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Michigan Corn Production Hybrids Compared

Michigan State University Extension Service

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Michigan Corn Production

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 Y B R I D S C O M P A R E D

HYBRIDS COMPARED 1993

By: Keith Dysinger, Mervin Chamberlain,
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Michael Allen, and David Main**

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

Many hybrids are offered for sale in Michigan. They differ in yield capacity, maturity, lodging resistance, and other characteristics. Choosing the best corn hybrids is an important part of profitable corn production. By planting the hybrids best suited to the individual farm location, a grower can obtain higher yields with little or no increase in total production costs. Seed of hybrids with the best performance records in Michigan will generally cost no more than seed of hybrids with lower performance ratings.

The highest yielding hybrids in the 1992 trials produced 30 bushels more per acre than the average of 435 hybrids tested (Table A) and 75 bushels more than the lowest yielding hybrids.

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TABLE A
AVERAGE, HIGHEST AND LOWEST GRAIN YIELD
MOISTURE CONTENT, AND STALK LODGING AT 11 LOCATIONS IN 1992

County - Location	No. of Hybrids	Bushels per acre			% Moisture			% Stalk Lodging		
		Average	Highest	Lowest	Average	Highest	Lowest	Average	Highest	Lowest
Monroe - Early	72	206	239	146	29	34	22	1	5	0
Late	70	199	231	157	35	39	30	1	2	0
Branch - Early	72	188	220	119	25	34	18	1	4	0
Late	70	180	218	152	32	36	26	1	3	0
Cass - Early	72	175	221	115	26	33	20	4	16	0
Late	70	177	204	147	32	37	27	2	7	0
Early-Late Averages Zone 1		189-185	218-208	127-153	27-33	32-37	21-28	2-1	7-3	0-0
Kent - Early	71	177	206	135	24	31	19	3	12	0
Late	64	177	204	128	32	41	22	2	9	0
Ingham - Early	71	165	213	82	25	34	21	6	63	0
Late	64	145	184	93	35	44	26	1	17	0
Saginaw - Early	71	143	171	108	25	32	19	1	4	0
Late	64	145	171	98	32	39	25	1	5	0
Early-Late Averages Zone 2		162-156	187-172	130-106	25-33	32-39	20-25	3-1	21-7	0-0
Huron - Early	67	136	161	105	33	39	24	1	5	0
Late	53	134	163	95	41	49	32	2	8	0
Montcalm - Early	67	162	198	118	24	32	18	1	5	0
Late	53	162	193	119	33	41	22	1	4	0
Mason - Early	67	119	146	80	34	43	25	3	12	0
Late	53	107	131	77	42	48	34	2	14	0
Early-Late Averages Zone 3		139-134	164-159	106-97	30-39	38-45	23-30	2-2	5-6	0-0
Alpena	38	110	132	91	38	44	32	3	8	.5
Grand Traverse	38	115	145	94	27	34	18	.3	2	0
Average Zone 4		113	133	94	33	38	27	2	4	.3
Average-All Zones		158	188	113	31	38	25	1.8	10	0

Eleven trial locations containing 20 tests were harvested for grain yield. Average yield of all hybrids grown in Zone I was 187, Zone II was 159, Zone III was 137, and Zone IV was 113. The average moisture for the early maturity hybrid group was 6 percent less than the late hybrids in Zone I, 8 percent in Zone II, and 9 percent in Zone III. Stalk breakage averaged 10 percent for the hybrids with the highest amount of stalk lodging, 1.8 percent for the average and 0 percent for the lowest (Table A).

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 20 presents a list of all hybrids planted in the 1992 trials. At the 12 locations, 262 hybrids from 36 seed companies were tested as 1450 entries. Company names used in association with hybrid numbers refer to the brand. The numbers are the companies' designations.

Methods

Testing methods remained the same as those used in 1990 and 1991. Three locations were identified in each of the maturity zones. These zones are based on growing degree-days established from long-term weather records. Hybrids to be tested in each zone are entered in all locations representing that zone. Hybrids tested at each location are assembled into an early and late

group according to maturity ratings provided by the seed companies.

Two-row plots are used. Plots are 22 feet long with a 30-inch row spacing. The plantings are made at the rate of approximately 26,100 seeds per acre for most locations. Irrigated trials in Cass and Montcalm counties were planted at 28,000 with the Mason county irrigated trial planted at 24,500. All plantings in Zone IV were made at 24,000 seeds per acre. A three-replication, triple-lattice design is used throughout the testing program.

All hybrids were grown under similar conditions at each location. They are grown in farmers' fields with equal fertilizer, population, date of planting, and other management practices. Trials in Cass, Montcalm, and Mason counties were irrigated.

From seed packaging through harvest and data processing, each hybrid is identified only by a code number to assure that an unbiased estimate is made of each hybrid's potential. The code is deciphered after the data have been processed.

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Stand counts are taken in June and July prior to tasseling. Lodging measurements are made at harvest. Plots are harvested mechanically for both grain and silage. Grain yields are reported at a standard 15.5 percent moisture; silage yield estimates are based on an air-dried sample. Further evaluation by means of an *in-vitro* silage digestibility analysis was conducted by the Department of Animal Science.

The cool growing season and the delayed corn maturity made it impossible to harvest the Menominee county trial (Table 15) for grain in 1992. Silage yield was measured from these plots.

Silage trials were also conducted in Kent, Ingham, and Huron counties with yield data presented in Tables 17, 18, and 19. The results obtained from the 1992 silage digestibility trials are also presented in these same tables. This is the second year that digestibility analyses have been made. The data, however, is still considered preliminary and should be interpreted with care. No historical pattern exists relative to the

silage digestibility performance of a specific hybrid.

Results of four analyses are presented. They are:

1. **DMD = Dry matter digestibility.** This is a measure of energy available from the corn forage. The higher the DMD, the greater the energy content. It is determined by a laboratory method which incubates a sample of the corn forage with microbes from the rumen of a cow. Thirty hours is used to represent the average retention time of feed in the rumen. Differences among hybrids in DMD are approximately equal to differences in total digestible nutrients or TDN. A high DMD is desirable.
2. **FD = Fiber digestibility.** This is a measure of the degree of fermentation of fiber by ruminant animals. It is determined as the disappearance of neutral detergent fiber during an *in vitro* rumen fermentation. High fiber digestibility has been found to increase intake of ruminants as it decreases the filling effect of the feed and provides energy to microbes in the rumen increasing microbial protein production. A high FD is desirable.
3. **NDF = Neutral detergent fiber.** This is a measure of the fiber content of the corn forage. Fiber must be fermented by microbes in the gastrointestinal tract to be utilized by ruminants. It is much less digestible than non-fiber constituents of the forage. Forages with high levels of NDF have lower energy. It is also a measure of the gut filling properties of the forage and high NDF decreases forage intake. A low NDF content is desirable.
4. **CP = Crude protein.** Forages are generally supplemented with high protein concentrates such as soybean meal to increase the protein content of ruminant diets. Corn hybrids with high protein require less supplementation and therefore lower feed costs. A high protein content is desirable.

*All analyses were determined by wet-chemical methods.

Growing Conditions

All yield trials were planted between April 30 and May 15. Planting was timely. The monthly weather data for each test location is shown in Table B. The strongly negative departures from normal temperatures is the single most prominent characterization of the 1992 growing season.

The 1992 growing season is believed to be the coolest ever recorded in Michigan, exceeding a previous record low in 1915. In most areas, cool soil temperatures delayed germination and seedling establishment. Extensive areas experienced frosts in late May and early June. These frosts killed leaf growth further delaying plant development and in some cases killing the growing point requiring the replanting of the crop.

Cool summer temperatures continued to delay all of the developmental processes of the crop including the final ripening of the grain. An estimated 70 or 80 percent of the crop did not reach physiological maturity or normal ripening. The green corn was killed by fall frosts while grain filling was still in progress. The result has been very high grain moisture at harvest, accentuated in part by tightly bound husk cover and very slow dry down.

A second consequence of immature corn grain has been the failure of normal corn kernel structures to develop. The absence of well-defined hard, flint-like endosperm, soft starchy endosperm, normal seed coat, and internal membranes has sharply reduced grain quality even after the grain has been dried. The immature kernels have a tendency to curve and wrinkle upon drying rather than going through the normal shrinking process of a mature kernel. The result has been a dull, chaffy grain with a greatly reduced test weight sometimes as low as 42-44 pounds per bushel. High harvest moisture, slow drying, and reduced grain quality have been typical of the 1992 crop.

Late maturing corn hybrids are more seriously impacted than earlier hybrids under these growing conditions.

The absolute yields (dry matter accumulation) in 1992 were good to excellent in most areas of the state. Harvesting and drying of the 1992 crop were both difficult and costly processes.

Harvest was completed between October 26 and December 9. Harvest was delayed because of slow maturing corn. Wet field conditions further delayed harvest during early November.

In 1992 Michigan farmers grew an estimated 2,300,000 acres of corn for grain with a state average of 105 bushels. Silage acreage was estimated at 330,000 acres with yields averaging 11 tons per acre.

How to Use This Bulletin

One-, two-, and three-year averages are presented for all hybrids tested during 1992, 1991, and 1990 wherever the data are available. One-year results 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.

Yields averaged from the three-location entry system have been included. Tables 4, 8, 12, and 16 report the average measurements made on entries within a maturity zone.

The tables report the following information 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 in the current growing season (early to late), based on moisture at harvest.

Moisture content and field weight were determined from shelled grain samples collected in automated test equipment mounted on a plot picker-sheller. Chopped silage (fodder plus grain) samples were weighed with a representative sample collected for use in the silage trials. A sample is air dried to determine moisture content.

TABLE B
PRECIPITATION, TEMPERATURE, AND GROWING DEGREE DAY SUMMARY

Location/Zone	*	May		June		July		August		DEV
		OBS.	NORM.	OBS.	NORM.	OBS.	NORM.	OBS.	NORM.	
Monroe/1	TEMP	58.6	59.3	65.1	69.3	70.4	73.4	68.0	71.8	-11.7
	PPT	3.28	2.99	1.20	3.60	7.96	2.85	2.11	2.99	+ 2.12
	GDD	354	349	460	575	634	710	563	670	-293
Branch/1	TEMP	56.4	57.8	63.4	67.2	66.9	70.8	64.9	69.2	-13.4
	PPT	2.76	3.03	2.95	3.73	10.27	4.01	3.85	3.30	+ 5.76
	GDD	325	342	436	535	532	646	479	602	-353
Cass/1	TEMP	57.9	58.9	63.3	68.2	67.6	71.6	65.4	70.2	-14.7
	PPT	0.65	3.07	1.12	3.84	5.44	3.86	2.88	3.36	- 4.04
	GDD	344	373	438	557	553	661	491	627	-392
Kent/2	TEMP	58.4	57.4	64.6	67.1	67.6	71.2	65.6	69.5	- 9.0
	PPT	1.11	2.86	1.61	3.68	8.84	2.95	3.55	3.14	+ 2.18
	GDD	376	329	476	527	534	654	495	610	-239
Ingham/2	TEMP	58.3	57.5	63.2	67.0	66.3	70.7	64.5	69.0	-11.9
	PPT	1.63	2.73	2.54	3.54	7.19	3.02	1.45	3.02	+ 5.00
	GDD	363	332	446	527	500	640	465	598	-323
Saginaw/2	TEMP	56.4	58.6	62.2	68.2	64.0	72.1	63.0	70.2	-23.5
	PPT	1.10	2.49	1.83	3.09	4.28	2.83	2.92	3.29	- 1.57
	GDD	334	361	419	553	457	670	442	624	-556
Huron/3	TEMP	55.9	55.1	60.1	64.9	64.2	69.3	63.2	67.8	-13.7
	PPT	1.40	2.58	2.39	2.88	5.59	2.93	5.59	3.01	- 3.57
	GDD	317	292	340	476	476	602	426	569	-380
Montcalm/3	TEMP	55.6	57.7	64.6	67.1	64.7	71.0	62.7	69.3	-17.5
	PPT	0.78	2.88	1.29	3.43	2.35	2.50	3.19	3.84	- 5.04
	GDD	345	346	485	534	479	646	446	603	-374
Mason/3	TEMP	53.2	54.4	59.0	63.8	63.4	68.6	63.4	67.2	-15.0
	PPT	0.35	2.63	1.71	2.93	2.43	2.18	1.94	3.79	- 5.10
	GDD	249	273	372	450	445	587	441	552	-355
Alpena/4	TEMP	52.9	51.5	59.0	61.2	61.9	66.0	62.5	64.9	- 7.3
	PPT	1.10	2.83	1.71	3.16	3.34	3.11	2.65	3.23	- 3.53
	GDD	276	251	370	413	393	533	444	496	-210
Grand Traverse/4	TEMP	55.9	53.5	61.1	63.7	63.3	68.8	64.7	67.3	- 8.3
	PPT	0.68	2.48	2.76	3.15	1.91	2.88	1.30	2.93	- 4.79
	GDD	307	268	384	451	411	587	459	549	-294
Menominee/4	TEMP	50.1	53.6	58.6	62.7	61.9	67.4	62.6	65.5	-16.0
	PPT	2.47	3.57	3.82	3.72	3.04	3.63	2.63	3.86	- 2.82
	GDD	138	280	302	436	369	557	404	511	-571

*TEMP = Temperature (°F)

PPT = Precipitation

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

DEV = Deviations from 4 month averages.

OBS = Totals observed in 1992.

NORM = Normals observed in 30 yr. period (1951-1980)

DATA provided by the MSU - AGRICULTURE WEATHER METEOROLOGY OFFICE

Stalk breakage can be 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 because of uncontrolled variability in the soil and other environmental factors. Replication and randomization of the entries are two methods used to reduce these errors. Because these methods do not eliminate all of these variables, the magnitude of difference necessary for statistical significance has been calculated for yield and moisture content. The value calculated as the "least significant difference" or "LSD" is the amount that an individual hybrid would have to differ from the experiment average to be significantly 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. Other agronomic information relative to each trial is given at the bottom of the table. Fertilizer amounts are shown as total pounds per acre of nitrogen, P_2O_5 and K_2O applied during the season.

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How to Choose a Hybrid

Adaptation

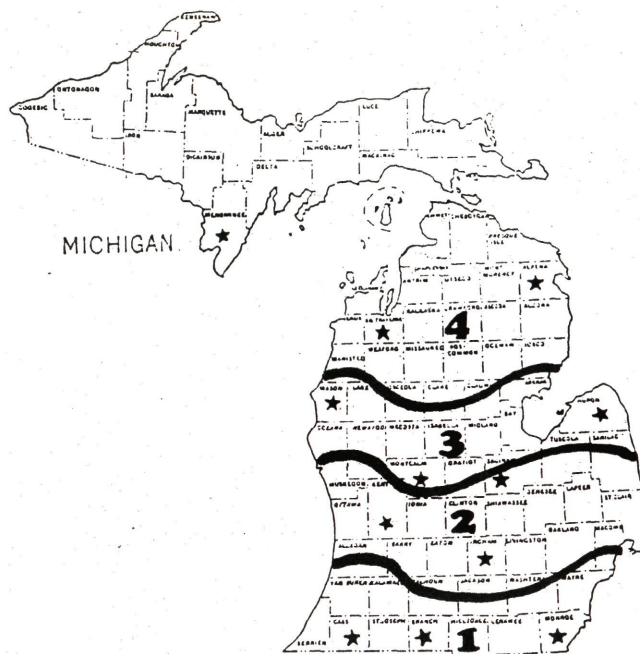
The following map shows the locations of the trials, and it divides Michigan into four generalized maturity zones. Local variations in weather, soil type and fertility, time of planting, and other conditions all affect adaptation. Corn hybrids are often adapted to more than one zone.

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

Planting Rate

The number of seeds sown per acre in Michigan has increased steadily over the past several

years. Increased planting rates are not a guarantee of increased yields. High plant populations (28,000 or more per acre) should be considered only for fields consistently producing more than 125 bushels per acre. With high plant populations, rainfall deficiencies and other growing season stresses frequently result in no increase in yield and may actually result in decreased yield compared with a more modest plant population of approximately 24,000 plants per acre. Lodging and harvest losses are often greater at higher populations.



Corn Maturity Zones and Locations (*) of Trials

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 reasonably 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 reflects a delay in maturity of about two days. Corn is considered to be mature when a black layer of cells forms at the base of the kernel. At this time, kernel moisture will be between 32 and 35 percent.

For Grain

It is better to choose an early hybrid (below average moisture content) than a late hybrid for grain. Data in the tables show that good yields do not totally depend on later maturity. Early maturing hybrids averaged 5 bushels more per acre in 1992 than late maturing hybrids. Advantages of early-maturing hybrids are:

- They usually mature before killing frosts.
- Adapted 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.
- Harvest can take place earlier in the fall when weather conditions are most favorable. Early harvest may reduce corn losses resulting from broken stalks and dropped ears.
- Fall tillage of corn stubble may be possible with early hybrids on land not subject to erosion.

For Silage

A good rule of thumb for selecting a superior silage hybrid is to choose one that also has the potential for high grain production. 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 silage harvest. Dry matter production continues to increase until maturity.

Other Considerations

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

Some degree of "crop insurance" can be obtained by choosing two or three hybrids that differ slightly in their maturity. If one hybrid encounters unfavorable weather at a critical growth stage, 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 average corn production by trying one or more hybrids with better records in these trials. Well tested new hybrids are worth consideration. It may be advisable 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 dies prematurely. The highest incidence of stalk rot occurs in years when corn matures early and harvest is delayed. Infection and disease 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 consistently be depended upon 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 when harvest is delayed. Early hybrids that mature in September will have more stalk breakage than late-maturing hybrids if harvest occurs in November and December. There may be little or no advantage to planting the 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 1993

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

Seed Supplies for 1993

Production of hybrid seed corn in 1992 presented problems associated with the delayed maturity and high moisture contents at harvest. Seed quality can be expected to be good for most hybrid combinations. A higher than normal demand is expected to exist for early and mid-season maturity hybrids. Fortunately, seed yields were generally high and adequate seed supplies are anticipated for 1993 planting.

TABLE 1

SOUTHERN MICHIGAN

ZONE 1

 MONROE COUNTY TRIAL
 ONE, TWO, THREE YEAR AVERAGES -1992, 1991, 1990

EARLY TRIAL (108 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))											
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING			
		1992	YR	YR	1992	YR	YR	1992	YR	YR	
GRIES	GSF-2393	22.3	--	--	165.8	--	--	0.5	--	--	
PIONEER	3723	23.4	20	--	207.6	154	--	0.0	1	--	
NORTHUP KING	N4242	24.3	--	--	210.5	--	--	2.1	--	--	
HYPERFORMER	HS9330	24.5	--	--	195.1	--	--	1.0	--	--	
GRIES	GSF-4100	24.7	--	--	197.4	--	--	0.0	--	--	
PIONEER	3751	24.9	21	19	206.8	145	147	0.0	1	3	
PAYCO	531	24.9	--	--	217.5	--	--	0.5	--	--	
TERRA	TR1020	25.3	--	--	185.3	--	--	1.6	--	--	
PIONEER	3563	25.6	--	--	205.4	--	--	0.0	--	--	
HYPERFORMER	HS9388	26.0	--	--	212.6	--	--	0.5	--	--	
*PIONEER	3525	26.0	--	--	228.3	--	--	0.0	--	--	
TOP FARM	TFsx1104A	26.2	22	--	192.5	152	--	2.1	4	--	
AMCORN	PSX5757	26.3	22	--	184.4	133	--	2.1	3	--	
CROW'S	210	26.5	--	--	187.8	--	--	0.5	--	--	
DEKALB	DR485	26.6	--	--	215.0	--	--	1.0	--	--	
TERRA	TR1050	26.7	--	--	194.4	--	--	4.7	--	--	
CROW'S	414	26.9	22	--	197.5	143	--	3.5	4	--	
*PIONEER	3573	27.0	22	20	225.1	171	177	0.0	2	3	
CROW'S	237	27.1	22	20	172.7	138	146	0.5	3	4	
GOLDEN HARVEST	H-2390	27.1	--	--	214.1	--	--	0.5	--	--	
*PIONEER	X1414	27.5	--	--	223.1	--	--	0.0	--	--	
PIONEER	3733	27.5	22	20	202.6	147	151	0.5	2	3	
DEKALB	DK554	27.6	--	--	205.2	--	--	0.0	--	--	
TERRA	TR1030	27.9	--	--	208.7	--	--	0.6	--	--	
*DEKALB	DK512	28.0	--	--	222.4	--	--	1.2	--	--	
PIONEER	3527	28.2	23	21	216.7	170	173	0.5	2	3	
DAIRYLAND	STEALTH-1207	28.3	--	--	212.6	--	--	0.5	--	--	
DAIRYLAND	STEALTH-1203	28.6	--	--	205.1	--	--	4.9	--	--	
DEKALB	DK535	28.7	23	22	211.6	155	163	0.5	2	2	
FUNK'S	G-BRAND 4372	28.8	23	--	213.2	156	--	1.6	2	--	
*PAYCO	711	28.8	--	--	225.2	--	--	0.0	--	--	
CALLAHAN	CT355X	29.0	--	--	197.4	--	--	1.1	--	--	
AGRIGENE	GA6839	29.2	24	--	217.5	145	--	1.5	3	--	
RENK	RK727	29.2	--	--	192.2	--	--	0.5	--	--	
HYPERFORMER	HS9408	29.6	--	--	197.1	--	--	1.7	--	--	
ASGROW	RX623	29.7	--	--	209.0	--	--	1.1	--	--	
TOP FARM	TFsx1107	29.7	24	--	201.6	144	--	0.0	1	--	
FUNK'S	G-BRAND 4385	29.8	24	--	194.4	140	--	0.5	3	--	
FUNK'S	G-BRAND 4393	29.8	24	--	185.1	137	--	0.5	2	--	
BECK'S	48	29.8	--	--	207.5	--	--	0.0	--	--	
CARGILL	5327	29.9	--	--	207.9	--	--	0.5	--	--	
CALLAHAN	C7348X	29.9	--	--	217.0	--	--	0.5	--	--	
*CARGILL	4327	30.0	--	--	228.7	--	--	0.5	--	--	
CROW'S	370	30.1	--	--	186.0	--	--	2.5	--	--	
*PIONEER	3417	30.2	24	23	220.1	147	167	2.7	2	2	
GOLDEN HARVEST	EX 637	30.2	--	--	201.0	--	--	3.3	--	--	
AMCORN	PSX7450	30.3	24	22	146.0	111	124	2.9	3	3	
CALLAHAN	CT245	30.4	--	--	177.0	--	--	0.5	--	--	
GRIES	GSF-4103	30.5	24	--	200.5	143	--	0.5	2	--	
*JACQUES	6970	30.5	--	--	230.8	--	--	2.1	--	--	

(continued below)

LATE TRIAL (109 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))											
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING			
		1992	YR	YR	1992	YR	YR	1992	YR	YR	
CARGILL	6269	30.3	--	--	209.5	--	--	0.0	--	--	
DYNA-GRO	5410	31.6	26	24	197.2	149	157	0.5	4	4	
NORTHUP KING	X501	31.7	--	--	208.8	--	--	2.1	--	--	
AMCORN	PSX9009	31.7	26	--	204.8	155	--	0.0	1	--	
WOLVERINE	W167	32.3	26	--	176.5	158	--	1.1	2	--	
DAIRYLAND	STEALTH-1114	33.1	--	--	179.9	--	--	0.6	--	--	
AMCORN	PSX0019	33.1	--	--	157.5	--	--	0.0	--	--	
GOLDEN HARVEST	H-2553	33.2	--	--	190.6	--	--	0.0	--	--	
GREAT LAKES	GL610	33.3	--	--	203.5	--	--	2.0	--	--	
AGRIGENE	GA7149	33.3	27	--	190.5	158	--	0.5	3	--	
*PIONEER	3394	33.6	27	--	216.4	157	--	0.0	2	--	
*RENK	RK886	33.8	--	--	218.5	--	--	1.0	--	--	
CROW'S	498	33.8	27	26	185.0	149	155	0.5	2	2	
*AMCORN	PSX9292	33.8	27	25	218.0	158	160	0.0	1	3	
DAIRYLAND	STEALTH-1111	33.9	--	--	188.1	--	--	1.7	--	--	
*ASGROW	RX745	34.0	28	--	212.6	162	--	1.1	4	--	
HYPERFORMER	HS9490	34.1	--	--	188.3	--	--	0.5	--	--	
*CARGILL	6227	34.1	27	26	231.4	173	179	1.0	3	4	
CARGILL	7697	34.1	28	--	193.3	157	--	0.5	1	--	
NORTHUP KING	N6330	34.2	--	--	202.8	--	--	2.1	--	--	
PIONEER	3293	34.2	28	--	208.4	157	--	0.0	1	--	
PIONEER	X1616	34.2	--	--	196.6	--	--	0.0	--	--	
PIONEER	3241	34.4	28	27	203.9	158	168	0.6	1	1	
STINE	1127	34.4	--	--	178.2	--	--	2.3	--	--	
PRAIRIE STREAM	SX420	34.4	27	26	196.5	163	171	0.0	1	1	
RUPP	XR1808	34.4	28	--	206.8	164	--	1.1	2	--	
*CROW'S	401	34.4	--	--	217.6	--	--	0.0	--	--	
PIONEER	3357	34.5	28	--	191.0	164	--	1.1	1	--	
CARGILL	7997	34.6	29	--	201.0	158	--	1.6	3	--	
DEKALB	DK591	34.7	--	--	199.3	--	--	0.0	--	--	
*ICI SEEDS	8513	34.7	--	--	216.6	--	--	1.1	--	--	
*STINE	1116A	34.7	--	--	213.1	--	--	0.5	--	--	
RENK	RK803	34.7	28	27	178.1	153	153	0.5	2	2	
CARGILL	SX269	34.8	27	26	193.7	132	148	0.6	1	2	
ICI SEEDS	8543	34.8	--	--	196.5	--	--	0.5	--	--	
BECK'S	63X	34.8	28	27	211.1	154	162	0.0	1	3	
AGRIGENE	GA6951	34.9	--	--	205.6	--	--	1.6	--	--	
ASGROW	RX725	34.9	--	--	187.5	--	--	0.5	--	--	
ICI SEEDS	8326	34.9	--	--	188.6	--	--	0.6	--	--	
TERRA	TR1090	34.9	28	--	205.9	158	--	1.1	2	--	
BECK'S	63MVP	34.9	--	--	207.2	--	--	0.5	--	--	
*HYPERFORMER	HS9502	35.0	--	--	212.7	--	--	1.5	--	--	
CARGILL	7877	35.0	28	27	208.4	167	178	1.6	2	3	
CROW'S	449	35.0	28	26	196.6	147	158	1.0	1	3	
FUNK'S	G-BRAND 4502	35.1	--	--	186.0	--	--	2.1	--	--	
DAIRYLAND	DX-1110	35.1	28	--	207.1	160	--	1.1	2	--	
GOLDEN HARVEST	H-2525	35.2	--	--	205.3	--	--	1.1	--	--	
*RENK	RK812	35.3	--	--	226.8	--	--	1.6	--	--	
RUPP	XR1774	35.3	28	--	198.4	150	--	0.5	2	--	
*GOLDEN HARVEST	H-2544	35.3	29	--	220.4	173	--	0.5	1	--	

(continued below)

EARLY TRIAL (108 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2	3	1992	2	3	1992	2	3
		YR	YR	YR	YR	YR	YR	YR	YR	YR
PAYCO	802	30.5	--	--	204.6	--	--	0.0	--	--
CALLAHAN	C7249	30.6	24	--	197.0	144	--	0.5	2	--
*AGRIGENE	AG5660	31.0	--	--	234.4	--	--	1.6	--	--
RENK	RK702	31.0	25	23	187.3	141	142	0.5	2	2
CALLAHAN	C7252	31.1	25	--	205.0	148	--	1.0	2	--
CALLAHAN	C759	31.2	25	23	209.4	145	161	1.6	3	2
*PRO-SEED	PS3104	31.3	26	--	222.1	175	--	1.1	3	--
*CALLAHAN	C7352X	31.7	--	--	222.1	--	--	0.0	--	--
BECK'S	70XS	31.9	--	--	191.8	--	--	0.0	--	--
GUTWEIN	2474	32.0	--	--	211.3	--	--	0.5	--	--
*ANDERSONS	PSX370	32.1	26	24	219.7	174	174	0.5	2	2
GOLDEN HARVEST	H-2485	32.2	25	--	199.9	136	--	0.0	1	--
GREAT LAKES	GL583	32.3	26	--	217.6	164	--	1.0	3	--
*RUPP	XR1739	32.3	26	25	222.0	154	162	0.0	2	1
COUNTRYMARK	CO-OP 660	32.5	26	25	211.2	154	150	1.5	2	2
PRO-SEED	EXP. 9208	32.6	--	--	180.7	--	--	0.6	--	--
BECK'S	54XA	32.6	26	24	209.1	162	171	0.0	2	2
*RUPP	XR1677	32.9	--	--	239.6	--	--	0.0	--	--
FUNK'S	G-BRAND 4450	33.2	--	--	216.8	--	--	0.5	--	--
TRELA	8900	33.3	--	--	180.8	--	--	1.0	--	--
CALLAHAN	C764	33.3	27	25	218.3	154	165	0.0	1	1
*BECK'S	57	33.9	27	25	226.6	152	159	0.0	1	2
AVERAGE		29.1	24	23	205.6	149	158	0.9	2	2
RANGE		22.3	20	19	146.0	111	124	0.0	1	1
		TO	TO	TO	TO	TO	TO	TO	TO	TO
		33.9	27	25	239.6	175	177	4.9	4	4
LEAST SIGNIFICANT DIFFERENCE		1.0			13.0					
COEFFICIENT OF VARIANCE		6.6%								

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

LATE TRIAL (109 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2	3	1992	2	3	1992	2	3
		YR	YR	YR	YR	YR	YR	YR	YR	YR
AGRIGENE	EXP. 35872	35.4	--	--	202.8	--	--	0.6	--	--
CARGILL	8127	35.4	--	--	197.2	--	--	0.5	--	--
RENK	RK721	35.4	28	25	200.4	176	186	1.1	2	2
CROW'S	488	35.5	28	25	190.9	165	176	0.0	1	2
BLANEY	B608	35.6	28	--	198.1	160	--	0.0	5	--
GREAT LAKES	GL587	35.6	--	--	210.9	--	--	0.5	--	--
PAYCO	829	35.6	28	--	199.8	168	--	0.0	2	--
NORTHROP KING	X701	36.0	--	--	197.6	--	--	2.3	--	--
TERRA	TR1120	36.0	29	28	193.0	148	166	2.2	4	3
PRAIRIE STREAM	SX425	36.0	--	--	193.9	--	--	0.0	--	--
RUPP	XR1843	36.4	29	--	192.6	164	--	0.0	1	--
ANDERSONS	PSX405	36.4	--	--	198.9	--	--	0.0	--	--
JACQUES	7970	36.6	30	--	186.8	165	--	1.6	1	--
STINE	1118	36.7	--	--	189.9	--	--	0.0	--	--
ASGROW	RX707	36.8	--	--	202.2	--	--	0.0	--	--
AGRIGENE	AG7550	37.0	--	--	178.5	--	--	1.8	--	--
RENK	RK839	37.1	--	--	200.4	--	--	0.0	--	--
TERRA	TR1101	37.6	--	--	188.9	--	--	0.0	--	--
CROW'S	667	38.2	--	--	174.7	--	--	0.0	--	--
COUNTRYMARK	CO-OP 682	38.5	30	--	196.9	140	--	0.5	2	--
AVERAGE		34.8	28	26	199.0	158	165	0.7	2	3
RANGE		30.3	26	24	157.5	132	148	0.0	1	1
		TO	TO	TO	TO	TO	TO	TO	TO	TO
		38.5	30	28	231.4	176	186	2.3	5	4
LEAST SIGNIFICANT DIFFERENCE		1.2			12.8					
COEFFICIENT OF VARIANCE		6.7%								

