--
*FUNK G-BRAND 4299	22.7	25	--	185.4	146	--	0.8	0	--
NORTHRUP KING N4350	22.7	--	--	177.4	--	--	3.0	--	--
RENK RK528	22.7	--	--	177.0	--	--	3.2	--	--
*GOLDEN HARVEST H-2343	22.9	24	23	185.0	134	114	2.4	2	3
DAIRYLAND DX-1194	23.0	24	--	136.3	117	--	0.8	4	--
*BLANEY B405	23.1	--	--	188.2	--	--	3.2	--	--
GOLDEN HARVEST EX.694	23.1	--	--	169.6	--	--	1.7	--	--
PIONEER 3790	23.2	--	--	163.8	--	--	1.6	--	--
FUNK G-BRAND 4309	23.3	25	--	160.7	147	--	0.0	4	--
ASGROW/O'S GOLD RX498	23.3	26	24	174.5	143	115	0.8	1	2
GOLDEN HARVEST H-2344	23.3	24	23	174.4	144	127	0.8	0	0
GLENN-GARNO 900	23.3	--	--	157.7	--	--	0.9	--	--
DEKALB-PFIZER DK485	23.4	--	--	158.5	--	--	0.8	--	--
JACQUES 4900	23.4	24	23	164.8	143	123	0.0	2	1
*PIONEER 3573	23.4	--	--	206.4	--	--	0.8	--	--
STANFORD HT238	23.4	--	--	143.9	--	--	0.8	--	--
COUNTRYMARK C434X	23.4	--	--	147.0	--	--	1.6	--	--
DEKALB-PFIZER DK524	23.5	25	24	180.0	136	120	0.8	1	1
WOLVERINE W163	23.6	25	24	183.0	150	125	0.0	0	0
ANDERSONS PSX290	23.7	--	--	173.7	--	--	2.5	--	--
GRIES GSF-226A	23.8	--	--	170.8	--	--	0.8	--	--
BETAGOLD KATRINA	24.1	--	--	170.6	--	--	1.6	--	--
GLENN-GARNO 1003	24.1	27	25	144.9	120	107	0.8	1	1
SUPER CROST 2277	24.2	--	--	176.6	--	--	1.6	--	--
TERRA TR975	24.2	--	--	168.0	--	--	0.8	--	--
GRIES GSF-X550	24.3	25	--	166.9	133	--	0.8	2	--
GREAT LAKES GL-482	24.4	25	24	160.0	145	122	0.0	1	2
RENK R138	24.4	26	24	159.0	127	98	0.9	0	2
CARGILL 4327	24.5	--	--	163.4	--	--	0.0	--	--
DEKALB-PFIZER DK535	24.6	26	--	179.9	145	--	0.0	1	--
MAUMEE VALLEY MV611	24.6	25	--	168.1	135	--	0.8	6	--
GOLDEN HARVEST H-2404	24.6	--	--	161.0	--	--	0.0	--	--
RENK RK627	24.7	26	--	167.5	130	--	3.1	6	--
*GLENN-GARNO 955	24.7	--	--	185.0	--	--	0.0	--	--
*PIONEER 3585	24.9	26	--	190.7	153	--	0.0	1	--
DAIRYLAND DX-1103	25.1	26	24	156.6	133	118	0.8	6	4
BLANEY B607	25.2	--	--	174.6	--	--	0.8	--	--
WOLVERINE W156	25.2	25	23	149.7	126	112	0.8	4	3
MAUMEE VALLEY MV630	25.3	26	--	168.4	140	--	1.5	2	--
TERRA TR164E	25.3	29	--	169.9	142	--	0.8	1	--
*PIONEER 3429	25.5	--	--	184.5	--	--	0.0	--	--
PIONEER 3475	25.8	27	25	161.6	138	122	0.8	2	2
CARGILL 5157	25.8	28	--	166.3	138	--	1.5	2	--
RENK RK534	25.8	--	--	152.5	--	--	0.0	--	--
GLENN-GARNO 1006	25.8	--	--	180.8	--	--	0.0	--	--
*AMCORN PSX5555	25.8	27	--	184.7	152	--	0.8	2	--
GOLDEN HARVEST H-2410	26.0	--	--	166.9	--	--	3.4	--	--
AMCORN PSX7450	26.0	--	--	159.3	--	--	0.0	--	--
GREAT LAKES GL-509	26.1	27	25	174.8	142	117	1.7	2	2

(continued below)

TABLE 15 NORTH CENTRAL MICHIGAN ZONE 3
Huron County Trial - Silage
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% DRY MATTER 1989	2 YR	3 YR	GREEN WEIGHT TONS PER ACRE 1989	2 YR	3 YR	DRY WEIGHT 1989	2 YR	3 YR
PICKSEED 63-113	38.8	--	--	21.0	--	--	8.1	--	--
ASGROW/O'S GOLD RX406	38.2	40.1	--	20.3	16.1	--	7.7	6.4	--
BETAGOLD INGRID	37.8	39.9	42.3	18.4	14.6	13.6	6.9	5.7	5.7
GLENN-GARNO 1007	37.8	33.9	35.6	28.7	23.0	20.4	10.9	8.0	7.3
DAIRYLAND DX-1186	37.6	--	--	14.6	--	--	5.4	--	--
BETAGOLD IRENE	37.0	--	--	18.8	--	--	7.0	--	--
GREAT LAKES GL-420	36.9	37.3	38.7	18.6	15.8	14.9	6.8	5.8	5.7
ANDERSONS PSX150	36.9	--	--	17.4	--	--	6.4	--	--
GLENN-GARNO 1006	36.8	--	--	22.4	--	--	8.5	--	--
MAUMEE VALLEY MV509	36.5	34.9	--	20.5	15.9	--	7.5	5.6	--
RENK RK528	36.4	--	--	20.5	--	--	7.4	--	--
GLENN-GARNO 900	36.0	--	--	21.7	--	--	7.7	--	--
DAIRYLAND DX-1194	35.8	35.7	--	14.6	13.8	--	5.2	4.9	--
COUNTRYMARK C343X	35.5	36.9	39.6	16.7	14.3	13.7	5.9	5.2	5.4
GLENN-GARNO 955	35.5	--	--	20.7	--	--	7.3	--	--
JACQUES 4550	35.4	--	--	20.3	--	--	7.2	--	--
RENK R129	35.3	38.2	--	14.4	12.9	--	5.1	4.9	--
GOLDEN HARVEST H-2404	35.3	--	--	19.5	--	--	6.9	--	--
PIONEER 3790	35.2	--	--	14.8	--	--	5.2	--	--
GLENN-GARNO 888	35.2	36.6	38.7	16.0	13.5	13.7	5.6	4.9	5.3
JACQUES 4900	35.1	35.7	38.7	20.3	17.1	15.6	7.1	6.1	5.9
WOLVERINE W163	35.0	35.4	36.2	19.1	16.8	16.5	6.7	5.9	5.9
STANFORD HT238	34.9	--	--	19.3	--	--	6.7	--	--
WOLVERINE W156	34.2	37.2	40.5	16.5	13.5	13.0	5.6	4.9	5.2
COUNTRYMARK C363X	34.2	--	--	14.8	--	--	5.1	--	--
DEKALB-PFIZER DK485	34.0	--	--	19.1	--	--	6.5	--	--
KING K416	34.0	37.9	39.7	15.1	13.8	12.1	5.1	5.1	4.7
RENK RK505	34.0	34.0	--	18.6	15.5	--	6.3	5.3	--
GREAT LAKES GL-446	33.9	--	--	23.1	--	--	7.8	--	--
GRIES GSF-226A	33.7	--	--	17.9	--	--	6.0	--	--
GRIES GSF-X550	33.7	32.5	--	18.4	14.7	--	6.2	4.8	--
MAUMEE VALLEY MV630	33.7	34.9	--	23.3	17.7	--	7.9	6.1	--
PAYCO SX686	33.6	--	--	18.6	--	--	6.2	--	--
GOLDEN HARVEST H-2343	33.6	35.4	36.0	21.2	15.3	14.2	7.1	5.3	5.0
GLENN-GARNO 878	33.4	--	--	15.5	--	--	5.2	--	--
PICKSEED 5545	33.2	--	--	19.3	--	--	6.3	--	--
BLANEY B405	33.1	--	--	22.1	--	--	7.3	--	--
KING K448	33.1	34.8	--	17.7	14.7	--	5.9	5.1	--
BETAGOLD KATRINA	33.1	--	--	18.8	--	--	6.2	--	--
COUNTRYMARK C434X	33.0	--	--	14.6	--	--	4.8	--	--
FUNK G-BRAND 4299	32.9	32.6	--	20.0	16.5	--	6.6	5.4	--
DAIRYLAND DX-1095	32.9	35.5	39.0	18.8	15.9	14.8	6.2	5.5	5.6
RENK R138	32.9	32.4	33.8	21.7	16.3	15.0	7.1	5.3	5.0
PIONEER 3718	32.7	--	--	22.6	--	--	7.4	--	--
BETAGOLD KARLA	32.7	36.7	--	20.0	16.1	--	6.6	5.8	--
NORTHRUP KING N4350	32.5	--	--	25.0	--	--	8.1	--	--
GREAT LAKES GL-482	32.3	35.4	37.4	18.8	16.8	15.9	6.1	5.9	5.9
PIONEER 3779	32.3	31.7	35.1	25.4	19.0	15.7	8.2	6.1	5.3
GOLDEN HARVEST H-2344	32.3	31.8	33.8	21.9	17.4	16.0	7.0	5.5	5.3
NORTHRUP KING N3624	32.2	--	--	23.8	--	--	7.7	--	--
CARGILL 842	32.0	--	--	20.0	--	--	6.4	--	--
GOLDEN HARVEST H-2410	31.9	--	--	23.8	--	--	7.6	--	--
AMCORN PSX5555	31.7	34.6	--	21.4	16.8	--	6.8	5.7	--
BLANEY B505	31.6	--	--	21.9	--	--	7.0	--	--
CARGILL 4227	31.6	34.1	--	22.8	17.1	--	7.2	5.7	--
TERRA TR164E	31.3	33.9	--	20.0	16.7	--	6.3	5.6	--
TERRA TR1040	31.3	31.2	33.4	24.0	18.7	17.2	7.5	5.9	5.7
GRIES GSF-4460	31.0	--	--	19.3	--	--	6.0	--	--
MAUMEE VALLEY MV812	31.0	28.6	--	25.0	22.7	--	7.7	6.5	--
DEKALB-PFIZER DK535	30.9	29.3	--	25.2	18.6	--	7.8	5.5	--
RENK RK534	30.9	--	--	26.6	--	--	8.2	--	--
ANDERSONS PSX290	30.9	--	--	25.0	--	--	7.7	--	--
MAUMEE VALLEY MV611	30.8	32.0	--	21.7	17.7	--	6.7	5.6	--
TERRA TR975	30.8	33.3	36.0	17.9	15.2	14.7	5.5	5.0	5.2
DAIRYLAND DX-1103	30.8	33.6	34.8	17.4	15.3	15.4	5.4	5.1	5.3
GLENN-GARNO 1003	30.8	31.3	33.8	23.1	17.5	17.2	7.1	5.4	5.8
SUPER CROST 2277	30.7	--	--	30.6	--	--	9.4	--	--
PIONEER 3585	30.7	31.2	--	20.5	16.4	--	6.3	5.1	--
DEKALB-PFIZER DK524	30.6	32.9	34.5	19.3	16.1	15.8	6.0	5.3	5.4
ASGROW/O'S GOLD RX498	30.6	31.4	32.9	22.8	18.1	15.6	7.0	5.6	5.0
TERRA TR880	30.6	32.4	--	20.3	16.8	--	6.2	5.4	--
KING K499	30.5	--	--	18.8	--	--	5.8	--	--
CARGILL 5157	30.5	31.9	--	18.6	16.0	--	5.7	5.1	--
PIONEER 3573	30.4	--	--	24.5	--	--	7.4	--	--
NORTHRUP KING S5987WX	30.3	30.2	--	24.0	17.3	--	7.3	5.2	--

