

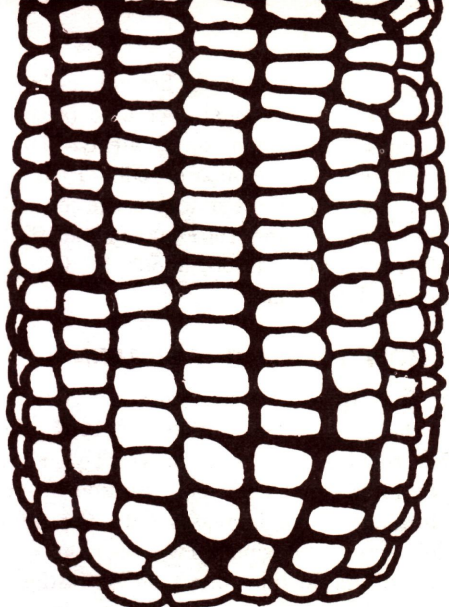
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Michigan Corn Production Hybrids Compared
Michigan State University Extension Service
E.C. Rossman, Bary M. Darling, Crop Science
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**COOPERATIVE EXTENSION
MICHIGAN STATE UNIVERSITY**

Authors are respectively Professor of Crop and Soil Science and Crop Science Aide

Michigan experimental hybrids are not listed since seed is not yet available for farm use.

[illegible]

Corn Maturity Zones and Locations (★) of Trials

METHODS

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

Seed for *Voluntary* and *Extension* entries was submitted by the seed companies. An equal number of seeds were counted for each plot of all hybrids. Each hybrid was replicated several times in the field. Plots were planted with a standard two-row or four-row corn planter adapted for small plots.

From seed packaging through harvest and data processing, each hybrid was identified only by a code number to reduce the chance of personal bias by anyone working in the field or with the data. The code was deciphered after the data had been processed.

Stands and lodging were counted before harvest. Plots for grain yields were harvested with a one-row picker-sheller. Field data were processed with high speed electronic computers.

Silage yields were taken on all hybrids in the Ingham, Huron, Alpena, and Alger County trials (Tables 10, 14, 19, 20).

All hybrids in the Monroe, Ingham, and Saginaw County trials were compared at two plant populations (Tables 1, 8, 12). Yields from 36, 30, and 18 inch row spacings for the Ingham County trial are given in Table 9.

Irrigated and non-irrigated comparisons were made in the Montcalm County trial, Table 15.

There were two locations in Cass County — upland soil with irrigation, Table 5, and muck soil, Table 6.

Planting of all trials was completed between May 1 to 28.

Wet, cold weather delayed field work during May and June resulting in some delayed plantings and water damage. Excessive to adequate soil moisture existed until late July. Temperatures were below normal during most of the season. August rainfall was very light with at least five consecutive weeks of little or no rain. September was dry and warm. Absence of a general killing frost in September and early October favored development of late maturing corn. Light to moderate frost occurred in some areas on Oct. 9 with a hard-killing frost on Oct. 23 in all areas. Wet weather during the latter half of October and November slowed harvest and reduced the rate of grain moisture dry-down in the field. Prolonged dry weather in August and blight resulted in an appearance of early maturity and contributed to excessive stalk breakage for late harvests.

The Newaygo County trial was damaged by excessive water and was abandoned. Table 16 presents 1968, 1967, 1966 data with no results for 1969.

Dry weather reduced the yields for the Huron County trial (Tables 13 and 14) again but not as much as in 1968. Yields at most of the other locations were cut by 10-20 bushels or more by prolonged dry weather during August.

The Michigan Crop Reporting Service estimates the 1969 average yield at 74 bushels per acre (second highest state average for Michigan) on about 1,253,000 acres harvested for grain. This compares with 1968 averages of 76 bushels per acre (highest state average) on 1,266,000 acres harvested for grain and 1967 averages of 65 bushels on 1,407,000 acres. In addition, about 450,000 acres of corn are harvested for silage.

HOW TO USE THIS BULLETIN

One, two, and three-year averages are presented for all hybrids tested during 1969, 1968 and 1967. One-year data are less reliable than two or three-year averages and should be interpreted with more caution. Confidence in corn performance data increases with the number of years and locations of testing. Two or more years' results are more desirable than one year of testing.