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

1992
PLANTED May 12
HARVESTED November 6
SOIL TYPE Corunna Sandy Loam
PREVIOUS CROP Soybeans
POPULATION 24,700
ROW WIDTH 30"
FERTILIZER 162-94-150
SOIL TEST: pH 5.8
P 64 (high)
K 320 (very high)

FARM COOPERATOR: Jerry Kuehnlein, Monroe
COUNTY EXTENSION DIRECTOR: Dale Brose, Monroe
EXTENSION AGRICULTURAL AGENT: Paul Marks, Monroe

1991
PLANTED May 20
HARVESTED October 15
SOIL TYPE Metamora-Corunna Sandy Loam
PREVIOUS CROP Corn
POPULATION 27,200
ROW WIDTH 30"
FERTILIZER 186-65-218
SOIL TEST: pH 5.7
P 306 (very high)
K 432 (very high)

1990
PLANTED May 8
HARVESTED November 2
SOIL TYPE Tedrow Loamy Sand
PREVIOUS CROP Soybeans
POPULATION 22,900
ROW WIDTH 30"
FERTILIZER 189-62-191+zinc
SOIL TEST: pH 5.9
P 200 (very high)
K 263 (high)

TABLE 2

SOUTHERN MICHIGAN

ZONE 1

 BRANCH COUNTY TRIAL
 ONE, TWO, THREE YEAR AVERAGES -1992, 1991, 1990

EARLY TRIAL (108 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))												
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING				
		1992	2	3	1992	2	3	1992	2	3	YR	YR
HYPERFORMER	HS9330	18.4	--	--	176.2	--	--	0.5	--	--		
GRIES	GSP-2393	20.1	--	--	167.4	--	--	1.7	--	--		
NORTHRUP KING	N4242	20.4	--	--	191.3	--	--	0.0	--	--		
PIONEER	3723	20.7	19	--	190.1	163	--	1.0	1	--		
*TERRA	TR1020	21.0	--	--	201.6	--	--	1.5	--	--		
PIONEER	3733	21.3	19	20	200.2	172	175	0.0	0	1		
DEKALB	DK512	21.8	--	--	200.7	--	--	1.7	--	--		
GRIES	GSP-4100	21.9	--	--	187.9	--	--	0.0	--	--		
PIONEER	3751	21.9	20	20	195.0	157	160	1.0	1	1		
*PAYCO	531	22.0	--	--	204.9	--	--	0.5	--	--		
GOLDEN HARVEST	H-2390	22.2	--	--	184.6	--	--	0.0	--	--		
CROW'S	414	22.4	20	--	164.8	133	--	1.6	1	--		
AMCORN	PSX5757	22.5	20	--	193.0	160	--	1.6	1	--		
CROW'S	237	22.6	20	21	166.4	152	158	0.5	1	1		
CARGILL	4327	22.7	--	--	197.4	--	--	3.8	--	--		
CALLAHAN	C7245	23.0	--	--	186.6	--	--	1.0	--	--		
CROW'S	370	23.1	--	--	186.3	--	--	1.5	--	--		
*FUNK'S	G-BRAND 4372	23.2	20	--	204.5	150	--	1.0	1	--		
TERRA	TR1050	23.2	--	--	174.1	--	--	1.3	--	--		
CROW'S	210	23.2	--	--	178.7	--	--	1.5	--	--		
HYPERFORMER	HS9388	23.3	--	--	179.2	--	--	3.2	--	--		
PIONEER	3563	23.4	--	--	188.4	--	--	0.0	--	--		
PIONEER	3573	23.6	21	21	197.7	178	185	0.0	2	2		
TOP FARM	TFsx1104A	23.6	21	--	179.6	150	--	3.5	2	--		
FUNK'S	G-BRAND 4393	23.8	21	--	176.8	151	--	1.6	2	--		
DEKALB	DK535	23.9	21	21	199.3	158	169	0.0	1	1		
DAIRYLAND	STEALTH-1207	23.9	--	--	155.3	--	--	0.6	--	--		
FUNK'S	G-BRAND 4385	24.2	21	--	180.6	146	--	0.0	1	--		
*PIONEER	3525	24.2	--	--	204.8	--	--	0.6	--	--		
CARGILL	5327	24.4	--	--	197.8	--	--	3.2	--	--		
RENK	RK727	24.4	--	--	195.1	--	--	0.5	--	--		
HYPERFORMER	HS9408	24.5	--	--	189.0	--	--	0.0	--	--		
*DEKALB	DK485	24.8	--	--	215.6	--	--	1.6	--	--		
*PIONEER	X1414	24.9	--	--	205.4	--	--	1.1	--	--		
DEKALB	DK554	25.0	--	--	199.2	--	--	0.0	--	--		
PIONEER	3527	25.0	21	22	190.4	170	178	1.2	1	1		
DAIRYLAND	STEALTH-1203	25.0	--	--	195.8	--	--	1.6	--	--		
TOP FARM	TFsx1107	25.4	22	--	182.8	148	--	1.7	2	--		
PAYCO	711	25.7	--	--	185.4	--	--	1.7	--	--		
BECK'S	48	25.7	--	--	200.3	--	--	0.0	--	--		
CALLAHAN	C7249	25.7	23	--	183.7	159	--	0.0	0	--		
GOLDEN HARVEST	H-2485	25.8	23	--	174.0	148	--	1.1	2	--		
RENK	RK702	26.0	23	23	172.9	153	154	3.2	2	1		
CALLAHAN	C7355X	26.0	--	--	189.6	--	--	0.0	--	--		
TERRA	TR1030	26.8	--	--	199.1	--	--	0.5	--	--		
AGRIGENE	GA6839	26.9	24	--	187.3	156	--	0.0	0	--		
JACQUES	6970	27.1	--	--	191.8	--	--	3.0	--	--		
PAYCO	802	27.2	--	--	185.4	--	--	1.0	--	--		
GRIES	GSP-4103	27.4	23	--	183.6	156	--	1.6	1	--		
ASGROW	RX623	27.5	--	--	196.7	--	--	0.0	--	--		

(continued below)

LATE TRIAL (109 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))												
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING				
		1992	2	3	1992	2	3	1992	2	3	YR	YR
DYNA-GRO	5410	26.3	23	24	162.1	135	147	1.7	1	2		
STINE	1127	27.6	--	--	171.1	--	--	2.0	--	--		
AGRIGENE	EXP. 35872	28.2	--	--	175.3	--	--	3.2	--	--		
CROW'S	488	28.3	25	26	176.5	160	171	2.5	1	1		
ICI SEEDS	8543	29.1	--	--	181.3	--	--	0.5	--	--		
CARGILL	6269	29.1	--	--	178.4	--	--	2.1	--	--		
*PIONEER	3394	29.2	24	--	195.7	180	--	0.5	1	--		
NORTHRUP KING	X501	29.4	--	--	188.9	--	--	0.0	--	--		
AMCORN	PSX9009	29.4	25	--	175.7	141	--	1.1	2	--		
CROW'S	449	29.7	26	27	175.4	132	143	1.0	1	1		
RENK	RK721	29.9	25	26	179.2	152	169	1.6	1	1		
*DEKALB	DK591	30.0	--	--	206.5	--	--	0.5	--	--		
WOLVERINE	W167	30.0	25	--	155.8	128	--	0.6	1	--		
CARGILL	SX269	30.1	26	26	185.5	154	167	0.6	1	1		
RENK	RK803	30.1	26	27	179.8	155	159	1.5	1	1		
CROW'S	498	30.2	25	27	174.4	149	160	1.1	2	1		
AGRIGENE	GA7149	30.4	26	--	173.0	144	--	1.1	1	--		
GOLDEN HARVEST	H-2553	30.4	--	--	179.6	--	--	0.5	--	--		
*CARGILL	6227	30.6	26	27	192.5	152	166	1.0	1	1		
*BLANEY	B608	30.7	26	--	193.3	157	--	0.5	1	--		
*PIONEER	3293	31.0	27	--	218.3	185	--	0.0	0	--		
*GOLDEN HARVEST	H-2525	31.2	--	--	192.7	--	--	0.0	--	--		
HYPERFORMER	HS9490	31.3	--	--	188.1	--	--	1.1	--	--		
ANDERSONS	PSX405	31.3	--	--	189.7	--	--	0.0	--	--		
AMCORN	PSX9292	31.3	26	26	190.1	161	174	1.8	2	1		
ASGROW	RX725	31.5	--	--	162.4	--	--	0.0	--	--		
PRAIRIE STREAM	SX420	31.5	26	27	189.2	153	168	0.0	0	0		
PRAIRIE STREAM	SX425	31.9	--	--	185.7	--	--	0.0	--	--		
PAYCO	829	32.0	27	--	185.9	148	--	0.5	1	--		
*ICI SEEDS	8326	32.1	--	--	193.3	--	--	0.0	--	--		
RENK	RK886	32.1	--	--	179.7	--	--	0.0	--	--		
*CROW'S	401	32.1	--	--	206.3	--	--	1.0	--	--		
ASGROW	RK707	32.2	--	--	185.0	--	--	1.5	--	--		
COUNTRYMARK	CO-OP 682	32.2	28	--	169.2	142	--	0.0	0	--		
DAIRYLAND	STEALTH-1114	32.2	--	--	183.5	--	--	1.0	--	--		
RUPP	XR1808	32.2	27	--	183.2	145	--	0.0	0	--		
GREAT LAKES	GL610	32.3	--	--	168.9	--	--	0.0	--	--		
STINE	1116A	32.3	--	--	167.9	--	--	0.6	--	--		
CARGILL	7877	32.3	29	29	189.1	133	151	0.5	0	0		
BECK'S	63X	32.3	27	28	174.9	135	157	1.1	1	1		
PIONEER	X1616	32.4	--	--	185.8	--	--	0.0	--	--		
AGRIGENE	AG7550	32.4	--	--	171.9	--	--	1.7	--	--		
ICI SEEDS	8513	32.4	--	--	184.2	--	--	0.0	--	--		
AMCORN	PSX0019	32.5	--	--	152.1	--	--	0.5	--	--		
NORTHRUP KING	N6330	32.6	--	--	183.5	--	--	0.0	--	--		
FUNK'S	G-BRAND 4502	32.7	--	--	169.7	--	--	1.1	--	--		
TERRA	TR1090	32.7	26	--	174.6	146	--	1.2	1	--		
STINE	1118	32.7	--	--	181.8	--	--	0.6	--	--		
DAIRYLAND	STEALTH-1111	32.7	--	--	162.2	--	--	0.0	--	--		
PIONEER	3357	32.8	28	--	185.2	160	--	0.0	1	--		

(continued below)

EARLY TRIAL (108 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)	% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
	1992	YR	YR	1992	YR	YR	1992	YR	YR
AGRIGENE AG5660	27.6	--	--	189.9	--	--	2.6	--	--
*PIONEER 3417	27.7	24	25	220.2	183	190	0.5	1	0
TRELAY 8900	27.7	--	--	173.7	--	--	0.5	--	--
GOLDEN HARVEST EX 637	27.8	--	--	187.9	--	--	1.1	--	--
CALLAHAN C759	27.8	24	24	164.5	138	151	1.3	1	0
COUNTRYMARK CO-OP 660	27.9	24	25	201.0	166	175	1.5	1	1
AMCORN PSX7450	28.0	22	23	118.7	99	134	1.8	1	1
CALLAHAN C7352X	28.0	--	--	196.1	--	--	0.0	--	--
CALLAHAN C7252	28.1	24	--	184.4	164	--	0.0	0	--
CALLAHAN C7348X	28.1	--	--	182.6	--	--	1.8	--	--
BECK'S 70XS	28.4	--	--	176.3	--	--	0.5	--	--
BECK'S 54XA	28.6	25	25	186.8	158	172	1.7	1	1
FUNK'S G-BRAND 4450	28.9	--	--	184.1	--	--	0.6	--	--
RUPP XR1739	29.1	24	25	199.6	165	175	1.1	1	0
*PRO-SEED PS3104	29.2	24	--	212.2	175	--	0.0	0	--
ANDERSONS PSX370	29.2	25	25	185.3	162	175	0.0	0	1
GREAT LAKES GL583	29.9	25	--	193.7	157	--	2.2	1	--
*BECK'S 57	30.4	27	28	206.2	155	154	0.0	0	1
CALLAHAN C764	30.4	25	26	190.6	156	169	0.0	0	0
PRO-SEED EXP.9208	31.0	--	--	165.2	--	--	0.6	--	--
RUPP XR1677	33.0	--	--	175.6	--	--	0.0	--	--
GUTWEIN 2474	34.5	--	--	175.5	--	--	0.0	--	--
AVERAGE	25.5	22	23	187.6	156	167	1.0	1	1
RANGE	18.4	19	20	118.7	99	134	0.0	0	0
	TO	TO	TO	TO	TO	TO	TO	TO	TO
	34.5	27	28	220.2	183	190	3.8	2	2
LEAST SIGNIFICANT DIFFERENCE	1.4			13.5					
COEFFICIENT OF VARIANCE	7.5%								

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

LATE TRIAL (109 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)	% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
	1992	YR	YR	1992	YR	YR	1992	YR	YR
*TERRA TR1101	32.8	--	--	196.3	--	--	0.0	--	--
DAIRYLAND DX-1110	32.8	27	--	159.6	147	--	0.6	1	--
JACQUES 7970	32.9	28	--	175.7	140	--	1.0	1	--
BECK'S 63MVP	32.9	--	--	184.2	--	--	0.0	--	--
HYPERFORMER HS9502	33.0	--	--	180.5	--	--	0.0	--	--
CARGILL 8127	33.0	--	--	167.2	--	--	0.5	--	--
PIONEER 3241	33.3	28	29	185.1	170	176	0.0	1	1
RUPP XR1774	33.3	28	--	185.0	146	--	0.0	1	--
GREAT LAKES GL587	33.5	--	--	188.5	--	--	1.1	--	--
TERRA TR1120	33.5	28	29	174.3	137	149	0.0	0	1
CARGILL 7697	33.7	28	--	185.8	131	--	0.5	1	--
RENK RK812	33.8	--	--	178.2	--	--	0.0	--	--
AGRIGENE GA6951	34.1	--	--	174.2	--	--	0.0	--	--
GOLDEN HARVEST H-2544	34.1	29	--	187.1	165	--	0.5	2	--
ASCROW RX745	34.2	29	--	168.6	128	--	0.6	0	--
CARGILL 7997	34.4	30	--	178.7	137	--	0.0	0	--
RENK RK839	34.4	--	--	174.4	--	--	1.7	--	--
NORTHROP KING X701	35.5	--	--	174.4	--	--	1.0	--	--
RUPP XR1843	36.4	31	--	162.0	126	--	0.0	0	--
CROW'S 667	36.4	--	--	166.3	--	--	0.0	--	--
AVERAGE	31.9	27	27	180.0	148	161	0.6	1	1
RANGE	26.3	23	24	152.1	126	143	0.0	0	0
	TO	TO	TO	TO	TO	TO	TO	TO	TO
	36.4	31	29	218.3	185	176	3.2	2	2
LEAST SIGNIFICANT DIFFERENCE	1.5			11.4					
COEFFICIENT OF VARIANCE	6.6%								

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

1992
PLANTED May 5
HARVESTED November 5
SOIL TYPE Teasdale Fine Sandy Loam
PREVIOUS CROP Corn
POPULATION 24,200
ROW WIDTH 30"
FERTILIZER 103-0-0
SOIL TEST: pH 6.6
P 200 (very high)
K 619 (very high)

1991
PLANTED May 12
HARVESTED October 14
SOIL TYPE Teasdale Fine Sandy Loam
PREVIOUS CROP Corn
POPULATION 26,600
ROW WIDTH 30"
FERTILIZER 99-0-90+sulfur
SOIL TEST: pH 6.1
P 114 (very high)
K 556 (very high)

1990
PLANTED May 7
HARVESTED October 31
SOIL TYPE Sibewa Loam
PREVIOUS CROP Corn
POPULATION 21,700
ROW WIDTH 30"
FERTILIZER 186-55-150
SOIL TEST: pH 5.4
P 220 (very high)
K 438 (very high)

FARM COOPERATORS: Neil Carpenter, Quincy (1992,1991), David Labar, Union City (1990)
COUNTY EXTENSION DIRECTOR: Raymond Fast, Coldwater
EXTENSION AGRICULTURAL AGENT: Natalie Rector, Marshall

TABLE 3

SOUTHERN MICHIGAN

ZONE 1

CASS COUNTY-IRRIGATED TRIAL
ONE, TWO, THREE YEAR AVERAGES -1992, 1991, 1990

EARLY TRIAL (108 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2	3	1992	YR	YR	1992	YR	YR
GRIES	GSF-2393	20.0	--	--	142.4	--	--	4.8	--	--
HYPERFORMER	HS9330	21.5	--	--	150.4	--	--	4.8	--	--
TERRA	TR1020	21.7	--	--	156.4	--	--	7.4	--	--
PIONEER	3723	22.5	19	--	180.2	187	--	2.5	4	--
TERRA	TR1050	22.8	--	--	152.1	--	--	8.2	--	--
PAYCO	531	22.8	--	--	177.1	--	--	4.4	--	--
GRIES	GSF-4100	22.9	--	--	151.1	--	--	8.0	--	--
CROW'S	414	22.9	19	--	145.6	143	--	7.8	10	--
DEKALB	DK485	23.3	--	--	177.9	--	--	6.3	--	--
CROW'S	370	23.3	--	--	159.1	--	--	10.7	--	--
HYPERFORMER	HS9388	23.6	--	--	152.7	--	--	16.4	--	--
CALLAHAN	C7245	23.7	--	--	163.2	--	--	3.8	--	--
NORTHUP KING	N4242	23.8	--	--	175.9	--	--	1.4	--	--
PIONEER	3733	23.8	20	19	179.9	180	176	3.0	8	8
*CARGILL	4327	23.9	--	--	190.6	--	--	8.3	--	--
FUNK'S	G-BRAND 4393	24.1	20	--	170.7	173	--	2.9	3	--
DAIRYLAND	STEALTH-1207	24.2	--	--	157.3	--	--	8.5	--	--
*DEKALB	DK512	24.4	--	--	189.2	--	--	5.9	--	--
*PIONEER	3573	24.4	20	19	187.7	202	200	1.0	7	6
*TERRA	TR1030	24.4	--	--	191.4	--	--	4.0	--	--
DEKALB	DK554	24.5	--	--	181.0	--	--	4.8	--	--
FUNK'S	G-BRAND 4372	24.5	21	--	169.7	181	--	4.6	7	--
RENK	RK727	24.6	--	--	170.0	--	--	6.2	--	--
PIONEER	3751	24.7	20	19	171.8	170	163	1.5	4	4
DAIRYLAND	STEALTH-1203	24.7	--	--	175.3	--	--	3.8	--	--
GOLDEN HARVEST	H-2390	24.7	--	--	158.5	--	--	1.9	--	--
GOLDEN HARVEST	H-2485	24.7	21	--	169.3	167	--	5.2	8	--
AMCORN	PSX5757	24.7	20	--	141.8	168	--	6.8	12	--
BECK'S	48	24.7	--	--	179.9	--	--	1.6	--	--
DEKALB	DK535	24.8	21	19	171.8	179	177	2.0	5	4
TOP FARM	TFsx1104A	25.0	21	--	153.2	167	--	6.3	14	--
JACQUES	6970	25.2	--	--	185.1	--	--	6.7	--	--
CROW'S	210	25.2	--	--	148.6	--	--	6.7	--	--
HYPERFORMER	HS9408	25.3	--	--	161.9	--	--	1.6	--	--
TOP FARM	TFsx1107	25.3	21	--	177.4	165	--	1.5	5	--
CROW'S	237	25.4	20	19	142.4	173	161	4.9	7	6
GRIES	GSF-4103	25.9	21	--	176.3	152	--	3.4	6	--
AGRIGENE	AG5660	25.9	--	--	175.5	--	--	9.3	--	--
RENK	RK702	26.1	21	20	145.7	159	159	4.3	7	6
*CALLAHAN	C7252	26.1	21	--	187.8	185	--	3.4	6	--
*FUNK'S	G-BRAND 4385	26.3	21	--	189.3	175	--	4.3	6	--
*PIONEER	3527	26.3	22	21	202.4	206	199	1.0	2	2
ASGROW	RX623	26.4	--	--	175.0	--	--	2.0	--	--
PAYCO	802	26.7	--	--	169.8	--	--	3.9	--	--
BECK'S	70XS	26.7	--	--	181.1	--	--	1.0	--	--
PIONEER	3563	26.8	--	--	176.6	--	--	1.5	--	--
TRELAY	8900	26.8	--	--	159.4	--	--	1.4	--	--
*ANDERSONS	PSX370	26.8	22	21	203.0	180	189	1.5	4	4
*CALLAHAN	C7348X	26.8	--	--	204.8	--	--	0.5	--	--
*AGRIGENE	GA6839	27.1	22	--	191.7	176	--	3.9	10	--

(continued below)

LATE TRIAL (109 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	YR	YR	1992	YR	YR	1992	YR	YR
DYNA-GRO	5410	26.8	23	22	162.9	174	169	5.7	5	5
STINE	1127	27.8	--	--	174.5	--	--	2.9	--	--
CROW'S	498	28.5	24	24	167.9	171	165	4.8	6	5
WOLVERINE	W167	28.7	23	--	160.5	166	--	3.4	4	--
NORTHUP KING	N6330	28.9	--	--	188.3	--	--	1.4	--	--
ANDERSONS	PSX405	28.9	--	--	179.0	--	--	1.6	--	--
PRAIRIE STREAM	SX420	29.2	24	23	178.1	189	191	1.5	3	3
AMCORN	PSX9009	29.2	23	--	176.8	183	--	1.0	2	--
RUPP	XR1774	29.8	24	--	175.3	182	--	1.5	2	--
CROW'S	449	30.0	24	23	152.3	162	168	5.3	5	4
GOLDEN HARVEST	H-2525	30.0	--	--	184.5	--	--	1.5	--	--
AGRIGENE	GA7149	30.1	24	--	173.1	177	--	3.9	5	--
*GOLDEN HARVEST	H-2553	30.1	--	--	190.4	--	--	0.5	--	--
RENK	RK721	30.2	24	23	168.2	167	171	2.9	3	3
DEKALB	DK591	30.5	--	--	173.0	--	--	2.0	--	--
BLANEY	B608	30.6	25	--	169.5	175	--	1.0	3	--
HYPERFORMER	HS9490	30.6	--	--	177.7	--	--	0.5	--	--
PAYCO	829	30.6	24	--	178.9	183	--	1.6	4	--
*GREAT LAKES	GL587	30.7	--	--	191.1	--	--	2.9	--	--
RUPP	XR1808	30.7	25	--	180.6	195	--	1.0	2	--
GREAT LAKES	GL610	30.8	--	--	167.8	--	--	3.9	--	--
NORTHUP KING	X501	30.9	--	--	180.6	--	--	1.5	--	--
COUNTRYMARK	CO-OP 682	30.9	25	--	183.9	188	--	6.5	5	--
HYPERFORMER	HS9502	31.0	--	--	177.3	--	--	2.9	--	--
*PIONEER	3241	31.1	26	25	203.5	211	203	0.0	1	2
ICI SEEDS	8513	31.1	--	--	171.0	--	--	1.5	--	--
CROW'S	488	31.1	25	23	182.2	197	190	1.0	10	7
TERRA	TR1090	31.3	25	--	179.9	196	--	1.9	3	--
STINE	1116A	31.3	--	--	178.1	--	--	1.5	--	--
DAIRYLAND	STEALTH-1111	31.3	--	--	149.0	--	--	0.0	--	--
AMCORN	PSX9292	31.3	25	24	172.1	181	182	6.4	5	5
CARGILL	6227	31.4	25	24	168.7	189	188	1.9	2	2
RENK	RK803	31.4	25	25	147.4	148	149	3.8	4	4
*RENK	RK812	31.6	--	--	194.6	--	--	0.0	--	--
CROW'S	401	31.6	--	--	183.2	--	--	0.5	--	--
PRAIRIE STREAM	SX425	31.7	--	--	169.3	--	--	4.8	--	--
ICI SEEDS	8326	31.8	--	--	180.9	--	--	1.6	--	--
DAIRYLAND	DX-1110	31.8	25	--	179.1	198	--	2.5	3	--
FUNK'S	G-BRAND 4502	31.9	--	--	171.8	--	--	3.5	--	--
DAIRYLAND	STEALTH-1114	31.9	--	--	179.6	--	--	0.5	--	--
ICI SEEDS	8543	32.0	--	--	187.2	--	--	0.5	--	--
AGRIGENE	EXP 35872	32.1	--	--	170.1	--	--	3.6	--	--
TERRA	TR1120	32.2	26	26	182.7	195	191	1.4	2	3
RENK	RK886	32.3	--	--	180.9	--	--	2.5	--	--
JACQUES	7970	32.5	25	--	160.8	173	--	4.4	6	--
CARGILL	SX269	32.6	25	24	178.1	168	174	2.5	7	6
ASGROW	RX745	32.6	26	--	186.1	201	--	1.0	2	--
TERRA	TR1101	32.8	--	--	178.8	--	--	3.6	--	--
CARGILL	8127	33.0	--	--	174.1	--	--	0.0	--	--
GOLDEN HARVEST	H-2544	33.1	26	--	185.1	198	--	0.0	2	--

(continued below)

EARLY TRIAL (108 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)	% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
	1992	2	3	1992	2	3	1992	2	3
	YR	YR	YR	YR	YR	YR	YR	YR	YR
*PAYCO 711	27.1	--	--	194.7	--	--	4.1	--	--
CALLAHAN C7355X	27.1	--	--	180.3	--	--	0.5	--	--
*PIONEER X1414	27.2	--	--	201.9	--	--	0.0	--	--
*GREAT LAKES GL583	27.7	23	--	197.3	189	--	1.9	4	--
*PIONEER 3525	27.8	--	--	221.0	--	--	0.0	--	--
CALLAHAN C7249	27.8	22	--	185.8	188	--	2.5	5	--
RUPP XR1739	28.0	23	22	182.4	197	195	3.1	9	9
*BECK'S 54XA	28.2	23	22	190.9	192	190	0.5	3	4
*CARGILL 5327	28.6	--	--	186.5	--	--	5.1	--	--
AMCORN PSX7450	28.7	22	21	115.0	155	162	2.0	2	2
GOLDEN HARVEST EX 637	28.8	--	--	182.6	--	--	2.1	--	--
*BECK'S 57	29.1	23	23	196.7	202	200	1.6	3	4
*FUNK'S G-BRAND 4450	29.2	--	--	186.3	--	--	2.4	--	--
COUNTRYMARK CO-OP 660	29.3	23	22	172.9	181	184	3.5	7	5
PRO-SEED PS3104	29.3	24	--	183.4	193	--	1.5	3	--
*PIONEER 3417	29.4	23	22	190.6	199	194	1.0	3	3
CALLAHAN C764	30.4	24	23	186.4	182	186	2.0	5	5
CALLAHAN C7352X	30.4	--	--	183.9	--	--	3.7	--	--
*RUPP XR1677	30.5	--	--	186.7	--	--	1.0	--	--
*GUTWEIN 2474	30.7	--	--	194.8	--	--	0.5	--	--
CALLAHAN C759	31.7	25	23	153.5	154	164	0.0	3	3
PRO-SEED EXP.9208	33.5	--	--	161.3	--	--	0.5	--	--
AVERAGE	26.0	21	21	174.7	178	181	3.7	6	5
RANGE	20.0	19	19	115.0	143	159	0.0	2	2
	TO	TO	TO	TO	TO	TO	TO	TO	TO
	33.5	25	23	221.0	206	200	16.4	14	9
LEAST SIGNIFICANT DIFFERENCE	1.5			11.4					
COEFFICIENT OF VARIANCE	6.8%								
*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992									

LATE TRIAL (109 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)	% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
	1992	2	3	1992	2	3	1992	2	3
	YR	YR	YR	YR	YR	YR	YR	YR	YR
BECK'S 63X	33.1	27	26	186.7	186	182	0.0	1	1
ASGROW RX725	33.2	--	--	166.9	--	--	0.0	--	--
STINE 1118	33.2	--	--	175.9	--	--	1.1	--	--
*PIONEER 3394	33.3	26	--	191.8	185	--	0.5	2	--
RUPP XR1843	33.3	27	--	176.2	178	--	1.0	2	--
AMCORN PSX0019	33.3	--	--	150.6	--	--	0.0	--	--
BECK'S 63MVP	33.3	--	--	167.6	--	--	0.5	--	--
CARGILL 6269	33.5	--	--	171.8	--	--	0.5	--	--
AGRIGENE AG7550	33.7	--	--	169.4	--	--	2.0	--	--
RENK RK839	33.8	--	--	165.8	--	--	1.0	--	--
CARGILL 7997	33.9	28	--	181.4	203	--	0.5	2	--
*PIONEER 3293	34.0	27	--	196.6	205	--	0.0	1	--
ASGROW RX707	34.4	--	--	178.4	--	--	1.5	--	--
NORTHRUP KING X701	35.1	--	--	169.5	--	--	1.1	--	--
*PIONEER 3357	35.1	27	--	190.7	197	--	0.0	1	--
AGRIGENE GA6951	35.4	--	--	174.1	--	--	0.0	--	--
*CARGILL 7877	35.4	28	26	201.4	199	207	1.0	4	4
CARGILL 7697	35.8	28	--	182.2	189	--	0.0	1	--
PIONEER X1616	36.2	--	--	181.0	--	--	0.0	--	--
CROW'S 667	36.6	--	--	174.5	--	--	0.5	--	--
AVERAGE	31.9	25	24	176.6	185	181	1.8	3	4
RANGE	26.8	23	22	147.4	148	149	0.0	1	1
	TO	TO	TO	TO	TO	TO	TO	TO	TO
	36.6	28	26	203.5	211	207	6.5	10	7
LEAST SIGNIFICANT DIFFERENCE	1.5			12.4					
COEFFICIENT OF VARIANCE	7.3%								
*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992									

1992
PLANTED May 5
HARVESTED November 11
SOIL TYPE Oshtemo Sandy Loam
PREVIOUS CROP Corn
POPULATION 26,600
ROW WIDTH 30"
FERTILIZER 202-40-130+zinc
SOIL TEST: pH 6.8
P 192 (very high)
K 515 (very high)
IRRIGATION 2.5 inches

1991
PLANTED May 8
HARVESTED October 12
SOIL TYPE Oshtemo Sandy Loam
PREVIOUS CROP Corn
POPULATION 27,100
ROW WIDTH 30"
FERTILIZER 214-40-128+sulfur+zinc
SOIL TEST: pH 6.1
P 224 (very high)
K 497 (very high)
IRRIGATION 7 inches

1990
PLANTED May 7
HARVESTED November 1
SOIL TYPE Oshtemo Sandy Loam
PREVIOUS CROP Corn
POPULATION 23,200
ROW WIDTH 30"
FERTILIZER 139-40-128+sulfur+zinc
SOIL TEST: pH 6.0
P 196 (very high)
K 564 (very high)
IRRIGATION 4 inches