(continued below)

TABLE 14 (CONTINUED) NORTH CENTRAL MICHIGAN ZONE 3
Huron County Trial
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
BLANEY B505	26.2	--	--	167.9	--	--	0.8	--	--
ASGROW/O'S GOLD RX578	26.3	--	--	180.6	--	--	0.0	--	--
KING K448	26.3	28	--	173.3	140	--	0.0	1	--
CARGILL 842	26.3	--	--	153.6	--	--	2.4	--	--
CARGILL 4227	26.4	26	--	138.8	126	--	1.8	6	--
NORTHRUP KING S5987WX	26.6	28	--	175.4	143	--	0.7	1	--
SUPER CROST 2989	26.8	29	27	173.8	129	113	2.9	1	3
KING K499	26.8	--	--	144.7	--	--	0.0	--	--
PAYCO 748	26.8	--	--	158.4	--	--	1.6	--	--
GRIES GSF-4460	26.9	--	--	155.6	--	--	2.3	--	--
ASGROW/O'S GOLD RX626	27.1	--	--	173.2	--	--	0.0	--	--
GREAT LAKES GL-579	27.2	28	26	178.0	145	128	2.3	2	1
KING K5574	27.2	29	--	166.5	127	--	0.0	1	--
GLENN-GARNO 1007	27.5	28	26	157.5	132	116	1.5	2	2
MAUMEE VALLEY MV762	27.6	29	--	182.8	139	--	0.8	0	--
RENK RK721	27.6	--	--	158.8	--	--	1.6	--	--
TERRA TR1040	27.8	29	27	171.3	133	107	0.7	1	2
CARGILL 115603	28.0	--	--	183.9	--	--	0.0	--	--
DAIRYLAND DX-1106	28.0	29	--	173.8	155	--	0.8	0	--
RENK RK64	28.7	29	27	160.4	132	110	0.0	0	0
WOLVERINE W167	28.8	--	--	146.9	--	--	1.7	--	--
GLENN-GARNO 1010	29.3	29	--	154.5	144	--	1.5	1	--
GREAT LAKES GL-599	29.4	30	28	161.8	133	111	0.0	2	3
TERRA TR1060	29.4	--	--	176.6	--	--	0.0	--	--
MAUMEE VALLEY MV812	29.5	30	--	162.6	131	--	0.0	4	--
GREAT LAKES GL-582	29.6	30	27	175.0	153	130	0.8	0	1
GLENN GARNO 1010B	30.1	--	--	142.9	--	--	0.0	--	--
*CARGILL SX269	30.7	30	--	191.0	144	--	3.0	4	--
TERRA TR1120	30.8	--	--	145.6	--	--	0.8	--	--
*TERRA TR59	30.9	29	--	188.3	147	--	0.0	0	--
TERRA TR1110	32.1	--	--	125.7	--	--	0.0	--	--
SUPER CROST 4877	32.2	--	--	154.9	--	--	0.7	--	--
RENK RK76	32.8	32	30	134.9	112	95	0.0	0	1
GREAT LAKES EX89901	33.2	--	--	160.5	--	--	0.0	--	--
GLENN-GARNO 1011	34.0	--	--	128.6	--	--	0.0	--	--
AVERAGE	25.0	26	24	165.5	136	116	1.1	2	2
RANGE	19.4 TO 34.0	21 TO 32	20 TO 30	125.7 TO 206.4	105 TO 155	95 TO 130	0.0 TO 5.8	0 TO 6	0 TO 4
LEAST SIGNIFICANT DIFFERENCE	1.7			18.6					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	May 10	May 5	April 30
HARVESTED	October 29	October 28	October 29
SOIL TYPE	Kilmanagh loam	Kilmanagh loam	Kilmanagh loam
PREVIOUS CROP	Corn	Corn	Corn
POPULATION	19,900	19,600	18,900
ROWS	30"	30"	30"
FERTILIZER	193-49-97	177-62-99	177-62-69 + Zinc
SOIL TEST: pH	7.8	6.1	6.8
P	104 (very high)	127 (very high)	140 (very high)
K	172 (medium)	263 (high)	325 (very high)

FARM COOPERATOR: William McCrea, Bad Axe

COUNTY AGRICULTURAL AGENT: Jim LeCureux, Bad Axe

TABLE 15 (CONTINUED) NORTH CENTRAL MICHIGAN ZONE 3
Huron County Trial - Silage
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% DRY MATTER 1989	2 YR	3 YR	TONS PER ACRE GREEN WEIGHT 1989	2 YR	3 YR	TONS PER ACRE DRY WEIGHT 1989	2 YR	3 YR
MAUMEE VALLEY MV762	30.2	28.3	--	21.2	16.5	--	6.4	4.8	--
PAYCO 748	30.1	--	--	25.2	--	--	7.6	--	--
AMCORN PSX7450	30.1	--	--	27.3	--	--	8.2	--	--
GREAT LAKES GL-579	30.0	30.4	32.6	23.3	20.2	19.5	7.0	6.1	6.3
RENK RK64	30.0	29.4	30.7	23.1	17.6	15.2	6.9	5.2	4.6
PIONEER 3751	29.9	32.6	--	20.0	15.3	--	6.0	4.9	--
ASGROW/O'S GOLD RX626	29.9	--	--	25.9	--	--	7.7	--	--
GOLDEN HARVEST EX.694	29.9	--	--	18.4	--	--	5.5	--	--
FUNK G-BRAND 4309	29.8	30.9	--	20.3	18.2	--	6.0	5.6	--
ASGROW/O'S GOLD RX578	29.7	--	--	22.4	--	--	6.6	--	--
CARGILL 4327	29.7	--	--	23.3	--	--	6.9	--	--
DAIRYLAND DX-1106	29.7	--	--	24.3	--	--	7.2	--	--
CARGILL 115603	29.2	--	--	25.7	--	--	7.5	--	--
PIONEER 3475	29.1	30.6	32.8	30.4	21.7	19.6	8.9	6.5	6.3
KING K5574	29.1	30.2	--	20.3	16.5	--	5.9	4.9	--
TERRA TR1060	29.0	--	--	21.0	--	--	6.1	--	--
SUPER CROST 2989	28.8	29.0	32.0	25.0	19.3	18.0	7.2	5.6	5.7
PIONEER 3429	28.8	--	--	26.4	--	--	7.6	--	--
WOLVERINE W167	28.7	--	--	24.0	--	--	6.9	--	--
GLENN GARNO 1010B	28.5	--	--	22.6	--	--	6.5	--	--
TERRA TR1110	28.1	--	--	23.3	--	--	6.6	--	--
GLENN-GARNO 1010	27.9	30.8	--	25.9	19.6	--	7.2	5.9	--
GREAT LAKES GL-509	27.5	29.2	31.9	25.7	19.8	16.7	7.1	5.7	5.1
CARGILL SX269	27.4	27.9	--	24.3	22.6	--	6.7	6.3	--
RENK RK627	27.3	27.0	--	21.4	17.2	--	5.7	4.6	--
BLANEY B607	26.8	--	--	23.1	--	--	6.2	--	--
TERRA TR1120	26.4	--	--	24.5	--	--	6.5	--	--
GLENN-GARNO 1011	26.4	--	--	26.1	--	--	6.8	--	--
GREAT LAKES GL-599	26.3	26.7	--	24.3	23.0	--	6.4	6.1	--
GREAT LAKES GL-582	26.1	27.9	30.2	26.1	22.6	20.6	6.9	6.3	6.1
RENK RK76	25.6	27.6	28.2	32.5	23.2	19.6	8.3	6.2	5.3
RENK RK721	25.2	--	--	23.1	--	--	5.8	--	--
TERRA TR59	24.5	26.1	--	30.4	24.4	--	7.4	6.2	--
SUPER CROST 4877	24.3	--	--	24.5	--	--	5.9	--	--
GREAT LAKES EX89901	23.2	--	--	20.3	--	--	4.7	--	--
AVERAGE	31.7	32.7	35.3	21.6	17.4	16.1	6.8	5.6	5.5
RANGE	23.2 TO 38.8	26.1 TO 40.1	28.2 TO 42.3	14.4 TO 32.5	12.9 TO 24.4	12.1 TO 20.6	4.7 TO 10.9	4.6 TO 8.0	4.6 TO 7.3

	1989	1988	1987
PLANTED	May 10	May 5	April 30
HARVESTED	September 18	September 18	September 18
SOIL TYPE	Kilmanagh loam	Kilmanagh loam	Kilmanagh loam
PREVIOUS CROP	Corn	Corn	Corn
POPULATION	21,200	20,100	18,900
ROWS	30"	30"	30"
FERTILIZER	193-49-97	177-62-99	177-62-69 + Zinc
SOIL TEST: pH	7.8	6.1	6.8
P	104 (very high)	127 (very high)	140 (very high)
K	172 (medium)	263 (high)	325 (very high)