The tables tell you three things about the hybrids tested:

- (1) average moisture content at harvest,
- (2) average yield in bushels of shelled corn at 15.5% moisture or silage yields, and
- (3) average percentage of stalk lodging (plants broken below the ear at harvest).

Hybrids are recorded in the tables in order of their approximate maturity (early to late) based on moisture content at harvest. Moisture contents were determined from shelled grain samples at all locations harvested for grain and from ear corn samples in the silage trials.

Stalk breakage is caused by corn borers and/or stalk rot diseases.

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

When comparing any two hybrids, the difference between them should not be considered significant unless it exceeds the value listed as "least significant difference", at the bottom of the tables.

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

HOW TO CHOOSE A HYBRID

Adaptation — The map on the cover shows the location of the trials and divides Michigan into four maturity zones. A map can show maturity zones only in a general way. Local variations in weather, soil type and fertility, time of planting, and other conditions all affect adaptation. Corn hybrids are often adapted to more than one zone.

Find the zone in which you plan to grow the corn, and refer to the table which gives results for the trial

conducted nearest your farm. Also, refer to the other tables listed in your zone. A hybrid which has done well at two or more locations is more likely to be a good hybrid for your farm, too.

Planting Rate — A population of 12,000 plants per acre is best for corn soils producing 50 bushels or less per acre. Populations of 16,000 to 18,000 are best for soils producing more than 50 bushels per acre. Higher populations (20,000 or more) should be considered only for soils consistently producing more than 100 bushels per acre. Rainfall deficiencies with high plant populations usually result in no increase and frequently a decrease in yield compared to 16,000 to 18,000. Lodging and harvest losses are often greater at high populations.

Maturity — Hybrids are listed in the tables in order of maturity — early to late. One percent more moisture at harvest means a delay in maturity of about two days. Corn is mature when moisture is down to 35% in the

grain or 40% in the ear. Ear corn is safe to crib when moisture content is below 25%.

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

- (1) They usually mature before killing frosts.
- (2) Good-yielding early hybrids generally yield as much or more corn than late hybrids in most areas in Michigan.
- (3) Lower moisture content at harvest permits safer storage. You will take more clean, sound, high-quality corn out of the crib.
- (4) Mature, dry corn makes better livestock feed.
- (5) You can harvest earlier in the fall when weather conditions are most favorable. Early harvest may reduce corn losses resulting from broken stalks and dropped ears in the field.

Table A. Average, highest and lowest moisture content, yield, and stalk lodging at 14 locations in 1969.

Location	No. of hybrids	% Moisture			Bushels per Acre			% Stalk Lodging		
		Ave.	Highest	Lowest	Ave.	Highest	Lowest	Ave.	Highest	Lowest
Monroe - 19,500	55	24.8	30.6	19.6	117.9	140.8	96.9	8.3	26.5	0.0
" - 25,600	55				119.8	151.6	98.3	9.1	26.3	1.7
Hillsdale	60	27.2	30.9	20.9	143.9	164.8	103.4	3.5	12.0	0.0
Branch	70	32.0	40.6	23.7	134.1	166.9	95.8	2.4	11.9	0.0
Kalamazoo	44	31.6	37.1	23.8	121.9	148.4	92.1	1.2	4.8	0.0
Cass-Upland	53	25.2	29.1	20.1	123.1	159.6	77.6	11.3	42.8	2.3
Irrigated										
Cass-Muck Soil	49	27.0	31.7	20.5	127.3	158.0	79.0	4.3	14.8	0.0
Ottawa	42	30.0	37.0	23.1	101.3	134.4	78.5	11.2	23.6	2.3
Ingham - 19,400	60	29.0	33.6	22.3	115.4	154.2	82.2	1.5	8.3	0.0
" - 24,900	60				120.6	149.9	89.3	1.7	11.9	0.0
Sanilac	46	29.3	33.8	24.6	96.6	143.4	44.2	2.0	7.8	0.0
Saginaw - 19,800	56	27.3	32.6	20.6	98.3	130.0	63.8	5.8	18.7	0.0
" - 25,000	56				97.0	128.3	68.3	9.1	29.8	0.0
Huron	38	25.0	29.5	20.7	81.8	115.2	54.3	17.0	40.3	2.6
Montcalm-Irrigated	50	25.0	30.4	20.0	143.5	184.9	96.7	2.7	10.9	0.0
Montcalm-Not Irrigated	50				83.3	104.3	56.3	17.8	57.8	5.6
Grand Traverse	24	35.5	39.7	30.9	93.7	118.3	72.5	4.0	11.3	0.0
Alpena	22	39.4	44.3	32.6	109.5	137.9	41.8	6.9	29.7	0.8
Average-14 locations		29.2	34.4	23.1	112.7	143.9	77.3	6.7	21.6	0.8

- (6) Early hybrids with lower moisture content at harvest reduces drying costs and market discounts for moisture.
- (7) Fall plowing of corn stubble may be possible with early hybrids on land not subject to erosion.