FARM COOPERATORS: Dave and Melvin Cripe, Cassopolis
COUNTY EXTENSION DIRECTOR: Lois Marsh, Cassopolis
COUNTY EXTENSION AGRICULTURAL AGENT: Ronald Hayden, Cassopolis

TABLE 4

SOUTHERN MICHIGAN

ZONE 1

AVERAGE OF MONROE, BRANCH, & CASS COUNTY TRIALS
ONE, TWO, THREE YEAR AVERAGES -1992, 1991, 1990

EARLY TRIAL (108 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	YR	YR	1992	YR	YR	1992	YR	YR
GRIES	GSF-2393	20.8	--	--	158.5	--	--	2.3	--	--
HYPERFORMER	HS9330	21.5	--	--	173.9	--	--	2.1	--	--
PIONEER	3723	22.2	19	--	192.6	171	--	1.2	2	--
TERRA	TR1020	22.7	--	--	181.1	--	--	3.5	--	--
NORTHUP KING	N4242	22.8	--	--	192.6	--	--	1.2	--	--
GRIES	GSF-4100	23.2	--	--	178.8	--	--	2.7	--	--
*PAYCO	531	23.2	--	--	199.8	--	--	1.8	--	--
PIONEER	3751	23.8	20	19	191.2	160	158	0.8	2	3
CROW'S	414	24.1	21	--	169.3	141	--	4.3	5	--
PIONEER	3733	24.2	20	20	194.2	169	169	1.2	4	4
TERRA	TR1050	24.2	--	--	173.5	--	--	4.7	--	--
HYPERFORMER	HS9388	24.3	--	--	181.5	--	--	6.7	--	--
AMCORN	PSX5757	24.5	21	--	173.1	157	--	3.5	6	--
*DEKALB	DK512	24.7	--	--	204.1	--	--	2.9	--	--
GOLDEN HARVEST	H-2390	24.7	--	--	185.7	--	--	0.8	--	--
*DEKALB	DK485	24.9	--	--	202.8	--	--	3.0	--	--
TOP FARM	TFsx1104A	24.9	21	--	175.1	158	--	4.0	7	--
*PIONEER	3573	25.0	21	20	203.5	186	189	0.3	4	4
CROW'S	210	25.0	--	--	171.7	--	--	2.9	--	--
CROW'S	237	25.0	21	20	160.5	157	157	2.0	4	4
PIONEER	3563	25.3	--	--	190.1	--	--	0.5	--	--
FUNK'S	G-BRAND 4372	25.5	21	--	195.8	164	--	2.4	3	--
*CARGILL	4327	25.5	--	--	205.6	--	--	4.2	--	--
DAIRYLAND	STEALTH-1207	25.5	--	--	175.1	--	--	3.2	--	--
CROW'S	370	25.5	--	--	177.1	--	--	4.9	--	--
DEKALB	DK554	25.7	--	--	195.1	--	--	1.6	--	--
CALLAHAN	C7245	25.7	--	--	175.6	--	--	1.8	--	--
DEKALB	DK535	25.8	22	21	194.2	166	171	0.8	3	2
FUNK'S	G-BRAND 4393	25.9	22	--	177.5	156	--	1.7	2	--
*PIONEER	3525	26.0	--	--	218.0	--	--	0.2	--	--
DAIRYLAND	STEALTH-1203	26.1	--	--	192.1	--	--	3.4	--	--
RENK	RK727	26.1	--	--	185.8	--	--	2.4	--	--
*TERRA	TR1030	26.4	--	--	199.7	--	--	1.7	--	--
HYPERFORMER	HS9408	26.5	--	--	182.7	--	--	1.1	--	--
*PIONEER	X1414	26.5	--	--	210.1	--	--	0.4	--	--
*PIONEER	3527	26.5	22	21	203.2	185	185	0.9	2	2
BECK'S	48	26.7	--	--	195.9	--	--	0.5	--	--
FUNK'S	G-BRAND 4385	26.8	22	--	188.1	156	--	1.6	3	--
TOP FARM	TFsx1107	26.8	22	--	187.3	155	--	1.1	3	--
*PAYCO	711	27.2	--	--	201.8	--	--	1.9	--	--
CALLAHAN	C7355X	27.4	--	--	189.1	--	--	0.5	--	--
*JACQUES	6970	27.6	--	--	202.6	--	--	3.8	--	--
*CARGILL	5327	27.6	--	--	197.4	--	--	2.9	--	--
GOLDEN HARVEST	H-2485	27.6	23	--	181.1	153	--	2.1	4	--
*AGRIGENE	GA6839	27.7	23	--	198.8	162	--	1.8	5	--
RENK	RK702	27.7	23	22	168.6	153	153	2.7	4	3
GRIES	GSF-4103	27.9	23	--	186.8	152	--	1.8	3	--
ASGROW	RX623	27.9	--	--	193.6	--	--	1.0	--	--
CALLAHAN	C7249	28.0	23	--	188.8	167	--	1.0	2	--
PAYCO	802	28.1	--	--	186.6	--	--	1.6	--	--

(continued below)

LATE TRIAL (109 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	YR	YR	1992	YR	YR	1992	YR	YR
DYNA-GRO	5410	28.2	24	23	174.1	155	159	2.6	3	3
STINE	1127	29.9	--	--	174.6	--	--	2.4	--	--
AMCORN	PSX9009	30.1	25	--	185.8	162	--	0.7	2	--
WOLVERINE	W167	30.3	25	--	164.3	150	--	1.7	2	--
NORTHUP KING	X501	30.7	--	--	192.8	--	--	1.2	--	--
CROW'S	498	30.8	25	25	175.8	158	161	2.1	3	3
CARGILL	6269	31.0	--	--	186.6	--	--	0.9	--	--
GOLDEN HARVEST	H-2553	31.2	--	--	186.9	--	--	0.3	--	--
AGRIGENE	GA7149	31.3	26	--	178.9	161	--	1.8	3	--
CROW'S	488	31.6	26	25	183.2	176	180	1.2	4	4
CROW'S	449	31.6	26	25	174.8	148	157	2.4	3	3
DEKALB	DK591	31.7	--	--	192.9	--	--	0.8	--	--
PRAIRIE STREAM	SX420	31.7	26	25	187.9	170	177	0.5	1	1
RENK	RK721	31.8	26	25	182.6	165	175	1.9	2	2
NORTHUP KING	N6330	31.9	--	--	191.5	--	--	1.2	--	--
AGRIGENE	EXP. 35872	31.9	--	--	182.7	--	--	2.5	--	--
HYPERFORMER	HS9490	32.0	--	--	184.7	--	--	0.7	--	--
*PIONEER	3394	32.0	26	--	201.3	177	--	0.3	2	--
ICI SEEDS	8543	32.0	--	--	188.3	--	--	0.5	--	--
*CARGILL	6227	32.0	26	25	197.5	173	179	1.3	2	2
GREAT LAKES	GL610	32.1	--	--	180.1	--	--	2.0	--	--
RENK	RK803	32.1	26	26	168.4	153	154	1.9	3	2
*GOLDEN HARVEST	H-2525	32.1	--	--	194.2	--	--	0.9	--	--
AMCORN	PSX9292	32.1	26	25	193.4	170	174	2.7	3	3
ANDERSONS	PSX405	32.2	--	--	189.2	--	--	0.5	--	--
BLANEY	B608	32.3	26	--	187.0	165	--	0.5	2	--
DAIRYLAND	STEALTH-1114	32.4	--	--	181.0	--	--	0.7	--	--
RUPP	XRI808	32.4	27	--	190.2	170	--	0.7	1	--
CARGILL	SX269	32.5	26	25	185.8	154	165	1.2	3	3
DAIRYLAND	STEALTH-1111	32.6	--	--	166.4	--	--	0.6	--	--
ICI SEEDS	8513	32.7	--	--	190.6	--	--	0.9	--	--
RENK	RK886	32.7	--	--	193.0	--	--	1.2	--	--
*CROW'S	401	32.7	--	--	202.4	--	--	0.5	--	--
PAYCO	829	32.7	26	--	188.2	167	--	0.7	2	--
STINE	1116A	32.8	--	--	186.4	--	--	0.9	--	--
RUPP	XRI774	32.8	27	--	186.2	161	--	0.7	2	--
*PIONEER	3241	32.9	27	27	197.5	183	185	0.2	1	1
ICI SEEDS	8326	32.9	--	--	187.6	--	--	0.7	--	--
HYPERFORMER	HS9502	33.0	--	--	190.2	--	--	1.5	--	--
TERRA	TR1090	33.0	26	--	186.8	169	--	1.4	2	--
AMCORN	PSX0019	33.0	--	--	153.4	--	--	0.2	--	--
*PIONEER	3293	33.1	27	--	207.8	186	--	0.0	1	--
FUNK'S	G-BRAND 4502	33.2	--	--	175.8	--	--	2.2	--	--
ASGROW	RX725	33.2	--	--	172.3	--	--	0.2	--	--
DAIRYLAND	DX-1110	33.2	26	--	181.9	171	--	1.4	2	--
PRAIRIE STREAM	SX425	33.2	--	--	183.0	--	--	1.6	--	--
*GREAT LAKES	GL587	33.3	--	--	196.8	--	--	1.5	--	--
BECK'S	63X	33.4	27	27	190.9	160	168	0.4	1	1
ASGROW	RK745	33.6	28	--	189.1	166	--	0.9	2	--
*RENK	RK812	33.6	--	--	199.9	--	--	0.5	--	--

(continued below)

EARLY TRIAL (108 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2	3	1992	2	3	1992	2	3
		YR	YR	YR	YR	YR	YR	YR	YR	YR
*AGRIGENE	AG5660	28.2	--	--	199.9	--	--	4.5	--	--
*CALLAHAN	C7348X	28.3	--	--	201.5	--	--	0.9	--	--
CALLAHAN	C7252	28.4	24	--	192.4	169	--	1.5	3	--
GOLDEN HARVEST	EX 637	28.9	--	--	190.5	--	--	2.2	--	--
AMCORN	PSX7450	29.0	23	22	126.6	124	142	2.2	2	2
BECK'S	70XS	29.0	--	--	183.1	--	--	0.5	--	--
*PIONEER	3417	29.1	24	23	210.3	181	186	1.4	2	2
TRELLAY	8900	29.3	--	--	171.3	--	--	1.0	--	--
*ANDERSONS	PSX370	29.4	24	23	202.7	173	180	0.7	2	2
*RUPP	XR1739	29.8	24	24	201.3	176	180	1.4	4	4
BECK'S	54XA	29.8	25	24	195.6	173	179	0.7	2	2
COUNTRYMARK	CO-OP 660	29.9	24	24	195.0	170	171	2.2	4	3
*PRO-SEED	PS3104	29.9	24	--	205.9	183	--	0.9	2	--
*GREAT LAKES	GL583	30.0	25	--	202.9	172	--	1.7	3	--
*CALLAHAN	C7352X	30.0	--	--	200.7	--	--	1.2	--	--
CALLAHAN	C759	30.2	24	24	175.8	148	160	1.0	2	2
FUNK'S	G-BRAND 4450	30.4	--	--	195.7	--	--	1.2	--	--
*BECK'S	57	31.1	26	25	209.8	173	173	0.5	1	2
*CALLAHAN	C764	31.4	25	25	198.4	167	175	0.7	2	2
*RUPP	XR1677	32.1	--	--	200.6	--	--	0.3	--	--
GUTWEIN	2474	32.4	--	--	193.9	--	--	0.3	--	--
PRO-SEED	EXP.9208	32.4	--	--	169.1	--	--	0.6	--	--
AVERAGE		26.9	23	22	189.3	164	170	1.9	3	3
RANGE		20.8	19	19	126.6	124	142	0.2	1	2
		TO	TO	TO	TO	TO	TO	TO	TO	TO
		32.4	26	25	218.0	186	189	6.7	7	4
LEAST SIGNIFICANT DIFFERENCE		.8			7.2					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

LATE TRIAL (109 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2	3	1992	2	3	1992	2	3
		YR	YR	YR	YR	YR	YR	YR	YR	YR
BECK'S	63MVP	33.7	--	--	186.3	--	--	0.3	--	--
CARGILL	8127	33.8	--	--	179.5	--	--	0.3	--	--
COUNTRYMARK	CO-OP 682	33.9	28	--	183.3	159	--	2.3	2	--
TERRA	TR1120	33.9	28	27	183.3	162	170	1.2	2	2
JACQUES	7970	34.0	28	--	174.4	159	--	2.3	3	--
PIONEER	3357	34.1	28	--	189.0	175	--	0.4	1	--
STINE	1118	34.2	--	--	182.5	--	--	0.6	--	--
*CARGILL	7877	34.2	28	27	199.6	167	179	1.0	2	2
*GOLDEN HARVEST	H-2544	34.2	28	--	197.5	181	--	0.3	2	--
PIONEER	X1616	34.3	--	--	187.8	--	--	0.0	--	--
CARGILL	7997	34.3	29	--	187.0	168	--	0.7	2	--
AGRIGENE	AG7550	34.4	--	--	173.3	--	--	1.8	--	--
TERRA	TR1101	34.4	--	--	188.0	--	--	1.2	--	--
ASGROW	RX707	34.5	--	--	188.5	--	--	1.0	--	--
CARGILL	7697	34.5	28	--	187.1	160	--	0.3	1	--
AGRIGENE	GA6951	34.8	--	--	184.6	--	--	0.5	--	--
RENK	RK839	35.1	--	--	180.2	--	--	0.9	--	--
RUPP	XR1843	35.4	29	--	176.9	156	--	0.3	1	--
NORTHROP KING	X701	35.5	--	--	180.5	--	--	1.5	--	--
CROW'S	667	37.1	--	--	171.8	--	--	0.2	--	--
AVERAGE		32.8	27	26	185.2	165	170	1.0	2	2
RANGE		28.2	24	23	153.4	148	154	0.0	1	1
		TO	TO	TO	TO	TO	TO	TO	TO	TO
		37.1	29	27	207.8	186	185	2.7	4	4
LEAST SIGNIFICANT DIFFERENCE		.8			8.4					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

TABLE 5

SOUTH CENTRAL MICHIGAN

ZONE 2

KENT COUNTY TRIAL-GRAIN
ONE, TWO, THREE YEAR AVERAGES -1992, 1991, 1990

EARLY TRIAL (104 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))											
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING			
		1992	2	3	1992	2	3	1992	2	3	
DEKALB DEKALB CALLAHAN GRIES FUNK'S	DK401 DK421 C729 GSF-2393 G-BRAND 4202	18.8	--	--	159.2	--	--	2.7	--	--	
		20.0	--	--	174.4	--	--	2.0	--	--	
		20.0	--	--	146.0	--	--	5.6	--	--	
		20.3	--	--	156.8	--	--	1.5	--	--	
		20.6	--	--	168.4	--	--	4.6	--	--	
*NORTHRUP KING NORTHRUP KING CALLAHAN TOP FARM *GOLDEN HARVEST	N3624 N3808 C725 TFsx1097A H-2331	20.6	19	18	198.8	192	181	2.0	2	1	
		20.7	19	--	176.3	185	--	3.5	3	--	
		21.1	--	--	152.0	--	--	5.1	--	--	
		21.2	--	--	159.1	--	--	0.0	--	--	
		21.2	19	19	206.5	203	201	2.5	4	3	
*PAYCO *GREAT LAKES HYPERFORMER GUTWEIN DAIRYLAND	531 GL450 HS9240 2120 STEALTH-1201	21.3	--	--	194.4	--	--	3.0	--	--	
		21.6	20	--	194.3	211	--	4.2	3	--	
		21.7	--	--	158.4	--	--	2.5	--	--	
		21.8	--	--	169.3	--	--	1.5	--	--	
		21.8	20	--	171.8	187	--	1.6	3	--	
FUNK'S HYPERFORMER WOLVERINE CROW'S ICI SEEDS	G-BRAND 4282 HS9330 W156 179 8700	21.9	20	--	162.6	187	--	3.1	2	--	
		21.9	--	--	170.7	--	--	1.0	--	--	
		22.0	20	20	134.7	167	168	4.5	3	4	
		22.1	20	--	159.5	162	--	2.5	4	--	
		22.2	--	--	176.2	--	--	2.6	--	--	
TERRA RENK *CALLAHAN *COUNTRYMARK BLANEY	TR1020 RK617 C7337X CO-OP 432 B405	22.2	21	21	183.4	180	172	1.6	2	2	
		22.2	--	--	176.1	--	--	12.5	--	--	
		22.2	--	--	190.9	--	--	5.6	--	--	
		22.3	20	--	187.4	199	--	3.6	6	--	
		22.8	21	21	176.8	184	177	0.5	2	1	
DEKALB HYPERFORMER *DAIRYLAND PIONEER TRELA	DK485 HS9311 STEALTH-1198 3733 5200	22.8	20	20	178.3	202	202	2.1	2	1	
		22.9	--	--	175.9	--	--	1.6	--	--	
		22.9	21	--	187.2	202	--	4.6	5	--	
		23.0	21	21	179.1	185	185	1.6	2	2	
		23.0	--	--	180.0	--	--	10.8	--	--	
*NORTHRUP KING PIONEER GOLDEN HARVEST DAIRYLAND *GUTWEIN	N4242 3751 H-2390 DX-1100 2100	23.1	20	--	189.0	189	--	1.5	2	--	
		23.1	20	20	178.3	192	185	2.5	2	3	
		23.1	21	--	170.4	199	--	2.9	1	--	
		23.7	20	20	177.6	196	185	1.0	2	2	
		23.8	21	--	188.4	207	--	7.1	6	--	
*PIONEER GREAT LAKES ICI SEEDS *TERRA *JACQUES	3573 GL496 8740 TR1030 4770	23.8	22	22	199.1	206	207	1.5	5	3	
		24.0	22	--	171.8	186	--	4.0	5	--	
		24.1	--	--	171.3	--	--	2.6	--	--	
		24.1	--	--	188.4	--	--	8.7	--	--	
		24.3	21	--	186.4	190	--	2.0	2	--	
CROW'S PAYCO ICI SEEDS CALLAHAN RENK	210 648 8777 C743 RK602	24.4	--	--	170.5	--	--	3.5	--	--	
		24.5	22	--	177.9	187	--	2.0	2	--	
		24.6	--	--	175.7	--	--	2.6	--	--	
		24.8	--	--	176.9	--	--	1.6	--	--	
		24.9	21	--	185.3	194	--	2.5	3	--	
PIONEER CALLAHAN AMCORN GREAT LAKES TOP FARM	3723 C7245 PSX5757 GL499 TFsx1104A	25.0	21	--	183.3	206	--	2.1	2	--	
		25.1	--	--	154.8	--	--	4.6	--	--	
		25.3	23	--	165.3	187	--	7.7	4	--	
		25.6	22	--	175.0	195	--	2.0	2	--	
		25.8	24	--	180.8	189	--	3.0	2	--	

(continued below)

LATE TRIAL (105 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))											
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING			
		1992	2	3	1992	2	3	1992	2	3	
RENK DAIRYLAND HYPERFORMER PICKSEED CROW'S	RK657 STEALTH-1202 HS9388 8833 414	21.8	--	--	161.7	--	--	0.5	--	--	
		21.9	--	--	165.4	--	--	2.0	--	--	
		25.5	--	--	178.8	--	--	9.0	--	--	
		25.7	22	--	171.1	184	--	0.0	1	--	
		26.7	--	--	161.2	--	--	5.5	--	--	
TERRA FUNK'S *PIONEER DEKALB AMCORN	TR1050 G-BRAND 4385 3527 DK554 PSX7450	26.8	--	--	167.7	--	--	2.0	--	--	
		27.6	24	23	180.6	195	190	2.1	2	2	
		28.2	25	24	204.3	215	211	0.0	2	2	
		28.6	--	--	186.4	--	--	1.5	--	--	
		28.6	24	--	127.8	172	--	0.5	2	--	
*PICKSEED GOLDEN HARVEST DAIRYLAND CROW'S NORTHRUP KING	8855L H-2485 STEALTH-1203 370 N4545	29.0	--	--	187.7	--	--	2.0	--	--	
		29.5	26	--	169.4	178	--	4.5	4	--	
		29.7	25	--	178.0	194	--	2.0	2	--	
		30.0	--	--	166.5	--	--	7.6	--	--	
		30.1	25	23	184.2	197	189	0.5	2	2	
RENK FUNK'S *PIONEER *CARGILL GREAT LAKES	RK646 G-BRAND 4393 X1414 5327 GL559	30.1	25	23	174.2	189	182	1.5	2	2	
		30.5	25	24	170.4	188	179	0.0	1	1	
		30.6	--	--	201.1	--	--	0.5	--	--	
		30.7	26	24	192.0	201	202	1.6	4	3	
		30.9	--	--	183.2	--	--	1.0	--	--	
*PIONEER WOLVERINE *AMCORN *CARGILL RENK	3525 W167 PSX9009 6227 RK727	30.9	--	--	200.8	--	--	0.5	--	--	
		31.0	27	26	164.6	197	201	2.5	2	2	
		31.0	26	--	191.1	195	--	1.5	3	--	
		31.2	27	27	193.9	197	193	2.1	2	2	
		31.2	--	--	157.5	--	--	6.6	--	--	
*CARGILL CARGILL *DAIRYLAND CARGILL *TOP FARM	4327 5157 STEALTH-1205 SX269 TFsx1107	31.4	26	--	194.5	196	--	0.5	3	--	
		31.4	--	--	161.4	--	--	0.5	--	--	
		31.5	--	--	195.8	--	--	2.1	--	--	
		31.7	27	26	185.1	212	211	1.0	2	2	
		31.8	27	--	190.8	192	--	0.0	1	--	
PAYCO HYPERFORMER *PIONEER CALLAHAN CALLAHAN	802 HS9408 3394 C7249 C7252	31.8	--	--	176.3	--	--	3.0	--	--	
		31.9	--	--	177.4	--	--	1.0	--	--	
		31.9	27	--	188.6	217	--	1.1	1	--	
		32.0	27	--	181.0	193	--	0.5	2	--	
		33.0	28	--	185.7	201	--	0.0	1	--	
CALLAHAN *RENK STINE ICI SEEDS CROW'S	C7355X RK812 1116A 8543 449	33.0	--	--	170.6	--	--	2.7	--	--	
		33.2	--	--	198.7	--	--	1.1	--	--	
		33.3	--	--	184.3	--	--	1.5	--	--	
		33.9	--	--	175.1	--	--	0.0	--	--	
		33.9	29	27	161.8	164	179	3.5	2	2	
*CROW'S STINE TERRA JACQUES RENK	401 1101 TR1090 6970 RK721	34.0	--	--	195.7	--	--	1.0	--	--	
		34.1	--	--	159.5	--	--	2.5	--	--	
		34.2	28	--	185.8	206	--	2.1	2	--	
		34.3	--	--	183.8	--	--	1.5	--	--	
		34.5	30	28	174.2	189	194	2.0	2	2	
RUPP CALLAHAN CROW'S CARGILL AMCORN	XR1694 C7352X 498 6269 PSX9292	34.8	--	--	176.9	--	--	0.0	--	--	
		34.9	--	--	180.3	--	--	1.1	--	--	
		35.0	30	--	178.8	184	--	2.0	3	--	
		35.2	--	--	180.9	--	--	1.5	--	--	
		35.2	29	28	178.9	193	185	1.5	2	2	

(continued below)

EARLY TRIAL (104 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	YR	3	1992	YR	3	1992	YR	3
CARGILL	3427	26.0	22	--	182.7	192	--	2.0	2	--
GRIES	GSF-4100	26.1	--	--	168.0	--	--	2.5	--	--
*COUNTRYMARK	CO-OP 502	26.1	23	--	200.0	209	--	3.1	3	--
*FUNK'S	G-BRAND 4372	26.3	--	--	193.6	--	--	3.1	--	--
NORTHUP KING	N4428	26.3	23	22	161.1	182	172	1.5	1	2
ICI SEEDS	N9702	26.3	--	--	174.2	--	--	1.0	--	--
CROW'S	237	26.4	23	--	170.3	195	--	0.5	2	--
TERRA	TR1010	26.5	23	22	179.8	185	175	2.0	2	2
*CALLAHAN	C7348X	26.5	--	--	189.9	--	--	2.5	--	--
*DEKALB	DK535	26.6	24	23	191.8	206	205	0.5	1	2
CALLAHAN	C7338X	26.6	--	--	155.6	--	--	1.1	--	--
JACQUES	5600	26.9	--	--	165.7	--	--	0.5	--	--
*ASGROW	RX623	26.9	--	--	194.6	--	--	1.7	--	--
GREAT LAKES	GL536	27.5	24	--	176.0	183	--	0.0	1	--
GRIES	GSF-4103	27.6	24	--	184.0	177	--	4.1	4	--
*PAYCO	711	27.6	24	--	189.6	202	--	1.0	2	--
*DEKALB	DK512	28.1	--	--	188.3	--	--	1.0	--	--
RUPP	XR1644	28.6	--	--	179.5	--	--	0.0	--	--
ANDERSONS	PSX345	29.2	25	--	175.0	187	--	1.6	2	--
*RUPP	XR1677	30.7	--	--	189.4	--	--	1.0	--	--
PRO-SEED	PS3104	31.5	27	--	178.1	201	--	0.5	1	--
AVERAGE		24.1	22	21	176.9	192	186	2.8	3	2
RANGE		18.8	19	18	134.7	162	168	0.0	1	1
		TO	TO	TO	TO	TO	TO	TO	TO	TO
		31.5	27	23	206.5	211	207	12.5	6	4
LEAST SIGNIFICANT DIFFERENCE		1.4			9.1					
COEFFICIENT OF VARIANCE		5.3%								

LATE TRIAL (105 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	YR	3	1992	YR	3	1992	YR	3
GOLDEN HARVEST	EX 637	35.3	--	--	172.9	--	--	2.6	--	--
*CROW'S	488	35.4	--	--	187.9	--	--	3.6	--	--
GREAT LAKES	GL577	35.5	29	--	167.0	193	--	0.0	0	--
PIONEER	X1616	35.7	--	--	175.2	--	--	0.0	--	--
PIONEER	3357	36.0	30	--	177.1	188	--	1.1	2	--
AMCORN	PSX0019	36.0	--	--	160.9	--	--	1.0	--	--
PAYCO	829	36.1	--	--	174.0	--	--	1.6	--	--
CARGILL	7697	36.5	--	--	183.8	--	--	0.5	--	--
STINE	1115	36.8	--	--	157.1	--	--	1.1	--	--
ANDERSONS	PSX370	36.8	30	28	160.5	194	194	1.5	2	1
RUPP	XR1808	36.9	--	--	186.5	--	--	0.5	--	--
ASGROW	RX707	37.4	--	--	168.6	--	--	1.5	--	--
RUPP	XR1774	38.2	32	--	179.9	195	--	0.5	1	--
CROW'S	667	41.0	--	--	161.6	--	--	2.1	--	--
AVERAGE		32.2	27	25	177.4	193	193	1.7	2	2
RANGE		21.8	22	23	127.8	164	179	0.0	0	1
		TO	TO	TO	TO	TO	TO	TO	TO	TO
		41.0	32	28	204.3	217	211	9.0	4	3
LEAST SIGNIFICANT DIFFERENCE		1.9			9.5					
COEFFICIENT OF VARIANCE		5.6%								

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

1992
PLANTED May 5
HARVESTED November 19-20
SOIL TYPE Spinks Loamy Sand
PREVIOUS CROP Corn
POPULATION 25,700
ROW WIDTH 30"
FERTILIZER 192-0-0+manure
SOIL TEST: pH 6.8
P 138 (very high)
K 457 (very high)

FARM COOPERATOR: Gerald Kayser, Caledonia
COUNTY EXTENSION DIRECTOR: William Harrison, Grand Rapids
EXTENSION AGRICULTURAL AGENT: William Steenwyk, Grand Rapids

1991
May 10
October 11
Spinks Loamy Sand
Alfalfa Sod
27,700
30"
123-0-0
6.4
62 (high)
256 (high)

1990
May 7
November 15
Belleville Loam
Wheat/Soybeans
21,400
30"
152-0-120
6.3
79 (high)
400 (very high)

TABLE 6

SOUTH CENTRAL MICHIGAN **INGHAM COUNTY TRIAL-GRAIN** **ONE, TWO, THREE YEAR AVERAGES -1992, 1991, 1990**

ZONE 2

EARLY TRIAL (104 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	YR	3	1992	YR	3	1992	YR	3
NORTHRUP KING	N3808	20.6	18	--	119.6	128	--	20.5	10	--
DEKALB	DK421	21.9	--	--	152.3	--	--	1.1	--	--
HYPERFORMER	HS9240	22.0	--	--	149.3	--	--	1.0	--	--
BLANEY	B405	22.2	20	20	165.6	136	137	1.5	1	2
*FUNK'S	G-BRAND 4282	22.5	19	--	182.8	164	--	1.6	2	--
NORTHRUP KING	N3624	22.9	19	18	175.9	141	151	0.0	1	2
TERRA	TR1020	22.9	20	20	150.8	138	145	2.2	2	3
DEKALB	DK401	23.1	--	--	108.1	--	--	11.1	--	--
GRIES	GSF-2393	23.1	--	--	149.2	--	--	0.0	--	--
NORTHRUP KING	N4242	23.1	19	--	151.8	134	--	9.5	5	--
GUTWEIN	2120	23.1	--	--	163.0	--	--	2.0	--	--
PIONEER	3723	23.1	21	--	168.8	141	--	1.6	1	--
DAIRYLAND	STEALTH-1201	23.2	20	--	162.5	162	--	0.0	1	--
CALLAHAN	C725	23.2	--	--	151.6	--	--	18.4	--	--
FUNK'S	G-BRAND 4202	23.3	--	--	140.7	--	--	0.5	--	--
WOLVERINE	W156	23.4	20	20	146.7	137	147	6.2	4	4
TERRA	TR1010	23.4	21	21	149.0	147	149	6.8	4	7
ICI SEEDS	8700	23.5	--	--	173.7	--	--	11.5	--	--
*PIONEER	3733	23.7	22	22	187.0	158	164	0.0	0	1
CALLAHAN	C729	23.8	--	--	127.1	--	--	6.7	--	--
*PIONEER	3573	23.9	21	22	190.4	184	186	2.9	3	2
CROW'S	179	23.9	20	--	154.7	141	--	4.2	3	--
PIONEER	3751	24.0	22	20	134.0	118	133	15.5	9	7
PAYCO	648	24.1	21	--	152.6	148	--	1.5	2	--
DAIRYLAND	STEALTH-1198	24.2	21	--	179.5	153	--	4.2	4	--
*TRELAY	5200	24.3	--	--	188.6	--	--	0.5	--	--
GOLDEN HARVEST	H-2331	24.3	20	20	176.0	154	166	1.5	3	3
AMCORN	PSX5757	24.5	22	--	178.7	175	--	8.2	5	--
CALLAHAN	C7337X	24.5	--	--	179.4	--	--	1.2	--	--
GOLDEN HARVEST	H-2390	24.6	21	--	174.3	165	--	1.6	2	--
JACQUES	4770	24.7	20	--	160.4	158	--	1.7	2	--
*RENK	RK617	24.7	--	--	203.9	--	--	0.0	--	--
TOP FARM	TFsx1097A	24.7	--	--	161.4	--	--	3.2	--	--
*GREAT LAKES	GL450	24.8	21	--	184.3	176	--	1.1	1	--
DAIRYLAND	DX-1100	24.9	21	20	89.6	93	114	63.4	35	24
*PAYCO	531	24.9	--	--	188.4	--	--	1.1	--	--
GRIES	GSF-4100	25.0	--	--	157.8	--	--	0.0	--	--
RENK	RK602	25.0	21	--	121.6	123	--	28.2	15	--
*GREAT LAKES	GL499	25.2	21	--	193.9	185	--	2.1	2	--
HYPERFORMER	HS9311	25.3	--	--	150.6	--	--	0.0	--	--
HYPERFORMER	HS9330	25.3	--	--	153.2	--	--	2.1	--	--
ICI SEEDS	8777	25.3	--	--	115.5	--	--	43.5	--	--
ICI SEEDS	N9702	25.3	--	--	178.0	--	--	8.8	--	--
CALLAHAN	C743	25.3	--	--	159.1	--	--	14.8	--	--
GREAT LAKES	GL496	25.4	22	--	177.8	167	--	3.7	3	--
GUTWEIN	2100	25.4	21	--	179.8	170	--	1.1	2	--
TOP FARM	TFsx1104X	25.6	22	--	153.4	147	--	11.6	6	--
JACQUES	5600	25.7	--	--	171.0	--	--	0.5	--	--
NORTHRUP KING	N4428	25.7	22	22	148.8	145	150	8.3	5	4
*COUNTRYMARK	CO-OP 432	25.8	21	--	192.4	169	--	0.0	2	--