FARM COOPERATOR: William McCrea, Bad Axe

COUNTY AGRICULTURAL AGENT: Jim LeCureaux, Bad Axe

TABLE 16 NORTH CENTRAL MICHIGAN ZONE 3
Isabella County Trial
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
PIONEER 3779	15.9	--	--	123.1	--	--	2.1	--	--
AMCORN PSX1122	15.9	--	--	113.7	--	--	3.2	--	--
ANDERSONS PSX230	16.0	--	--	109.3	--	--	0.9	--	--
FUNK G-BRAND 4299	16.1	21	--	114.1	98	--	0.9	2	--
GREAT LAKES GL-424	16.1	--	--	99.1	--	--	0.0	--	--
GLENN-GARNO 878	16.1	--	--	103.0	--	--	1.0	--	--
NORTHRUP KING N3624	16.2	21	--	148.3	109	--	2.1	3	--
HY PERFORMER HS-25	16.3	--	--	133.0	--	--	1.0	--	--
PIONEER 3751	16.3	22	--	125.9	113	--	1.8	2	--
JUNG 2444	16.3	--	--	103.9	--	--	0.0	--	--
CROW'S 195	16.3	--	--	98.7	--	--	0.9	--	--
PICKSEED 5545	16.3	--	--	105.0	--	--	4.6	--	--
CALLAHAN C729	16.4	--	--	131.5	--	--	1.0	--	--
WOLVERINE X87	16.5	--	--	73.5	--	--	1.8	--	--
PIONEER 3718	16.5	--	--	119.7	--	--	2.5	--	--
ASGROW/O'S GOLD RX406	16.5	20	20	135.1	108	122	3.5	3	3
STANFORD HT238	16.5	--	--	108.1	--	--	0.0	--	--
KING K416	16.5	20	19	123.1	99	112	4.2	4	4
PAYCO 448	16.5	20	--	118.1	102	--	1.8	1	--
AMCORN PSX3333	16.6	20	--	119.7	103	--	1.1	1	--
DAIRYLAND DX-1194	16.7	21	--	117.0	93	--	4.5	4	--
RENK RK505	16.7	23	--	129.3	104	--	0.0	0	--
RUPP EXP.9-162	16.7	--	--	103.6	--	--	0.0	--	--
RUPP XR1492	16.8	--	--	124.5	--	--	2.4	--	--
BLANEY B305	16.9	--	--	106.7	--	--	2.1	--	--
JACQUES 4550	17.0	--	--	111.9	--	--	0.0	--	--
*GUTWEIN 2057	17.0	--	--	142.0	--	--	2.3	--	--
FUNK G-BRAND 4309	17.1	22	--	129.2	110	--	0.0	0	--
JACQUES 4990	17.1	21	21	106.7	92	109	5.3	3	4
*NORTHRUP KING N4350	17.1	24	--	138.5	112	--	0.8	1	--
DAIRYLAND DX-1095	17.1	22	21	128.3	112	124	5.9	4	4
CALLAHAN C728	17.1	--	--	118.8	--	--	3.0	--	--
GREAT LAKES GL-420	17.2	20	19	129.9	106	121	2.8	3	2
GLENN-GARNO 888	17.2	22	21	120.4	86	102	5.9	5	4
GRIES GSF-226A	17.4	--	--	125.8	--	--	2.7	--	--
DEKALB-PFIZER DK524	17.5	22	21	126.2	107	121	0.8	3	2
RENK R138	17.5	--	--	110.2	--	--	0.0	--	--
*GOLDEN HARVEST H-2344	17.6	21	20	158.2	103	112	2.6	3	4
GRIES GSF-X550	17.7	21	--	109.7	86	--	0.0	0	--
PIONEER 3790	17.7	--	--	114.9	--	--	0.0	--	--
JUNG 2496	17.7	--	--	123.2	--	--	2.9	--	--
WOLVERINE W163	17.8	23	21	130.4	101	118	0.0	0	1
MAUMEE VALLEY MV509	17.8	--	--	132.1	--	--	3.7	--	--
DEKALB-PFIZER DK485	17.9	--	--	110.3	--	--	5.6	--	--
ANDERSONS PSX290	17.9	--	--	105.9	--	--	3.8	--	--
GLENN-GARNO 900	17.9	23	21	124.7	91	105	2.4	1	2
HY PERFORMER HS-35	18.0	--	--	124.6	--	--	5.2	--	--
WOLVERINE W156	18.1	22	21	126.5	101	118	1.7	1	2
*CARGILL 4227	18.1	23	--	145.6	121	--	1.6	2	--
GOLDEN HARVEST H-2343	18.1	22	21	135.9	108	114	6.1	6	5
*PIONEER 3573	18.4	--	--	146.8	--	--	1.1	--	--
*SUPER CROST 2277	18.5	--	--	139.6	--	--	0.8	--	--
*CALLAHAN 21884X	18.5	--	--	143.8	--	--	3.6	--	--
KING K499	18.6	--	--	119.8	--	--	1.9	--	--
GLENN-GARNO 955	18.6	24	--	137.0	103	--	2.5	1	--
NORTHRUP KING N4545	18.7	24	--	126.3	98	--	0.0	1	--
KING K448	18.7	24	--	134.4	114	--	5.0	3	--
JUNG 2640	18.7	--	--	128.1	--	--	0.9	--	--
*BLANEY B405	18.8	--	--	142.6	--	--	2.7	--	--
*DAIRYLAND DX-1103	18.9	24	23	142.3	118	129	6.0	3	3
GUTWEIN 2188	19.0	--	--	118.7	--	--	1.0	--	--
BLANEY B505	19.1	--	--	122.2	--	--	5.0	--	--
PIONEER 3475	19.1	--	--	130.7	--	--	3.3	--	--
CROW'S 210	19.1	--	--	118.5	--	--	0.9	--	--
*GREAT LAKES GL-482	19.2	23	22	139.1	117	133	0.0	1	1
MAUMEE VALLEY MV630	19.2	--	--	130.0	--	--	1.0	--	--
CARGILL 4327	19.2	--	--	126.7	--	--	1.7	--	--
PAYCO SX687	19.2	23	--	137.3	113	--	1.8	4	--
CROW'S 227	19.3	--	--	127.4	--	--	1.7	--	--
DEKALB-PFIZER DK535	19.5	24	--	131.7	98	--	2.4	2	--
GLENN-GARNO 1006	19.8	--	--	102.3	--	--	2.6	--	--
HY PERFORMER HS-45	20.0	--	--	134.6	--	--	0.0	--	--
DAIRYLAND DX-1106	20.1	--	--	129.0	--	--	1.8	--	--
GLENN-GARNO 1007	20.1	25	--	102.6	94	--	4.5	3	--
GLENN-GARNO 1003	20.1	26	--	123.2	94	--	0.0	0	--

(continued top right)

TABLE 16 (CONTINUED) NORTH CENTRAL MICHIGAN ZONE 3
Isabella County Trial
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
PIONEER 3429	20.3	--	--	98.9	--	--	1.9	--	--
KING K5574	20.6	26	--	107.2	92	--	2.8	2	--
PIONEER 3585	20.8	24	--	129.2	110	--	2.0	2	--
ASGROW/O'S GOLD RX626	20.9	--	--	112.5	--	--	0.0	--	--
GREAT LAKES GL-509	21.0	25	23	94.1	89	107	1.0	1	1
GUTWEIN 2424	21.0	--	--	126.8	--	--	0.9	--	--
GRIES GSF-4460	21.1	--	--	134.7	--	--	0.0	--	--
MAUMEE VALLEY MV762	21.1	--	--	128.2	--	--	0.8	--	--
GUTWEIN 2412	21.2	--	--	110.6	--	--	2.6	--	--
ASGROW/O'S GOLD RX578	21.5	--	--	108.2	--	--	0.0	--	--
CROW'S 414	23.5	--	--	123.9	--	--	4.2	--	--
HY PERFORMER HS-59	25.9	--	--	86.0	--	--	6.1	--	--
GLENN-GARNO 1011	27.6	--	--	74.9	--	--	2.7	--	--
AVERAGE	18.3	22	21	121.4	103	116	2.1	2	3
RANGE	15.9 TO 27.6	20 TO 26	19 TO 23	73.5 TO 158.2	86 TO 121	102 TO 133	0.0 TO 6.1	0 TO 6	1 TO 5
LEAST SIGNIFICANT DIFFERENCE	0.8			16.6					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	May 3	May 7	May 5
HARVESTED	November 3	November 1	November 23
SOIL TYPE	Ithaca loam	Ithaca loam	Ithaca loam
PREVIOUS CROP	Corn	Wheat	Soybeans
POPULATION	16,800	20,900	22,000
ROWS	30"	30"	30"
FERTILIZER	118-53-90	121-60-71	130-80-134 + Zinc
SOIL TEST: pH	5.9	6.5	7.1
P	144 (very high)	140 (very high)	80 (high)
K	368 (very high)	380 (very high)	325 (very high)

FARM COOPERATORS: Bill, Fred, and Steve Zeien, Beal City

COUNTY EXTENSION DIRECTOR: Dan Rossman (1989, 1988), Lyle Thompson (1987) Mt. Pleasant

TABLE 17 NORTH CENTRAL MICHIGAN ZONE 3

Montcalm County Trial - Irrigated vs. Not Irrigated

ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE			BUSHELS PER ACRE						% STALK LODGING					
	1989	2 YR	3 YR	1989 IRR	1989 NOT IRR	2 YR IRR	2 YR NOT IRR	3 YR IRR	3 YR NOT IRR	1989 IRR	1989 NOT IRR	2 YR IRR	2 YR NOT IRR	3 YR IRR	3 YR NOT IRR
* NORTHRUP KING N3624	15.2	18	--	204.6	129.7	192	94	--	--	3.9	5.0	2	3	--	--
JACQUES 4170	15.4	19	--	141.1	116.7	169	87	--	--	5.6	2.4	5	2	--	--
GLENN-GARNO 878	15.4	19	--	127.9	120.0	141	89	--	--	4.5	0.0	3	0	--	--
GREAT LAKES GL-420	15.6	19	19	174.4	124.9	187	98	186	95	2.4	8.5	4	4	5	3
CALLAHAN 20653X	15.6	--	--	162.2	125.9	--	--	--	--	2.3	0.8	--	--	--	--
ANDERSONS PSX 150	15.7	--	--	139.0	120.0	--	--	--	--	4.4	3.3	--	--	--	--
* AMCORN PSX3333	15.7	20	--	183.8	133.2	169	99	--	--	2.4	3.4	3	2	--	--
STANFORD HT238	15.8	--	--	178.9	89.8	--	--	--	--	1.6	1.6	--	--	--	--
CALLAHAN 21949X	15.9	--	--	175.8	135.7	--	--	--	--	0.8	2.0	--	--	--	--
ANDERSONS PSX 230	16.0	--	--	166.2	100.9	--	--	--	--	1.5	0.0	--	--	--	--
PIONEER 3779	16.1	--	--	161.4	130.6	--	--	--	--	1.7	0.8	--	--	--	--
PIONEER 3751	16.1	20	--	154.8	126.2	180	99	--	--	4.0	1.7	5	2	--	--
CALLAHAN C729	16.1	--	--	169.5	130.9	--	--	--	--	0.8	5.3	--	--	--	--
KING K416	16.2	19	19	170.9	130.1	162	93	165	89	3.6	4.0	3	3	5	2
* BLANEY B305	16.3	--	--	190.3	106.1	--	--	--	--	3.0	1.7	--	--	--	--
*+ASGROW/O'S GOLD RX406	16.4	19	--	197.3	145.0	194	101	--	--	2.3	0.0	3	0	--	--
FUNK G-BRAND 4309	16.6	20	--	171.6	127.8	195	103	--	--	3.2	2.5	3	1	--	--
ASGROW/O'S GOLD RX498	16.6	20	20	160.7	94.2	170	73	172	76	3.2	0.8	4	1	4	1
GLENN-GARNO 888	16.7	19	19	130.4	121.6	155	95	161	92	2.6	2.8	2	1	4	1
*+KING K499	16.8	--	--	187.4	136.3	--	--	--	--	4.4	1.6	--	--	--	--
PAYCO SX686	16.8	--	--	149.4	100.2	--	--	--	--	1.9	1.9	--	--	--	--
* JUNG 2496	16.9	--	--	188.5	91.8	--	--	--	--	3.8	3.1	--	--	--	--
JACQUES 4550	17.0	--	--	149.2	112.4	--	--	--	--	2.7	4.2	--	--	--	--
DEKALB-PFIZER DK524	17.1	20	21	150.0	115.8	172	93	177	94	3.3	6.4	3	3	2	2
WOLVERINE W163	17.1	21	21	183.3	130.2	196	102	194	100	3.1	3.3	2	3	2	2
* NORTHRUP KING N4350	17.3	21	--	194.0	118.0	202	96	--	--	4.4	7.1	3	4	--	--
PIONEER 3790	17.4	--	--	153.4	117.6	--	--	--	--	3.9	1.7	--	--	--	--
GOLDEN HARVEST EX.694	17.4	--	--	150.2	118.5	--	--	--	--	3.3	1.8	--	--	--	--
* SUPER CROST 2277	17.5	--	--	210.1	110.6	--	--	--	--	2.9	0.8	--	--	--	--
CALLAHAN 21879X	17.5	--	--	142.2	105.8	--	--	--	--	0.0	2.6	--	--	--	--
*+GOLDEN HARVEST H-2404	17.6	20	--	196.0	141.3	194	105	--	--	0.8	2.4	1	1	--	--
GLENN-GARNO 955	17.6	21	--	169.2	131.2	183	100	--	--	3.4	1.6	3	1	--	--
DEKALB-PFIZER DK547	17.7	22	--	166.2	96.3	187	84	--	--	0.8	0.0	2	0	--	--
* NORTHRUP KING N4545	17.7	22	--	184.7	121.1	195	97	--	--	3.8	2.5	2	1	--	--
DAIRYLAND DX-1103	17.7	22	23	164.7	122.7	185	97	182	90	1.5	3.3	2	2	2	2
+CARGILL 4227	17.8	22	--	168.2	146.4	196	111	--	--	5.6	2.3	5	2	--	--
+BLANEY B405	17.9	--	--	164.4	143.6	--	--	--	--	4.7	3.9	--	--	--	--
BETAGOLD HANNA	18.0	--	--	168.1	120.1	--	--	--	--	1.7	0.0	--	--	--	--
* GOLDEN HARVEST H-2410	18.0	22	--	194.6	127.0	215	106	--	--	2.3	4.2	4	3	--	--
* DEKALB-PFIZER DK535	18.1	23	--	193.1	110.0	200	91	--	--	1.5	1.6	2	1	--	--
* BETAGOLD MARIA	18.1	--	--	187.2	122.8	--	--	--	--	0.0	0.9	--	--	--	--
GLENN-GARNO 900	18.1	20	20	151.4	110.9	159	87	166	84	1.7	3.1	1	2	3	2
AMCORN PSX5555	18.1	22	--	177.0	121.5	186	96	--	--	6.1	0.0	5	1	--	--
* MAUMEE VALLEY MV630	18.3	--	--	199.4	114.8	--	--	--	--	0.0	0.8	--	--	--	--
+PIONEER 3573	18.4	--	--	174.6	157.9	--	--	--	--	2.4	0.8	--	--	--	--
BLANEY B505	18.5	--	--	162.5	112.8	--	--	--	--	3.2	5.3	--	--	--	--
*+FUNK G-BRAND 4385	18.6	--	--	186.7	136.0	--	--	--	--	0.8	4.0	--	--	--	--
PIONEER 3718	18.8	--	--	169.8	95.0	--	--	--	--	2.2	0.8	--	--	--	--
GREAT LAKES GL-482	18.9	22	22	168.3	132.2	202	106	202	103	3.2	3.3	4	2	5	2
DAIRYLAND DX-1106	18.9	23	--	158.8	102.2	179	82	--	--	0.8	1.0	2	1	--	--