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

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

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

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

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

Table 1. **SOUTHERN MICHIGAN** (Zone 1)
MONROE COUNTY TRIAL

One, Two, and Three Year Averages — 1969, 1968, 1967

Hybrid	Moisture (%)			Bushels per acre						Stalk Lodging (%)						Root Lodging (%)			
	2		3	1969		2 Years		3 Years		1969		2 Years		3 Years		1969			
	1969	Yrs.	Yrs.	19,500	25,600	19,300	25,700	18,800	19,500	25,000	25,600	19,300	25,700	18,800	25,000	19,500	25,600		
Michigan 275-2X (2X)	19.6	—	—	106.7	109.9	—	—	—	—	8.7	19.0	—	—	—	—	0.0	0.0		
Michigan 280	20.4	20	22	99.3	98.3	101	94	93	81	22.2	14.0	12	9	15	12	0.9	0.0		
Michigan 400	21.6	22	23	118.1	113.4	107	98	97	84	4.2	10.1	4	7	9	9	0.0	0.0		
Michigan 463-3X (3X)	21.7	23	24	118.9	117.2	107	99	101	90	12.3	9.0	11	8	14	12	1.6	0.0		
Pioneer 3775 (2X)	21.7	23	24	126.1	131.3	112	111	103	96	10.4	18.4	7	12	12	13	0.0	0.0		
Blaney B401 (2X)	22.1	22	—	104.3	101.6	96	91	—	—	17.9	9.5	9	6	—	—	0.8	0.0		
Michigan 402-2X (2X)	22.1	23	24	122.3	124.9	109	107	101	93	16.7	14.8	12	10	13	11	0.0	0.0		
Northrup King PX 545 (3X)	23.2	—	—	114.5	126.6	—	—	—	—	4.3	5.7	—	—	—	—	0.9	0.0		
Blaney 6905A (2X)	23.2	—	—	123.0	114.2	—	—	—	—	7.1	5.7	—	—	—	—	0.0	1.7		
Super Crost S27 (2X) ^{1,2}	23.5	25	—	140.8	134.5	131	126	—	—	19.0	7.3	12	5	—	—	0.0	0.6		
Weather Master EPX-5P (2X)	23.7	26	—	119.5	123.5	106	110	—	—	26.5	26.3	15	14	—	—	0.0	0.0		
Garno S92 (2X)	23.9	—	—	117.5	107.1	—	—	—	—	7.9	8.0	—	—	—	—	0.8	0.6		
Pioneer 3773 (2X)	23.9	25	25	122.9	126.8	118	105	110	94	6.3	8.3	5	5	5	5	0.0	0.0		
Michigan 500-2X (2X) ²	23.9	25	26	125.7	143.9	123	124	115	108	5.6	4.3	4	3	6	6	0.0	0.0		
Northrup King PX525 (Sp.)	23.9	24	25	127.1	109.1	117	105	105	90	9.0	10.1	7	8	13	13	0.0	0.6		
Funk Bros. G5207	24.0	—	—	97.6	107.6	—	—	—	—	19.9	5.1	—	—	—	—	0.9	0.0		
Super Crost S33 (2X)	24.0	24	25	120.8	127.8	100	100	89	88	7.3	12.6	5	8	7	9	0.8	0.0		
Garno S95 (2X)	24.2	—	—	113.2	108.4	—	—	—	—	7.3	6.9	—	—	—	—	0.8	1.7		
Pioneer 3715 (2X)	24.2	25	—	114.1	105.5	108	93	—	—	5.5	5.1	4	4	—	—	0.0	0.0		
Migro 12SX (2X)	24.2	—	—	117.4	100.1	—	—	—	—	4.1	11.0	—	—	—	—	0.8	0.0		
Blaney 6606A (2X)	24.5	25	26	119.5	126.5	113	113	105	101	4.0	12.6	4	8	4	10	0.0	0.0		
Super Crost 233 (3X)	24.5	25	—	99.1	115.0	100	99	—	—	4.1	12.3	3	8	—	—	1.6	0.0		
Northrup King PX 556 (3X)	24.8	25	—	118.7	122.9	126	111	—	—	6.3	12.1	5	8	—	—	0.0	0.0		
Pride R450 (2X) ²	24.8	—	—	125.6	134.1	—	—	—	—	6.2	7.8	—	—	—	—	0.0	0.0		
Funk Bros. G4444 (2X) ¹	24.9	—	—	138.0	128.2	—	—	—	—	16.4	15.1	—	—	—	—	0.0	0.6		
Michigan 555-3X (3X) ^{1,2}	24.9	26	27	135.0	141.1	133	129	122	110	12.6	12.2	9	8	15	14	0.8	0.6		
Bayless SX434 (2X) ¹	24.9	26	—	138.4	126.7	133	111	—	—	10.8	15.8	7	9	—	—	0.0	0.8		
Bayless SX433-8Q (2X)	25.0	—	—	126.9	121.5	124	112	—	—	7.0	6.1	5	4	—	—	2.3	0.0		
Michigan 568-3X (3X)	25.0	26	27	125.8	128.3	121	115	111	101	3.5	6.1	3	5	6	9	0.0	1.8		
OYO 180 (2X)	25.1	—	—	126.2	120.4	—	—	—	—	6.5	4.5	—	—	—	—	0.0	0.0		
Acco TGG 440	25.1	—	—	119.7	120.2	—	—	—	—	6.2	7.4	—	—	—	—	3.1	0.0		
Migro 1010 SX (2X)	25.2	—	—	113.2	110.4	—	—	—	—	8.5	9.0	—	—	—	—	4.6	0.6		
Northrup King PX519 (Sp.)	25.3	25	—	119.5	111.4	113	97	—	—	4.6	15.1	4	8	—	—	0.8	1.1		
Pioneer 3570 (2X) ^{1,2}	25.3	26	—	136.8	151.6	123	129	—	—	3.8	6.2	3	5	—	—	0.0	0.0		
Pioneer 354A	25.4	26	27	100.8	102.5	101	94	89	78	5.7	6.3	6	5	17	10	0.0	0.6		