(continued below)

LATE TRIAL (105 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	YR	3	1992	YR	3	1992	YR	3
*TERRA	TR1050	26.1	--	--	163.1	--	--	2.2	--	--
PICKSEED	8833	26.6	25	--	156.5	134	--	1.8	4	--
DAIRYLAND	STEALTH-1203	26.8	22	--	104.5	124	--	17.0	10	--
*AMCORN	PSX9009	29.0	24	--	165.1	164	--	3.0	2	--
RENK	RK646	29.4	24	24	143.7	138	143	1.1	2	2
DAIRYLAND	STEALTH-1202	29.5	--	--	119.8	--	--	3.6	--	--
RENK	RK657	29.9	--	--	152.3	--	--	4.7	--	--
HYPERFORMER	HS9388	30.2	--	--	141.0	--	--	4.8	--	--
NORTHRUP KING	N4545	31.5	25	24	145.0	146	155	0.6	2	2
JACQUES	6970	32.4	--	--	155.1	--	--	1.5	--	--
DEKALB	DK554	32.8	--	--	159.2	--	--	3.3	--	--
*RUPP	XR1694	32.8	--	--	168.0	--	--	0.6	--	--
PAYCO	802	33.0	--	--	143.5	--	--	0.6	--	--
*PIONEER	3357	33.1	28	--	163.3	174	--	2.2	2	--
*ICI SEEDS	8543	33.2	--	--	184.5	--	--	0.0	--	--
*GREAT LAKES	GL559	33.3	--	--	171.6	--	--	0.0	--	--
CROW'S	414	33.5	--	--	142.9	--	--	1.1	--	--
CROW'S	498	33.5	28	--	156.5	166	--	0.0	2	--
PICKSEED	8855L	33.5	--	--	133.2	--	--	1.8	--	--
CALLAHAN	C7355X	33.5	--	--	143.2	--	--	0.5	--	--
PIONEER	X1414	33.6	--	--	126.5	--	--	3.5	--	--
CALLAHAN	C7249	33.9	26	--	139.3	153	--	1.1	2	--
PIONEER	3527	34.1	27	26	146.7	156	173	0.0	1	1
PIONEER	X1616	34.1	--	--	143.4	--	--	0.0	--	--
FUNK'S	G-BRAND 4385	34.2	27	26	145.9	156	161	0.0	0	1
PIONEER	3525	34.2	--	--	150.0	--	--	0.0	--	--
CARGILL	6269	34.2	--	--	153.4	--	--	1.1	--	--
RENK	RK727	34.2	--	--	134.1	--	--	0.5	--	--
*TOP FARM	TFsx1107	34.2	28	--	165.6	172	--	0.0	1	--
WOLVERINE	W167	34.5	27	27	141.8	162	170	1.1	1	2
CARGILL	4327	34.5	28	--	160.9	133	--	0.6	1	--
*RUPP	XR1808	34.8	--	--	164.4	--	--	0.0	--	--
*PIONEER	3394	34.9	28	--	165.2	172	--	0.0	1	--
CALLAHAN	C7352X	34.9	--	--	137.7	--	--	0.6	--	--
GOLDEN HARVEST	H-2485	35.0	27	--	156.6	181	--	1.6	2	--
AMCORN	PSX7450	35.0	26	--	92.8	143	--	1.9	3	--
DAIRYLAND	STEALTH-1205	35.1	--	--	157.0	--	--	0.5	--	--
CROW'S	370	35.1	--	--	150.4	--	--	0.6	--	--
CARGILL	5157	35.3	--	--	132.8	--	--	0.5	--	--
*STINE	1116A	35.6	--	--	171.7	--	--	0.0	--	--
HYPERFORMER	HS9408	35.7	--	--	137.1	--	--	0.0	--	--
CROW'S	401	35.7	--	--	148.6	--	--	0.0	--	--
CALLAHAN	C7252	35.7	28	--	160.7	181	--	0.0	1	--
CROW'S	488	35.8	--	--	148.2	--	--	1.1	--	--
ANDERSONS	PSX370	36.2	29	29	127.8	176	183	0.0	1	2
CROW'S	449	36.4	29	28	145.5	165	162	2.3	2	2
STINE	1101	36.7	--	--	128.8	--	--	1.3	--	--
PAYCO	829	36.7	--	--	151.1	--	--	0.0	--	--
CARGILL	5327	36.9	28	27	145.9	164	174	0.0	2	2
STINE	1115	37.0	--	--	148.6	--	--	0.0	--	--

(continued below)

EARLY TRIAL (104 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)	% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
	1992	YR	YR	1992	YR	YR	1992	YR	YR
*TERRA TR1030	25.8	--	--	212.1	--	--	0.6	--	--
*CARGILL 3427	26.0	22	--	82.4	85	--	55.5	30	--
*CALLAHAN C7245	26.1	--	--	184.3	--	--	0.5	--	--
*CROW'S 210	26.6	--	--	161.2	--	--	2.7	--	--
*CROW'S 237	26.7	22	--	163.5	163	--	1.6	1	--
*ASGROW RX623	26.9	--	--	205.6	--	--	1.0	--	--
*DEKALB DK485	27.0	22	21	196.7	164	163	0.6	1	2
*RUPP XR1644	27.0	--	--	197.2	--	--	0.0	--	--
*CALLAHAN C7338X	27.0	--	--	130.9	--	--	2.6	--	--
*GREAT LAKES GL536	27.1	23	--	158.7	154	--	4.1	3	--
ICI SEEDS 8740	27.1	--	--	163.7	--	--	4.0	--	--
*DEKALB DK512	27.2	--	--	179.8	--	--	1.7	--	--
*DEKALB DK535	27.5	23	23	183.0	177	183	1.1	1	1
*FUNK'S G-BRAND 4372	27.5	--	--	176.5	--	--	0.6	--	--
*CALLAHAN C7348X	27.5	--	--	205.5	--	--	0.5	--	--
*PAYCO 711	27.6	23	--	184.1	185	--	3.8	3	--
*GRIES GSF-4103	28.8	24	--	189.2	178	--	0.5	2	--
*ANDERSONS PSX345	29.4	24	--	175.9	168	--	1.6	2	--
*COUNTRYMARK CO-OP 502	30.2	24	--	175.5	181	--	0.5	1	--
*PRO-SEED PS3104	31.7	26	--	212.9	213	--	1.5	3	--
RUPP XR1677	34.5	--	--	174.2	--	--	0.0	--	--
AVERAGE	25.2	21	21	165.3	154	153	6.0	5	5
RANGE	20.6	18	18	82.4	85	114	0.0	0	1
	TO	TO	TO	TO	TO	TO	TO	TO	TO
	34.5	26	23	212.9	213	186	63.4	35	24
LEAST SIGNIFICANT DIFFERENCE	1.5			16.6					
COEFFICIENT OF VARIANCE	10.5%								

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

LATE TRIAL (105 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)	% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
	1992	YR	YR	1992	YR	YR	1992	YR	YR
AMCORN PSX0019	37.0	--	--	133.4	--	--	2.3	--	--
*CARGILL 7697	37.4	--	--	160.4	--	--	1.1	--	--
*AMCORN PSX9292	37.4	29	29	163.1	199	194	0.0	1	2
*CARGILL SX269	37.8	29	29	142.9	161	166	1.2	1	1
RENK RK812	37.8	--	--	146.6	--	--	0.0	--	--
ASGROW RX707	38.0	--	--	147.8	--	--	0.5	--	--
*RUPP XR1774	38.2	31	--	173.4	195	--	1.1	1	--
*GREAT LAKES GL577	38.6	30	--	114.8	151	--	0.0	1	--
GOLDEN HARVEST EX 637	38.8	--	--	103.7	--	--	2.5	--	--
FUNK'S G-BRAND 4393	39.0	29	27	109.1	138	151	0.0	0	0
RENK RK721	39.3	30	30	153.0	179	183	1.1	2	3
TERRA TR1090	41.8	31	--	130.1	171	--	0.0	1	--
*CROW'S 667	42.9	--	--	114.6	--	--	0.0	--	--
*CARGILL 6227	43.6	33	32	127.0	169	178	0.6	1	1
AVERAGE	34.8	28	28	145.5	161	169	1.2	2	2
RANGE	26.1	22	24	92.8	124	143	0.0	0	0
	TO	TO	TO	TO	TO	TO	TO	TO	TO
	43.6	33	32	184.5	199	194	17.0	10	3
LEAST SIGNIFICANT DIFFERENCE	2.3			16.4					
COEFFICIENT OF VARIANCE	11.8%								

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

1992
PLANTED May 4
HARVESTED October 31
SOIL TYPE Capac Loam
PREVIOUS CROP Soybeans
POPULATION 23,900
ROW WIDTH 30"
FERTILIZER 148-38-68
SOIL TEST: pH 6.4
P 113 (very high)
K 227 (high)

1991
PLANTED May 5
HARVESTED October 7
SOIL TYPE Capac Loam
PREVIOUS CROP Soybeans
POPULATION 25,400
ROW WIDTH 30"
FERTILIZER 165-50-50
SOIL TEST: pH 6.8
P 54 (medium)
K 133 (low)

1990
PLANTED May 8
HARVESTED October 29-30
SOIL TYPE Capac Loam
PREVIOUS CROP Corn
POPULATION 22,800
ROW WIDTH 30"
FERTILIZER 165-50-50
SOIL TEST: pH 6.1
P 93 (high)
K 200 (medium)

FARM COOPERATOR: Michigan State University, East Lansing
COUNTY EXTENSION DIRECTOR: Marvin Preston, Mason
EXTENSION AGRICULTURAL AGENTS: John Hayden and Laura Rhodes, Mason

TABLE 7

SOUTH CENTRAL MICHIGAN

ZONE 2

SAGINAW COUNTY TRIAL
ONE, TWO, THREE YEAR AVERAGES -1992, 1991, 1990

EARLY TRIAL (104 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))											
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING			
		1992	YR	YR	1992	YR	YR	1992	YR	YR	
*DEKALB	DK401	19.0	--	--	151.3	--	--	0.5	--	--	
GRIES	GSF-2393	19.6	--	--	136.5	--	--	0.5	--	--	
CALLAHAN	C725	20.1	--	--	135.9	--	--	2.5	--	--	
HYPERFORMER	HS9240	20.2	--	--	132.7	--	--	0.0	--	--	
CALLAHAN	C729	20.7	--	--	130.3	--	--	1.6	--	--	
FUNK'S	G-BRAND 4202	21.1	--	--	150.5	--	--	1.6	--	--	
NORTHUP KING	N3624	21.1	18	19	142.0	150	158	0.0	1	1	
TOP FARM	TFsx1097A	21.9	--	--	148.4	--	--	2.1	--	--	
DEKALB	DK421	22.0	--	--	140.8	--	--	0.0	--	--	
*DAIRYLAND	STEALTH-1198	22.0	21	--	156.5	156	--	3.6	2	--	
*TRELAY	5200	22.1	--	--	152.3	--	--	2.6	--	--	
DAIRYLAND	STEALTH-1201	22.5	21	--	136.3	145	--	0.6	1	--	
NORTHUP KING	N3808	22.8	20	--	143.0	159	--	1.1	1	--	
*NORTHUP KING	N4242	22.8	20	--	151.2	161	--	0.0	1	--	
HYPERFORMER	HS9311	23.1	--	--	136.9	--	--	0.0	--	--	
COUNTRYMARK	CO-OP 432	23.1	21	--	147.5	160	--	1.1	1	--	
GUTWEIN	2120	23.3	--	--	142.8	--	--	0.5	--	--	
ICI SEEDS	8700	23.4	--	--	140.4	--	--	0.0	--	--	
CROW'S	179	23.9	21	--	132.6	134	--	1.5	1	--	
*PIONEER	3751	24.0	21	20	151.3	165	162	0.0	1	2	
PAYCO	531	24.0	--	--	145.9	--	--	1.1	--	--	
WOLVERINE	W156	24.1	21	21	108.2	131	141	2.6	2	3	
BLANEY	B405	24.2	22	22	146.3	144	147	1.1	1	2	
GUTWEIN	2100	24.2	22	--	149.1	157	--	1.6	1	--	
TERRA	TR1010	24.2	22	22	146.5	154	159	3.7	2	3	
*GOLDEN HARVEST	H-2331	24.2	22	21	158.7	162	169	1.1	3	5	
*DEKALB	DK485	24.4	22	21	157.7	157	160	0.0	1	2	
NORTHUP KING	N4428	24.4	22	22	134.8	145	148	3.8	2	3	
*PAYCO	648	24.4	22	--	155.5	166	--	1.6	1	--	
*PIONEER	3723	24.6	21	--	153.9	160	--	0.5	1	--	
TERRA	TR1020	24.6	22	22	145.3	155	154	2.2	1	2	
RENK	RK617	24.6	--	--	138.3	--	--	1.8	--	--	
ICI SEEDS	8777	24.7	--	--	141.0	--	--	0.5	--	--	
HYPERFORMER	HS9330	24.9	--	--	146.4	--	--	2.1	--	--	
CARGILL	3427	24.9	21	--	137.2	140	--	1.0	1	--	
RENK	RK602	24.9	21	--	143.1	154	--	3.6	3	--	
GREAT LAKES	GL496	25.0	22	--	142.5	149	--	1.6	1	--	
DAIRYLAND	DX-1100	25.2	22	21	131.7	135	140	0.0	1	4	
ICI SEEDS	N9702	25.4	--	--	133.3	--	--	0.5	--	--	
GREAT LAKES	GL450	25.6	23	--	134.3	142	--	1.8	1	--	
ICI SEEDS	8740	25.7	--	--	118.8	--	--	0.0	--	--	
GRIES	GSF-4100	26.2	--	--	143.6	--	--	0.0	--	--	
GREAT LAKES	GL499	26.2	23	--	126.5	155	--	1.6	1	--	
AMCORN	PSX5757	26.3	24	--	144.4	151	--	1.1	1	--	
CALLAHAN	C7337X	26.3	--	--	133.5	--	--	2.2	--	--	
FUNK'S	G-BRAND 4282	26.4	23	--	118.4	144	--	0.5	1	--	
JACQUES	5600	26.5	--	--	143.8	--	--	0.0	--	--	
PIONEER	3733	26.5	23	22	144.9	168	167	0.0	0	2	
CALLAHAN	C7245	26.5	--	--	139.7	--	--	1.1	--	--	
CALLAHAN	C7338X	26.7	--	--	132.1	--	--	1.2	--	--	

(continued below)

LATE TRIAL (105 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))											
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING			
		1992	YR	YR	1992	YR	YR	1992	YR	YR	
RENK	RK657	25.0	--	--	147.5	--	--	3.6	--	--	
DAIRYLAND	STEALTH-1202	25.2	--	--	138.4	--	--	1.0	--	--	
NORTHUP KING	N4545	25.6	22	23	149.9	155	154	1.0	1	2	
TERRA	TR1050	25.6	--	--	144.7	--	--	1.1	--	--	
RENK	RK646	27.0	24	23	142.7	146	144	0.5	1	1	
*PIONEER	3525	27.3	--	--	159.0	--	--	0.0	--	--	
DAIRYLAND	STEALTH-1203	28.2	25	--	145.9	151	--	2.2	2	--	
CROW'S	414	28.2	--	--	129.4	--	--	3.1	--	--	
CARGILL	5157	28.7	--	--	148.0	--	--	1.6	--	--	
*DEKALB	DK554	29.2	--	--	170.6	--	--	0.5	--	--	
*HYPERFORMER	HS9388	29.2	--	--	158.8	--	--	4.5	--	--	
RENK	RK727	29.2	--	--	143.2	--	--	1.0	--	--	
*TOP FARM	TFsx1107	29.2	26	--	160.3	162	--	0.5	1	--	
PICKSEED	8833	29.2	24	--	144.3	155	--	0.0	0	--	
PICKSEED	8855L	29.2	--	--	149.4	--	--	1.9	--	--	
FUNK'S	G-BRAND 4385	29.3	25	25	146.1	156	154	1.6	1	1	
*CALLAHAN	C7355X	29.4	--	--	156.0	--	--	0.0	--	--	
FUNK'S	G-BRAND 4393	29.5	25	25	144.7	152	155	3.2	2	2	
PIONEER	3527	29.8	26	25	149.7	169	178	0.6	0	0	
*CARGILL	6269	30.4	--	--	169.6	--	--	0.0	--	--	
PAYCO	829	30.5	--	--	143.7	--	--	2.5	--	--	
PAYCO	802	30.8	--	--	149.0	--	--	0.0	--	--	
*CALLAHAN	C7249	30.8	26	--	163.2	165	--	1.6	1	--	
*ICI SEEDS	8543	30.9	--	--	155.4	--	--	0.0	--	--	
*GREAT LAKES	GL559	31.0	--	--	154.5	--	--	1.1	--	--	
*CARGILL	4327	31.1	26	--	154.3	169	--	0.5	1	--	
CROW'S	488	31.2	--	--	151.4	--	--	0.0	--	--	
*AMCORN	PSX9009	31.2	28	--	147.7	152	--	0.5	2	--	
GOLDEN HARVEST	H-2485	31.3	28	--	144.0	147	--	3.7	3	--	
*PIONEER	X1414	31.4	--	--	168.3	--	--	1.1	--	--	
CROW'S	449	31.5	28	27	140.2	151	153	1.0	1	1	
*RUPP	XR1774	31.6	29	--	157.7	163	--	2.0	2	--	
CROW'S	370	31.6	--	--	140.6	--	--	2.1	--	--	
*JACQUES	6970	31.8	--	--	161.0	--	--	1.6	--	--	
CROW'S	667	31.8	--	--	150.5	--	--	1.6	--	--	
*CALLAHAN	C7352X	31.8	--	--	166.0	--	--	2.2	--	--	
HYPERFORMER	HS9408	32.1	--	--	134.3	--	--	1.2	--	--	
DAIRYLAND	STEALTH-1205	32.1	--	--	146.3	--	--	0.5	--	--	
PIONEER	3357	32.2	28	--	150.6	159	--	0.0	0	--	
*CARGILL	6227	32.2	29	28	160.1	165	169	0.5	0	2	
*CARGILL	5327	32.3	27	25	154.9	152	155	0.5	1	1	
AMCORN	PSX9292	32.3	29	28	152.9	166	169	2.3	1	1	
*CARGILL	SK269	32.4	28	27	156.3	169	178	1.0	2	2	
RUPP	XR1808	32.4	--	--	144.9	--	--	0.6	--	--	
GOLDEN HARVEST	EX 637	32.4	--	--	143.6	--	--	0.0	--	--	
RENK	RK812	32.8	--	--	147.3	--	--	0.0	--	--	
AMCORN	PSX7450	33.2	29	--	97.8	129	--	0.0	1	--	
ASGROW	RX707	33.3	--	--	141.0	--	--	0.0	--	--	
PIONEER	3394	34.0	28	--	144.0	164	--	0.0	0	--	
PIONEER	X1616	34.0	--	--	140.5	--	--	1.1	--	--	

(continued below)

EARLY TRIAL (104 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)	% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
	1992	2	3	1992	2	3	1992	2	3
CROW'S	210	26.8	--	143.8	--	--	0.6	--	--
*DEKALB	DK512	27.0	--	156.0	--	--	2.2	--	--
CROW'S	237	27.0	23	130.6	147	--	1.0	2	--
CALLAHAN	C743	27.0	--	143.6	--	--	1.6	--	--
GOLDEN HARVEST	H-2390	27.5	24	134.5	142	--	2.8	2	--
FUNK'S	G-BRAND 4372	27.7	--	147.8	--	--	0.5	--	--
*TOP FARM	TFSx1104A	27.8	25	157.5	163	--	2.6	2	--
CALLAHAN	C7348X	28.0	--	144.5	--	--	0.5	--	--
*PRO-SEED	PS3104	28.3	26	162.6	170	--	0.5	1	--
RUPP	XR1644	28.7	--	139.4	--	--	0.0	--	--
ANDERSONS	PSX345	28.8	26	149.7	160	--	0.0	1	--
TERRA	TR1030	28.9	--	143.1	--	--	0.0	--	--
GREAT LAKES	GL536	29.0	25	137.9	156	--	0.0	0	--
*COUNTRYMARK	CO-OP 502	29.0	25	160.2	170	--	0.0	0	--
*PAYCO	711	29.0	25	162.5	159	--	1.1	1	--
JACQUES	4770	29.1	24	149.7	154	--	0.5	1	--
*PIONEER	3573	29.1	24	170.9	178	180	0.0	0	2
ASCROW	RX623	29.1	--	146.8	--	--	1.7	--	--
*GRIES	GSF-4103	29.7	26	153.6	164	--	0.5	0	--
DEKALB	DK535	30.4	26	136.5	153	163	0.0	1	2
RUPP	XR1677	31.9	--	141.9	--	--	0.6	--	--
AVERAGE		25.3	23	143.2	154	157	1.1	1	3
RANGE		19.0	18	108.2	131	140	0.0	0	1
		TO	TO	TO	TO	TO	TO	TO	TO
		31.9	26	170.9	178	180	3.8	3	5
LEAST SIGNIFICANT DIFFERENCE		1.5		7.9					
COEFFICIENT OF VARIANCE		5.7%							

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

LATE TRIAL (105 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)	% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
	1992	2	3	1992	2	3	1992	2	3
TERRA	TR1090	34.0	30	152.7	165	--	0.0	0	--
CARGILL	7697	34.2	--	147.9	--	--	0.5	--	--
RENK	RK721	34.2	30	138.3	149	155	1.5	1	1
*STINE	1116A	34.3	--	154.6	--	--	1.0	--	--
CALLAHAN	C7252	34.7	30	141.0	161	--	0.6	2	--
CROW'S	401	34.8	--	140.8	--	--	0.0	--	--
WOLVERINE	W167	35.3	30	116.9	141	152	1.0	1	2
CROW'S	498	35.4	30	134.5	145	--	1.6	1	--
STINE	1115	36.9	--	123.4	--	--	4.8	--	--
STINE	1101	37.2	--	118.4	--	--	0.0	--	--
AMCORN	PSX0019	38.1	--	105.9	--	--	0.5	--	--
RUPP	XR1694	38.2	--	118.7	--	--	1.1	--	--
ANDERSONS	PSX370	38.8	32	134.2	150	160	1.1	2	2
GREAT LAKES	GL577	39.3	31	114.2	135	--	0.5	1	--
AVERAGE		31.7	28	145.3	155	160	1.1	1	1
RANGE		25.0	22	97.8	129	144	0.0	0	0
		TO	TO	TO	TO	TO	TO	TO	TO
		39.3	32	170.6	169	178	4.8	3	2
LEAST SIGNIFICANT DIFFERENCE		1.5		8.4					
COEFFICIENT OF VARIANCE		6.0%							

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

1992
PLANTED May 7
HARVESTED November 15
SOIL TYPE Charity Clay
PREVIOUS CROP Dry Beans
POPULATION 24,600
ROW WIDTH 30"
FERTILIZER 184-0-0
SOIL TEST: pH 7.3
P 107 (very high)
K 508 (very high)

1991
PLANTED May 14
HARVESTED October 17
SOIL TYPE Charity Clay
PREVIOUS CROP Dry Beans
POPULATION 24,000
ROW WIDTH 30"
FERTILIZER 150-0-0
SOIL TEST: pH 7.2
P 77 (high)
K 336 (very high)

1990
PLANTED May 12
HARVESTED November 9,12
SOIL TYPE Charity Clay
PREVIOUS CROP Dry Beans
POPULATION 23,200
ROW WIDTH 30"
FERTILIZER 21-7-14
SOIL TEST: pH 7.6
P 128 (very high)
K 415 (very high)

FARM COOPERATOR: Paul Horny, Saginaw Beet & Bean Research Farm, Saginaw
COUNTY EXTENSION DIRECTOR: James Thews, Saginaw
EXTENSION AGRICULTURAL AGENT: Steven Poindexter, Saginaw

TABLE 8

SOUTH CENTRAL MICHIGAN

ZONE 2

AVERAGE OF KENT, INGHAM & SAGINAW COUNTY TRIALS
ONE, TWO, THREE YEAR AVERAGES -1992, 1991, 1990

EARLY TRIAL (104 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2 YR	3 YR	1992	YR	3 YR	1992	2 YR	3 YR
DEKALB	DK401	20.3	--	--	139.5	--	--	4.8	--	--
GRIES	GSF-2393	21.0	--	--	147.5	--	--	0.7	--	--
DEKALB	DK421	21.3	--	--	155.8	--	--	1.0	--	--
HYPERFORMER	HS9240	21.3	--	--	146.8	--	--	1.2	--	--
NORTHUP KING	N3808	21.4	19	--	146.3	157	--	8.4	5	--
*NORTHUP KING	N3624	21.5	19	18	172.2	161	164	0.7	1	1
CALLAHAN	C729	21.5	--	--	134.5	--	--	4.6	--	--
CALLAHAN	C725	21.5	--	--	146.5	--	--	8.7	--	--
FUNK'S	G-BRAND 4202	21.7	--	--	153.2	--	--	2.2	--	--
DAIRYLAND	STEALTH-1201	22.5	20	--	156.9	164	--	0.7	2	--
TOP FARM	TFsx1097A	22.6	--	--	156.3	--	--	1.8	--	--
GUTWEIN	2120	22.7	--	--	158.4	--	--	1.3	--	--
NORTHUP KING	N4242	23.0	20	--	164.0	161	--	3.7	3	--
ICI SEEDS	8700	23.0	--	--	163.4	--	--	4.7	--	--
*DAIRYLAND	STEALTH-1198	23.0	21	--	174.4	170	--	4.1	4	--
BLANEY	B405	23.1	21	21	162.9	155	154	1.0	1	2
*TRELAY	5200	23.1	--	--	173.6	--	--	4.6	--	--
WOLVERINE	W156	23.2	20	20	129.9	145	152	4.4	3	4
TERRA	TR1020	23.2	21	21	159.8	157	157	2.0	2	2
*GOLDEN HARVEST	H-2331	23.2	20	20	180.4	173	179	1.7	3	4
CROW'S	179	23.3	20	--	148.9	146	--	2.7	3	--
*PAYCO	531	23.4	--	--	176.2	--	--	1.7	--	--
FUNK'S	G-BRAND 4282	23.6	21	--	154.6	165	--	1.7	2	--
PIONEER	3751	23.7	21	20	154.5	158	160	6.0	4	4
*COUNTRYMARK	CO-OP 432	23.7	21	--	175.8	176	--	1.6	3	--
HYPERFORMER	HS9311	23.8	--	--	154.5	--	--	0.5	--	--
*RENK	RK617	23.8	--	--	172.8	--	--	4.8	--	--
*GREAT LAKES	GL450	24.0	21	--	171.0	176	--	2.4	2	--
HYPERFORMER	HS9330	24.0	--	--	156.8	--	--	1.7	--	--
*PIONEER	3723	24.2	21	--	168.7	169	--	1.4	1	--
PAYCO	648	24.3	22	--	162.0	167	--	1.7	2	--
CALLAHAN	C7337X	24.3	--	--	167.9	--	--	3.0	--	--
*PIONEER	3733	24.4	22	22	170.3	170	172	0.5	1	1
*GUTWEIN	2100	24.5	21	--	172.4	178	--	3.3	3	--
DAIRYLAND	DX-1100	24.6	21	20	133.0	141	146	21.5	13	10
*DEKALB	DK485	24.7	21	21	177.6	174	175	0.9	1	2
TERRA	TR1010	24.7	22	22	158.4	162	161	4.2	3	4
GREAT LAKES	GL496	24.8	22	--	164.0	167	--	3.1	3	--
ICI SEEDS	8777	24.9	--	--	144.1	--	--	15.5	--	--
RENK	RK602	24.9	21	--	150.0	157	--	11.4	7	--
GOLDEN HARVEST	H-2390	25.1	22	--	159.7	169	--	2.4	2	--
AMCORN	PSX5757	25.4	23	--	162.8	171	--	5.7	3	--
NORTHUP KING	N4428	25.5	22	22	148.2	158	157	4.5	3	3
*PIONEER	3573	25.6	23	22	186.8	189	191	1.5	3	3
ICI SEEDS	8740	25.6	--	--	151.3	--	--	2.2	--	--
CARGILL	3427	25.6	22	--	134.1	139	--	19.5	11	--
GREAT LAKES	GL499	25.7	22	--	165.1	178	--	1.9	2	--
ICI SEEDS	N9702	25.7	--	--	161.8	--	--	3.4	--	--
CALLAHAN	C743	25.7	--	--	159.9	--	--	6.0	--	--
GRIES	GSF-4100	25.8	--	--	156.5	--	--	0.8	--	--

(continued below)