(continued next page)

TABLE 17 (CONTINUED) NORTH CENTRAL MICHIGAN ZONE 3

Montcalm County Trial - Irrigated vs. Not Irrigated
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE			BUSHELS PER ACRE						% STALK LODGING					
	1989	2 YR	3 YR	1989 IRR	1989 NOT IRR	2 YR IRR	2 YR NOT IRR	3 YR IRR	3 YR NOT IRR	1989 IRR	1989 NOT IRR	2 YR IRR	2 YR NOT IRR	3 YR IRR	3 YR NOT IRR
RENK RK627	18.9	21	--	158.5	82.4	166	72	--	--	3.1	4.5	2	2	--	--
CALLAHAN C743	18.9	22	--	165.3	108.5	173	88	--	--	0.0	0.0	1	2	--	--
* CARGILL 4327	19.0	--	--	189.3	76.3	--	--	--	--	2.9	1.8	--	--	--	--
GLENN-GARNO 1006	19.0	--	--	173.7	116.6	--	--	--	--	0.0	3.3	--	--	--	--
SUPER CROST 2989	19.1	--	--	180.7	121.5	--	--	--	--	2.3	4.0	--	--	--	--
ASGROW/O'S GOLD RX578	19.1	24	23	161.5	110.4	185	93	190	93	3.2	0.8	2	1	2	1
+MAUMEE VALLEY MV762	19.1	--	--	181.6	138.0	--	--	--	--	2.9	1.6	--	--	--	--
GLENN-GARNO 1003	19.1	23	22	117.0	87.8	148	73	156	75	1.9	2.7	2	1	2	1
GLENN-GARNO 1007	19.2	22	22	163.5	107.0	189	93	197	96	0.8	3.4	2	2	2	1
WOLVERINE W156	19.3	--	--	159.0	113.6	--	--	--	--	2.4	1.7	--	--	--	--
DAIRYLAND DX-1107	19.4	23	23	161.1	134.7	184	107	185	103	0.0	1.5	1	1	2	1
* RENK RK64	19.4	23	--	186.4	125.6	203	100	--	--	1.5	1.6	3	1	--	--
JUNG 2632	19.6	--	--	149.3	69.7	--	--	--	--	0.0	5.2	--	--	--	--
+GOLDEN HARVEST H-2438	19.6	23	--	168.3	143.3	166	98	--	--	0.0	0.0	4	1	--	--
+CARGILL 5157	19.8	--	--	178.9	138.3	--	--	--	--	0.0	4.7	--	--	--	--
PAYCO SX786	19.8	--	--	156.3	102.1	--	--	--	--	2.4	2.5	--	--	--	--
WOLVERINE W167	20.1	--	--	174.8	109.2	--	--	--	--	3.1	4.9	--	--	--	--
PIONEER 3475	20.2	--	--	183.2	122.9	--	--	--	--	1.5	2.6	--	--	--	--
KING K448	20.2	24	--	158.6	115.8	161	86	--	--	0.0	1.7	1	1	--	--
KING K5574	20.2	23	--	183.3	119.5	201	98	--	--	1.6	8.2	2	4	--	--
MAUMEE VALLEY MV812	20.2	--	--	177.6	107.3	--	--	--	--	3.0	0.0	--	--	--	--
PIONEER 3429	20.8	--	--	145.9	83.7	--	--	--	--	0.8	1.8	--	--	--	--
GREAT LAKES GL-509	21.3	24	23	141.7	85.6	190	85	196	89	1.7	4.3	3	2	5	1
*+PIONEER 3585	21.3	23	--	193.9	138.2	218	109	--	--	0.7	1.6	1	1	--	--
ASGROW/O'S GOLD RX626	21.3	24	24	163.5	90.3	185	82	175	76	1.6	1.6	1	1	2	1
RENK RK721	21.6	--	--	162.9	105.4	--	--	--	--	2.3	0.0	--	--	--	--
+GLENN-GARNO 1010	21.9	--	--	169.9	140.9	--	--	--	--	4.1	4.8	--	--	--	--
GLENN-GARNO 1011	24.6	--	--	128.3	82.6	--	--	--	--	0.0	1.0	--	--	--	--
GLENN-GARNO 1010B	25.4	--	--	127.2	93.3	--	--	--	--	1.9	7.3	--	--	--	--
AVERAGE	18.3	21	21	168.2	116.5	183	94	180	90	2.3	2.6	3	2	3	2
RANGE	15.2 TO 25.4	18 TO 24	19 TO 24	117.0 TO 210.1	69.7 TO 157.9	141 TO 218	72 TO 111	156 TO 202	75 TO 103	0.0 TO 6.1	0.0 TO 8.5	1 TO 5	0 TO 4	2 TO 5	1 TO 3
LEAST SIGNIFICANT DIFFERENCE	1.2			15.4	19.3										

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD (IRRIGATED) IN 1989
+ SIGNIFICANTLY BETTER THAN AVERAGE YIELD (NOT IRRIGATED) IN 1989

	1989	1988	1987
PLANTED	May 6	May 3	May 2
HARVESTED	October 30-31	October 19	October 20-21
SOIL TYPE	Montcalm-McBride Sandy Loam	Montcalm-McBride Sandy Loam	Montcalm-McBride Sandy Loam
PREVIOUS CROP	Potatoes	Potatoes	Potatoes
POPULATION	19,200	22,200	22,200
ROWS	30"	30"	30"
FERTILIZER	232-60-75	247-123-123	253-135-135
SOIL TEST: pH	6.0	6.0	6.1
P	428 (very high)	501 (very high)	400 (very high)
K	296 (high)	305 (very high)	193 (medium)
IRRIGATION	8 inches	13.8 inches	6.8 inches

FARM COOPERATOR: Richard Kitchen, Montcalm Research Farm, Entrican

COUNTY EXTENSION DIRECTOR: Don Smucker, Stanton

TABLE 18 NORTH CENTRAL MICHIGAN ZONE 3
Mason County Trial
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
NORTHRUP KING N3624	15.0	18	--	146.7	133	--	0.8	4	--
AMCORN PSX1122	15.6	--	--	120.1	--	--	0.8	--	--
SUPER CROST 2277	15.7	--	--	147.2	--	--	0.0	--	--
PIONEER 3751	15.9	19	--	143.8	142	--	1.5	2	--
JACQUES 4170	16.0	20	--	127.4	129	--	0.0	1	--
NORTHRUP KING N4350	16.1	--	--	143.7	--	--	1.6	--	--
PIONEER 3779	16.1	18	18	143.7	138	151	1.6	3	3
KING K416	16.2	20	19	132.2	137	141	3.9	5	5
GLENN-GARNO 888	16.2	19	19	125.4	115	132	0.9	4	5
PIONEER 3790	16.4	--	--	123.1	--	--	1.6	--	--
ASGROW/O'S GOLD RX406	16.5	19	19	138.7	136	149	0.0	4	4
*GOLDEN HARVEST H-2344	16.5	19	19	150.6	149	143	4.0	6	5
GLENN-GARNO 878	16.5	19	--	117.1	132	--	0.8	3	--
*GOLDEN HARVEST H-2343	16.9	19	19	167.5	150	157	0.8	3	4
*FUNK G-BRAND 4299	17.0	19	--	156.4	157	--	0.7	3	--
JACQUES 4550	17.0	--	--	125.8	--	--	2.4	--	--
STANFORD HT238	17.2	--	--	122.9	--	--	1.6	--	--
*GLENN-GARNO 900	17.2	19	19	150.8	141	151	2.5	4	4
DEKALB-PFIZER DK547	17.5	20	--	149.5	149	--	0.7	1	--
CARGILL 3027	17.5	19	--	135.7	137	--	1.6	3	--
AMCORN PSX3333	17.5	19	--	120.1	117	--	5.1	8	--
KING K448	17.8	21	--	128.3	139	--	0.8	3	--
CARGILL 3477	17.8	19	--	135.1	131	--	0.0	3	--
GRIES GSF-X550	17.9	20	--	117.5	114	--	3.6	3	--
NORTHRUP KING N4545	17.9	20	--	145.5	150	--	0.8	3	--
SUPER CROST 2445	18.0	--	--	128.2	--	--	1.6	--	--
GRIES GSF-226A	18.0	--	--	141.9	--	--	0.0	--	--
PIONEER 3718	18.0	--	--	137.1	--	--	1.6	--	--
CARGILL 3627	18.0	--	--	129.2	--	--	0.0	--	--
*PIONEER 3573	18.3	--	--	168.9	--	--	2.3	--	--
*DEKALB-PFIZER DK535	18.5	20	--	161.0	161	--	2.3	2	--
GREAT LAKES GL-482	18.5	21	--	122.7	147	--	4.1	4	--
FUNK G-BRAND 4309	18.8	20	--	131.6	151	--	1.6	4	--
GLENN-GARNO 955	18.8	21	--	147.3	139	--	0.0	1	--
KING K499	18.9	--	--	126.8	--	--	1.9	--	--
PIONEER 3429	19.0	--	--	121.4	--	--	1.6	--	--
*DEKALB-PFIZER DK524	19.5	21	--	159.4	159	--	0.8	2	--
*PIONEER 3585	19.5	22	--	153.9	141	--	0.8	3	--
ASGROW/O'S GOLD RX578	19.9	--	--	124.2	--	--	0.0	--	--
*PIONEER 3475	20.5	--	--	159.3	--	--	1.5	--	--
GRIES GSF-4460	21.4	--	--	124.8	--	--	0.8	--	--
KING K5574	21.8	23	--	144.3	152	--	0.8	4	--
AVERAGE	17.7	20	19	138.0	140	146	1.4	3	4
RANGE	15.0 TO 21.8	18 TO 23	18 TO 19	117.1 TO 168.9	114 TO 161	132 TO 157	0.0 TO 5.1	1 TO 8	3 TO 5
LEAST SIGNIFICANT DIFFERENCE	0.8			11.6					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	May 11	May 12	May 4
HARVESTED	November 1	November 1	October 20, 28
SOIL TYPE	Iosco sandy loam	Montcalm loamy sand & Russeu fine sand	Montcalm loamy sand & Russeu fine sand
PREVIOUS CROP	Snap beans Rye cover	Corn	Corn
POPULATION	19,600	22,000	22,100
ROWS	30"	30"	30"
FERTILIZER	135-20-80	122-84-142 + Zinc	120-76-20
SOIL TEST: pH	6.5	6.4	6.5
P	201 (very high)	74 (high)	105 (very high)
K	272 (high)	188 (medium)	122 (low)
IRRIGATION	4 inches		

FARM COOPERATORS: Robert and August Ohse, Scottville (1989), Mason County
Arthur and Jim Ramthum, Montague (1988,1987), Oceana County

COUNTY EXTENSION DIRECTOR: Bill Robb, Scottville (1989), Ed Strong, Hart (1988,1987)