Table 1 — MONROE COUNTY TRIAL (Continued)

Hybrid	Moisture (%)			Bushels per acre						Stalk Lodging (%)				Root Lodging (%)			
	2		3	1969		2 Years		3 Years		1969		2 Years		3 Years		1969	
	1969	Yrs.	Yrs.	19,500	25,600	19,300	25,700	18,800	25,000	19,500	25,600	19,300	25,700	18,800	25,000	19,500	25,600
P.A.G. 272 (3X)	25.4	27	28	113.7	113.7	95	94	88	80	7.2	6.2	5	4	11	9	2.4	0.6
Weather Master EPX-6P (2X)	25.5	27	—	108.5	115.0	109	109	—	—	8.8	4.0	5	2	—	—	0.0	1.7
Northrup King PX580 (3X)	25.5	—	—	126.0	113.9	—	—	—	—	4.6	6.8	—	—	—	—	0.0	1.7
Funk Bros. G4384 (2X) ^{1,2}	25.7	—	—	134.0	149.2	—	—	—	—	18.5	11.7	—	—	—	—	0.0	2.3
OYO 225 (2X)	26.3	27	28	100.1	107.6	86	82	87	75	1.6	2.9	4	2	7	5	0.0	0.0
DeKalb XL45 (2X)	26.3	27	27	116.6	124.3	116	114	108	98	10.4	8.9	6	5	9	7	0.8	1.1
Blaney B601 (2X)	26.3	27	27	121.4	126.1	124	116	114	99	4.7	6.2	4	5	7	6	0.8	0.0
Weather Master EPX-6 (2X)	26.4	—	—	117.2	111.5	—	—	—	—	3.1	4.6	—	—	—	—	0.8	0.0
Northrup King PX47 (2X)	26.4	27	—	108.9	104.3	120	111	—	—	5.6	1.7	4	2	—	—	0.0	0.0
Northrup King PX50 (2X)	26.4	27	28	127.1	120.7	115	104	110	96	3.2	3.5	3	3	5	5	0.0	0.0
Migro 22A SX (2X)	26.6	—	—	115.7	109.4	—	—	—	—	5.6	10.2	—	—	—	—	0.8	0.0
OYO 210 (2X)	26.7	—	—	108.8	129.8	—	—	—	—	3.2	4.5	—	—	—	—	0.8	0.6
P.A.G. SX9 (2X)	26.7	28	28	96.9	110.3	96	100	94	85	1.7	5.1	1	5	8	7	0.0	1.1
Acco UC3670 (2X)	26.8	—	—	120.0	116.2	—	—	—	—	4.0	4.7	—	—	—	—	0.0	0.0
Acco UC4400 (2X)	26.9	—	—	106.5	106.6	—	—	—	—	16.4	18.3	—	—	—	—	0.0	0.0
Northrup King PX610 (3X) ^{1,2}	26.9	27	27	130.5	136.6	117	117	112	101	6.4	5.7	5	4	10	7	0.0	4.0
OYO 333 (2X) ^{1,2}	26.9	28	29	130.7	149.1	122	120	110	101	16.0	15.7	8	9	9	9	1.6	1.1
Migro 540	27.7	—	—	125.0	123.4	—	—	—	—	0.0	7.3	—	—	—	—	0.0	0.0
DeKalb XL346 (3X)	28.1	—	—	110.6	116.2	—	—	—	—	10.3	4.7	—	—	—	—	3.2	0.0
Pioneer 3369A (2X)	30.6	—	—	108.4	126.3	—	—	—	—	0.0	4.0	—	—	—	—	0.0	0.0
Average	24.8	25	26	117.9	119.8	113	108	103	93	8.3	9.1	6	7	10	9	0.6	0.4
Ranges	19.6	20	22	96.9	98.3	86	82	87	75	0.0	1.7	1	1	4	5	0.0	0.0
	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to
	30.6	28	28	140.8	151.6	133	138	122	110	26.5	26.3	15	14	17	14	4.6	4.0
Least significant difference	0.9	0.7	0.5	12.4	12.0	6	6	4	5								

¹ Significantly better than average yield at 19,500 population in 1969.² Significantly better than average yield at 25,600 population in 1969.

	1969	1968	1967
Planted	May 26	May 8	May 17
Harvested	Nov. 4	Oct. 15	Nov. 13
Soil type	Brookston loam	Brookston clay loam	Brookston clay loam
Previous crop	Corn	Corn	Corn
Population	19,500 and 25,600	19,100 and 25,800	17,700 and 23,600
Rows	30"	30"	36"
Fertilizer	193-102-156	112-128-182	160-144-120
Soil test: pH	6.9	6.5	6.5
P	39 (high)	99 (very high)	59 (high)
K	274 (high)	242 (high)	120 (medium high)

Farm Cooperator: Earl Creech, Dundee
 County Extension Director: Paul F. Nevel, Monroe

Table 2. SOUTHERN MICHIGAN (Zone 1)
HILLSDALE COUNTY TRIAL
One, Two, and Three Year Averages —
1969, 1968, 1967