LATE TRIAL (105 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	YR	3	1992	YR	3	1992	YR	3
DAIRYLAND	STEALTH-1202	25.5	--	--	141.2	--	--	2.2	--	--
RENK	RK657	25.6	--	--	153.8	--	--	2.9	--	--
TERRA	TR1050	26.2	--	--	158.5	--	--	1.8	--	--
PICKSEED	8833	27.2	24	--	157.3	158	--	0.6	2	--
DAIRYLAND	STEALTH-1203	28.2	24	--	142.8	156	--	7.1	5	--
HYPERFORMER	HS9388	28.3	--	--	159.5	--	--	6.1	--	--
RENK	RK646	28.8	24	23	153.5	158	157	1.0	2	2
NORTHUP KING	N4545	29.1	24	23	159.7	166	166	0.7	1	2
CROW'S	414	29.5	--	--	144.5	--	--	3.2	--	--
*DEKALB	DK554	30.2	--	--	172.1	--	--	1.8	--	--
FUNK'S	G-BRAND 4385	30.4	25	25	157.5	169	168	1.2	1	1
*AMCORN	PSX9009	30.4	26	--	168.0	170	--	1.7	2	--
PICKSEED	8855L	30.6	--	--	156.8	--	--	1.9	--	--
*PIONEER	3527	30.7	26	25	166.9	180	187	0.2	1	1
*PIONEER	3525	30.8	--	--	169.9	--	--	0.2	--	--
RENK	RK727	31.5	--	--	144.9	--	--	2.7	--	--
*GREAT LAKES	GL559	31.7	--	--	169.8	--	--	0.7	--	--
*TOP FARM	TFsx1107	31.7	27	--	172.2	175	--	0.2	1	--
CARGILL	5157	31.8	--	--	147.4	--	--	0.9	--	--
*PIONEER	X1414	31.9	--	--	165.3	--	--	1.7	--	--
PAYCO	802	31.9	--	--	156.3	--	--	1.2	--	--
GOLDEN HARVEST	H-2485	31.9	27	--	156.7	169	--	3.3	3	--
CALLAHAN	C7355X	32.0	--	--	156.6	--	--	1.1	--	--
CROW'S	370	32.2	--	--	152.5	--	--	3.4	--	--
CALLAHAN	C7249	32.2	26	--	161.2	170	--	1.1	1	--
*CARGILL	4327	32.3	27	--	169.9	166	--	0.5	2	--
AMCORN	PSX7450	32.3	26	--	165.1	148	--	0.8	2	--
*ICI SEEDS	8543	32.7	--	--	171.7	--	--	0.0	--	--
*JACQUES	6970	32.8	--	--	166.6	--	--	1.5	--	--
*DAIRYLAND	STEALTH-1205	32.9	--	--	166.4	--	--	1.0	--	--
FUNK'S	G-BRAND 4393	33.0	27	25	141.4	159	162	1.1	1	1
*HYPERFORMER	HS9408	33.2	--	--	149.6	--	--	0.7	--	--
*CARGILL	6269	33.3	--	--	168.0	--	--	0.9	--	--
*CARGILL	5327	33.3	27	26	164.3	172	177	0.7	2	2
WOLVERINE	W167	33.6	28	27	141.1	167	174	1.5	1	2
*PIONEER	3394	33.6	28	--	165.9	184	--	0.4	1	--
*PIONEER	3357	33.8	28	--	163.7	174	--	1.1	1	--
CROW'S	449	33.9	29	27	149.2	160	165	2.3	2	1
CALLAHAN	C7352X	33.9	--	--	161.3	--	--	1.3	--	--
CARGILL	SX269	34.0	28	27	161.4	181	185	1.1	2	2
CROW'S	488	34.1	--	--	162.5	--	--	1.6	--	--
*STINE	1116A	34.4	--	--	170.2	--	--	0.8	--	--
PAYCO	829	34.4	--	--	156.3	--	--	1.4	--	--
CALLAHAN	C7252	34.5	29	--	162.5	181	--	0.2	1	--
PIONEER	X1616	34.6	--	--	153.0	--	--	0.4	--	--
*RENK	RK812	34.6	--	--	164.2	--	--	0.4	--	--
CROW'S	498	34.6	29	--	156.6	165	--	1.2	2	--
*RUPP	XR1808	34.7	--	--	165.3	--	--	0.4	--	--
CROW'S	401	34.8	--	--	161.7	--	--	0.3	--	--
*AMCORN	PSX9292	35.0	29	28	165.0	186	182	1.3	1	2

(continued below)

EARLY TRIAL (104 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2	3	1992	2	3	1992	2	3
		YR	YR	YR	YR	YR	YR	YR	YR	YR
CROW'S	210	25.9	--	--	158.5	--	--	2.3	--	--
CALLAHAN	C7245	25.9	--	--	159.6	--	--	2.1	--	--
JACQUES	4770	26.0	22	--	165.5	167	--	1.4	2	--
*TERRA	TR1030	26.3	--	--	181.2	--	--	3.1	--	--
JACQUES	5600	26.4	--	--	160.2	--	--	0.3	--	--
TOP FARM	TFex1104A	26.4	24	--	163.9	167	--	5.7	3	--
CROW'S	237	26.7	23	--	154.8	168	--	1.0	2	--
CALLAHAN	C7338X	26.8	--	--	139.5	--	--	1.6	--	--
*FUNK'S	G-BRAND 4372	27.2	--	--	172.6	--	--	1.4	--	--
*CALLAHAN	C7348X	27.3	--	--	180.0	--	--	1.2	--	--
*DEKALB	DK512	27.4	--	--	174.7	--	--	1.6	--	--
*ASGROW	RX623	27.6	--	--	182.3	--	--	1.5	--	--
GREAT LAKES	GL536	27.9	24	--	157.5	164	--	1.4	1	--
*RUPP	XR1644	28.1	--	--	172.0	--	--	0.0	--	--
*PAYCO	711	28.1	24	--	178.7	182	--	2.0	2	--
*DEKALB	DK535	28.2	24	24	170.4	179	184	0.5	1	2
*COUNTRYMARK	CO-OP 502	28.4	24	--	178.6	186	--	1.2	1	--
*GRIES	GSF-4103	28.7	25	--	175.6	173	--	1.7	2	--
ANDERSONS	PSX345	29.1	25	--	166.9	172	--	1.1	2	--
*PRO-SEED	PS3104	30.5	26	--	184.5	195	--	0.8	1	--
*RUPP	XR1677	32.4	--	--	168.5	--	--	0.5	--	--
AVERAGE		24.9	22	21	161.8	167	165	3.3	3	3
RANGE		20.3	19	18	129.9	139	146	0.0	1	1
		TO	TO	TO	TO	TO	TO	TO	TO	TO
		32.4	26	24	186.8	195	191	21.5	13	10
LEAST SIGNIFICANT		.8			6.7					
DIFFERENCE										
*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992										

LATE TRIAL (105 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2	3	1992	2	3	1992	2	3
		YR	YR	YR	YR	YR	YR	YR	YR	YR
RUPP	XR1694	35.3	--	--	154.5	--	--	0.6	--	--
GOLDEN HARVEST	EX 637	35.5	--	--	140.1	--	--	1.7	--	--
CARGILL	6227	35.7	30	29	160.3	177	180	1.1	1	2
STINE	1101	36.0	--	--	135.6	--	--	0.6	--	--
*CARGILL	7697	36.0	--	--	164.0	--	--	0.7	--	--
RENK	RK721	36.0	30	29	155.2	172	177	1.5	1	2
*RUPP	XR1774	36.0	31	--	170.3	184	--	1.2	1	--
ASGROW	RX707	36.2	--	--	152.5	--	--	0.7	--	--
TERRA	TR1090	36.7	30	--	156.2	181	--	0.7	1	--
STINE	1115	36.9	--	--	143.0	--	--	2.0	--	--
AMCORN	PSX0019	37.0	--	--	133.4	--	--	1.3	--	--
ANDERSONS	PSX370	37.3	31	29	140.8	173	179	0.9	2	2
GREAT LAKES	GL577	37.9	30	--	132.0	160	--	0.2	1	--
CROW'S	667	38.6	--	--	142.2	--	--	1.2	--	--
AVERAGE		32.9	27	26	156.1	170	174	1.3	2	2
RANGE		25.5	24	23	106.1	148	157	0.0	1	1
		TO	TO	TO	TO	TO	TO	TO	TO	TO
		38.6	31	29	172.2	186	187	7.1	5	2
LEAST SIGNIFICANT		1.1			6.8					
DIFFERENCE										
*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992										

TABLE 9

NORTH CENTRAL MICHIGAN

HURON COUNTY TRIAL - GRAIN

ONE, TWO, THREE YEAR AVERAGES -1992, 1991, 1990

ZONE 3

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EARLY TRIAL (100 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))											
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING			
		1992	2	3	1992	2	3	1992	2	3	
FUNK'S	G-BRAND 4070	24.1	--	--	127.7	--	--	1.0	--	--	
*DEKALB	DK381	24.3	--	--	153.9	--	--	1.0	--	--	
*PIONEER	3921	24.8	--	--	152.2	--	--	0.0	--	--	
TERRA	TR910	25.1	--	--	128.5	--	--	1.1	--	--	
DEKALB	DK401	28.0	22	--	127.7	160	--	0.0	1	--	
WOLVERINE	W133	28.0	23	22	120.0	138	133	1.0	2	8	
PIONEER	3861	28.0	--	--	145.0	--	--	0.0	--	--	
FUNK'S	G-BRAND 4183	28.8	--	--	140.8	--	--	0.0	--	--	
*PIONEER	3779	29.0	--	--	160.4	--	--	0.5	--	--	
TOP FARM	TFsx1195A	29.1	23	22	136.3	167	161	4.5	3	11	
AMCORN	PSX3333	29.2	23	22	134.4	163	156	3.6	2	3	
FUNK'S	G-BRAND 4172	29.3	25	23	145.2	166	163	0.0	0	1	
CALLAHAN	C729	29.3	24	23	111.5	138	140	2.1	2	4	
GUTWEIN	2120	29.4	--	--	139.8	--	--	1.0	--	--	
FUNK'S	G-BRAND 4120	29.5	23	--	125.7	166	--	0.0	1	--	
CALLAHAN	C725	29.9	24	23	138.1	170	165	1.5	1	9	
TOP FARM	TFsx1102	30.0	--	--	140.9	--	--	2.6	--	--	
CARGILL	2927	30.6	24	--	144.8	169	--	3.0	3	--	
RENK	RK527	30.7	--	--	124.6	--	--	4.1	--	--	
JUNG	2648	30.9	--	--	145.0	--	--	1.0	--	--	
PAYCO	463	30.9	--	--	128.8	--	--	3.1	--	--	
FUNK'S	G-BRAND 4202	31.1	--	--	137.2	--	--	0.5	--	--	
*RENK	RK555	31.1	--	--	151.4	--	--	0.5	--	--	
DEKALB	DK421	31.2	--	--	126.0	--	--	1.0	--	--	
NORTHUP KING	N3624	31.3	25	24	136.1	159	161	0.0	0	3	
JUNG	2503	32.0	--	--	139.9	--	--	3.1	--	--	
*PICKSEED	5993	32.1	--	--	161.2	--	--	1.0	--	--	
PIONEER	X1113	32.2	--	--	144.5	--	--	0.0	--	--	
ANDERSONS	PSX250	32.5	26	--	125.9	155	--	2.1	1	--	
*RENK	RK602	32.8	26	--	152.0	157	--	1.5	1	--	
*NORTHUP KING	N3808	32.9	26	--	148.7	170	--	2.5	2	--	
FUNK'S	G-BRAND 4282	33.2	--	--	122.3	--	--	1.0	--	--	
RUPP	EXP. 1-201	33.2	--	--	124.2	--	--	0.0	--	--	
*PIONEER	3723	33.3	26	--	150.9	175	--	0.5	0	--	
TOP FARM	TFsx1097A	33.4	26	--	134.7	157	--	0.5	1	--	
*JACQUES	4440	33.6	--	--	158.9	--	--	1.0	--	--	
PICKSEED	5665	33.8	26	24	132.0	149	153	0.0	0	0	
PICKSEED	5990	33.9	--	--	128.0	--	--	3.3	--	--	
GREAT LAKES	GL496	34.1	27	--	142.0	173	--	1.0	2	--	
*PIONEER	3733	34.3	27	26	153.2	168	171	0.0	1	2	
WOLVERINE	W156	34.5	27	25	118.3	155	153	3.1	2	4	
COUNTRYMARK	CO-OP 432	34.5	27	--	124.4	159	--	2.0	3	--	
CROW'S	179	34.8	28	--	132.3	147	--	1.0	1	--	
GREAT LAKES	GL450	34.9	28	--	140.2	168	--	0.5	1	--	
STINE	946	35.1	--	--	127.4	--	--	0.5	--	--	
AMCORN	PSX5555	35.3	28	26	136.8	168	164	3.6	2	2	
TOP FARM	TFsx1101A	35.5	--	--	127.0	--	--	2.0	--	--	
GOLDEN HARVEST	H-2390	35.5	28	--	132.5	155	--	1.0	1	--	
*JUNG	2496	35.6	27	25	153.9	175	172	0.5	2	3	
*PIONEER	3751	35.7	28	25	152.7	181	173	0.0	1	2	

(continued below)

LATE TRIAL (101 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))											
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING			
		1992	2	3	1992	2	3	1992	2	3	
*DAIRYLAND	STEALTH-1202	32.1	--	--	144.8	--	--	1.5	--	--	
RENK	RK657	34.4	--	--	140.2	--	--	1.0	--	--	
ICI SEEDS	8700	34.5	--	--	140.2	--	--	1.0	--	--	
*BLANEY	B405	35.0	28	--	156.6	167	--	1.5	2	--	
RENK	RK617	35.5	--	--	135.3	--	--	3.5	--	--	
CROW'S	210	35.8	--	--	142.6	--	--	0.0	--	--	
*NORTHUP KING	N4242	35.9	--	--	146.5	--	--	2.0	--	--	
AMCORN	PSX5757	36.2	29	--	142.4	165	--	2.0	3	--	
ICI SEEDS	N9702	36.3	--	--	140.8	--	--	1.0	--	--	
RENK	RK646	36.4	29	27	141.9	168	160	3.6	4	4	
TERRA	TR1010	36.8	29	27	135.1	168	165	5.8	3	3	
*DEKALB	DK512	37.5	--	--	162.8	--	--	3.7	--	--	
*TERRA	TR1020	37.7	30	27	145.0	168	164	1.6	1	8	
ASGROW	RK623	38.3	--	--	142.4	--	--	1.6	--	--	
JACQUES	5600	38.6	--	--	132.4	--	--	1.5	--	--	
*DAIRYLAND	STEALTH-1203	38.7	--	--	143.7	--	--	1.5	--	--	
CROW'S	414	38.9	30	28	139.3	155	154	4.0	3	6	
TERRA	TR1050	39.0	--	--	135.8	--	--	0.5	--	--	
CROW'S	237	39.6	--	--	130.9	--	--	1.0	--	--	
STINE	592X	39.9	--	--	142.6	--	--	1.0	--	--	
CROW'S	498	39.9	--	--	141.0	--	--	3.1	--	--	
CARGILL	5157	40.2	31	29	127.8	153	156	0.5	1	2	
*CROW'S	370	40.2	--	--	142.7	--	--	3.5	--	--	
*PIONEER	3573	40.5	31	28	156.2	194	195	0.5	1	4	
*PIONEER	X1414	40.6	--	--	147.9	--	--	1.0	--	--	
TERRA	TR1030	40.8	--	--	135.2	--	--	0.5	--	--	
*DEKALB	DK554	41.2	--	--	144.9	--	--	0.0	--	--	
STINE	1073	41.3	--	--	121.0	--	--	1.1	--	--	
RENK	RK702	41.4	32	--	118.1	158	--	0.5	1	--	
AMCORN	PSX7450	41.8	32	--	94.8	144	--	0.5	1	--	
RENK	RK727	42.0	--	--	123.7	--	--	2.5	--	--	
CARGILL	5327	42.1	--	--	126.6	--	--	0.5	--	--	
CALLAHAN	C7348X	42.1	--	--	139.6	--	--	1.6	--	--	
AMCORN	PSX9009	42.2	--	--	128.3	--	--	3.6	--	--	
PAYCO	711	42.4	--	--	141.6	--	--	0.5	--	--	
GOLDEN HARVEST	H-2485	42.5	33	--	137.4	164	--	2.6	2	--	
CALLAHAN	C7245	42.5	--	--	128.8	--	--	0.0	--	--	
GREAT LAKES	GL559	42.7	--	--	139.4	--	--	1.0	--	--	
*PIONEER	3525	42.7	--	--	144.5	--	--	0.5	--	--	
DAIRYLAND	STEALTH-1205	43.3	--	--	132.2	--	--	0.0	--	--	
GREAT LAKES	GL499	43.6	32	--	121.0	149	--	2.5	2	--	
WOLVERINE	W167	43.6	34	--	116.7	147	--	2.1	2	--	
CROW'S	449	44.1	--	--	129.0	--	--	1.0	--	--	
CARGILL	4327	44.4	33	30	136.3	162	168	8.1	5	5	
PIONEER	3527	44.5	33	30	132.0	172	182	0.0	0	0	
GOLDEN HARVEST	EX 637	44.8	--	--	119.3	--	--	0.5	--	--	
RENK	RK721	45.1	35	33	131.4	162	161	1.0	2	2	
CROW'S	667	46.2	--	--	118.7	--	--	2.0	--	--	
CROW'S	488	46.3	--	--	111.3	--	--	3.0	--	--	
RENK	RK812	46.4	--	--	117.0	--	--	0.5	--	--	

(continued below)

EARLY TRIAL (100 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2	3	1992	2	3	1992	2	3
*GREAT LAKES	GL446	35.9	27	25	149.9	169	165	0.0	1	4
ICI SEEDS	8777	36.2	--	--	145.0	--	--	1.0	--	--
CARGILL	3427	36.2	28	25	129.8	167	169	1.0	1	5
PAYCO	531	36.3	--	--	130.6	--	--	0.5	--	--
JACQUES	4770	36.4	28	27	136.5	176	177	1.0	1	2
*DAIRYLAND	DX-1100	36.4	28	26	153.8	170	166	4.5	3	4
DAIRYLAND	STEALTH-1201	36.4	29	--	123.4	145	--	0.5	0	--
RUPP	KR1644	36.8	--	--	126.2	--	--	0.5	--	--
*GOLDEN HARVEST	H-2331	37.2	28	26	149.4	177	180	2.0	2	5
CALLAHAN	C7337X	37.8	--	--	132.4	--	--	0.5	--	--
ANDERSONS	PSX290	38.0	30	28	104.8	147	153	1.6	1	2
GUTWEIN	2100	38.1	--	--	133.7	--	--	0.0	--	--
ASGROW	RX497	38.3	--	--	119.2	--	--	0.0	--	--
CALLAHAN	C743	38.9	29	27	125.4	161	162	3.1	2	3
WOLVERINE	X103	39.1	--	--	136.7	--	--	2.5	--	--
DEKALB	DK485	39.3	30	27	132.2	168	173	0.0	0	3
CALLAHAN	C7338X	39.3	--	--	115.4	--	--	1.0	--	--
AVERAGE		33.0	26	25	136.3	163	162	1.3	1	4
RANGE		24.1	22	22	104.8	138	133	0.0	0	0
		TO	TO	TO	TO	TO	TO	TO	TO	TO
		39.3	30	28	161.2	181	180	4.5	3	11
LEAST SIGNIFICANT		1.4			10.3					
DIFFERENCE										
COEFFICIENT OF VARIANCE		7.9%								

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

LATE TRIAL (101 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2	3	1992	2	3	1992	2	3
RUPP	KR1677	47.0	--	--	119.8	--	--	1.0	--	--
CROW'S	401	47.1	--	--	113.6	--	--	1.0	--	--
RUPP	KR1694	49.6	--	--	112.2	--	--	0.0	--	--
AVERAGE		40.8	31	29	133.8	162	167	1.6	2	4
RANGE		32.1	28	27	94.8	144	154	0.0	0	0
		TO	TO	TO	TO	TO	TO	TO	TO	TO
		49.6	35	33	162.8	194	195	8.1	5	8
LEAST SIGNIFICANT		2.0			8.9					
DIFFERENCE										
COEFFICIENT OF VARIANCE		7.0%								

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

1992
PLANTED May 15
HARVESTED December 2
SOIL TYPE Kilmanagh Loam
PREVIOUS CROP Corn
POPULATION 25,700
ROW WIDTH 30"
FERTILIZER 149-41-96+zinc
SOIL TEST: pH 6.8
P 133 (very high)
K 366 (very high)

1991
PLANTED May 15
HARVESTED October 16
SOIL TYPE Kilmanagh Loam
PREVIOUS CROP Corn
POPULATION 27,400
ROW WIDTH 30"
FERTILIZER 160-141-6
SOIL TEST: pH 6.9
P 98 (high)
K 384 (very high)

1990
PLANTED May 14
HARVESTED November 16
SOIL TYPE Kilmanagh Loam
PREVIOUS CROP Corn
POPULATION 24,500
ROW WIDTH 30"
FERTILIZER 163-57-98
SOIL TEST: pH 7.6
P 140 (very high)
K 187 (medium)

FARM COOPERATORS: William, Ron and Ed McCrea, Bad Axe
COUNTY EXTENSION DIRECTOR: Robert Johnson, Bad Axe
EXTENSION AGRICULTURAL AGENT: James LeCureux, Bad Axe

TABLE 10

SOUTHERN MICHIGAN

ZONE 3

MONTCALM COUNTY - IRRIGATED TRIAL
ONE, TWO, THREE YEAR AVERAGES - 1992, 1991, 1990

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EARLY TRIAL (100 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))											
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING			
		1992	2	3	1992	2	3	1992	2	3	
*DEKALB	DK381	18.5	--	--	179.5	--	--	0.0	--	--	
FUNK'S	G-BRAND 4120	19.5	19	--	140.4	182	--	1.0	1	--	
FUNK'S	G-BRAND 4070	19.5	--	--	141.1	--	--	4.3	--	--	
DEKALB	DK401	19.7	18	--	155.4	185	--	2.4	2	--	
FUNK'S	G-BRAND 4183	20.7	--	--	150.5	--	--	0.0	--	--	
TOP FARM	TFsx1097A	20.7	20	--	168.5	178	--	1.0	1	--	
*JUNG	2648	20.7	--	--	184.5	--	--	0.5	--	--	
TERRA	TR910	21.0	--	--	142.9	--	--	0.5	--	--	
RENK	RK527	21.2	--	--	134.8	--	--	0.0	--	--	
DEKALB	DK421	21.4	--	--	164.8	--	--	1.5	--	--	
WOLVERINE	W133	21.4	19	21	118.1	155	147	5.2	5	3	
PIONEER	3921	21.5	--	--	158.8	--	--	0.0	--	--	
DAIRYLAND	STEALTH-1201	21.8	20	--	153.0	201	--	1.5	2	--	
*GUTWEIN	2120	22.0	--	--	171.4	--	--	0.5	--	--	
PIONEER	3779	22.2	--	--	155.0	--	--	0.0	--	--	
FUNK'S	G-BRAND 4172	22.3	21	22	154.3	183	165	2.5	2	2	
PICKSEED	5665	22.5	20	21	170.3	191	176	1.0	2	4	
CALLAHAN	C729	22.5	20	22	145.4	170	160	0.0	1	1	
PIONEER	3861	22.7	--	--	170.6	--	--	1.0	--	--	
RUPP	EXP.1-201	22.8	--	--	165.7	--	--	1.9	--	--	
FUNK'S	G-BRAND 4202	23.0	--	--	162.5	--	--	0.5	--	--	
PIONEER	X1113	23.2	--	--	169.1	--	--	0.0	--	--	
RENK	RK555	23.2	--	--	167.4	--	--	0.5	--	--	
ANDERSONS	PSX250	23.2	21	--	135.9	168	--	2.5	2	--	
*PICKSEED	5993	23.2	--	--	190.1	--	--	0.5	--	--	
*PIONEER	3723	23.4	21	--	189.6	220	--	0.0	1	--	
WOLVERINE	W156	23.7	22	23	133.2	173	169	0.0	1	3	
*GOLDEN HARVEST	H-2331	23.7	21	23	198.3	214	203	1.0	2	3	
CALLAHAN	C725	23.8	21	22	155.4	176	169	0.0	2	3	
GREAT LAKES	GL450	23.9	22	--	169.2	201	--	1.6	3	--	
AMCORN	PSX3333	23.9	21	22	146.4	182	170	1.0	2	4	
NORTHUP KING	N3808	24.1	21	--	165.4	188	--	0.0	2	--	
JUNG	2503	24.1	--	--	161.8	--	--	0.5	--	--	
*PAYCO	531	24.4	--	--	184.7	--	--	0.5	--	--	
FUNK'S	G-BRAND 4282	24.5	--	--	149.0	--	--	2.4	--	--	
*CALLAHAN	C7337X	24.6	--	--	178.2	--	--	0.5	--	--	
*GUTWEIN	2100	24.8	--	--	183.6	--	--	0.5	--	--	
*COUNTRYMARK	CO-OP 432	24.8	22	--	178.9	197	--	1.0	1	--	
*ASGROW	RK497	24.9	--	--	182.8	--	--	0.5	--	--	
TOP FARM	TFsx1195A	24.9	22	23	147.9	175	170	1.0	2	5	
PIONEER	3733	25.0	22	24	157.5	200	192	0.0	1	1	
TOP FARM	TFsx1101A	25.2	--	--	151.2	--	--	1.0	--	--	
CARGILL	2927	25.4	21	--	165.5	190	--	5.3	5	--	
*ICI SEEDS	8777	25.5	--	--	179.9	--	--	1.9	--	--	
STINE	946	25.8	--	--	141.2	--	--	2.9	--	--	
TOP FARM	TFsx1102	25.9	--	--	156.8	--	--	1.0	--	--	
*JUNG	2496	26.0	23	25	176.1	188	171	1.9	2	3	
NORTHUP KING	N3624	26.1	22	24	156.8	189	175	0.0	0	1	
DAIRYLAND	DX-1100	26.2	23	25	161.0	193	182	0.5	1	2	
*GREAT LAKES	GL496	26.5	23	--	175.5	195	--	1.0	2	--	

(continued below)

LATE TRIAL (101 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))											
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING			
		1992	2	3	1992	2	3	1992	2	3	
DAIRYLAND	STEALTH-1202	22.3	--	--	153.0	--	--	3.3	--	--	
RENK	RK657	22.4	--	--	167.5	--	--	2.4	--	--	
*RENK	RK617	24.9	--	--	176.4	--	--	0.5	--	--	
ICI SEEDS	8700	26.6	--	--	162.9	--	--	0.5	--	--	
TERRA	TR1020	27.1	23	26	161.3	181	175	0.5	2	3	
BLANEY	B405	27.7	24	--	165.4	181	--	1.0	5	--	
NORTHUP KING	N4242	27.8	--	--	159.0	--	--	1.0	--	--	
TERRA	TR1010	28.5	24	26	155.8	174	167	0.0	2	2	
*TERRA	TR1030	29.3	--	--	179.1	--	--	0.5	--	--	
DAIRYLAND	STEALTH-1203	29.3	--	--	162.9	--	--	0.0	--	--	
RENK	RK646	29.5	25	26	161.2	177	167	1.0	1	2	
CROW'S	237	29.5	--	--	149.9	--	--	1.0	--	--	
AMCORN	PSX5757	30.5	26	--	160.0	191	--	3.8	3	--	
CROW'S	210	30.7	--	--	159.3	--	--	1.0	--	--	
JACQUES	5600	31.4	--	--	153.4	--	--	0.5	--	--	
*PIONEER	3573	31.5	26	28	181.5	212	195	0.0	2	2	
CROW'S	414	31.5	26	28	149.1	185	173	3.4	4	3	
ICI SEEDS	N9702	31.7	--	--	154.5	--	--	1.0	--	--	
*AMCORN	PSX9009	31.8	--	--	178.9	--	--	0.0	--	--	
*DEKALB	DK512	31.9	--	--	188.8	--	--	1.5	--	--	
TERRA	TR1050	32.1	--	--	161.7	--	--	0.0	--	--	
*CALLAHAN	C7348X	32.1	--	--	172.0	--	--	0.5	--	--	
GREAT LAKES	GL499	32.3	26	--	166.4	196	--	0.5	1	--	
CALLAHAN	C7245	32.5	--	--	169.3	--	--	0.0	--	--	
*PIONEER	X1414	32.6	--	--	189.6	--	--	0.0	--	--	
*PIONEER	3527	32.6	26	29	172.8	211	200	0.0	1	1	
CROW'S	370	32.8	--	--	170.0	--	--	1.4	--	--	
*PIONEER	3525	33.0	--	--	192.9	--	--	0.0	--	--	
RENK	RK727	33.2	--	--	143.7	--	--	0.5	--	--	
GREAT LAKES	GL559	33.4	--	--	170.1	--	--	0.5	--	--	
AMCORN	PSX7450	33.4	27	--	118.7	166	--	1.0	1	--	
DEKALB	DK554	33.7	--	--	169.6	--	--	0.5	--	--	
STINE	1073	34.1	--	--	156.8	--	--	0.0	--	--	
STINE	592X	34.2	--	--	165.3	--	--	0.0	--	--	
CARGILL	5327	34.4	--	--	157.9	--	--	1.0	--	--	
*GOLDEN HARVEST	498	34.6	--	--	172.6	--	--	0.5	--	--	
CROW'S	H-2485	34.6	29	--	151.0	192	--	0.5	1	--	
RENK	RK721	34.8	29	32	170.8	202	182	0.0	1	1	
ASGROW	RK623	34.9	--	--	167.3	--	--	0.5	--	--	
*DAIRYLAND	STEALTH-1205	35.0	--	--	174.8	--	--	0.0	--	--	
RENK	RK702	35.4	29	--	136.5	164	--	0.0	2	--	
CARGILL	5157	36.1	29	30	142.2	178	174	0.0	1	3	
GOLDEN HARVEST	EX 637	36.5	--	--	167.2	--	--	0.5	--	--	
PAYCO	711	36.6	--	--	151.0	--	--	0.5	--	--	
*CARGILL	4327	36.7	29	31	187.4	202	185	1.4	2	2	
WOLVERINE	W167	37.5	30	--	142.9	184	--	2.0	1	--	
RENK	RK812	39.5	--	--	166.9	--	--	0.0	--	--	
CROW'S	488	39.7	--	--	158.8	--	--	1.0	--	--	
RUPP	XR1694	40.0	--	--	158.4	--	--	0.5	--	--	
CROW'S	667	41.0	--	--	154.6	--	--	1.0	--	--	

(continued below)

EARLY TRIAL (100 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHELS PER ACRE			% STALK LODGING		
		1992	2	3	1992	2	3	1992	2	3
		YR	YR	YR	YR	YR	YR	YR	YR	YR
PAYCO	463	26.7	--	--	144.6	--	--	1.0	--	--
RENK	RK602	26.8	23	--	168.9	178	--	0.0	2	--
GREAT LAKES	GL446	26.9	23	25	166.3	188	180	0.5	1	2
*DEKALB	DK485	27.0	23	25	177.1	207	198	1.5	2	3
GOLDEN HARVEST	H-2390	27.1	24	--	159.2	199	--	1.0	1	--
CROW'S	179	27.2	23	--	144.1	168	--	1.0	3	--
*PIONEER	3751	27.3	23	24	179.1	203	185	1.5	2	4
CALLAHAN	C743	27.4	23	26	162.6	188	176	0.5	4	4
JACQUES	4440	27.5	--	--	168.2	--	--	0.5	--	--
AMCORN	PSX5555	27.5	24	26	168.3	187	178	1.0	1	3
JACQUES	4770	27.6	23	25	169.6	199	191	1.0	1	2
PICKSEED	5990	27.7	--	--	163.9	--	--	0.0	--	--
CARGILL	3427	28.3	23	25	167.2	192	187	1.4	1	3
ANDERSONS	PSX290	28.5	24	26	135.2	183	178	5.2	3	3
*RUPP	XR1644	31.3	--	--	187.8	--	--	0.5	--	--
WOLVERINE	X103	31.4	--	--	166.0	--	--	1.4	--	--
CALLAHAN	C7338X	32.1	--	--	146.8	--	--	0.5	--	--
AVERAGE		24.5	22	24	162.3	188	177	1.1	2	3
RANGE		18.5	18	21	118.1	155	147	0.0	0	1
		32.1	24	26	198.3	220	203	5.3	5	5
LEAST SIGNIFICANT		1.4			9.0					
DIFFERENCE										
COEFFICIENT OF VARIANCE		5.8%								
*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992										

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

LATE TRIAL (101 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2	3	1992	2	3	1992	2	3
=====										
=====										
CROW'S	401	41.1	--	--	150.1	--	--	0.0	--	--
RUPP	XR1677	41.4	--	--	153.6	--	--	0.0	--	--
CROW'S	449	41.4	--	--	133.6	--	--	0.5	--	--
=====										
AVERAGE		33.0	27	28	162.2	187	180	0.7	2	2
=====										
RANGE		22.3	27	26	118.7	164	167	0.0	1	1
		TO	TO	TO	TO	TO	TO	TO	TO	TO
		41.4	30	32	192.9	212	200	3.8	5	3
=====										
LEAST SIGNIFICANT DIFFERENCE		1.9			9.6					
COEFFICIENT OF VARIANCE		6.2%								
=====										
*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992										