TABLE 19 NORTHERN MICHIGAN ZONE 4
Grand Traverse County Trial
ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
PAYCO SF85	16.1	--	--	54.7	--	--	54.3	--	--
PAYCO 248	16.6	19	--	100.1	71	--	13.2	11	--
BLANEY B106	17.1	--	--	105.0	--	--	18.6	--	--
AMCORN PSX1122	17.1	--	--	78.4	--	--	10.1	--	--
NORTHRUP KING N2001	17.5	--	--	95.5	--	--	14.8	--	--
GREAT LAKES GL-320	17.6	20	--	73.7	69	--	14.4	12	--
GREAT LAKES GL-220	17.6	20	--	96.9	76	--	19.7	14	--
DAIRYLAND DX-1186	17.7	21	--	100.5	85	--	4.5	4	--
*SUPER CROST 1594	18.0	--	--	119.1	--	--	23.0	--	--
DEKALB-PFIZER DK397	18.1	--	--	92.6	--	--	10.4	--	--
NORTHRUP KING N3624	18.1	21	--	94.3	84	--	11.5	6	--
BETAGOLD INGRID	18.1	--	--	90.7	--	--	27.7	--	--
KING K228	18.3	21	--	85.3	71	--	5.2	4	--
CARGILL 37701	18.3	--	--	89.3	--	--	13.4	--	--
GOLDEN HARVEST H-2229	18.4	--	--	110.5	--	--	12.5	--	--
GOLDEN HARVEST H-2295	18.6	--	--	108.2	--	--	7.3	--	--
*KING K249	18.8	--	--	117.4	--	--	7.4	--	--
CARGILL 2127	18.9	--	--	86.0	--	--	20.0	--	--
*GOLDEN HARVEST H-2250	18.9	21	22	118.7	82	92	10.5	7	6
GLENN-GARNO 878	18.9	22	--	93.9	84	--	6.7	4	--
PICKSEED 63-113	19.0	--	--	96.7	--	--	4.8	--	--
DAIRYLAND DX-1190	19.1	--	--	99.9	--	--	3.6	--	--
PICKSEED 5545	19.2	--	--	95.0	--	--	11.7	--	--
GLENN-GARNO 900	19.2	22	23	106.0	92	99	18.5	10	7
GREAT LAKES GL-446	19.6	--	--	107.6	--	--	5.1	--	--
GREAT LAKES GL-424	19.6	--	--	95.6	--	--	11.3	--	--
KING K310	19.7	--	--	93.3	--	--	4.0	--	--
DAIRYLAND DX-1095	19.7	22	--	92.7	75	--	27.5	17	--
AMCORN PSX3333	19.7	23	--	93.1	73	--	15.6	10	--
GREAT LAKES GL-420	19.9	23	--	98.0	82	--	19.2	12	--
KING K2204	20.1	21	22	84.1	65	77	10.9	8	5
DAIRYLAND DX-1194	20.1	--	--	103.1	--	--	6.6	--	--
FUNK G-BRAND 4027	20.3	22	--	91.1	79	--	2.6	4	--
BETAGOLD GERDA	20.4	--	--	87.4	--	--	18.2	--	--
GLENN-GARNO 888	20.4	24	24	81.1	75	86	8.3	5	4
JACQUES 4170	20.5	22	--	108.1	90	--	6.4	5	--
BLANEY B305	20.8	--	--	94.6	--	--	8.8	--	--
FUNK G-BRAND 4299	20.9	--	--	101.4	--	--	7.4	--	--
FUNK G-BRAND 4140	21.5	--	--	88.2	--	--	2.6	--	--
NORTHRUP KING N2440	21.7	--	--	90.7	--	--	24.8	--	--
CARGILL 809	21.7	22	22	85.4	69	89	42.6	23	15
BLANEY B405	22.0	--	--	97.2	--	--	19.1	--	--
CARGILL SX123	22.3	23	23	89.1	74	87	20.0	13	10
*GLENN-GARNO 955	22.4	27	--	123.7	96	--	4.7	3	--
PICKSEED 2602	22.6	--	--	45.2	--	--	36.8	--	--
*DAIRYLAND DX-1103	22.9	--	--	123.5	--	--	7.0	--	--
BETAGOLD IRENE	23.1	--	--	90.5	--	--	13.3	--	--
PICKSEED 63-112	25.6	--	--	67.8	--	--	38.9	--	--
AVERAGE	19.6	22	23	94.6	79	88	14.7	9	8
RANGE	16.1 TO 25.6	19 TO 27	22 TO 24	45.2 TO 123.7	65 TO 96	77 TO 99	2.6 TO 54.3	3 TO 23	4 TO 15
LEAST SIGNIFICANT DIFFERENCE	2.9			16.7					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	May 11	May 3	May 8
HARVESTED	November 1 & 2	October 31	October 28
SOIL TYPE	Coventry-Newaygo loam	Coventry-Newaygo loam	Coventry-Newaygo loam
PREVIOUS CROP	Corn	Corn	Corn
POPULATION	18,000	21,600	21,900
ROWS	30"	30"	30"
FERTILIZER	84-24-66	75-40-75	132-38-38
SOIL TEST: pH	6.5	6.8	6.9
P	656 (very high)	546 (very high)	350 (very high)
K	368 (very high)	476 (very high)	257 (high)

FARM COOPERATOR: George Svec, Buckley

COUNTY AGRICULTURAL AGENT: Steve Fouch, Traverse City

TABLE 20 NORTHERN MICHIGAN ZONE 4

Missaukee County Trial - Silage

ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% DRY MATTER 1989	2 YR	3 YR	TONS PER ACRE GREEN WEIGHT 1989	2 YR	3 YR	TONS PER ACRE DRY WEIGHT 1989	2 YR	3 YR
PAYCO 248	42.5	44.6	--	12.8	10.1	--	5.4	4.3	--
GOLDEN HARVEST H-2229	42.0	--	--	12.3	--	--	5.2	--	--
PIONEER 3949	40.2	39.4	37.9	14.6	10.1	10.5	5.9	4.0	4.0
BLANEY B106	40.0	--	--	13.6	--	--	5.5	--	--
CARGILL 2227	39.8	--	--	14.8	--	--	5.9	--	--
CARGILL SX123	37.6	--	--	13.0	--	--	4.9	--	--
GLENN-GARNO 878	37.4	37.9	--	14.6	11.4	--	5.5	4.3	--
GOLDEN HARVEST H-2295	37.2	--	--	14.1	--	--	5.3	--	--
PICKSEED 2602	37.2	--	--	13.8	--	--	5.1	--	--
AMCORN PSX1122	37.0	--	--	12.1	--	--	4.5	--	--
BLANEY B305	36.9	--	--	14.0	--	--	5.2	--	--
PAYCO SF85	36.8	--	--	12.0	--	--	4.4	--	--
PIONEER 3751	36.5	34.5	--	16.2	12.5	--	5.9	4.3	--
KING K2204	35.9	38.9	34.9	13.0	9.3	12.8	4.6	3.5	4.1
KING K228	35.7	35.0	--	14.8	11.8	--	5.3	4.1	--
GOLDEN HARVEST H-2250	35.1	38.8	36.4	15.5	10.4	11.2	5.4	3.8	3.9
PICKSEED 63-112	35.1	--	--	13.3	--	--	4.7	--	--
SUPER CROST 1637	34.8	--	--	16.2	--	--	5.6	--	--
PIONEER 3779	34.7	37.2	35.1	16.0	12.4	13.2	5.6	4.5	4.5
CARGILL 3477	34.7	--	--	15.3	--	--	5.3	--	--
KING K249	34.4	--	--	16.3	--	--	5.6	--	--
PICKSEED 63-113	34.4	--	--	12.6	--	--	4.3	--	--
PIONEER 3901	33.6	--	--	16.7	--	--	5.6	--	--
KING K310	33.5	--	--	16.0	--	--	5.4	--	--
CARGILL 3027	33.3	36.1	--	17.3	13.0	--	5.8	4.6	--
GLENN-GARNO 888	33.1	--	--	16.2	--	14.2	5.3	--	--
BLANEY B405	32.8	--	--	19.2	--	--	6.3	--	--
GLENN-GARNO 955	32.5	--	--	17.8	--	--	5.8	--	--
AMCORN PSX3333	32.4	35.7	--	15.1	11.4	--	4.9	3.9	--
CARGILL 3627	31.5	--	--	18.5	--	--	5.8	--	--
GLENN-GARNO 900	31.0	--		17.5	--	14.9	5.4	--	--
AVERAGE	35.8	37.8	36.1	15.0	11.2	11.9	5.3	4.1	4.1
RANGE	31.0 TO 42.5	34.5 TO 44.6	34.9 TO 37.9	12.0 TO 19.2	9.3 TO 13.0	10.5 TO 13.2	4.3 TO 6.3	3.5 TO 4.6	3.9 TO 4.5

	1989	1988	1987
PLANTED	May 22	May 12	May 8
HARVESTED	September 29	September 9	September 10
SOIL TYPE	Marlette sandy loam	Marlette sandy loam	Marlette sandy loam
PREVIOUS CROP	Alfalfa Sod	Corn	Corn
POPULATION	20,800	20,400	20,600
ROWS	28"	28"	28"
FERTILIZER	90-56-235	59-30-132	131-51-146
SOIL TEST: pH	5.8	6.5	6.5
P	80 (high)	167 (high)	98 (high)
K	524 (very high)	352 (very high)	122 (low)

FARM COOPERATOR: Doug Nielsen and George McGloughlin, Lake City

COUNTY EXTENSION DIRECTOR: Carl Stephens, Lake City

TABLE 22 NORTHERN MICHIGAN ZONE 4

Alpena County Trial - Silage

ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% DRY MATTER 1989	2 YR	3 YR	TONS PER ACRE GREEN WEIGHT 1989	2 YR	3 YR	TONS PER ACRE DRY WEIGHT 1989	2 YR	3 YR
AMCORN PSX1082	52.1	--	--	9.4	--	--	4.9	--	--
PAYCO 248	48.4	--	--	9.6	--	--	4.6	--	--
BLANEY B106	47.8	--	--	10.0	--	--	4.8	--	--
AMCORN PSX1122	47.0	--	--	9.7	--	--	4.6	--	--
KING K127	45.6	--	--	10.0	--	--	4.6	--	--
SUPER CROST 1548	45.4	--	--	10.4	--	--	4.8	--	--
PIONEER 3949	44.5	39.2	36.1	10.4	11.7	12.9	4.6	4.4	4.5
NORTHRUP KING N2001	44.1	--	--	11.1	--	--	4.9	--	--
GOLDEN HARVEST H-2229	44.1	--	--	10.5	--	--	4.6	--	--
GOLDEN HARVEST H-2295	43.2	--	--	12.9	--	--	5.6	--	--
SUPER CROST 1594	43.0	--	--	13.8	--	--	6.0	--	--
KING K2204	43.0	39.6	35.4	10.4	11.1	13.8	4.4	4.3	4.6
PICKSEED 2602	42.8	--	--	10.9	--	--	4.7	--	--
JACQUES 4170	42.5	39.1	--	13.2	12.9	--	5.6	5.0	--
KING K249	42.3	--	--	12.1	--	--	5.1	--	--
PAYCO SF85	41.7	--	--	8.6	--	--	3.6	--	--
JACQUES 3630	41.6	--	--	11.1	--	--	4.6	--	--
BLANEY B305	41.1	--	--	12.6	--	--	5.2	--	--
GOLDEN HARVEST H-2250	41.1	38.3	36.1	11.6	11.7	11.4	4.8	4.5	4.1
NORTHRUP KING N2440	40.5	--	--	10.4	--	--	4.2	--	--
FUNK G-BRAND 4027	40.3	36.9	--	11.3	12.1	--	4.6	4.4	--
KING K310	39.8	--	--	11.1	--	--	4.4	--	--
FUNK G-BRAND 4010	39.6	--	--	11.9	--	--	4.8	--	--
PIONEER 3751	39.5	36.4	--	13.3	14.7	--	5.2	5.3	--
GREAT LAKES GL-420	39.3	38.0	--	12.1	13.0	--	4.8	4.9	--
NORTHRUP KING N3624	39.1	--	--	12.6	--	--	4.9	--	--
PIONEER 3901	39.1	--	--	12.4	--	--	4.8	--	--
KING K228	38.8	36.0	--	12.4	12.4	--	4.8	4.4	--
PICKSEED 63-112	38.7	--	--	10.0	--	--	3.9	--	--
GLENN GARNO 888	38.6	35.8	33.3	11.9	12.1	14.2	4.6	4.3	4.6
FUNK G-BRAND 4140	37.9	--	--	13.3	--	--	5.1	--	--
FUNK G-BRAND 4018	37.7	--	--	14.6	--	--	5.5	--	--
PIONEER 3779	37.4	34.9	32.2	13.3	14.1	15.6	5.0	4.9	4.9
GLENN GARNO 955	37.2	35.0	--	14.4	14.9	--	5.4	5.2	--
STANFORD HT 238	37.1	--	--	14.8	--	--	5.5	--	--
CARGILL 842	36.2	34.1	--	14.6	14.6	--	5.3	5.0	--
BLANEY B405	35.9	--	--	14.1	--	--	5.1	--	--
CARGILL 115603	34.9	--	--	15.1	--	--	5.2	--	--
GLENN GARNO 878	34.3	36.2	--	11.1	12.0	--	3.8	4.4	--
GLENN GARNO 900	33.2	32.2	31.3	13.5	13.0	14.9	4.5	4.2	4.6
CARGILL SX269	31.0	29.8	--	19.2	18.6	--	6.0	5.6	--
AVERAGE	40.7	36.1	34.1	12.1	13.3	13.8	4.9	4.7	4.6
RANGE	31.0 TO 52.1	29.8 TO 39.6	31.3 TO 36.1	8.6 TO 19.2	11.1 TO 18.6	11.4 TO 15.6	3.6 TO 6.0	4.2 TO 5.6	4.1 TO 4.9