Hybrid	Moisture (%)			Bushels per acre			Stalk lodging (%)			Root lodging (%)		
	2		3	2		3	2		3	2		3
	1969	Yrs.	Yrs.	1969	Yrs.	Yrs.	1969	Yrs.	Yrs.	1969	Yrs.	Yrs.
Michigan 275-2X (2X)	20.9	—	—	119.7	—	—	11.5	—	—	0.0	—	—
Michigan 280	21.0	20	22	120.4	112	111	8.1	6	5	0.0	—	—
Michigan 400	23.2	22	23	139.0	129	120	0.0	0	1	1.9	—	—
Michigan 402-2X (2X)	23.7	22	24	138.1	133	130	3.6	4	6	0.0	—	—
Pioneer 3658	24.6	23	25	130.8	138	131	10.7	7	6	0.0	—	—
Wyckoff W5X	25.3	24	25	128.9	122	118	2.4	4	4	0.0	—	—
Blaney B401 (2X)	25.5	—	—	109.8	—	—	2.9	—	—	0.0	—	—
Michigan 463-3X (3X)	25.6	24	25	141.2	132	133	2.6	3	4	0.0	—	—
P.A.G. SX36 (2X)	25.9	24	26	103.4	119	116	12.0	7	5	0.0	—	—
Migro 12SX (2X)	25.9	24	26	125.2	130	125	3.6	5	4	0.0	—	—
DeKalb XL306 (3X)	26.2	24	24	115.6	116	112	3.1	3	3	0.6	—	—
Funk Bros. G5207	26.3	—	—	137.9	—	—	8.2	—	—	0.6	—	—
Pioneer 3582 (2X)	26.4	25	—	144.6	141	—	0.6	1	—	0.6	—	—
Blaney 6905A (2X)	26.6	—	—	140.6	—	—	3.1	—	—	0.0	—	—
Todd M30 (2X)	26.6	—	—	144.1	—	—	1.8	—	—	0.0	—	—
Blaney B-AA (2X)	26.7	—	—	150.5	—	—	4.2	—	—	0.0	—	—
Michigan 1010 SX (2X) ¹	26.7	—	—	158.1	—	—	3.0	—	—	0.6	—	—
Wolverine W170 (2X)	26.7	—	—	130.4	—	—	2.5	—	—	0.0	—	—
Funk Bros. G4444 (2X) ¹	26.8	—	—	156.4	—	—	8.2	—	—	0.6	—	—
Northrup King PX545 (3X)	26.8	—	—	141.4	—	—	0.6	—	—	0.2	—	—
Michigan 500-2X (2X) ¹	26.8	25	26	160.1	159	152	3.3	2	1	0.0	—	—
Wolverine W176	26.8	—	—	145.3	—	—	2.4	—	—	1.2	—	—
Weather Master EPX-5P (2X)	26.8	26	—	136.2	143	—	4.3	4	—	0.0	—	—
Pioneer 3773 (2X)	26.9	25	26	150.8	145	139	2.5	2	3	0.0	—	—
Northrup King PX519 (Sp)	27.0	25	—	141.4	142	—	2.4	3	—	0.0	—	—
Northrup King PX50 (2X) ¹	27.0	26	27	162.5	156	143	1.2	3	3	0.0	—	—
Northrup King PX525 (Sp)	27.0	25	26	126.2	135	132	10.9	6	4	0.0	—	—
OYO 180 (2X)	27.1	—	—	127.6	—	—	0.6	—	—	0.0	—	—
Blaney B601 (2X)	27.1	—	—	153.6	—	—	1.2	—	—	0.0	—	—
Michigan 555-3X (3X) ¹	27.1	26	27	162.5	156	153	3.2	5	5	0.0	—	—