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

1992
PLANTED April 30
HARVESTED November 10
SOIL TYPE Montcalm-McBride
Sandy Loam
PREVIOUS CROP Potatoes
POPULATION 27,200
ROW WIDTH 30"
FERTILIZER 192-0-125
SOIL TEST: pH 6.2
P 395 (very high)
K 168 (medium)
IRRIGATION 5 inches

1991
PLANTED May 10
HARVESTED October 21
SOIL TYPE Montcalm-McBride
Sandy Loam
PREVIOUS CROP Potatoes
POPULATION 28,100
ROW WIDTH 30"
FERTILIZER 180-0-120
SOIL TEST: pH 6.2
P 310 (very high)
K 151 (low)
IRRIGATION 5.5 inches

1990
PLANTED May 14
HARVESTED November 7
SOIL TYPE Montcalm-McBride
Sandy Loam
PREVIOUS CROP Potatoes
POPULATION 22,600
ROW WIDTH 30"
FERTILIZER 150-15-60
SOIL TEST: pH 5.4
P 429 (very high)
K 175 (medium)
IRRIGATION 6.2 inches

FARM COOPERATOR: Richard Crawford, Montcalm Research Farm, Entrican
COUNTY EXTENSION DIRECTOR: Donald Smucker, Stanton
EXTENSION AGRICULTURAL AGENTS: George Atkeson and Jill O'Donnell, Stanton

TABLE 11

NORTH CENTRAL MICHIGAN

MASON COUNTY - IRRIGATED TRIAL

ONE, TWO, THREE YEAR AVERAGES -1992, 1991, 1990

ZONE 3

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EARLY TRIAL (100 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHELS PER ACRE			% STALK LODGING		
		1992	YR	YR	1992	YR	YR	1992	YR	YR
*FUNK'S	G-BRAND 4070	25.5	--	--	119.7	--	--	0.5	--	--
*FUNK'S	G-BRAND 4120	25.8	23	--	101.6	148	--	1.1	2	--
*PIONEER	3921	27.8	--	--	128.6	--	--	1.1	--	--
*DEKALB	DK401	28.3	24	--	126.9	147	--	1.6	3	--
*FUNK'S	G-BRAND 4172	28.5	26	25	142.2	167	163	0.0	1	1
*FUNK'S	G-BRAND 4183	30.1	--	--	122.5	--	--	1.6	--	--
*NORTHRUP KING	N3624	30.2	25	24	135.9	165	165	1.1	1	1
*PIONEER	3861	30.7	--	--	142.4	--	--	2.2	--	--
*WOLVERINE	W133	30.9	27	26	80.2	137	138	8.7	5	5
*CALLAHAN	C725	31.0	27	25	110.9	144	149	4.3	4	4
*TOP FARM	TFex1097A	31.3	27	--	131.2	151	--	3.2	2	--
*DEKALB	DK421	31.4	--	--	125.0	--	--	1.1	--	--
*RENK	RK602	31.4	27	--	125.7	164	--	2.7	2	--
*GUTWEIN	2120	31.8	--	--	122.5	--	--	2.7	--	--
*PICKSEED	5665	31.9	27	25	143.4	171	166	4.0	4	3
*CARGILL	2927	32.3	27	--	131.8	159	--	1.1	3	--
*DEKALB	DK381	32.4	--	--	121.1	--	--	1.1	--	--
*DAIRYLAND	STEALTH-1201	32.4	28	--	110.1	165	--	1.7	2	--
*JUNG	2648	32.4	--	--	122.3	--	--	7.0	--	--
*FUNK'S	G-BRAND 4202	32.5	--	--	119.5	--	--	4.4	--	--
*PIONEER	3723	32.5	27	--	136.5	186	--	0.5	0	--
*GREAT LAKES	GL496	32.6	28	--	145.5	177	--	2.7	4	--
*JUNG	2496	32.7	29	27	128.2	157	164	1.6	4	4
*DAIRYLAND	DK-1100	32.8	27	26	123.0	166	171	2.7	4	4
*PIONEER	3751	32.9	28	27	144.2	174	175	1.1	3	3
*PIONEER	3779	33.0	--	--	121.6	--	--	1.1	--	--
*JUNG	2503	33.0	--	--	110.8	--	--	11.8	--	--
*TOP FARM	TFex1195A	33.2	28	26	104.6	138	143	6.2	4	5
*RENK	RK555	33.3	--	--	125.5	--	--	3.3	--	--
*PIONEER	X1113	33.6	--	--	138.8	--	--	0.0	--	--
*JACQUES	4440	33.8	--	--	117.0	--	--	1.6	--	--
*AMCORN	PSX5555	33.9	29	28	122.2	158	153	4.8	5	5
*CALLAHAN	C729	33.9	29	26	105.4	138	143	6.7	6	4
*STINE	946	34.1	--	--	106.0	--	--	2.2	--	--
*ANDERSONS	PSX290	34.2	30	29	111.7	163	165	2.8	3	2
*PICKSEED	5993	34.3	--	--	141.1	--	--	1.6	--	--
*TERRA	TR910	34.4	--	--	122.0	--	--	4.1	--	--
*RUPP	EXP.1-201	34.4	--	--	120.7	--	--	8.1	--	--
*PAYCO	463	34.7	--	--	106.9	--	--	8.1	--	--
*WOLVERINE	W156	34.8	28	27	86.2	122	137	7.3	5	4
*DEKALB	DK485	34.9	32	30	142.1	164	169	2.2	3	4
*NORTHRUP KING	N3808	34.9	29	--	123.3	160	--	5.4	5	--
*CARGILL	3427	35.0	29	27	121.8	166	173	2.7	4	3
*ANDERSONS	PSX250	35.2	30	--	106.6	133	--	3.4	3	--
*PIONEER	3733	35.4	30	29	120.3	181	179	1.7	1	1
*CALLAHAN	C743	35.4	30	28	106.5	145	149	4.5	4	5
*ICI SEEDS	8777	35.5	--	--	135.3	--	--	1.1	--	--
*GOLDEN HARVEST	H-2390	35.5	31	--	123.6	167	--	0.5	3	--
*PICKSEED	5990	35.5	--	--	120.0	--	--	4.1	--	--
*ASGROW	RX497	35.9	--	--	123.4	--	--	3.8	--	--

(continued below)

LATE TRIAL (101 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHELS PER ACRE			% STALK LODGING		
		1992	YR	YR	1992	YR	YR	1992	YR	YR
*TERRA	TR1020	34.1	30	29	117.3	147	150	0.0	0	1
*RENK	RK657	34.1	--	--	118.5	--	--	4.9	--	--
*TERRA	TR1050	35.7	--	--	117.4	--	--	1.6	--	--
*RENK	RK617	37.4	--	--	117.9	--	--	5.9	--	--
*CROW'S	237	37.6	--	--	112.0	--	--	1.6	--	--
*DAIRYLAND	STEALTH-1202	37.7	--	--	108.8	--	--	13.7	--	--
*TERRA	TR1010	38.5	32	29	105.3	147	143	9.1	6	5
*NORTHRUP KING	N4242	38.8	--	--	120.1	--	--	2.7	--	--
*CALLAHAN	C7348X	38.9	--	--	131.4	--	--	1.6	--	--
*DAIRYLAND	STEALTH-1203	39.1	--	--	122.3	--	--	1.1	--	--
*RENK	RK646	39.2	32	30	107.4	147	143	4.9	3	3
*PIONEER	3573	39.5	33	31	125.5	182	180	0.0	1	1
*ICI SEEDS	8700	39.5	--	--	97.2	--	--	3.8	--	--
*CROW'S	414	39.8	33	31	97.6	139	138	5.5	5	4
*DEKALB	DK554	39.9	--	--	111.8	--	--	0.0	--	--
*BLANEY	B405	40.3	33	--	111.5	152	--	1.6	3	--
*AMCORN	PSX5757	40.8	34	--	128.7	166	--	6.5	4	--
*RENK	RK702	41.5	36	--	91.1	136	--	3.2	3	--
*ASGROW	RK623	41.6	--	--	119.0	--	--	1.1	--	--
*TERRA	TR1030	41.6	--	--	123.3	--	--	0.0	--	--
*CARGILL	5157	41.6	35	33	110.2	155	164	1.1	1	1
*CARGILL	5327	41.8	--	--	100.5	--	--	2.3	--	--
*JACQUES	5600	42.1	--	--	116.0	--	--	3.3	--	--
*CROW'S	370	42.1	--	--	100.4	--	--	4.9	--	--
*DEKALB	DK512	42.2	--	--	126.4	--	--	2.9	--	--
*ICI SEEDS	N9702	42.2	--	--	94.5	--	--	2.2	--	--
*GREAT LAKES	GL559	42.4	--	--	113.3	--	--	2.8	--	--
*PAYCO	7111	42.4	--	--	103.6	--	--	2.2	--	--
*PIONEER	3525	42.7	--	--	122.5	--	--	1.1	--	--
*STINE	592X	42.7	--	--	112.2	--	--	4.9	--	--
*CROW'S	210	42.7	--	--	108.8	--	--	0.5	--	--
*CARGILL	4327	42.8	35	33	108.0	165	164	0.6	2	2
*AMCORN	PSX9009	43.0	--	--	106.8	--	--	3.9	--	--
*AMCORN	PSX7450	43.2	37	--	77.4	141	--	1.7	3	--
*WOLVERINE	W167	43.3	37	--	94.6	147	--	5.4	4	--
*PIONEER	3527	43.5	36	34	116.3	164	168	0.0	0	0
*GOLDEN HARVEST	H-2485	43.8	37	--	95.4	144	--	1.1	1	--
*CROW'S	498	43.9	--	--	94.9	--	--	1.1	--	--
*CALLAHAN	C7245	44.2	--	--	105.9	--	--	3.8	--	--
*DAIRYLAND	STEALTH-1205	44.6	--	--	110.7	--	--	1.1	--	--
*CROW'S	401	44.7	--	--	92.9	--	--	0.0	--	--
*RENK	RK727	45.3	--	--	95.1	--	--	0.5	--	--
*RUPP	XR1677	45.3	--	--	102.7	--	--	0.5	--	--
*GREAT LAKES	GL499	45.5	37	--	87.4	149	--	1.8	3	--
*PIONEER	X1414	45.6	--	--	115.7	--	--	0.5	--	--
*RENK	RK812	46.0	--	--	100.0	--	--	0.0	--	--
*RUPP	XR1694	46.0	--	--	95.1	--	--	1.1	--	--
*GOLDEN HARVEST	EX 637	46.1	--	--	99.4	--	--	0.0	--	--
*CROW'S	488	46.5	--	--	98.4	--	--	0.0	--	--
*CROW'S	449	47.1	--	--	88.2	--	--	1.1	--	--

(continued below)

EARLY TRIAL (100 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2 YR	3 YR	1992	2 YR	3 YR	1992	2 YR	3 YR
TOP FARM	TFex1102	36.1	--	--	106.7	--	--	7.0	--	--
CALLAHAN	C7337X	36.2	--	--	125.3	--	--	9.9	--	--
FUNK'S	G-BRAND 4282	36.5	--	--	106.4	--	--	0.5	--	--
COUNTRYMARK	CO-OP 432	36.7	30	--	126.3	160	--	7.0	5	--
JACQUES	4770	37.0	31	28	120.3	161	163	5.4	3	4
AMCORN	PSX3333	37.0	30	28	102.2	139	139	4.3	3	4
RENK	RK527	37.1	--	--	90.8	--	--	1.2	--	--
GREAT LAKES	GL446	37.4	30	28	111.5	153	162	3.2	4	3
PAYCO	531	37.4	--	--	126.0	--	--	3.8	--	--
CROW'S	179	37.6	31	--	95.7	141	--	1.1	2	--
TOP FARM	TFex1101A	38.5	--	--	115.5	--	--	2.2	--	--
GREAT LAKES	GL450	39.0	32	--	120.6	160	--	2.8	3	--
GUTWEIN	2100	39.3	--	--	117.1	--	--	2.2	--	--
RUPP	KR1644	40.2	--	--	113.7	--	--	1.1	--	--
GOLDEN HARVEST	H-2331	40.3	33	30	123.8	170	179	6.0	5	5
CALLAHAN	C7338X	42.2	--	--	87.7	--	--	0.0	--	--
WOLVERINE	X103	43.0	--	--	100.3	--	--	2.2	--	--
AVERAGE		34.1	29	27	119.3	157	159	3.3	3	3
RANGE		25.5	23	24	80.2	122	137	0.0	0	1
		43.0	33	30	145.5	186	179	11.8	6	5
LEAST SIGNIFICANT DIFFERENCE		2.1			8.6					
COEFFICIENT OF VARIANCE		7.5%								
*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992										

LATE TRIAL (101 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2 YR	3 YR	1992	2 YR	3 YR	1992	2 YR	3 YR
RENK	RK721	47.8	40	38	89.1	141	146	2.7	3	2
CROW'S	667	47.8	--	--	91.0	--	--	0.6	--	--
STINE	1073	47.9	--	--	80.9	--	--	0.6	--	--
AVERAGE		42.2	35	32	106.4	151	155	2.4	3	2
RANGE		34.1	30	29	77.4	136	138	0.0	0	0
		TO	TO	TO	TO	TO	TO	TO	TO	TO
		47.9	40	38	131.4	182	180	13.7	6	5
LEAST SIGNIFICANT DIFFERENCE		2.3			7.9					
COEFFICIENT OF VARIANCE		7.8%								
*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992										

1992
 PLANTED May 14
 HARVESTED November 19
 SOIL TYPE Ogemaw Sandy Loam
 PREVIOUS CROP Snap Beans-rye cover
 POPULATION 24,100
 ROW WIDTH 30"
 FERTILIZER 82-30-39+10 tons manure
 SOIL TEST: pH 6.5
 P 372 (very high)
 K 598 (very high)
 IRRIGATION 2 inches

FARM COOPERATORS: Robert and August Oshe, Scottville
 COUNTY EXTENSION DIRECTOR: David Peterson, Scottville

1991
 May 11
 October 9
 Arenac Loamy Sand
 Snap beans-rye cover
 26,600
 30"
 109-23-30+10 tons manure
 6.6
 169 (very high)
 328 (very high)
 4 inches

1990
 May 18
 November 8
 Iosco Sandy Loam
 Snap beans
 24,400
 30"
 116-41-60
 6.8
 299 (very high)
 449 (very high)
 1 inch

TABLE 12

SOUTHERN MICHIGAN

ZONE 3

AVERAGE OF HURON, MONTCALM & MASON COUNTY TRIALS
ONE, TWO, THREE YEAR AVERAGES -1992, 1991, 1990

EARLY TRIAL (100 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2 YR	3 YR	1992	2 YR	3 YR	1992	2 YR	3 YR
FUNK'S	G-BRAND 4070	23.0	--	--	129.5	--	--	1.9	--	--
*PIONEER	3921	24.7	--	--	146.5	--	--	0.4	--	--
FUNK'S	G-BRAND 4120	24.9	22	--	122.6	165	--	0.7	1	--
*DEKALB	DK381	25.1	--	--	151.5	--	--	0.7	--	--
DEKALB	DK401	25.3	22	--	136.7	164	--	1.3	2	--
FUNK'S	G-BRAND 4183	26.5	--	--	137.9	--	--	0.5	--	--
*FUNK'S	G-BRAND 4172	26.7	24	24	147.2	172	164	0.8	1	1
*WOLVERINE	W133	26.8	23	23	106.1	143	139	5.0	4	5
TERRA	TR910	26.8	--	--	131.1	--	--	1.9	--	--
*PIONEER	3861	27.1	--	--	152.7	--	--	1.1	--	--
*GUTWEIN	2120	27.7	--	--	144.6	--	--	1.4	--	--
DEKALB	DK421	28.0	--	--	138.6	--	--	1.2	--	--
*JUNG	2648	28.0	--	--	150.6	--	--	2.8	--	--
*PIONEER	3779	28.1	--	--	145.7	--	--	0.5	--	--
CALLAHAN	C725	28.2	24	23	134.8	163	161	1.9	2	5
*TOP FARM	TFsx1097A	28.5	25	--	144.8	162	--	1.6	2	--
CALLAHAN	C729	28.6	24	24	120.8	149	147	2.9	3	3
FUNK'S	G-BRAND 4202	28.9	--	--	139.7	--	--	1.8	--	--
TOP FARM	TFsx1195A	29.1	24	24	129.6	160	158	3.9	3	7
NORTHRUP KING	N3624	29.2	24	24	142.9	171	167	0.4	1	2
*RENK	RK555	29.2	--	--	148.1	--	--	1.4	--	--
*CARGILL	2927	29.4	24	--	147.4	173	--	3.1	4	--
*PICKSEED	5665	29.4	25	24	148.6	170	165	1.7	2	3
*PIONEER	X1113	29.7	--	--	150.8	--	--	0.0	--	--
*PIONEER	3723	29.7	25	--	159.0	194	--	0.3	1	--
RENK	RK527	29.7	--	--	116.7	--	--	1.8	--	--
JUNG	2503	29.7	--	--	137.5	--	--	5.1	--	--
*PICKSEED	5993	29.9	--	--	164.1	--	--	1.0	--	--
AMCORN	PSX3333	30.0	25	24	127.7	161	155	3.0	3	4
RUPP	EXP.1-201	30.1	--	--	136.9	--	--	3.3	--	--
DAIRYLAND	STEALTH-1201	30.2	26	--	128.8	170	--	1.2	1	--
*RENK	RK602	30.3	25	--	148.9	166	--	1.4	2	--
ANDERSONS	PSX250	30.3	26	--	122.8	152	--	2.7	2	--
*NORTHRUP KING	N3808	30.6	25	--	145.8	173	--	2.6	3	--
TOP FARM	TFsx1102	30.7	--	--	134.8	--	--	3.5	--	--
PAYCO	463	30.8	--	--	126.8	--	--	4.1	--	--
*WOLVERINE	W156	31.0	26	25	112.6	150	153	3.5	3	4
*GREAT LAKES	GL496	31.1	26	--	154.3	181	--	1.6	2	--
FUNK'S	G-BRAND 4282	31.4	--	--	125.9	--	--	1.3	--	--
*JUNG	2496	31.4	26	26	152.7	173	169	1.3	3	3
*JACQUES	4440	31.6	--	--	148.0	--	--	1.0	--	--
PIONEER	3733	31.6	27	26	143.7	183	181	0.6	1	1
STINE	946	31.7	--	--	124.9	--	--	1.9	--	--
*DAIRYLAND	DX-1100	31.8	26	26	145.9	177	173	2.6	2	3
*PIONEER	3751	32.0	26	25	158.7	186	178	0.9	2	3
COUNTRYMARK	CO-OP 432	32.0	26	--	143.2	172	--	3.3	3	--
AMCORN	PSX5555	32.2	27	27	142.4	171	165	3.1	3	3
*ICI SEEDS	8777	32.4	--	--	153.4	--	--	1.3	--	--
PICKSEED	5990	32.4	--	--	137.3	--	--	2.5	--	--
GREAT LAKES	GL450	32.6	27	--	143.4	176	--	1.6	2	--

(continued below)

LATE TRIAL (101 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))										
HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	YR	YR	1992	YR	YR	1992	YR	YR
*RENK	RK657	30.3	--	--	142.1	--	--	2.8	--	--
DAIRYLAND	STEALTH-1202	30.7	--	--	135.5	--	--	6.2	--	--
*RENK	RK617	32.6	--	--	143.2	--	--	3.3	--	--
*TERRA	TR1020	33.0	28	28	141.2	165	163	0.7	1	4
ICI SEEDS	8700	33.5	--	--	133.4	--	--	1.8	--	--
*NORTHROP KING	N4242	34.2	--	--	141.9	--	--	1.9	--	--
*BLANEY	B405	34.3	28	--	144.5	167	--	1.4	3	--
TERRA	TR1010	34.6	28	27	132.1	163	158	5.0	4	3
RENK	RK646	35.0	29	28	136.8	164	157	3.2	3	3
TERRA	TR1050	35.6	--	--	138.3	--	--	0.7	--	--
CROW'S	237	35.6	--	--	130.9	--	--	1.2	--	--
*DAIRYLAND	STEALTH-1203	35.7	--	--	143.0	--	--	0.9	--	--
*AMCORN	PSX5757	35.8	30	--	143.7	174	--	4.1	3	--
CROW'S	210	36.4	--	--	136.9	--	--	0.5	--	--
ICI SEEDS	N9702	36.7	--	--	129.9	--	--	1.4	--	--
CROW'S	414	36.7	30	29	128.7	160	155	4.3	4	5
*DEKALB	DK512	37.2	--	--	159.3	--	--	2.7	--	--
*PIONEER	3573	37.2	30	29	154.4	196	190	0.2	1	2
*TERRA	TR1030	37.2	--	--	145.9	--	--	0.3	--	--
JACQUES	5600	37.4	--	--	133.9	--	--	1.8	--	--
*CALLAHAN	C7348X	37.7	--	--	147.7	--	--	1.2	--	--
*DEKALB	DK554	38.3	--	--	142.1	--	--	0.2	--	--
*ASGROW	RX623	38.3	--	--	142.9	--	--	1.1	--	--
CROW'S	370	38.4	--	--	137.7	--	--	3.3	--	--
*STINE	592X	38.9	--	--	140.0	--	--	2.0	--	--
AMCORN	PSX9009	39.0	--	--	138.0	--	--	2.5	--	--
CARGILL	5157	39.3	31	31	126.7	162	164	0.5	1	2
CARGILL	5327	39.4	--	--	128.3	--	--	1.3	--	--
RENK	RK702	39.4	32	--	115.2	152	--	1.2	2	--
*GREAT LAKES	GL559	39.5	--	--	140.9	--	--	1.4	--	--
*PIONEER	3525	39.5	--	--	153.3	--	--	0.5	--	--
CROW'S	498	39.5	--	--	136.2	--	--	1.6	--	--
AMCORN	PSX7450	39.5	32	--	97.0	150	--	1.1	1	--
*PIONEER	X1414	39.6	--	--	151.1	--	--	0.5	--	--
CALLAHAN	C7245	39.7	--	--	134.7	--	--	1.3	--	--
*PIONEER	3527	40.2	32	31	140.4	183	183	0.0	0	0
RENK	RK727	40.2	--	--	120.8	--	--	1.2	--	--
GOLDEN HARVEST	H-2485	40.3	33	--	127.9	167	--	1.4	1	--
GREAT LAKES	GL499	40.5	32	--	124.9	165	--	1.6	2	--
PAYCO	711	40.5	--	--	132.1	--	--	1.1	--	--
*DAIRYLAND	STEALTH-1205	41.0	--	--	139.2	--	--	0.4	--	--
STINE	1073	41.1	--	--	119.6	--	--	0.6	--	--
*CARGILL	4327	41.3	32	31	143.9	176	173	3.4	3	3
WOLVERINE	W167	41.5	34	--	118.1	159	--	3.2	2	--
GOLDEN HARVEST	EX 637	42.5	--	--	128.6	--	--	0.3	--	--
RENK	RK721	42.6	34	34	130.4	168	163	1.2	2	2
RENK	RK812	44.0	--	--	128.0	--	--	0.2	--	--
CROW'S	488	44.2	--	--	122.8	--	--	1.3	--	--
CROW'S	449	44.2	--	--	116.9	--	--	0.9	--	--
CROW'S	401	44.3	--	--	118.9	--	--	0.3	--	--

(continued below)

EARLY TRIAL (100 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)	% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
	1992	YR	YR	1992	YR	YR	1992	YR	YR
*PAYCO 531	32.7	--	--	147.1	--	--	1.6	--	--
GOLDEN HARVEST H-2390	32.7	28	--	138.4	174	--	0.8	2	--
*CALLAHAN C7337X	32.9	--	--	145.3	--	--	3.6	--	--
ASGROW RX497	33.0	--	--	141.8	--	--	1.4	--	--
TOP FARM TFSx1101A	33.1	--	--	131.2	--	--	1.7	--	--
CARGILL 3427	33.2	27	26	139.6	175	176	1.7	2	4
CROW'S 179	33.2	27	--	124.0	152	--	1.0	2	--
GREAT LAKES GL446	33.4	27	26	142.6	170	169	1.2	2	3
ANDERSONS PSX290	33.6	28	28	117.2	164	165	3.2	3	3
*DEKALB DK485	33.7	28	27	150.5	180	180	1.2	2	3
JACQUES 4770	33.7	27	27	142.1	178	177	2.5	2	2
*GOLDEN HARVEST H-2331	33.7	27	26	157.2	187	187	3.0	3	4
CALLAHAN C743	33.9	28	27	131.5	165	162	2.7	3	4
*GUTWEIN 2100	34.1	--	--	144.8	--	--	0.9	--	--
RUPP XR1644	36.1	--	--	142.6	--	--	0.7	--	--
WOLVERINE X103	37.8	--	--	134.3	--	--	2.0	--	--
CALLAHAN C7338X	37.9	--	--	116.6	--	--	0.5	--	--
AVERAGE	30.5	26	25	139.3	169	166	1.9	2	3
RANGE	23.0	22	23	106.1	143	139	0.0	1	1
	37.9	28	28	164.1	194	187	5.1	4	7
LEAST SIGNIFICANT DIFFERENCE	1.0			5.3					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

LATE TRIAL (101 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)	% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
	1992	YR	YR	1992	YR	YR	1992	YR	YR
RUPP XR1677	44.6	--	--	125.4	--	--	0.5	--	--
CROW'S 667	45.0	--	--	121.4	--	--	1.2	--	--
RUPP XR1694	45.2	--	--	121.9	--	--	0.5	--	--
AVERAGE	38.7	31	30	134.1	167	167	1.6	2	3
RANGE	30.3	28	27	97.0	150	155	0.0	0	0
	45.2	34	34	159.3	196	190	6.2	4	5
LEAST SIGNIFICANT DIFFERENCE	1.2			5.0					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

TABLE 13

NORTHERN MICHIGAN

ZONE 4

ALPENA COUNTY TRIAL
ONE, TWO, THREE YEAR AVERAGES -1992, 1991, 1990

HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2	3	1992	2	3	1992	2	3
DAIRYLAND	STEALTH-1185	32.3	--	--	111.4	--	--	1.1	--	--
JUNG	3280	32.3	--	--	98.9	--	--	3.9	--	--
CARGILL	2217	33.3	--	--	101.1	--	--	0.6	--	--
*PIONEER	3921	34.6	30	--	131.6	122	--	3.3	4	--
*AMCORN	PSX0001	34.6	--	--	116.9	--	--	3.7	--	--
PICKSEED	2620	35.3	--	--	105.4	--	--	1.7	--	--
PICKSEED	2621	35.4	--	--	106.4	--	--	7.8	--	--
DEKALB	DK352	35.6	29	--	111.8	102	--	2.8	3	--
DAIRYLAND	STEALTH-1179	35.6	--	--	95.6	--	--	3.3	--	--
ICI SEEDS	8954	36.4	--	--	113.1	--	--	3.9	--	--
PAYCO	448	37.2	--	--	106.1	--	--	4.5	--	--
*NORTHRUP KING	N2409	37.3	32	--	124.2	110	--	2.2	4	--
WOLF RIVER VAL	WRV-9186	37.3	--	--	106.2	--	--	1.2	--	--
AMCORN	PSX3333	37.8	--	--	93.1	--	--	8.4	--	--
JACQUES	4120	38.3	33	29	107.6	100	111	6.1	5	4
*ICI SEEDS	8883	38.3	--	--	118.1	--	--	1.7	--	--
RUPP	XR2319	38.4	--	--	103.7	--	--	1.1	--	--
JUNG	2378	38.4	31	--	94.2	97	--	7.3	6	--
*DEKALB	DK401	38.5	--	--	129.7	--	--	1.7	--	--
*PIONEER	3779	38.7	34	30	124.3	120	114	1.2	2	2
DEKALB	DK381	38.8	--	--	113.2	--	--	1.6	--	--
JUNG	2448	39.3	--	--	104.2	--	--	2.3	--	--
*JUNG	2496	40.2	37	33	118.1	107	115	3.1	6	5
*PICKSEED	4990	40.3	--	--	117.0	--	--	1.2	--	--
PIONEER	3733	40.9	36	33	109.9	116	120	4.2	3	2

HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2	3	1992	2	3	1992	2	3
PIONEER	X1113	41.2	--	--	105.2	--	--	3.1	--	--
*CARGILL	3427	41.2	40	35	118.3	114	123	3.4	4	4
RUPP	EXP. 1-201	41.2	--	--	95.3	--	--	5.9	--	--
PIONEER	3861	41.4	--	--	109.3	--	--	5.3	--	--
RUPP	XR1505	41.5	--	--	103.8	--	--	1.1	--	--
*NORTHRUP KING	N2879	41.9	34	--	124.5	118	--	7.4	7	--
JUNG	2503	42.0	--	--	102.7	--	--	7.1	--	--
JACQUES	4440	42.1	--	--	115.9	--	--	1.7	--	--
ICI SEEDS	N9680	42.1	--	--	90.7	--	--	1.6	--	--
PAYCO	531	42.4	--	--	107.6	--	--	4.7	--	--
PIONEER	3723	42.8	38	--	115.8	110	--	0.5	1	--
*PIONEER	3751	43.3	38	34	129.1	124	119	3.4	4	4
CARGILL	2927	43.8	38	--	104.6	98	--	3.0	3	--
AVERAGE		38.7	35	32	110.1	111	117	3.4	4	3
RANGE		32.3	29	29	90.7	97	111	0.5	1	2
		TO	TO	TO	TO	TO	TO	TO	TO	TO
		43.8	40	35	131.6	124	123	8.4	7	5
LEAST SIGNIFICANT DIFFERENCE		1.8			6.3					
COEFFICIENT OF VARIANCE		6.0%								
*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992										

1992
PLANTED May 9
HARVESTED December 9
SOIL TYPE Selkirk Loam
PREVIOUS CROP Navy beans
POPULATION 23,100
ROW WIDTH 30"
FERTILIZER 124-38-66
SOIL TEST: pH 6.8
P 148 (very high)
K 244 (high)

1991
PLANTED May 13
HARVESTED October 8
SOIL TYPE Selkirk Loam
PREVIOUS CROP Navy beans
POPULATION 24,500
ROW WIDTH 30"
FERTILIZER 12-48-48
SOIL TEST: pH 5.9
P 113 (very high)
K 224 (high)

1990
PLANTED May 18
HARVESTED November 16
SOIL TYPE Selkirk Loam
PREVIOUS CROP Navy beans
POPULATION 16,000
ROW WIDTH 30"
FERTILIZER 124-96-96
SOIL TEST: pH 7.1
P 50 (medium)
K 187 (medium)

FARM COOPERATOR: Allen Schiellard, Hubbard Lake
COUNTY EXTENSION DIRECTOR: John Middleton, Alpena