	1989	1988	1987
PLANTED	May 19	May 6	May 9
HARVESTED	September 29	September 9	September 10
SOIL TYPE	Selkirk Loam	Selkirk Loam	Selkirk Loam
PREVIOUS CROP	Kidney beans	Dry beans	Dry beans
POPULATION	19,800	20,400	20,300
FERTILIZER	98-72-72	100-72-72	121-84-84
SOIL TEST:pH	6.2	7.1	6.5
P	118 (very high)	128 (very high)	162 (very high)
K	168 (medium)	271 (high)	138 (low)

FARM COOPERATOR: Allen Schiellard, Hubbard Lake

COUNTY EXTENSION DIRECTOR: Jack Middleton, Alpena

TABLE 21 NORHTERN MICHIGAN ZONE 4

Alpena County Trial - Grain

ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
KING K127	17.7	--	--	89.3	--	--	0.0	--	--
PICKSEED 63-112	18.7	--	--	88.4	--	--	0.0	--	--
KING K228	19.1	21	--	96.1	81	--	0.0	2	--
AMCORN PSX1082	19.4	--	--	76.2	--	--	0.0	--	--
PIONEER 3949	19.9	--	--	84.2	--	--	0.0	--	--
KING K249	19.9	--	--	63.2	--	--	3.6	--	--
*GOLDEN HARVEST H-2229	20.0	--	--	107.7	--	--	1.9	--	--
NORTHRUP KING N2001	20.3	--	--	78.0	--	--	0.9	--	--
FUNK G-BRAND 4018	20.4	--	--	87.9	--	--	0.9	--	--
*PAYCO 248	20.9	--	--	118.6	--	--	0.0	--	--
GOLDEN HARVEST H-2250	20.9	22	22	84.0	85	96	2.6	1	1
AMCORN PSX1122	20.9	--	--	74.3	--	--	5.7	--	--
KING K310	21.3	--	--	58.2	--	--	0.0	--	--
SUPER CROST 1548	21.4	--	--	72.5	--	--	4.9	--	--
FUNK G-BRAND 4010	21.5	--	--	63.0	--	--	0.0	--	--
BLANEY B106	21.7	--	--	81.3	--	--	0.0	--	--
NORTHRUP KING N2440	21.7	--	--	74.0	--	--	1.0	--	--
*SUPER CROST 1594	22.0	--	--	109.5	--	--	0.9	--	--
GOLDEN HARVEST H-2295	22.1	--	--	62.5	--	--	0.0	--	--
*KING K2204	22.3	23	23	107.7	105	119	1.9	2	2
PIONEER 3779	22.5	23	23	60.6	84	111	1.7	2	1
*PIONEER 3751	22.7	24	--	105.1	114	--	0.9	0	--
FUNK G-BRAND 4027	23.3	24	--	82.7	87	--	0.0	1	--
NORTHRUP KING N3624	23.6	--	--	95.2	--	--	1.9	--	--
PICKSEED 2602	23.6	--	--	100.6	--	--	1.8	--	--
JACQUES 4170	23.7	25	--	83.7	92	--	0.9	1	--
GLENN GARNO 888	23.7	24	24	86.3	92	114	0.0	1	1
GLENN GARNO 878	23.8	24	--	72.6	96	--	0.0	0	--
*PIONEER 3901	24.2	--	--	110.1	--	--	0.0	--	--
JACQUES 3630	24.4	--	--	80.8	--	--	0.0	--	--
*GREAT LAKES GL-420	24.7	25	--	118.1	114	--	0.0	1	--
FUNK G-BRAND 4140	25.2	--	--	56.3	--	--	0.0	--	--
GLENN GARNO 900	25.3	25	25	101.4	105	114	4.0	3	3
*GLENN GARNO 955	25.5	26	--	107.2	111	--	0.0	1	--
BLANEY B305	25.9	--	--	75.7	--	--	0.0	--	--
*BLANEY B405	27.6	--	--	109.9	--	--	0.0	--	--
PAYCO SF85	27.8	--	--	67.3	--	--	2.3	--	--
CARGILL 842	29.7	29	--	94.2	89	--	0.0	2	--
CARGILL 115603	30.6	--	--	99.8	--	--	0.0	--	--
STANFORD HT 238	30.8	--	--	74.4	--	--	0.8	--	--
CARGILL SX269	32.6	32	--	97.0	101	--	0.0	0	--
AVERAGE	23.3	25	23	86.7	97	111	0.9	1	2
RANGE	17.7 TO 32.6	21 TO 32	22 TO 25	56.3 TO 118.6	81 TO 114	96 TO 119	0.0 TO 5.7	0 TO 3	1 TO 3
LEAST SIGNIFICANT DIFFERENCE	2.0			17.1					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	May 19	May 6	May 9
HARVESTED	November 3	October 31	October 27
SOIL TYPE	Selkirk Loam	Selkirk Loam	Selkirk Loam
PREVIOUS CROP	Kidney beans	Dry beans	Dry beans
POPULATION	17,600	20,000	19,600
ROWS	30"	30"	30"
FERTILIZER	98-72-72	100-72-72	121-84-84
SOIL TEST: pH	6.2	7.1	6.5
P	118 (very high)	128 (very high)	162 (very high)
K	168 (medium)	271 (high)	138 (low)

FARM COOPERATOR: Allen Schiellerd, Hubbard Lake

COUNTY EXTENSION DIRECTOR: Jack Middleton, Alpena

TABLE 23 NORTHERN MICHIGAN ZONE 4

Menominee County Trial

ONE, TWO, THREE YEAR AVERAGES - 1989, 1988, 1987

HYBRID (BRAND-VARIETY)	% MOISTURE 1989	2 YR	3 YR	BUSHELS PER ACRE 1989	2 YR	3 YR	% STALK LODGING 1989	2 YR	3 YR
PIONEER 3963	21.4	--	--	84.7	--	--	3.2	--	--
JUNG 2282	21.6	--	--	105.8	--	--	4.1	--	--
GREAT LAKES GL-220	21.7	--	--	103.7	--	--	1.6	--	--
KING K127	22.0	22	--	114.5	108	--	0.7	1	--
JACQUES 2750	22.4	22	--	111.9	109	--	3.8	2	--
PIONEER 3929	23.1	--	--	104.9	--	--	1.4	--	--
PIONEER 3949	23.9	23	--	112.4	115	--	0.7	3	--
PICKSEED 63-112	23.9	--	--	106.8	--	--	0.7	--	--
CODON 2020	24.2	23	--	91.1	102	--	0.9	1	--
PICKSEED 2602	24.4	--	--	91.7	--	--	1.7	--	--
*PIONEER 3902	24.8	23	--	124.0	115	--	0.8	1	--
*NORTHRUP KING N2001	25.3	--	--	125.6	--	--	2.2	--	--
*BLANEY B106	25.6	--	--	120.0	--	--	0.7	--	--
JACQUES 2950	25.6	--	--	112.7	--	--	0.8	--	--
KING K228	26.0	24	--	88.7	112	--	0.0	0	--
JUNG 2365	26.3	--	--	111.4	--	--	1.5	--	--
WOLF RIVER VALLEY 9085	26.4	--	--	107.7	--	--	1.6	--	--
CENEX LOL809	26.6	25	--	110.3	112	--	8.6	6	--
NORTHRUP KING N2440	27.1	--	--	104.7	--	--	1.6	--	--
PIONEER 3901	29.7	28	30	115.6	117	128	0.7	1	3
BLANEY B305	30.8	--	--	99.3	--	--	0.0	--	--
CODON 3006	31.0	--	--	105.7	--	--	0.0	--	--
*PIONEER 3751	31.2	--	--	116.3	--	--	0.0	--	--
PIONEER 3779	31.3	--	--	108.7	--	--	0.0	--	--
CENEX LOL639	31.3	28	--	109.8	125	--	0.9	2	--
GLENN-GARNO 878	33.4	30	--	85.1	112	--	1.9	1	--
GLENN-GARNO 888	34.1	30	30	105.5	126	134	0.0	1	4
JUNG 2444	34.2	--	--	90.4	--	--	0.0	--	--
JUNG 2395A	34.7	--	--	86.1	--	--	0.0	--	--
GLENN-GARNO 955	37.0	34	--	105.0	128	--	0.0	0	--
JUNG 2496	39.5	--	--	115.2	--	--	0.0	--	--
GLENN-GARNO 900	40.1	33	--	108.2	117	--	0.0	0	--
AVERAGE	28.1	27	30	105.7	115	131	1.3	1	4
RANGE	21.4 TO 40.1	22 TO 34	30 TO 30	84.7 TO 125.6	102 TO 128	128 TO 134	0.0 TO 8.6	0 TO 6	3 TO 4
LEAST SIGNIFICANT DIFFERENCE	1.8			10.6					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1989

	1989	1988	1987
PLANTED	May 9	May 5	May7
HARVESTED	October 11	October 17	October 23
SOIL TYPE	Onaway loam	Onaway loam	Onaway loam
PREVIOUS CROP	Corn	Hay	Alfalfa
POPULATION	19,800	21,200	19,100
ROWS	34"	32"	32"
FERTILIZER	124-30-66 + 10 ton manure	90-92-106	139-48-48 + manure
SOIL TEST: pH	7.3	6.2	
P	97	46 (medium)	
K	168	195 (medium)	

FARM COOPERATOR: Steve Berzseny, Stephenson (1989, 1988); Harry Mientz, Jr.,Stephenson

COOPERATOR: Dr. Richard Leep, Dept. of Crop and Soil Sciences, Michigan State University, Marquette

COUNTY EXTENSION DIRECTOR: Don Pelligrini, Stephenson

TABLE 24 NORTHERN MICHIGAN ZONE 4

Alger County Trial - Silage

1989 data unavailable due to deer damages

TABLE 25

Index for 373 hybrids from 47 seed companies entered as 2,042 entries in the 1989 Michigan Corn Performance Trials. Numbers within parentheses refer to table numbers in which the hybrid appears. Company names used in association with hybrid numbers refer to the brand and the numbers are the variety (hybrid) designation.