Gutwein 20 (2X)	27.1	25	—	154.2	148	—	3.0	5	—	0.0	—	—
Bayless SX433-8Q (2X) ¹	27.1	—	—	156.2	—	—	3.1	—	—	0.0	—	—
Northrup King PX556 (3X) ¹	27.2	25	—	163.3	153	—	2.4	3	—	0.0	—	—
Wyckoff W2412 SX (2X)	27.2	—	—	153.6	—	—	1.2	—	—	0.6	—	—
Weather Master EPX-6P (2X)	27.3	—	—	141.9	—	—	5.7	—	—	0.0	—	—
Wyckoff W9X	27.4	25	26	147.0	139	128	2.3	1	1	0.6	—	—
Todd M55 (2X)	27.4	26	27	152.6	146	132	2.4	3	2	0.0	—	—
Michigan 568-3X (3X)	27.4	25	27	156.0	152	147	3.9	3	2	0.0	—	—
Northrup King PX47 (2X) ¹	27.5	25	—	157.1	158	—	1.9	3	—	0.0	—	—
Wyckoff W215	27.5	26	—	118.3	126	—	1.9	2	—	0.0	—	—
Wyckoff W10A	27.5	26	28	134.3	135	127	10.0	5	4	0.0	—	—
Pride R450 (2X)	27.5	26	28	155.7	153	142	3.6	4	3	0.6	—	—
Lowe SX2TP (2X) ¹	27.6	—	—	160.0	—	—	1.8	—	—	0.0	—	—
Wolverine W175A (2X)	27.6	—	—	146.2	—	—	2.5	—	—	0.0	—	—
Funk Bros. G4384 (2X) ¹	27.8	26	27	161.8	148	143	3.0	3	4	0.0	—	—
Northrup King PX580 (3X) ¹	28.0	—	—	156.2	—	—	2.5	—	—	0.0	—	—
Migro 22A SX (2X) ¹	28.1	26	28	158.1	144	135	0.0	1	1	0.0	—	—
Pride R728 (3X)	28.2	—	—	137.9	—	—	3.6	—	—	0.0	—	—
Bayless SX615-5 (2X)	28.3	27	—	152.6	136	—	3.8	6	—	0.0	—	—
DeKalb XL325 (3X)	28.4	26	27	136.2	126	120	3.0	3	2	0.0	—	—
DeKalb XL45 (2X)	28.6	26	27	139.1	134	128	4.4	3	3	0.0	—	—
Bayless 3X485 (3X)	28.6	27	—	147.4	150	—	2.4	3	—	0.0	—	—
Bayless SX434 (2X)	28.7	—	—	151.6	—	—	3.0	—	—	0.0	—	—
Pride R539 (3X) ¹	28.9	—	—	157.3	—	—	1.8	—	—	0.0	—	—
Migro 540 ¹	29.7	28	—	164.8	158	—	3.5	3	—	0.0	—	—
Northrup King PX610 (3X) ¹	29.9	27	28	159.3	154	140	1.2	2	2	0.0	—	—
OYO 225 (2X)	30.0	27	—	140.3	127	—	4.2	3	—	0.0	—	—
OYO 333 (2X)	30.2	28	29	148.8	149	141	2.4	2	2	0.0	—	—
OYO 210 (2X) ¹	30.8	—	—	158.3	—	—	3.5	—	—	0.0	—	—
DeKalb XL361 (3X)	30.9	—	—	142.4	—	—	2.4	—	—	0.0	—	—
Average	27.2	25	26	143.9	140	133	3.5	3	3	0.1	—	—
Range	20.9	20	22	103.4	111	111	0.0	0	1	0.0	—	—
	30.9	28	29	164.8	159	153	12.0	7	6	1.9	—	—