TABLE 14

NORTHERN MICHIGAN

GRAND TRAVERSE COUNTY TRIAL

ONE, TWO, YEAR AVERAGES - 1992, 1991

ZONE4

HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2	3	1992	2	3	1992	2	3
*DEKALB	DK352	18.4	18	--	126.4	130	--	0.6	1	--
JUNG	3280	21.0	--	--	111.2	--	--	1.2	--	--
PICKSEED	2620	21.6	--	--	115.4	--	--	0.6	--	--
CARGILL	2217	21.7	--	--	102.4	--	--	0.0	--	--
PICKSEED	2621	21.7	--	--	99.7	--	--	0.0	--	--
ICI SEEDS	8954	22.5	--	--	115.9	--	--	0.6	--	--
JUNG	2378	22.5	21	--	94.2	107	--	0.0	4	--
*DEKALB	DK381	22.9	--	--	130.5	--	--	0.0	--	--
*NORTHUP KING	N2409	23.4	22	--	129.7	132	--	0.0	2	--
WOLF RIVER VAL	WRV-9186	23.4	--	--	98.2	--	--	0.6	--	--
DEKALB	DK401	23.6	--	--	116.8	--	--	0.6	--	--
DAIRYLAND	STEALTH-1179	23.6	--	--	108.7	--	--	0.6	--	--
*PIONEER	3921	23.7	22	--	133.8	118	--	0.0	0	--
*PIONEER	3861	24.4	--	--	145.4	--	--	0.0	--	--
DAIRYLAND	STEALTH-1185	24.4	--	--	96.5	--	--	0.6	--	--
ICI SEEDS	8883	24.5	--	--	112.5	--	--	0.0	--	--
JUNG	2448	25.2	--	--	104.9	--	--	0.0	--	--
AMCORN	PSX0001	27.8	--	--	101.7	--	--	0.6	--	--
PIONEER	3723	27.9	26	--	115.6	134	--	0.0	2	--
PAYCO	448	27.9	--	--	114.5	--	--	1.8	--	--
*JACQUES	4440	28.0	--	--	129.6	--	--	0.6	--	--
NORTHUP KING	N2879	28.7	25	--	113.0	116	--	0.0	4	--
RUPP	XR2319	28.8	--	--	102.3	--	--	0.0	--	--
PIONEER	X1113	29.4	--	--	117.3	--	--	0.0	--	--
PICKSEED	4990	29.4	--	--	122.0	--	--	0.6	--	--

HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2	3	1992	2	3	1992	2	3
JACQUES	4120	29.8	25	--	99.1	110	--	0.0	3	--
CARGILL	2927	29.8	26	--	124.2	120	--	1.7	4	--
*ICI SEEDS	N9680	30.1	--	--	127.6	--	--	0.0	--	--
PIONEER	3779	30.2	25	--	123.6	126	--	0.0	2	--
*PIONEER	3751	30.2	26	--	127.5	128	--	0.0	2	--
CARGILL	3427	31.3	27	--	114.4	120	--	0.0	2	--
AMCORN	PSX3333	31.7	--	--	104.5	--	--	0.0	--	--
RUPP	EXP. 1-201	31.8	--	--	109.1	--	--	0.0	--	--
RUPP	XR1505	32.4	--	--	102.5	--	--	0.0	--	--
JUNG	2496	32.4	28	--	118.7	127	--	0.6	3	--
JUNG	2503	33.0	--	--	123.1	--	--	0.6	--	--
PIONEER	3733	34.1	29	--	108.7	127	--	0.6	2	--
PAYCO	531	34.3	--	--	123.7	--	--	0.0	--	--
AVERAGE		27.0	25	--	114.9	123	--	0.3	2	--
RANGE		18.4	18	--	94.2	107	--	0.0	0	--
		TO	TO	--	TO	TO	--	TO	TO	--
		34.3	29	--	145.4	134	--	1.8	4	--
LEAST SIGNIFICANT DIFFERENCE		2.6		--	9.6		--			--
COEFFICIENT OF VARIANCE		8.8%		--			--			--

(continued next column)

	1992	1991	1990
PLANTED	April 30	May 11	
HARVESTED	October 26	October 8	NO TRIAL
SOIL TYPE	Karlin Sandy Loam	Karlin Sandy Loam	
PREVIOUS CROP	Alfalfa Sod	Alfalfa Sod	
POPULATION	22,000	24,500	
ROW WIDTH	30"	30"	
FERTILIZER	77-39-77	76-76-76	
SOIL TEST: pH	7.0	6.2	
P	177 (very high)	196 (very high)	
K	244 (high)	192 (medium)	
FARM COOPERATOR:	Richard Dennett, Buckley		
COUNTY EXTENSION DIRECTOR:	Richard Strong, Traverse City		
EXTENSION AGRICULTURAL AGENT:	Erwin Elsner, Traverse City		

(continued below)

MENOMINEE COUNTY TRIAL-SILAGE
ONE, TWO, THREE YEAR AVERAGES - 1992**, 1991, 1990

		% DRY	% MOIST		TONS PER ACRE		BUSHEL		% STALK	
		MATTER			GREEN - DRY	WEIGHT	PER ACRE		LODGING	
HYBRID				2				2		2
(BRAND-VARIETY)		1992	1991	YR	1992		1991	YR	1991	YR
WOLF RIVER VAL	WRV-9185	45.9	--	--	15.2	7.0	--	--	--	--
DAIRYLAND	STEALTH-1179	42.1	--	--	14.6	6.1	--	--	--	--
PICKSEED	2621	40.0	--	--	14.6	5.8	--	--	--	--
PICKSEED	2620	38.4	--	--	16.9	6.5	--	--	--	--
JUNG	2378	37.1	21	--	17.2	6.4	109	--	4	--
CENEX	288	37.0	--	--	16.6	6.2	--	--	--	--
PIONEER	3861	36.7	--	--	19.0	7.0	--	--	--	--
NORTHUP KING	N2409	36.6	23	--	19.2	7.0	132	--	11	--
PIONEER	3921	36.4	23	--	17.5	6.4	127	--	2	--
DEKALB	DK352	36.1	19	--	17.9	6.5	97	--	11	--
AMCORN	PSX0001	35.7	--	--	17.5	6.2	--	--	--	--
JACQUES	4120	35.0	24	28	16.8	5.9	127	113	12	12
PAYCO	448	35.0	--	--	16.7	5.9	--	--	--	--
JUNG	2448	34.7	--	--	16.9	5.9	--	--	--	--
WOLF RIVER VAL	WRV-9186	34.0	--	--	17.8	6.0	--	--	--	--
CARGILL	2217	33.9	--	--	18.6	6.3	--	--	--	--
JUNG	3280	32.9	--	--	17.0	5.6	--	--	--	--
DAIRYLAND	STEALTH-1185	32.2	--	--	19.0	6.1	--	--	--	--
ICI SEEDS	8954	31.7	--	--	18.0	5.7	--	--	--	--
NORTHUP KING	N2879	31.3	22	--	20.0	6.2	158	--	13	--
ICI SEEDS	8883	30.8	--	--	18.5	5.7	--	--	--	--
RUPP	EXP.1-201	30.8	--	--	21.2	6.5	--	--	--	--
PIONEER	3723	30.5	25	--	23.4	7.1	150	--	6	--
RUPP	XR2319	30.3	--	--	16.0	4.8	--	--	--	--
PIONEER	X1113	30.2	--	--	21.2	6.4	--	--	--	--

(continued next column)

HYBRID (BRAND-VARIETY)		% DRY		% MOIST	2 YR	TONS PER ACRE		BUSHEL		% STALK	
		MATTER				GREEN - DRY		PER ACRE		LODGING	
		1992	1991			WEIGHT	1992	1991	YR	1991	YR
JUNG	2496	30.2	29	34	--	20.7	6.2	123	106	--	9 9
RUPP	XR1505	30.0	--	--	--	22.3	6.7	--	--	--	--
PIONEER	3779	29.9	22	28	--	22.0	6.6	145	112	--	5 3
PAYCO	531	29.8	--	--	--	21.8	6.5	--	--	--	--
DEKALB	DK401	29.6	--	--	--	21.3	6.3	--	--	--	--
CARGILL	2927	29.5	23	--	--	21.3	6.3	137	--	--	6 --
PICKSEED	4990	29.4	--	--	--	20.9	6.1	--	--	--	--
JACQUES	4440	29.3	--	--	--	19.7	5.8	--	--	--	--
ICI SEEDS	N9680	29.3	--	--	--	23.1	6.8	--	--	--	--
AMCORN	PSX3333	29.1	--	--	--	18.5	5.4	--	--	--	--
CARGILL	3427	28.9	29	34	--	19.8	5.7	130	110	--	4 9
JUNG	2503	28.6	--	--	--	16.9	4.8	--	--	--	--
PIONEER	3751	28.3	24	29	--	21.4	6.0	176	129	--	20 14
DEKALB	DK381	27.8	--	--	--	18.9	5.3	--	--	--	--
PIONEER	3733	27.1	25	34	--	29.5	8.0	123	105	--	4 4
AVERAGE		32.8	24	31	--	19.1	6.2	133	113	--	8 8
RANGE		27.1	19	28	--	14.6	4.8	97	105	--	2 3
		TO	TO	TO	--	TO	TO	TO	TO	--	TO TO
		45.9	29	34	--	29.5	8.0	176	129	--	20 14

	1992	1991	1990
PLANTED	May 11	May 13	May 3
HARVESTED	October 7	October 16-17	November 8
SOIL TYPE	Onaway Loam	Onaway Loam	Onaway Loam
PREVIOUS CROP	Corn	Corn	Corn
POPULATION	32,000	27,800	23,300
ROW WIDTH	34"	34"	34"
FERTILIZER	123-22-134+15 tons manure	122-30-30	122-30-30+manure
SOIL TEST: pH	7.3	7.3	7.3
P	97 (high)	97 (high)	97 (high)
K	168 (medium)	168 (medium)	168 (medium)
FARM COOPERATOR:	Steve Berzsenyi, Stephenson		
MSU COOPERATORS:	James Lempke, Dept. Crop & Soil Science, Marquette		
	Dr. Richard Leep, Dept. Crop & Soil Science, Kellogg Biological Station		
COUNTY EXTENSION DIRECTOR:	Michael Erdman, Stephenson		

** Cool temperatures and late maturing corn made silage harvest the only option for yield results in 1992.

TABLE 16

NORTHERN MICHIGAN

ZONE 4

AVERAGE OF ALPENA, GRAND TRAVERSE & MENOMINEE COUNTY TRIALS
ONE, TWO, THREE YEAR AVERAGES -1992, 1991, 1990

HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2	3	1992	2	3	1992	2	3
JUNG	3280	26.7	--	--	105.1	--	--	2.6	--	--
*DEKALB	DK352	27.0	23	--	119.1	113	--	1.7	3	--
CARGILL	2217	27.5	--	--	101.8	--	--	0.3	--	--
DAIRYLAND	STEALTH-1185	28.4	--	--	104.0	--	--	0.9	--	--
PICKSEED	2620	28.5	--	--	110.4	--	--	1.2	--	--
PICKSEED	2621	28.6	--	--	103.1	--	--	3.9	--	--
*PIONEER	3921	29.2	26	--	132.7	123	--	1.7	2	--
ICI SEEDS	8954	29.5	--	--	114.5	--	--	2.3	--	--
DAIRYLAND	STEALTH-1179	29.6	--	--	102.2	--	--	2.0	--	--
*NORTHUP KING	N2409	30.4	27	--	127.0	124	--	1.1	4	--
WOLF RIVER VAL	WRV-9186	30.4	--	--	102.2	--	--	0.9	--	--
JUNG	2378	30.5	26	--	94.2	102	--	3.7	4	--
*DEKALB	DK381	30.9	--	--	121.9	--	--	0.8	--	--
*DEKALB	DK401	31.1	--	--	123.3	--	--	1.2	--	--
AMCORN	PSX0001	31.2	--	--	109.3	--	--	2.2	--	--
ICI SEEDS	8883	31.4	--	--	115.3	--	--	0.9	--	--
JUNG	2448	32.3	--	--	104.6	--	--	1.2	--	--
PAYCO	448	32.6	--	--	110.3	--	--	3.2	--	--
*PIONEER	3861	32.9	--	--	127.4	--	--	2.7	--	--
RUPP	XR2319	33.6	--	--	103.0	--	--	0.6	--	--
JACQUES	4120	34.1	29	28	103.4	108	111	3.1	5	6
*PIONEER	3779	34.5	29	28	124.0	127	115	0.6	2	2
AMCORN	PSX3333	34.8	--	--	98.8	--	--	4.2	--	--
*PICKSEED	4990	34.9	--	--	119.5	--	--	0.9	--	--
*JACQUES	4440	35.1	--	--	122.8	--	--	1.2	--	--

(continued next column)

HYBRID (BRAND-VARIETY)		% MOISTURE			BUSHEL PER ACRE			% STALK LODGING		
		1992	2	3	1992	2	3	1992	2	3
*NORTHUP KING	N2879	35.3	29	--	118.8	124	--	3.7	6	--
PIONEER	X1113	35.3	--	--	111.3	--	--	1.6	--	--
PIONEER	3723	35.4	31	--	115.7	126	--	0.3	2	--
ICI SEEDS	N9680	36.1	--	--	109.2	--	--	0.8	--	--
CARGILL	3427	36.3	33	33	116.4	119	118	1.7	3	5
*JUNG	2496	36.3	33	32	118.4	118	116	1.9	5	5
RUPP	EXP.1-201	36.5	--	--	102.2	--	--	3.0	--	--
*PIONEER	3751	36.8	31	31	128.3	135	122	1.7	5	6
CARGILL	2927	36.8	31	--	114.4	114	--	2.4	4	--
RUPP	KR1505	37.0	--	--	103.2	--	--	0.6	--	--
PIONEER	3755	37.5	32	33	109.3	120	116	2.4	3	3
JUNG	2503	37.5	--	--	112.9	--	--	3.9	--	--
PAYCO	531	38.4	--	--	115.7	--	--	2.4	--	--
AVERAGE		32.9	29	31	112.5	119	116	1.9	4	4
RANGE		26.7	23	28	94.2	102	111	0.3	2	2
		TO	TO	TO	TO	TO	TO	TO	TO	TO
		38.4	33	33	132.7	135	122	4.2	6	6
LEAST SIGNIFICANT DIFFERENCE		1.6			5.7					

*SIGNIFICANTLY BETTER THAN AVERAGE YIELD IN 1992

TABLE 17

SOUTHERN CENTRAL MICHIGAN

ZONE 2

KENT COUNTY TRIAL-SILAGE
ONE, TWO, THREE YEAR AVERAGE-1992

EARLY TRIAL (105 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))								
HYBRID (BRAND-VARIETY)		% DRY MATTER	TONS PER ACRE		%DMD AVG	QUALITY ANALYSES		
			GREEN WEIGHT	DRY WEIGHT		%FD AVG	%NDF AVG	%CP AVG
PIONEER	3861	50.2	14.2	7.1	77.1	46.4	42.8	7.26
DEKALB	DK485	48.8	17.7	8.5	76.6	41.4	39.9	7.12
AMCORN	PSX3333	48.5	16.6	8.0	74.6	42.6	44.2	7.11
GREAT LAKES	GL450	48.4	18.0	8.7	77.0	44.9	41.8	6.89
JACQUES	4770	47.9	17.7	8.4	76.8	44.0	41.4	7.93
GOLDEN HARVEST	H-2331	47.6	17.8	8.5	76.7	41.7	40.0	7.35
CALLAHAN	C7245	47.6	16.9	8.1	76.4	45.4	43.3	6.65
PIONEER	X1113	46.0	16.9	7.7	78.3	45.6	39.8	7.66
CROW'S	414	45.8	15.4	7.0	76.9	47.6	44.1	7.23
PIONEER	3699	45.5	17.9	8.1	74.8	44.3	45.2	6.86
PIONEER	3751	45.2	16.6	7.5	77.6	47.0	42.4	7.13
DEKALB	DK401	45.1	15.2	6.9	73.7	42.1	45.5	7.61
GREAT LAKES	GL509	45.0	19.1	8.6	78.3	46.7	40.7	7.34
CROW'S	210	43.9	18.0	7.9	75.6	46.9	46.0	7.49
GREAT LAKES	GL499	42.8	19.0	8.1	77.3	44.3	40.9	7.83
PIONEER	3723	42.8	17.3	7.4	76.1	44.6	43.2	7.30
GREAT LAKES	GL496	42.2	20.2	8.5	75.7	41.4	41.5	7.37
PIONEER	3573	42.1	21.8	9.2	78.1	45.1	39.9	6.62
CARGILL	4327	41.8	23.1	9.6	74.9	41.2	42.7	6.34
GREAT LAKES	GL536	39.7	22.0	8.7	74.7	43.8	45.0	7.35
CROW'S	237	39.7	18.1	7.2	75.7	44.9	44.1	7.57
GREAT LAKES	GL559	39.3	21.8	8.6	77.9	45.4	40.5	7.19
AMCORN	PSX7450	37.0	17.0	6.3	74.9	45.7	46.3	7.40
CALLAHAN	C7249	36.6	23.6	8.7	77.5	48.7	43.9	7.03
AVERAGE		44.1	18.4	8.1	76.4	44.7	42.7	7.23
RANGE		36.6 TO 50.2	14.2 TO 23.6	6.3 TO 9.6	73.7 TO 78.3	41.2 TO 48.7	39.8 TO 46.3	6.34 TO 7.93

DMD = Dry matter digestibility
 FD = Fiber digestibility
 NDF = Neutral detergent fiber
 CP = Crude protein

(continued below)

LATE TRIAL (106 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)		% DRY MATTER	TONS PER ACRE GREEN WEIGHT	TONS PER ACRE DRY WEIGHT	%DMD AVG	QUALITY ANALYSES %FD AVG	%NDF AVG	%CP AVG
GOLDEN HARVEST	EX 637	41.5	19.1	8.0	77.1	47.4	43.6	7.08
PIONEER	X1414	39.2	21.8	8.6	74.4	46.6	47.9	6.99
AMCORN	PSX9292	38.7	23.0	8.9	77.1	47.5	43.5	7.20
CALLAHAN	C7252	38.5	22.8	8.8	76.9	47.3	43.8	6.93
GREAT LAKES	GL577	38.0	24.2	9.1	74.8	44.8	45.7	7.61
RENK	RK721	38.0	20.8	7.9	75.7	50.0	48.6	7.66
GOLDEN HARVEST	H-2485	37.4	18.5	6.9	78.0	47.8	42.2	8.25
RENK	RK812	36.0	24.8	8.9	77.0	45.6	42.3	7.05
GOLDEN HARVEST	H-2544	36.0	26.0	9.4	75.6	43.7	43.3	6.66
CARGILL	6227	35.9	23.4	8.4	75.9	49.5	47.8	7.08
PIONEER	X1616	35.1	25.7	9.0	73.9	49.1	51.4	7.11
CARGILL	SX269	34.8	25.4	8.8	74.1	47.2	49.0	7.13
CALLAHAN	C771	34.8	24.6	8.5	75.0	47.6	47.7	6.89
PIONEER	3527	34.7	25.4	8.8	74.6	43.6	45.0	7.52
CALLAHAN	C764	34.7	25.2	8.7	75.1	45.0	45.4	7.67
PIONEER	3357	34.6	23.7	8.2	75.2	47.2	47.3	6.70
PIONEER	3525	34.1	27.4	9.3	71.7	42.4	49.1	6.16
RENK	RK886	33.0	27.3	9.0	75.9	47.2	45.8	7.26
GREAT LAKES	GL583	32.7	24.7	8.0	76.0	48.6	46.6	7.19
CALLAHAN	C759	32.7	21.9	7.2	77.4	49.0	44.3	8.31
CALLAHAN	C7362X	32.6	25.1	8.2	75.0	42.8	43.7	6.90
ICI SEEDS	8543	32.4	23.1	7.5	75.8	48.2	46.8	7.41
PIONEER	3394	31.7	28.9	9.2	74.2	47.1	48.7	6.76
GREAT LAKES	GL587	31.2	27.3	8.5	75.5	49.3	48.3	7.37
AVERAGE		35.3	24.2	8.5	75.5	46.9	46.2	7.21
RANGE		31.2 TO 41.5	18.5 TO 28.9	6.9 TO 9.4	71.7 TO 78.0	42.4 TO 50.0	42.2 TO 51.4	6.16 TO 8.31

1992
 PLANTED May 5
 HARVESTED October 7,12
 SOIL TYPE Spinks Loamy Sand
 PREVIOUS CROP Corn
 POPULATION 25,200
 ROW WIDTH 30"
 FERTILIZER 192-0-0+manure
 SOIL TEST: pH 6.8
 P 138 (very high)
 K 457 (very high)

FARM COOPERATOR: Gerald Kayser, Caledonia
 MSU COOPERATORS: Dr. Micheal Allen and David Main, Animal Science Dept.
 COUNTY EXTENSION DIRECTOR: William Harrison, Grand Rapids
 EXTENSION AGRICULTURAL AGENT: William Steenwyk, Grand Rapids

TABLE 18

SOUTH CENTRAL MICHIGAN

ZONE 2

INGHAM COUNTY TRIAL
ONE, TWO, THREE YEAR AVERAGES -1992, 1991, 1990

EARLY TRIAL (105 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)		% DRY MATTER			TONS PER ACRE			QUALITY ANALYSES			ANALYSES			%CP AVG		
					GREEN WEIGHT			DRY WEIGHT			%DMD AVG			%FD AVG		
		1992	2	3	1992	2	3	1992	2	3	1992	2	3	1992	2	3
JACQUES	4770	43.1	--	--	16.5	--	--	7.1	--	--	75.4	--	--	43.6	--	--
PIONEER	3861	42.6	--	--	15.6	--	--	6.7	--	--	75.9	--	--	45.3	--	--
CALLAHAN	C7245	40.7	--	--	18.8	--	--	7.6	--	--	76.1	--	--	45.2	--	--
DEKALB	DK401	40.5	--	--	17.2	--	--	7.0	--	--	74.0	--	--	46.2	--	--
CROW'S	414	39.6	--	--	18.1	--	--	7.2	--	--	74.3	--	--	47.2	--	--
GREAT LAKES	GL450	39.4	--	--	19.9	--	--	7.9	--	--	78.0	--	--	45.2	--	--
PIONEER	3723	39.1	38.7	--	18.9	18.5	--	7.4	7.2	--	76.1	72	42.9	42	41.9	49
AMCORN	PSX3333	39.1	--	--	19.4	--	--	7.6	--	--	74.5	--	--	40.9	--	--
GREAT LAKES	GL499	38.8	--	--	21.7	--	--	8.4	--	--	78.2	--	--	44.8	--	--
PIONEER	3699	38.7	39.4	--	20.9	20.7	--	8.1	8.2	--	75.9	77	42.9	46	42.3	43
PIONEER	3751	38.5	39.3	39.5	17.8	15.8	16.3	6.9	6.2	6.4	75.5	76	40.6	45	41.3	44
GOLDEN HARVEST	H-2331	38.4	43.0	--	20.6	17.3	--	7.9	7.3	--	75.5	--	--	43.6	--	--
DEKALB	DK485	38.0	--	--	20.9	--	--	8.0	--	--	75.2	--	--	43.0	--	--
GREAT LAKES	GL509	38.0	39.5	38.8	21.5	20.3	19.3	8.2	8.0	7.5	80.1	--	--	46.4	--	--
GREAT LAKES	GL536	37.9	--	--	22.5	--	--	8.5	--	--	77.8	--	--	47.5	--	--
PIONEER	3573	36.1	36.5	34.7	21.1	19.9	20.4	7.6	7.2	7.0	77.4	77	43.8	46	40.2	44
GREAT LAKES	GL496	35.8	37.7	--	20.5	19.9	--	7.3	7.5	--	78.0	--	--	47.0	--	--
PIONEER	X1113	35.8	--	--	18.7	--	--	6.7	--	--	75.7	--	--	45.0	--	--
CROW'S	237	35.5	--	--	18.8	--	--	6.7	--	--	76.6	--	--	44.9	--	--
GREAT LAKES	GL559	33.6	--	--	23.1	--	--	7.7	--	--	78.0	--	--	50.3	--	--
CALLAHAN	C7249	33.1	--	--	22.4	--	--	7.4	--	--	77.7	--	--	45.5	--	--
CROW'S	210	32.8	--	--	20.3	--	--	6.6	--	--	76.0	--	--	43.1	--	--
CARGILL	4327	30.8	--	--	23.9	--	--	7.4	--	--	75.5	--	--	43.1	--	--
AMCORN	PSX7450	30.1	--	--	18.5	--	--	5.6	--	--	74.2	--	--	40.4	--	--
AVERAGE		37.3	39.2	37.7	19.9	18.9	18.7	7.4	7.4	7.0	76.3	75	44.5	43	42.7	45
RANGE		30.1	36.5	34.7	15.6	15.8	16.3	5.6	6.2	6.4	74.0	72	40.4	42	37.2	43
		TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
		43.1	43.0	39.5	23.9	20.7	20.4	8.5	8.2	7.5	80.1	77	50.3	46	48.7	49

DMD = Dry matter digestibility
FD = Fiber digestibility
NDF = Neutral detergent fiber
CP = Crude protein

(continued below)

LATE TRIAL (106 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)		% DRY MATTER			TONS PER ACRE			GREEN WEIGHT			DRY WEIGHT			%DMD AVG		QUALITY ANALYSES		%CP AVG	
		2 3			2 3			2 3			2 3			2		2		2	
		1992	YR	YR	1992	YR	YR	1992	YR	YR	1992	YR	YR	1992	YR	1992	YR	1992	YR
CALLAHAN	C7252	39.2	--	--	23.8	--	--	9.3	--	--	76.7	--	--	46.6	--	43.6	--	5.97	--
GOLDEN HARVEST	H-2485	38.3	--	--	21.9	--	--	8.4	--	--	77.9	--	--	47.5	--	42.0	--	7.12	--
CALLAHAN	C764	38.2	43.0	--	23.4	20.3	--	9.0	8.6	--	77.1	--	--	47.6	--	43.8	--	6.41	--
CARGILL	SX269	38.1	42.5	--	22.6	21.1	--	8.6	8.9	--	74.8	--	--	44.7	--	45.6	--	6.18	--
GOLDEN HARVEST	EX 637	38.1	--	--	19.6	--	--	7.5	--	--	76.1	--	--	44.5	--	43.1	--	6.61	--
CARGILL	6227	37.9	--	--	24.2	--	--	9.2	--	--	77.6	--	--	47.2	--	42.5	--	6.31	--
RENK	RK721	37.6	39.6	35.3	22.6	19.9	21.6	8.5	7.8	7.5	76.7	--	--	48.9	--	45.5	--	6.88	--
PIONEER	3357	37.1	41.6	--	21.9	20.4	--	8.1	8.4	--	76.6	77	--	45.5	45	42.9	42	6.31	6.2
PIONEER	X1414	37.1	--	--	20.0	--	--	7.4	--	--	75.0	--	--	41.1	--	42.5	--	6.87	--
AMCORN	PSX9292	36.8	38.8	38.0	23.6	21.2	22.3	8.7	8.2	8.5	77.0	76	--	48.0	47	44.2	45	6.48	6.4
ICI SEEDS	8543	36.7	--	--	22.7	--	--	8.4	--	--	77.0	--	--	45.6	--	42.3	--	6.64	--
GOLDEN HARVEST	H-2544	36.4	--	--	22.7	--	--	8.2	--	--	75.3	--	--	44.5	--	44.5	--	6.34	--
GREAT LAKES	GL583	36.2	42.3	--	25.0	21.5	--	9.0	8.8	--	76.5	--	--	41.2	--	40.0	--	6.47	--
GREAT LAKES	GL577	35.4	40.0	--	23.9	22.2	--	8.3	8.7	--	75.7	--	--	45.2	--	44.3	--	6.40	--
PIONEER	3527	34.6	39.4	35.9	24.3	21.1	22.5	8.4	8.2	7.9	73.3	74	--	43.1	44	46.8	46	6.33	6.5
RENK	RK812	34.1	--	--	24.8	--	--	8.4	--	--	73.9	--	--	44.2	--	46.8	--	6.18	--
PIONEER	X1616	34.0	--	--	21.8	--	--	7.4	--	--	75.2	--	--	46.9	--	46.7	--	7.12	--
PIONEER	3525	33.5	--	--	25.7	--	--	8.6	--	--	75.3	--	--	42.5	--	43.0	--	5.78	--
CALLAHAN	C7362X	33.1	--	--	25.2	--	--	8.3	--	--	74.9	--	--	43.9	--	44.7	--	6.52	--
PIONEER	3394	33.0	38.3	--	25.0	21.6	--	8.2	8.1	--	72.2	74	--	41.4	43	47.4	46	6.32	6.4
RENK	RK886	32.7	--	--	28.0	--	--	9.1	--	--	75.6	--	--	46.7	--	45.9	--	6.25	--
CALLAHAN	C771	32.6	38.7	--	24.7	22.8	--	8.1	8.7	--	75.2	75	--	44.5	41	44.7	42	5.57	6.2
CALLAHAN	C759	32.4	38.7	37.0	20.3	19.4	20.4	6.6	7.5	7.5	77.2	76	--	47.2	47	43.2	45	6.72	6.5
GREAT LAKES	GL587	30.1	--	--	27.6	--	--	8.3	--	--	76.5	--	--	46.1	--	43.5	--	7.07	--
AVERAGE		35.6	40.3	36.6	23.6	21.0	21.7	8.3	8.4	7.9	75.8	75	--	45.2	45	44.2	44	6.46	6.4
RANGE		30.1	38.3	35.3	19.6	19.4	20.4	6.6	7.5	7.5	72.2	74	--	41.1	41	40.0	42	5.57	6.2
		TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	--	TO	TO	TO	TO	TO	TO
		39.2	43.0	38.0	28.0	22.8	22.5	9.3	8.9	8.5	77.9	77	--	48.9	47	47.4	46	7.12	6.5

1992
 PLANTED May 4
 HARVESTED October 6,12
 SOIL TYPE Capac Loam
 PREVIOUS CROP Soybeans
 POPULATION 24,800
 ROW WIDTH 30"
 FERTILIZER 148-38-68
 SOIL TEST:pH 6.4
 P 113 (very high)
 K 227 (high)

1991
 PLANTED May 5
 HARVESTED September 6,16
 SOIL TYPE Capac Loam
 PREVIOUS CROP Soybeans
 POPULATION 24,900
 ROW WIDTH 30"
 FERTILIZER 165-50-50
 SOIL TEST:pH 6.8
 P 54 (medium)
 K 133 (low)

1990
 PLANTED May 8
 HARVESTED September 13
 SOIL TYPE Capac Loam
 PREVIOUS CROP Corn
 POPULATION 20,200
 ROW WIDTH 30"
 FERTILIZER 165-50-50
 SOIL TEST:pH 6.1
 P 93 (high)
 K 200 (medium)

FARM COOPERATOR: Michigan State University, East Lansing
 MSU COOPERATORS: Dr. Michael Allen and David Main, Animal Science Dept.
 COUNTY EXTENSION DIRECTOR: Marvin Preston, Mason
 EXTENSION AGRICULTURAL AGENTS: John Hayden and Laura Rhodes, Mason