AgriPro, Mitchell, IN 47446
- AgriPro AP290 (11,12)
- AgriPro AP424 (1,3,4,7,8,9,10,11,12,13)
- AgriPro AP510 (3,5,9,10)
- AgriPro AP525 (1,2,3,4,5,6,7,8,9,10,11, 12,13)
- AgriPro AP595 (1,2,4,5,6,7,8,11,12)
- AgriPro AP610 (1,2,3,4,5,6,9,10)
- AgriPro AP680 (6,8)

Amcorn Hybrids Inc, Bradley, MI 49311
- Amcorn PSX1082 (21,22)
- Amcorn PSX1122 (16, 18,19,20,21,22)
- Amcorn PSX3333 (16,17,18,19,20)
- Amcorn PSX5555 (6,7,8,9,10,11,12,13,14, 15,17)
- Amcorn PSX7450 (5,6,7,8,9,10,11, 12,13,14,15)
- Amcorn PSX9009 (1,2,3,4,5)
- Amcorn PSX9292 (1,2,3,4)

The Andersons Maumee, OH 43537
- Andersons PSX150 (14,15,17)
- Andersons PSX230 (16,17)
- Andersons PSX290 (14,15,16)
- Andersons PSX310 (11,12,13)
- Andersons PSX340 (2,6,13)
- Andersons PSX360 (7,8,9,10)
- Andersons PSX370 (2,4,7,8)
- Andersons PSX380 (3,4,5,6,9,10, 11,12,13)
- Andersons PSX410 (1,3,5)
- Andersons PSX420 (1)

Asgrow Seed Co., Kalamazoo, MI 49001
- Asgrow/O's Gold RX406 (7,8,9,10,11,12,13,14 15,16,17,18)
- Asgrow/O's Gold RX498 (14,15,17)
- Asgrow/O's Gold RX578 (1,2,3,4,5,6,7,8,9,10 11,12,13,14,15,16,17,18)
- Asgrow/O's Gold RX626 (1,2,3,4,5,6, 7,8,9,10,11,12,13,14,15,16,17)
- Asgrow/O's Gold RX746 (1,2)
- Asgrow/O's Gold RX749 (4,9,10)
- Asgrow/O's Gold RX706 (1,2,3,4,5,6,7, 8,9,10)

Beck's Hybrids, Atlanta, IN 46031
- Beck's 39X (1)
- Beck's 54XA (3,4)
- Beck's 62XA (1,2,3,4,5)
- Beck's 63X (3,5)
- Beck's 64XA (1,2,3,4)
- Beck's 65X (5)
- Beck's 66X (1,2,3)

Betagold, Shakopee, MN 55379
- Betagold GERDA (19)
- Betagold HANNA (2,8,9,10,11,12,13,17)
- Betagold INGRID (11,12,14,15,19)
- Betagold IRENE (11,12,14,15,19)
- Betagold KARLA (8,11,12,13,14,15)
- Betagold KATRINA (8,11,12,14,15)
- Betagold MARIA (2,8,9,10,17)
- Betagold 853 (2)

Richard Blaney Seed Inc., Madison, WI 53711
- Blaney B106 (19,20,21,22,23)
- Blaney B305 (11,12,16,17,19,20,21,22,23)
- Blaney B405 (7,8,11,12,13,14,15,16,17,19, 20,21,22)
- Blaney B505 (7,8,11,12,13,14,15, 16,17)
- Blaney B607 (1,2,3,4,5,6,7,8,9, 10,13,14,15)
- Blaney B702 (1,2,3,4,5,6,9,10)

Callahan Seeds, Westfield, IN 46074
- Callahan C728 (16)
- Callahan C729 (16,17)
- Callahan C743 (11,12,13,17)
- Callahan C748 (6,9,10,11,12,13)
- Callahan C754 (9,10)
- Callahan C764 (1,2,3,5,6,9,10,13)
- Callahan C771 (1,2,3)
- Callahan 20653X (17)
- Callahan 21949X (17)
- Callahan 21879X (11,12,17)
- Callahan 21884X (1,9,10,16)
- Callahan 21888X (1,2,3,5)
- Callahan 20075X (13)

Cargill Seeds, Minneapolis, MN 55440
- Cargill SX123 (19,20)
- Cargill SX269 (4,5,8,9,10,14,15,21,22)
- Cargill 809 (19)
- Cargill 842 (14,15,21,22)
- Cargill 2127 (19)
- Cargill 2227 (20)
- Cargill 3027 (18,20)
- Cargill 3477 (18,20
- Cargill 3627 (18,20)
- Cargill 4227 (6,8,14,15,16,17)
- Cargill 4327 (6,8,11,12,13,14,15,16,17)
- Cargill 5157 (6,7,9,10,11,12,13,14,15,17)
- Cargill 6027 (4,7,8,9,10,11,12,13)
- Cargill 6127 (13)
- Cargill 6227 (1,2,3,4,5,7,9,10,11, 12)
- Cargill 6927 (1,2,3,4)
- Cargill 7877 (1,2,3,5)
- Cargill 7993 (1,3,5)
- Cargill 8027 (3,5)
- Cargill 8127 (5)
- Cargill 37701 (19)
- Cargill 115603 (11,12,14,15,21,22)
- Cargill 116627 (3,9,10,13)

CIBA-GEIGY Seed Division, Augusta, MI 49012
- Funk G-Brand 4010 (21,22)
- Funk G-Brand 4018 (21,22)
- Funk G-Brand 4027 (19,21,22)
- Funk G-Brand 4140 (19,21,22)
- Funk G-Brand 4299 (11,12,14,15,16,18,19)
- Funk G-Brand 4309 (6,9,10,11,12,14, 15,16,17,18)
- Funk G-Brand 4385 (7,8,9,10,11,12,13,17)
- Funk G-Brand 4393 (1,2,3,4,6,7,8,9, 10,13)
- Funk G-Brand 4485 (1,2,3,4,5)
- Funk G-Brand 4543 (1,5)

Codon, Inc., Elkhorn, WI 53121
- Codon 2020 (23)
- Codon 3006 (23)

Countrymark, Inc., Delaware, OH 43015
- Countrymark C343X (11,12,14,15)
- Countrymark C363X (11,12,14,15)
- Countrymark C434X (8,9,10,11,12,14,15)
- Countrymark C565X (1,2,3,4,8,9,10)
- Countrymark C660X (1,2,3,4)

(continued below)

Heritage Seed, Inc., Portland, MI 48875
- Heritage Banker Spanker (3)
- Heritage Chairman (3)
- Heritage Chubby Butts (8,13)
- Heritage Easy Money (8,13)
- Heritage Fast Filly (8,13)
- Heritage Gold Rush (3)
- Heritage Top Gun (3,13)

HyPerformer Seed Co., Helena Chemical Co., Memphis, TN 38137
- HyPerformer HS-25 (11,12,13,16)
- HyPerformer HS-35 (11,12,13,16)
- HyPerformer HS-45 (11,12,13,16)
- HyPerformer HS-59 (11,12,13,16)

Jacques Seed Co., Prescott, WI 54021
- Jacques 3630 (21,22)
- Jacques 4170 (11,12,17,18,19,21,22)
- Jacques 4550 (11,12,14,15,16,17,18)
- Jacques 4900 (11,12,14,15,16)
- Jacques 5700 (6,7,9,10)
- Jacques 6770 (3,7,8,9,10,13)
- Jacques 7700 (8)
- Jacques 7770 (1,2,3,4,5,6,13)
- Jacques 7820 (1,2,4,5)

Jung Farm, Inc., Randolph, WI 53957
- Jung 2262 (23)
- Jung 2365 (23)
- Jung 2395A (23)
- Jung 2444 (16,23)
- Jung 2496 (16,17,23)
- Jung 2632 (17)
- Jung 2640 (16)

King Grain Co., Chatham, Ontario, CANADA N7M 5L6
- King K127 (21,22,23)
- King K228 (19,20,21,22,23)
- King K249 (19,20,21,22)
- King K310 (19,20,21,22)
- King K416 (7,8,9,10,11,12,13,14,15,16, 17,18)
- King K448 (7,8,9,10,11,12,13,14,15,16, 17,18)
- King K499 (1,2,3,4,5,6,7,8,9,10,11 12,13,14,15,16,17,18)
- King K598 (1,2,3,4,5,6)
- King K647 (1,2,3,4,5,6)
- King K2204 (19,20,21,22)
- King K5574 (1,2,3,4,5,6,7,8,9,10,11 12,13,14,15,16,17,18)

Leaders Seeds, Inc., Celina, OH 45822
- Leader SX502 (1,2)
- Leader SX574 (1,2,4)

Maumee Valley Seeds, Inc., Woodburn, IN 46797
- Maumee Valley MV-509 (7,11,12,13,14,15,16)
- Maumee Valley MV-611 (7,11,12,13,14,15)
- Maumee Valley MV-630 (2,6,7,9,10,11,12,13, 14,15,16,17)
- Maumee Valley MV-762 (1,2,3,5,6,7,9,10,11, 12,13,14,15,16,17)
- Maumee Valley MV-812 (1,2,3,5,6,7,9, 10,11,12,13,14,15,17)
- Maumee Valley MV-851 (2,3,5)
- Maumee Valley MV-888 (1,2,3,5,6,9, 10,13)
- Maumee Valley MV-904 (1,3,5)
- Maumee Valley MV-910 (1,3,5,9,10)

McCurdy Seed Co., Fremont, IA 52561
- McCurdy 4925 (2,3)
- McCurdy 5750 (5)
- McCurdy 6222 (1,3,4)
- McCurdy 6660 (1,2,3,4,5)
- McCurdy 7277 (5)

Michigan Hybrid Seed Co., Inc., Mason, MI 48854
- Wolverine X87 (13,16)
- Wolverine X115 (2,3)
- Wolverine W156 (7,8,13,14,15,16,17)
- Wolverine W163 (7,8,13,14,15,16,17)
- Wolverine W167 (2,8,13,14,15,17)

Northrup King Co., Minneapolis, MN 55440
- Northrup King N2001 (19,21,22,23)
- Northrup King N2440 (19,21,22,23)
- Northrup King N3624 (14,15,16,17,18,19,21, 22)
- Northrup King N4350 (11,12,14,15,16,17,18)
- Northrup King N4545 (7,8,9,10,11,12,13,16, 17,18)
- Northrup King S5340 (8,11,12,13)
- Northrup King S5987WX (9,10,14,15)
- Northrup King N6321 (1,3,4,9,10)
- Northrup King N6348 (1,3,4,6,9,10,13)
- Northrup King N6873 (5)
- Northrup King 7705 (1,3,5)
- Northrup King S7838WX (2)
- Northrup King PX9540 (3,4)

Roy W. Parker & Son, Inc., Kimmell, IN 46760
- Parker 46 (2)
- Parker 53 (2,5)
- Parker 56 (5)
- Parker 63 (2,5)
- Parker 350 (2,5)

Payco Seeds, VDH - Interstate Corp., Dassel, MN 55325
- Payco SF85 (19,20,21,22)
- Payco 248 (19,20,21,22)
- Payco 448 (16)
- Payco 648 (4,6,7,8,13)
- Payco SX686 (8,9,10,11,12,14,15,17)
- Payco SX687 (16)
- Payco 748 (1,2,4,5,6,7,9,10,11,12 14,15)
- Payco SX786 (17)
- Payco SX800 (3,5)
- Payco SX872 (1,2,3,13)

Otto Pick & Sons Seeds, Ltd., Richmond Hill, Ontario, CANADA L4C 4X9
- Pickseed 2602 (19,20,21,22,23)
- Pickseed 5545 (14,15,16,19)
- Pickseed 63-112 (19,20,21,22,23)
- Pickseed 63-113 (14,15,19,20)