Least significant difference 0.9 .6 .5 12.2 5 4

¹ Significantly better than average yield in 1969.

	1969	1968	1967
Planted	May 6	May 2	May 24
Harvested	Oct. 16	Oct. 23	Oct. 28
Soil type	Griffin sandy loam	Griffin sandy loam	Fox sandy loam
Previous crop	Corn	Wheat seeded to clover	Corn
Population	19,100	19,300	18,200
Rows	30"	30"	36"
Fertilizer	185-84-141	143-80-112	152-69-120
Soil test: pH	6.6	6.6	6.5
P	26 (medium)	28 (medium)	47 (high)
K	94 (medium)	86 (medium)	175 (medium)

Farm Cooperators: 1969 and 1968 = Dean Shampio, Prattville; 1967 = Keith Brown, Jonesville

County Extension Agents: E. A. Netherton and A. T. Hall, Hillsdale

Table 3. SOUTHERN MICHIGAN (Zone 1)
BRANCH COUNTY TRIAL
One, Two, and Three Year Averages —
1969, 1968, 1967

Hybrid	Moisture (%)						Bushels per acre			Stalk lodging (%)			Root lodging %	
	2		3	2		3	2		3	2		3	1969	
	1969	Yrs.	Yrs.	1969	Yrs.	Yrs.	1969	Yrs.	Yrs.	1969	Yrs.			
Michigan 280	23.7	22	22	103.5	112	115	5.1	4	3	15.3				
Michigan 275-2X (2X)	24.0	—	—	108.7	—	—	8.9	—	—	5.9				
P.A.G. SX48 (2X)	28.0	25	—	101.2	96	—	11.9	11	—	24.8				
P.A.G. 45	28.1	25	—	125.2	113	—	0.6	4	—	16.5				
Michigan 402-2X (2X)	28.1	26	27	119.9	123	128	6.1	4	3	12.3				
Michigan 463-3X (3X)	28.1	26	28	123.3	124	128	4.2	6	6	8.3				
Michigan 400	28.4	26	27	110.2	113	115	1.8	3	3	2.9				
Wyckoff W5X	28.3	26	27	130.4	123	122	3.7	6	5	7.4				
Funk Bros. G5207	28.4	27	—	119.9	115	—	4.3	4	—	7.4				
Migro 12 SX (2X)	28.8	27	28	139.7	143	138	3.6	2	1	13.8				
Northrup King PX525 (Sp)	29.0	27	28	145.8	145	138	1.2	2	2	5.3				
Gutwein 222	29.2	27	29	145.1	148	140	1.8	2	3	13.1				
Bayless SX433-8Q (2X)	29.8	—	—	137.5	—	—	1.2	—	—	1.8				
Acco UC1900 (2X)	29.9	—	—	120.8	—	—	0.6	—	—	6.6				
Pioneer 3715 (3X)	30.0	27	29	118.8	133	130	0.6	1	1	1.7				
Acco UC3300 (2X) ¹	30.1	—	—	158.9	—	—	1.8	—	—	7.0				
DeKalb XL306 (3X)	30.4	27	28	122.6	116	119	3.5	3	2	2.9				
DeKalb Ex. 26 (2X)	30.5	27	—	95.8	96	—	3.0	11	—	6.0				