TABLE 19

NORTH CENTRAL MICHIGAN

ZONE 3

 HURON COUNTY TRIAL-SILAGE
 ONE, TWO, THREE YEAR AVERAGES-1992, 1991, 1990

EARLY TRIAL (105 DAY RELATIVE MATURITY OR EARLIER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)		% DRY MATTER			TONS PER ACRE			GREEN WEIGHT			DRY WEIGHT			%DMD AVG		QUALITY ANALYSES		%CP AVG	
		2		3	1992	YR	YR	1992	YR	YR	1992	YR	YR	1992	YR	1992	YR	1992	YR
		1992	YR	YR															
PIONEER	3861	46.0	--	--	17.0	--	--	7.8	--	--	74.5	--	--	74.5	--	48.0	--	49.1	--
DEKALB	DK401	42.8	43.3	--	18.2	17.3	--	7.8	7.5	--	74.5	--	--	74.5	--	48.8	--	49.9	--
PIONEER	3751	41.7	43.4	38.0	19.6	19.9	21.7	8.2	8.6	8.1	75.1	75	--	75.1	75	47.0	49	47.0	49
AMCORN	PSX3333	41.3	--	--	18.1	--	--	7.4	--	--	71.3	--	--	71.3	--	45.2	--	52.4	--
JACQUES	4770	38.1	--	--	22.4	--	--	8.5	--	--	73.9	--	--	73.9	--	50.6	--	53.0	--
GREAT LAKES	GL450	37.9	42.3	--	19.5	19.5	--	7.4	8.2	--	73.5	76	--	73.5	76	43.9	48	47.2	46
CALLAHAN	C7245	37.5	--	--	17.4	--	--	6.5	--	--	75.1	--	--	75.1	--	45.6	--	45.8	--
PIONEER	3723	35.9	40.0	--	19.9	18.8	--	7.1	7.4	--	75.4	77	--	75.4	77	49.0	50	48.2	47
PIONEER	X1113	35.7	--	--	20.7	--	--	7.4	--	--	73.5	--	--	73.5	--	44.6	--	47.8	--
GREAT LAKES	GL509	35.5	37.7	--	22.3	22.0	--	7.9	8.2	--	76.1	78	--	76.1	78	49.7	52	47.4	45
CROW'S	414	34.9	--	--	19.5	--	--	6.8	--	--	75.8	--	--	75.8	--	47.6	--	46.1	--
GREAT LAKES	GL496	33.6	38.1	--	22.9	22.4	--	7.7	8.5	--	74.1	75	--	74.1	75	48.0	49	49.9	49
GOLDEN HARVEST	H-2331	33.2	38.5	--	23.2	21.7	--	7.6	8.2	--	74.3	--	--	74.3	--	48.2	--	49.6	--
PIONEER	3699	32.6	36.0	--	20.6	21.1	--	6.7	7.6	--	74.0	73	--	74.0	73	49.2	45	51.3	49
DEKALB	DK485	31.6	38.3	--	21.5	20.9	--	6.8	7.9	--	73.8	--	--	73.8	--	43.1	--	46.1	--
CROW'S	237	31.5	--	--	20.8	--	--	6.6	--	--	73.9	--	--	73.9	--	47.9	--	50.1	--
GREAT LAKES	GL499	30.9	--	--	21.7	--	--	6.7	--	--	74.6	--	--	74.6	--	48.6	--	49.5	--
CROW'S	210	30.8	--	--	22.9	--	--	7.1	--	--	74.3	--	--	74.3	--	49.3	--	50.7	--
CALLAHAN	C7249	30.7	--	--	22.6	--	--	7.0	--	--	74.3	--	--	74.3	--	46.4	--	48.0	--
AMCORN	PSX7450	30.5	39.7	--	18.7	19.2	--	5.7	7.6	--	70.6	73	--	70.6	73	46.7	46	55.1	50
CARGILL	4327	30.1	--	--	26.4	--	--	7.9	--	--	75.7	--	--	75.7	--	46.7	--	45.6	--
GREAT LAKES	GL536	29.1	--	--	24.3	--	--	7.1	--	--	75.9	--	--	75.9	--	51.0	--	49.1	--
PIONEER	3573	28.8	34.8	31.7	26.2	23.0	23.2	7.5	7.8	7.2	73.2	75	--	73.2	75	47.2	49	50.8	49
GREAT LAKES	GL559	28.7	--	--	23.9	--	--	6.8	--	--	73.8	--	--	73.8	--	50.8	--	53.1	--
AVERAGE		34.6	39.2	34.9	21.3	20.7	22.5	7.3	8.0	7.7	74.2	75	--	74.2	75	47.6	49	49.3	48
RANGE		28.7	34.8	31.7	17.0	17.3	21.7	5.7	7.4	7.2	70.6	73	--	70.6	73	43.1	45	45.6	45
		46.0	43.4	38.0	26.4	23.0	23.2	8.5	8.6	8.1	76.1	78	--	76.1	78	51.0	52	55.1	50

DMD = Dry matter digestibility

FD = Fiber digestibility

NDF = Neutral detergent fiber

CP = Crude protein

(continued below)

LATE TRIAL (106 DAY RELATIVE MATURITY OR LATER (BASED ON COMPANY RATING))

HYBRID (BRAND-VARIETY)	% DRY MATTER			TONS PER ACRE			GREEN WEIGHT			DRY WEIGHT			%DMD AVG		QUALITY		ANALYSES		%CP AVG	
	2		3	2		3	2		3	2		3	2		2		2		2	
	1992	YR	YR	1992	YR	YR	1992	YR	YR	1992	YR	YR	1992	YR	1992	YR	1992	YR	1992	YR
GOLDEN HARVEST EX 637	40.5	--	--	18.2	--	--	7.4	--	--	75.5	--	--	48.8	--	47.8	--	6.31	--		
PIONEER X1414	40.0	--	--	19.5	--	--	7.8	--	--	73.3	--	--	41.7	--	45.9	--	6.18	--		
CARGILL SX269	38.8	42.6	--	21.7	20.1	--	8.4	8.5	--	72.9	--	--	45.0	--	49.4	--	6.66	--		
CALLAHAN C7252	38.1	--	--	19.7	--	--	7.5	--	--	73.7	--	--	48.3	--	50.8	--	5.91	--		
GOLDEN HARVEST H-2485	37.3	--	--	18.2	--	--	6.8	--	--	74.7	--	--	49.8	--	50.4	--	6.39	--		
PIONEER 3525	37.1	--	--	20.6	--	--	7.6	--	--	72.2	--	--	46.0	--	51.5	--	6.01	--		
GOLDEN HARVEST H-2544	36.3	--	--	20.2	--	--	7.3	--	--	73.2	--	--	46.5	--	50.1	--	6.59	--		
ICI SEEDS 8543	36.1	--	--	19.9	--	--	7.2	--	--	73.8	--	--	43.0	--	46.0	--	6.57	--		
PIONEER 3357	35.7	--	--	20.9	--	--	7.5	--	--	73.9	--	--	47.9	--	50.0	--	6.38	--		
GREAT LAKES GL583	35.3	38.3	--	20.3	21.8	--	7.2	8.4	--	73.4	76	--	49.6	52	52.7	50	6.12	6.5		
CALLAHAN C759	35.2	--	--	18.0	--	--	6.4	--	--	75.4	--	--	44.9	--	44.7	--	6.22	--		
CALLAHAN C764	35.0	--	--	20.6	--	--	7.2	--	--	74.9	--	--	46.9	--	47.2	--	6.06	--		
PIONEER 3527	34.9	39.5	34.2	20.2	21.0	23.8	7.1	8.3	7.9	73.0	74	--	46.5	46	50.4	48	5.62	6.1		
PIONEER X1616	34.8	--	--	19.9	--	--	6.9	--	--	72.5	--	--	46.9	--	51.9	--	6.20	--		
CARGILL 6227	34.5	--	--	21.1	--	--	7.3	--	--	74.7	--	--	46.9	--	47.7	--	6.10	--		
RENK RK721	34.3	38.0	32.7	18.6	19.6	22.7	6.4	7.5	7.1	75.5	--	--	46.7	--	46.0	--	6.87	--		
AMCORN PSX9292	34.2	--	--	20.1	--	--	6.9	--	--	75.1	--	--	49.3	--	49.1	--	6.68	--		
CALLAHAN C771	34.1	--	--	20.9	--	--	7.1	--	--	74.9	--	--	47.5	--	47.7	--	6.53	--		
RENK RK812	34.0	--	--	22.0	--	--	7.5	--	--	70.8	--	--	43.7	--	51.8	--	6.55	--		
GREAT LAKES GL577	33.5	36.4	--	21.4	19.9	--	7.2	7.2	--	72.5	75	--	45.8	47	50.7	47	6.22	7.0		
PIONEER 3394	33.0	--	--	22.4	--	--	7.4	--	--	72.1	--	--	45.4	--	51.1	--	6.23	--		
RENK RK886	33.0	--	--	21.3	--	--	7.0	--	--	73.7	--	--	46.9	--	49.4	--	6.41	--		
GREAT LAKES GL587	32.7	--	--	22.9	--	--	7.5	--	--	73.2	--	--	47.1	--	50.6	--	6.93	--		
CALLAHAN C7362X	30.7	--	--	21.2	--	--	6.5	--	--	72.2	--	--	47.2	--	52.6	--	6.10	--		
AVERAGE	35.4	39.0	33.5	20.4	20.5	23.3	7.2	8.0	7.5	73.6	75	--	46.6	48	49.4	48	6.32	6.5		
RANGE	30.7	36.4	32.7	18.0	19.6	22.7	6.4	7.2	7.1	70.8	74	--	41.7	46	44.7	47	5.62	6.1		
	40.5	42.6	34.2	22.9	21.8	23.8	8.4	8.5	7.9	75.5	76	--	49.8	52	52.7	50	6.93	7.0		

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	1992	1991	1990
PLANTED	May 15	May 15	May 14
HARVESTED	October 14,23	September 10,18	September 20
SOIL TYPE	Kilmanagh Loam	Kilmanagh Loam	Kilmanagh Loam
PREVIOUS CROP	Corn	Corn	Corn
POPULATION	25,400	28,000	24,800
ROW WIDTH	30"	30"	30"
FERTILIZER	149-41-96+zinc	160-141-6	163-57-98
SOIL TEST: pH	6.8	6.9	7.6
P	133 (very high)	98 (high)	140 (very high)
K	366 (very high)	384 (very high)	187 (medium)

FARM COOPERATOR: William McCrea, Bad Axe
 MSU COOPERATORS: Dr. Michael Allen and David Main, Animal Science Dept
 COUNTY EXTENSION DIRECTOR: Robert Johnson, Bad Axe
 EXTENSION AGRICULTURAL AGENT: James LeCureux, Bad Axe

TABLE 20

Index for 262 hybrids from 36 seed companies entered in 1450 county tests in the 1992 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.

AgriGene Seed Company

AG5660 (1,2,3,4)
AG6839 (1,2,3,4)
AG6951 (1,2,3,4)

GA7149 (1,2,3,4)
AG7550 (1,2,3,4)
Exp. 35872 (1,2,3,4)

Amcorn Hybrids, Inc.

Amcorn PSX 0001 (13,14,15,16)
Amcorn PSX 0019 (1,2,3,4,5,6,7,8)
Amcorn PSX 3333 (9,10,11,12,
13,14,15,16,17,18,19)
Amcorn PSX 5555 (9,10,11,12)
Amcorn PSX 5757 (1,2,3,4,5,6,7,8,
9,10,11,12)

Amcorn PSX 7450 (1,2,3,4,5,6,7,8,
9,10,11,12, 17,18,19)
Amcorn PSX 9009 (1,2,3,4,5,6,7,8,
9,10,11,12)
Amcorn PSX 9292 (1,2,3,4,5,6,7,8,
17,18,19)

The Andersons

Andersons PSX 250 (9,10,11,12)
Andersons PSX 290 (9,10,11,12)
Andersons PSX 345 (5,6,7,8)

Andersons PSX 370 (1,2,3,4,5,6,7,8)
Andersons PSX 405 (1,2,3,4)

Asgrow Seed Co.

Asgrow RX 497 (9,10,11,12)
Asgrow RX 623 (1,2,3,4,5,6,7,8,
9,10,11,12)

Asgrow RX 707 (1,2,3,4,5,6,7,8)
Asgrow RX 725 (1,2,3,4)
Asgrow RX 745 (1,2,3,4)

Beck's Superior Hybrids

Beck's 48 (1,2,3,4)
Beck's 54XA (1,2,3,4)
Beck's 57 (1,2,3,4)

Beck's 63X (1,2,3,4)
Beck's 63MVP (1,2,3,4)
Beck's 70XS (1,2,3,4)

Gutwein Seeds

Blaney B405 (5,6,7,8,9,10,11,12)

Blaney B608 (1,2,3,4)

Callahan Enterprises, Inc.

Callahan C725 (5,6,7,8,9,10,11,12)
Callahan C729 (5,6,7,8,9,10,11,12)
Callahan C743 (5,6,7,8,9,10,11,12)
Callahan C759 (1,2,3,4, 17,18,19)
Callahan C764 (1,2,3,4,17,18,19)
Callahan C771 (17,18,19)
Callahan C7245 (1,2,3,4,5,6,7,8,
9,10,11,12,17,18,19)
Callahan C7249 (1,2,3,4,5,6,7,8, 17,18,19)

Callahan C7252 (1,2,3,4,5,6,7,8, 17,18,19)
Callahan C7337X (5,6,7,8,9,10,11,12)
Callahan C7338X (5,6,7,8,9,10,11,12)
Callahan C7348X (1,2,3,4,5,6,7,8,
9,10,11,12)
Callahan C7352X (1,2,3,4,5,6,7,8)
Callahan C7355X (1,2,3,4,5,6,7,8)
Callahan C7362X (17,18,19)

Cargill Hybrid Seeds

Cargill SX269 (1,2,3,4,5,6,7,8, 17,18,19)
Cargill 2217 (13,14,15,16)
Cargill 2927 (9,10,11,12,13,14,15,16)
Cargill 3427 (5,6,7,8,9,10,11,12,
13,14,15,16)
Cargill 4327 (1,2,3,4,5,6,7,8,9,10,11,12,
17,18,19)

Cargill 5157 (5,6,7,8,9,10,11,12)
Cargill 5327 (1,2,3,4,5,6,7,8,9, 10,11,12)
Cargill 6227 (1,2,3,4,5,6,7,8, 17,18,19)
Cargill 6269 (1,2,3,4,5,6,7,8)
Cargill 7697 (1,2,3,4,5,6,7,8)
Cargill 7877 (1,2,3,4)
Cargill 7997 (1,2,3,4)
Cargill 8127 (1,2,3,4)

Cenex Seeds

Cenex 288 (15)

Countrymark Co-op, Inc.

Countrymark CO-OP 432 (5,6,7,8,
9,10,11,12)
Countrymark CO-OP 502 (5,6,7,8)

Countrymark CO-OP 660 (1,2,3,4)
Countrymark CO-OP 682 (1,2,3,4)

Crow's Hybrid Corn Company

Crow's 179 (5,6,7,8,9,10,11,12)
Crow's 210 (1,2,3,4,5,6,7,8,9,10,11,12,
17,18,19)
Crow's 237 (1,2,3,4,5,6,7,8,9,10,11,12,
17,18,19)
Crow's 370 (1,2,3,4,5,6,7,8,9,10,11,12)
Crow's 401 (1,2,3,4,5,6,7,8,9,10,11,12)

Crow's 414 (1,2,3,4,5,6,7,8,9,10,11,12,
17,18,19)
Crow's 449 (1,2,3,4,5,6,7,8,9,10,11,12)
Crow's 488 (1,2,3,4,5,6,7,8,9,10,11,12)
Crow's 498 (1,2,3,4,5,6,7,8,9,10,11,12)
Crow's 669 (1,2,3,4,5,6,7,8,9,10,11,12)

Dairyland Seed Company, Inc.

Dairyland DX-1100 (5,6,7,8,9,10,11,12)
Dairyland DX-1110 (1,2,3,4)
Dairyland Stealth-1111 (1,2,3,4)
Dairyland Stealth-1114 (1,2,3,4)
Dairyland Stealth-1179 (13,14,15,16)
Dairyland Stealth-1185 (13,14,15,16)
Dairyland Stealth-1198 (5,6,7,8)

Dairyland Stealth-1201 (5,6,7,8,9,10,11,12)
Dairyland Stealth-1202 (5,6,7,8,9,10,11,12)
Dairyland Stealth-1203 (1,2,3,4,5,6,7,8,
9,10,11,12)
Dairyland Stealth-1205 (5,6,7,8,9,10,11,12)
Dairyland Stealth-1207 (1,2,3,4)

Dekalb Plant Genetics

Dekalb DK352 (13,14,15,16)
Dekalb DK381 (9,10,11,12,13,14,15,16)
Dekalb DK401 (5,6,7,8,9,10,11,12,
13,14,15,16,17,18,19)
Dekalb DK421 (5,6,7,8,9,10,11,12)

Dekalb DK485 (1,2,3,4,5,6,7,8,9,10,11,12,
17,18,19)
Dekalb DK512 (1,2,3,4,5,6,7,8,9,10,11,12)
Dekalb DK535 (1,2,3,4,5,6,7,8)
Dekalb DK554 (1,2,3,4,5,6,7,8,9,10,11,12)
Dekalb DK591 (1,2,3,4)

UAP Seed Company

Dyna-Gro 5410 (1,2,3,4)

CIBA-GEIGY Seed Division

Funk's G Brand 4070 (9,10,11,12)
Funk's G Brand 4120 (9,10,11,12)
Funk's G Brand 4172 (9,10,11,12)
Funk's G Brand 4183 (9,10,11,12)
Funk's G Brand 4202 (5,6,7,8,9,10,11,12)
Funk's G Brand 4282 (5,6,7,8,9,10,11,12)

Funk's G Brand 4372 (1,2,3,4,5,6,7,8)
Funk's G Brand 4385 (1,2,3,4,5,6,7,8)
Funk's G Brand 4393 (1,2,3,4,5,6,7,8)
Funk's G Brand 4450 (1,2,3,4)
Funk's G Brand 4502 (1,2,3,4)

Sommers Bros. Seed Company

Golden Harvest H-2331 (5,6,7,8,
9,10,11,12, 17,18,19)
Golden Harvest H-2390 (1,2,3,4,5,6,7,8,
9,10,11,12)
Golden Harvest H-2485 (1,2,3,4,5,6,7,8,
9,10,11,12, 17,18,19)

Golden Harvest H-2525 (1,2,3,4)
Golden Harvest H-2544 (1,2,3,4, 17,18,19)
Golden Harvest H-2553 (1,2,3,4)
Golden Harvest EX 637 (1,2,3,4,5,6,7,8,
9,10,11,12, 17,18,19)

Great Lakes Hybrids, Inc.

Great Lakes GL446 (9,10,11,12)
Great Lakes GL450 (5,6,7,8,9,10,11,12,
17,18,19)
Great Lakes GL496 (5,6,7,8,9,10,11,12,
17,18,19)
Great Lakes GL499 (5,6,7,8,9,10,11,12,
17,18,19)
Great Lakes GL509 (17,18,19)

Great Lakes GL536 (5,6,7,8, 17,18,19)
Great Lakes GL559 (5,6,7,8,9,10,11,12,
17,18,19)
Great Lakes GL577 (5,6,7,8, 17,18,19)
Great Lakes GL583 (1,2,3,4, 17,18,19)
Great Lakes GL587 (1,2,3,4, 17,18,19)
Great Lakes GL610 (1,2,3,4)

Gries Seed Farms, Inc.

Gries GSF 2393 (1,2,3,4,5,6,7,8)
Gries GSF 4100 (1,2,3,4,5,6,7,8)

Fred Gutwein & Sons, Inc.

Gutwein 2100 (5,6,7,8,9,10,11,12)
Gutwein 2120 (5,6,7,8,9,10,11,12)

Hyperformer Seed Company

Hyperformer HS9240 (5,6,7,8)
Hyperformer HS9311 (5,6,7,8)
Hyperformer HS9330 (1,2,3,4,5,6,7,8)
Hyperformer HS9388 (1,2,3,4,5,6,7,8)

ICI Seed Company

ICI Seeds 8326 (1,2,3,4)
ICI Seeds 8513 (1,2,3,4)
ICI Seeds 8543 (1,2,3,4,5,6,7,8, 17,18,19)
ICI Seeds 8700 (5,6,7,8,9,10,11,12)
ICI Seeds 8740 (5,6,7,8)

Jacques Seed Company

Jacques 4120 (13,14,15,16)
Jacques 4440 (9,10,11,12,13,14,15,16)
Jacques 4770 (5,6,7,8,9,10,11,12, 17,18,19)

Jung Farms, Inc.

Jung 2378 (13,14,15,16)
Jung 2448 (13,14,15,16)
Jung 2496 (9,10,11,12,13,14,15,16)

Northrup King Company

Northrup King N2409 (13,14,15,16)
Northrup King N2879 (13,14,15,16)
Northrup King N3624 (5,6,7,8,9,10,11,12)
Northrup King N3808 (5,6,7,8,9,10,11,12)
Northrup King N4242 (1,2,3,4,5,6,7,8, 9,10,11,12)

Payco Seed Company

Payco 448 (13,14,15,16)
Payco 463 (9,10,11,12)
Payco 531 (1,2,3,4,5,6,7,8,9,10,11,12, 13,14,15,16)

Pickseed Canada, Inc.

Pickseed 2620 (13,14,15,16)
Pickseed 2621 (13,14,15,16)
Pickseed 4990 (13,14,15,16)
Pickseed 5665 (9,10,11,12)

Pioneer Hi-Bred International, Inc.

Pioneer 3241 (1,2,3,4)
Pioneer 3293 (1,2,3,4)
Pioneer 3357 (1,2,3,4,5,6,7,8,17,18,19)
Pioneer 3394 (1,2,3,4,5,6,7,8,17,18,19)
Pioneer 3417 (1,2,3,4)
Pioneer 3525 (1,2,3,4,5,6,7,8,9,10,11,12, 17,18,19)
Pioneer 3527 (1,2,3,4,5,6,7,8,9,10,11,12, 17,18,19)

Gries GSF 4103 (1,2,3,4,5,6,7,8)

Gutwein 2474 (1,2,3,4)

Hyperformer HS9408 (1,2,3,4,5,6,7,8)
Hyperformer HS9490 (1,2,3,4)
Hyperformer HS9502 (1,2,3,4)

ICI Seeds 8777 (5,6,7,8,9,10,11,12)
ICI Seeds 8883 (13,14,15,16)
ICI Seeds 8954 (13,14,15,16)
ICI Seeds N9680 (13,14,15,16)
ICI Seeds N9702 (5,6,7,8,9,10,11,12)

Jacques 5600 (5,6,7,8,9,10,11,12)
Jacques 6970 (1,2,3,4,5,6,7,8)
Jacques 7970 (1,2,3,4)

Jung 2506 (9,10,11,12,13,14,15,16)
Jung 2648 (9,10,11,12)
Jung 3280 (13,14,15,16)

Northrup King N4428 (5,6,7,8)
Northrup King N4545 (5,6,7,8)
Northrup King N6330 (1,2,3,4)
Northrup King X501 (1,2,3,4)
Northrup King X701 (1,2,3,4)

Payco 648 (5,6,7,8)
Payco 711 (1,2,3,4,5,6,7,8,9,10,11,12)
Payco 802 (1,2,3,4,5,6,7,8)
Payco 829 (1,2,3,4,5,6,7,8)

Pickseed 5990 (9,10,11,12)
Pickseed 5993 (9,10,11,12)
Pickseed 8833 (5,6,7,8)
Pickseed 8855L (5,6,7,8)

Pioneer 3733 (1,2,3,4,5,6,7,8,9,10,11,12, 13,14,15,16)
Pioneer 3751 (1,2,3,4,5,6,7,8,9,10,11,12, 13,14,15,16,17,18,19)
Pioneer 3779 (9,10,11,12,13,14,15,16)
Pioneer 3861 (9,10,11,12,13,14,15,16, 17,18,19)
Pioneer 3921 (9,10,11,12,13,14,15,16)
Pioneer X1113 (9,10,11,12,13,14,15,16, 17,18,19)

Pioneer Hi-Bred International, Inc.

Pioneer 3563 (1,2,3,4)
Pioneer 3573 (1,2,3,4,5,6,7,8,9,10,11,12, 17,18,19)
Pioneer 3699 (17,18,19)
Pioneer 3723 (1,2,3,4,5,6,7,8,9,10,11,12, 13,14,15,16,17,18,19)

Prairie Stream Farms, Inc.

Prairie Stream SX420 (1,2,3,4)

Pro-Seed

Pro-Seed PS3104 (1,2,3,4,5,6,7,8)

Renk Seed Company

Renk RK527 (9,10,11,12)
Renk RK555 (9,10,11,12)
Renk RK602 (5,6,7,8,9,10,11,12)
Renk RK617 (5,6,7,8,9,10,11,12)
Renk RK646 (5,6,7,8,9,10,11,12)
Renk RK657 (5,6,7,8,9,10,11,12)
Renk RK702 (1,2,3,4,9,10,11,12)

Rupp Seeds, Inc.

Rupp XR1505 (13,14,15,16)
Rupp XR1644 (5,6,7,8,9,10,11,12)
Rupp XR1677 (1,2,3,4,5,6,7,8,9,10,11,12)
Rupp XR1694 (5,6,7,8,9,10,11,12)
Rupp XR1739 (1,2,3,4)

Stine Seeds

Stine 592X (9,10,11,12)
Stine 946 (9,10,11,12)
Stine 1073 (9,10,11,12)
Stine 1101 (5,6,7,8)

Terra International, Inc.

Terra TR910 (9,10,11,12)
Terra TR1010 (5,6,7,8,9,10,11,12)
Terra TR1020 (1,2,3,4,5,6,7,8,9,10,11,12)
Terra TR1030 (1,2,3,4,5,6,7,8,9,10,11,12)

Top Farm Hybrids

Top Farm TFsx1097A (5,6,7,8,9,10,11,12)
Top Farm TFsx1101A (9,10,11,12)
Top Farm TFsx1102 (9,10,11,12)

Trelay Seeds

Trelay 5200 (5,6,7,8)

Wolf River Valley Seeds

Wolf River Valley WRV-9186 (13,14,15,16)

Michigan Hybrid Seed Company, Inc.

Wolverine X103 (9,10,11,12)
Wolverine W133 (9,10,11,12)
Wolverine W156 (5,6,7,8,9,10,11,12)

Pioneer X1414 (1,2,3,4,5,6,7,8,9,10,11,12, 17,18,19)
Pioneer X1616 (1,2,3,4,5,6,7,8, 17,18,19)

Prairie Stream SX425 (1,2,3,4)

Pro-Seed Exp. 9208 (1,2,3,4)

Renk RK721 (1,2,3,4,5,6,7,8,9,10,11,12, 17,18,19)
Renk RK727 (1,2,3,4,5,6,7,8,9,10,11,12)
Renk RK803 (1,2,3,4)
Renk RK812 (1,2,3,4,5,6,7,8,9,10,11,12, 17,18,19)
Renk RK839 (1,2,3,4)
Renk RK886 (1,2,3,4, 17,18,19)

Rupp XR1774 (1,2,3,4,5,6,7,8)
Rupp XR1808 (1,2,3,4,5,6,7,8)
Rupp XR1843 (1,2,3,4)
Rupp XR2319 (13,14,15,16)
Rupp Exp. 1-201 (9,10,11,12,13,14,15,16)

Stine 1115 (5,6,7,8)
Stine 1116A (1,2,3,4,5,6,7,8)
Stine 1118 (1,2,3,4)
Stine 1127 (1,2,3,4)

Terra TR1050 (1,2,3,4,5,6,7,8,9,10,11,12)
Terra TR1090 (1,2,3,4,5,6,7,8)
Terra TR1101 (1,2,3,4)
Terra TR1120 (1,2,3,4)

Top Farm TFsx1104A (1,2,3,4,5,6,7,8)
Top Farm TFsx1107 (1,2,3,4,5,6,7,8)
Top Farm TFsx1195A (9,10,11,12)

Trelay 8900 (1,2,3,4)

Wolf River Valley WRV-9185 (15)

Wolverine W167 (1,2,3,4,5,6,7,8, 9,10,11,12)

COMPANIES WITH HYBRIDS ENTERED IN 1992 TRIALS

<u>BRAND</u>	<u>COMPANY NAME AND ADDRESS</u>
AGRIGENE	Agrigene Seed Research, 8888 Parsons Road, P.O. Box 226 Croton, OH 43013
AMCORN	Amcorn Hybrids, Inc., 1093 129th Avenue, Box 6 Bradley, MI 49311
ANDERSONS	The Andersons, P.O. Box 119 Maumee, OH 43537
ASGROW	Asgrow Seed Company, P.O. Box 460 Parkersburg, IA 50665
BECK'S	Beck's Superior Hybrids, 6767 East 276th Street Atlanta, IN 46031
BLANEY	Gutwein Seeds, Rt.1 Box 40 Francesville, IN 47946
CALLAHAN	Callahan Enterprises, Inc., 1122 East 169th Street Westfield, IN 46074
CARGILL	Cargill Hybrid Seeds, Box 5645 Minneapolis, MN 55440-5645
CENEX	Stephenson Marketing Stephenson, MI 53121
COUNTRYMARK CO-OP	Countrymark Cooperative Inc., 950 Meridian Road Indianapolis, IN 46204-3909
CROW'S	Crow's Hybrid Corn Company, Box 306 Milford, IL 60953
DAIRYLAND	Dairyland Seed Company, Inc., P. O. Box 958, 3570 Hwy. H West Bend, WI 53095-0958
DEKALB	Dekalb Plant Genetics, 3100 Sycamore Road Dekalb, IL 60115
DYNA-GRO	UAP Seed Company, 4415 66th Street, Suite 111 Lubbock, TX 79414
FUNK'S G-BRAND	CIBA-GEIGY Seed Division, 12275 South Sherman Lake Drive Augusta, MI 49012
GOLDEN HARVEST	Sommer Bros. Seed Company, P.O. Box 248 Pekin, IL 61554
GREAT LAKES	Great Lakes Hybrids, Inc., 9915 West M-21 Ovid, MI 48866
GRIES	Gries Seed Farms, Inc., 2348 North Fifth Street Fremont, OH 43420

<u>BRAND</u>	<u>COMPANY NAME AND ADDRESS</u>
GUTWEIN	Fred Gutwein & Sons, Route 1, Box 40 Francesville, IN 47946
HYPERFORMER	Hyperformer Seed Company, 6075 Poplar Ave., #500 Memphis, TN 38119
ICI SEEDS	ICI Seeds, Inc., 8126 Bisen Center Indianapolis, IN 46268
JACQUES	Jacques Seed Company, 720 St. Croix Street Prescott, WI 54021
JUNG	Jung Farms, Inc., 335 South High Street Randolph, WI 53957
NORTHROP KING	Northrup King Company, 7500 Olson Memorial Hwy. Golden Valley, MN 55427
PAYCO	Payco/Michigan State Seed, 717 N. Clinton Street Grand Ledge, MI 48837
PICKSEED	Pickseed Canada, Inc., Box 126 Richmond Hill, Ontario, Canada L4C 4X9
PIONEER	Pioneer Hi-Bred International, Inc., 1000 West Jefferson St. Tipton, IN 46072
PRAIRIE STREAM	Prairie Stream Farms, Inc., Route 3, Box 333 Frankfort, IN 46041
PRO-SEED	Pro-Seed, 236 Sugar Street, Box 55 Blissfield, MI 49228
RENK	Renk Seed Company, 6800 Wilburn Road Sun Prairie, WI 53590
RUPP	Rupp Seeds, Inc., 1370 County Road 18 Wauseon, OH 43567
STINE	Stine Seed Company, P.O.Box 231 Sheridan, IN 46069
TERRA	Terra International, Terra Centre, 600 Fourth Street Sioux City, IA 51101
TOP FARM	Top Farm Hybrids, Inc., P. O. Box 850 Cokato, MN 55321
TRELAY	Trelay Inc., R.R.1 Livingston, WI 53554
WOLF RIVER VALLEY	Wolf River Valley Seeds, N. 2976 Hwy. M White Lake, WI 54491
WOLVERINE	Michigan Hybrid Seed Company, Inc., 206 Park Street, P.O. Box 343 Mason, MI 48854

MICHIGAN STATE UNIVERSITY EXTENSION

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