Pioneer Hi-Bred International, Inc., Tipton, IN 46072
- Pioneer 3343 (1,2,3,4,5,6)
- Pioneer 3352 (1,2,3,4,5,6)
- Pioneer 3374 (1,2,3,4,5,6)
- Pioneer 3379 (1,2,3,4,5,6)
- Pioneer 3429 (1,2,3,4,5,6,7,8,9,10,11,12 13,14,15,16,17,18)
- Pioneer 3475 (1,2,3,4,5,6,7,8,9,10,11,12 13,14,15,16,17,18)
- Pioneer 3573 (1,2,3,4,5,6,7,8,9,10,11,12 13,14,15,16,17,18)
- Pioneer 3585 (1,2,3,4,5,6,7,8,9,10,11,12 13,14,15,16,17,18)
- Pioneer 3718 (7,8,9,10,11,12,13,14,15,16 17,18)
- Pioneer 3737 (1,2,3,4,5,6)
- Pioneer 3751 (1,2,3,4,5,6,7,8,9,10, 11,12,13,14,15,16,17,18,20,21,22, 23)
- Pioneer 3779 (11,12,13,14,15,16,17, 18,20,21,22,23)
- Pioneer 3790 (11,12,13,14,15,16, 17,18)
- Pioneer 3901 (20,21,22,23)
- Pioneer 3902 (23)
- Pioneer 3929 (23)
- Pioneer 3949 (20,21,22,23)
- Pioneer 3963 (23)

(continued below)

Crows Hybrid Corn Co., Milford, IL 60953
- Crows SL38 (9,10,11,12)
- Crows 195 (3,4,9,10,11,12,16)
- Crows 199 (6,7,9,10,11,12,13)
- Crows 210 (3,7,16)
- Crows 227 (4,6,7,16)
- Crows 380 (7,9,10,11,12)
- Crows 414 (8,16)
- Crows 442 (1,5,7,9,10,13)
- Crows 444 (9,10)
- Crows 449 (2,5,9,10,13)
- Crows 482 (1,2,3)
- Crows 488 (1,2,3,4,5,6,11,12)
- Crows 555 (3,4)
- Crows 669 (1,2,3,5)
- Crows 682 (2,3,5)

Dairyland Seed Co., West Bend, WI 53095
- Dairyland DX-1014 (1,2,3,4)
- Dairyland DX-1015 (1,2,3,4,5,9,10)
- Dairyland DX-1018 (3,5)
- Dairyland DX-1095 (7,13,14,15,16,19)
- Dairlyland DX-1101 (11,12)
- Dairyland DX-1103 (4,7,8,9,10,11,12,13,14 15,16,17,19)
- Dairyland DX-1104 (4,7,8)
- Dairyland DX-1106 (4,7,8,9,10,11,12,13,14 15,16,17)
- Dairyland DX-1107 (1,2,5,8,9,10,11, 12,13,17)
- Dairyland 1110 (1,2,3,4,5,7,9,10,13)
- Dairyland 1117 (1,2,3,5)
- Dairyland 1186 (14,15,19)
- Dairyland 1190 (19)
- Dairyland 1194 (8,11,12,14,15,16,19)

Dekalb-Pfizer Genetics, Dekalb, IL 60115
- Dekalb-Pfizer DK397 (19)
- Dekalb-Pfizer DK485 (9,10,11,12,14,15,16)
- Dekalb-Pfizer DK524 (3,9,10,11,12,13,14,15 16,17,18)
- Dekalb-Pfizer DK535 (1,2,3,4,5,7,8,9,10,11 12,13,14,15,16,17,18)
- Dekalb-Pfizer DK547 (1,4,6,7,8,13 17,18)
- Dekalb-Pfizer DK572 (2,3,4,5,7)
- Dekalb-Pfizer DK636 (1,2,3,5)

E.J. Funk & Sons, Inc., Kentland, IN 47951
- Super Crost 1548 (21,22)
- Super Crost 1594 (19,21,22)
- Super Crost 1637 (20)
- Super Crost 2277 (7,11,12,13,14,15,16,17,18)
- Super Crost 2445 (18)
- Super Crost 2979 (7,8,11,12)
- Super Crost 2989 (13,14,15,17)
- Super Crost 3130 (1,8,9,10)
- Super Crost 4366 (10)
- Super Crost 4877 (2,3,4,5,11,12, 14,15)
- Super Crost Exp.8110 (9,10)

Garno Seed Co., Inc., Palmyra, MI 49268
- Garno Exp.A (1,9,10)
- Garno Exp.B (1,9,10)
- Garno Exp.C (1,9,10)

Garst Seed Co., Indianapolis, IN 46268
- Garst N6574 (2)
- Garst 8532 (2)
- Garst 8555 (13)
- Garst 8599 (2,8)
- Garst 8708 (11,12,13)
- Garst 8882 (11,12)

Glenn-Garno, Inc., Stockbridge, MI 49285
- Glenn-Garno 878 (6,11,12,14,15,16,17,18,19 20,21,22,23)
- Glenn-Garno 888 (6,11,12,14,15,16,17,18,19 20,21,22,23)
- Glenn-Garno 900 (6,11,12,14,15,16,17,18,19 20,21,22,23)
- Glenn-Garno 955 (6,11,12,14,15,16,17,18,19 20,21,22,23)
- Glenn-Garno 1003 (1,2,3,4,5,6,7,8,9,10,11 12,13,14,15,16,17)
- Glenn-Garno 1006 (1,2,3,4,5,6,7,8,9,10,11 12,13,14,15,16,17)
- Glenn-Garno 1007 (1,2,3,4,5,6,7,8,9 10,11,12,13,14,15,16,17)
- Glenn-Garno 1010 (1,2,3,4,5,7,8,9,10 13,14,15,17)
- Glenn-Garno 1010B (1,2,3,4,5,7,8,9,10 13,14,15,17)
- Glenn-Garno 1011 (1,2,3,4,5,6,7,8,9, 10,11,12,13,14,15,16,17)
- Glenn-Garno 1012 (1,2,3,4,5,7,8,9, 10,13)

Great Lakes Hybrids, Inc., Ovid, MI 48866
- Great Lakes GL-220 (19,23)
- Great Lakes GL-320 (19)
- Great Lakes GL-420 (13,14,15,16,17,19,21,22)
- Great Lakes GL-424 (16,19)
- Great Lakes GL-446 (13,14,15,19)
- Great Lakes GL-482 (7,8,9,10,11,12,13,14,15, 16,17,18)
- Great Lakes GL-500 (4)
- Great Lakes GL-509 (1,2,3,4,5,6,7,8,9 10,11,12,13,14,15,16,17)
- Great Lakes GL-579 (1,3,9,10,11,12, 13,14,15)
- Great Lakes GL-582 (1,2,3,4,5,6,7,8,9 10,13,14,15)
- Great Lakes GL-590 (4)
- Great Lakes GL-595 (1)
- Great Lakes GL-599 (1,2,14,15)
- Great Lakes EX-89901 (2,14,15)

Gries Seed Farms, Inc., Fremont, OH 43420
- Gries GSF-226A (1,2,3,4,7,8,9,10,11,12,13, 14,15,16,18)
- Gries GSF-X550 (1,2,3,4,7,8,9,10,11,12,13, 14,15,16,18)
- Gries GSF-4460 (1,2,3,4,7,8,9,10,11, 12,13,14,15,16,18)

Fred Gutwein & Sons, Francesville, IN 47946
- Gutwein 2057 (16)
- Gutwein 2188 (16)
- Gutwein 2412 (16)
- Gutwein 2424 (16)

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Prairie Stream Farms, Inc., Frankfort, IN 46041
- Prairie Stream SX703 (5)
- Prairie Stream M4400 (5)
- Prairie Stream SX7182 (5)

Pro-Seed, Inc., Blissfield, MI 49228
- Pro-Seed PS3096 (13)
- Pro-Seed PS3098 (13)
- Pro-Seed PS3108 (1)
- Pro-Seed PS3110 (1)
- Pro-Seed PS3117 (1)
- Pro-Seed PS4108 (1)

Renk Seed Co., Sun Prairie, WI 53590
- Renk RK64 (1,2,3,4,5,7,8,9,10,11,12,13,14, 15,17)
- Renk RK76 (1,2,3,4,5,14,15)
- Renk R129 (14,15)
- Renk R138 (13,14,15,16)
- Renk RK505 (13,14,15,16)
- Renk RK528 (11,12,14,15)
- Renk RK534 (11,12,14,15)
- Renk RK627 (1,2,3,4,5,7,8,9,10,11, 12,13,14,15,17)
- Renk RK650 (9,10,11,12,13)
- Renk RK702 (1,2,3,4,5,7,8,9,10)
- Renk RK721 (1,2,3,4,5,7,8,9,10,11 12,13,14,15,17)
- Renk RK803 (1,2,3,4,5)

Rupp Seeds, Inc., Wauseon, OH 43567
- Rupp Exp.9-162 (16)
- Rupp Exp.9-163 (4,9,10,11,12,13)
- Rupp Exp.9-164 (1,3,4,11,12,13)
- Rupp XR1492 (16)
- Rupp XR1527 (4,9,10,11,12,13)
- Rupp XR1739 (2,5)
- Rupp XR1827 (2,3)
- Rupp XR1829 (1,5)

Seedex, Inc., Noblesville, IN 46060
- Seedex 995 (2,8,13)
- Seedex 1035 (2,8,13)
- Seedex 1085 (2,8,13)

Select Seed Hybrids, Camden, IN 46917
- Select 2772 (13)
- Select 3720 (1,13)
- Select 3808 (1,3,13)
- Select 4850 (1,3)
- Select 4972 (3)
- Select 4988 (1,3,5)
- Select 5015 (3,5)
- Select 5040 (1,3,5)
- Select 5188 (3,5)

Sommer Bros. Seed Co., Pekin, IL 61554
- Golden Harvest Ex.479 (1,2,4,5)
- Golden Harvest Ex.533 (1,2,4,5)
- Golden Harvest Ex.694 (7,9,10,13,14,15,17)
- Golden Harvest H-2229 (19,20,21,22)
- Golden Harvest H-2250 (19,20,21,22)
- Golden Harvest H-2295 (19,20,21,22)
- Golden Harvest H-2343 (8,11,12,14,15,16,18)
- Golden Harvest H-2344 (8,11,12,14,15,16,18)
- Golden Harvest H-2404 (7,9,10,13,14,15,17)
- Golden Harvest H-2410 (7,9,10,13, 14,15,17)
- Golden Harvest H-2438 (7,9,10,13,17)
- Golden Harvest H-2465 (4,5,6,8,9,10, 13)
- Golden Harvest H-2525 (1,2,4,5,6)
- Golden Harvest H-2528 (1,2,4,5)
- Golden Harvest H-2532 (1,2,3,4,5)
- Golden Harvest H-2572 (1,3,5)
- Golden Harvest H-2583 (1,3,5)

Stanford Seed Co., Buffalo, NY 14240
- Stanford HT238 (11,12,13,14,15,16,17,18, 21,22)

Stephenson Markenting, Stephenson, MI 53121
- Cenex LOL629 (23)
- Cenex LOL809 (23)

Terra International, Champaign, IL 61820
- Terra TR59 (11,12,14,15)
- Terra TR164E (1,2,3,4,7,11,12,13,14,15)
- Terra TR880 (7,11,12,13,14,15)
- Terra TR975 (7,11,12,13,14,15)
- Terra TR1040 (1,2,3,4,7,11,12,13,14,15)
- Terra TR1060 (1,2,3,4,7,11,12,13,14,15)
- Terra TR1110 (1,2,3,4,7,11,12,13, 14,15)
- Terra TR1120 (1,2,3,4,7,11,12,13, 14,15)
- Terra TR1125 (1,2,3,4)

Wolf River Valley Seeds, White Lake, WI 54491
- Wolf River Valley 9085 (23)

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File 22.1 (Field Crops—Corn)