Brodbecks SX2 (2X) ¹	30.6	28	—	163.4	156	—	0.6	4	—	6.5				
Migro 1010SX (2X) ¹	30.6	—	—	157.7	—	—	4.1	—	—	3.0				
Cowbell 300 (3X)	30.6	—	—	111.9	—	—	1.8	—	—	9.6				
Northrup King KE497	30.7	27	27	105.2	109	111	4.1	6	5	0.6				
P.A.G. SX36 (2X)	30.9	28	29	128.4	129	126	2.4	3	2	7.2				
Pioneer 3773 (2X)	31.0	28	28	135.3	136	139	5.4	5	4	10.2				
Gutwein 20 (2X) ¹	31.0	28	29	149.7	150	140	4.3	5	3	1.8				
Lowe GG2A (Sp)	31.1	28	—	98.5	111	—	6.3	5	—	7.5				
Northrup King PX47 (2X) ¹	31.2	28	—	155.2	159	—	2.4	3	—	7.7				
Michigan 555-3X (3X) ¹	31.4	28	29	150.0	159	158	4.1	6	5	7.7				
Lowe SX2 TP (2X)	31.3	28	—	142.8	154	—	1.8	2	—	6.0				
Bayless SX615-5 (2X)	31.4	29	30	121.9	142	143	4.2	6	5	13.3				
Funk Bros. G4333 (2X) ¹	31.4	29	—	155.2	153	—	1.8	3	—	7.1				
Funk Bros. G4384 (2X)	31.5	28	29	140.7	152	148	3.1	2	3	13.0				
Lowe TWX2 (3X)	31.6	28	—	129.3	145	—	2.5	2	—	14.1				
Funk Bros. G4444 (2X)	31.7	—	—	136.1	—	—	0.6	—	—	13.3				
Northrup King PX519 (Sp)	31.8	28	—	126.7	135	—	0.0	3	—	14.9				
Michigan 568-3X (3X) ¹	31.9	29	30	149.9	155	151	4.7	3	3	5.3				
Pioneer 3414	31.9	29	30	139.7	152	142	3.0	3	3	7.9				
Northrup King PX50 (2X) ¹	31.9	29	30	166.6	167	155	3.0	4	3	7.2				
Michigan 500-2X (2X) ¹	31.9	28	29	150.8	153	151	5.6	4	3	9.3				
Northrup King PX545 (3X)	32.1	—	—	145.8	—	—	1.2	—	—	9.7				
Acco TGG 440	32.2	29	30	126.1	137	132	1.8	2	2	6.7				
Hulting 2352	32.2	29	—	133.3	135	—	1.8	3	—	6.7				
Northrup King PX556 (3X) ¹	32.2	29	—	162.6	163	—	0.6	2	—	7.1				
Hulting 218	32.3	28	30	124.4	118	125	2.7	5	4	13.0				
Pioneer 3466	32.4	29	30	125.0	131	131	4.1	5	4	2.4				
DeKalb XL45 (2X)	32.7	29	30	131.5	141	134	3.6	4	3	5.3				
Pride R407 (2X) ¹	32.7	—	—	156.6	—	—	1.2	—	—	20.0				
Gutwein 120 (3X)	32.7	29	—	144.0	148	—	2.4	3	—	2.9				
Acco UC2600 (2X)	32.7	—	—	111.0	—	—	0.6	—	—	16.8				
DeKalb Ex. 29 (2X)	32.7	29	—	129.1	147	—	0.0	1	—	10.9				
Bayless 3X485 (3X)	32.8	30	31	134.9	145	141	4.8	4	3	1.2				
Northrup King PX580 (3X) ¹	32.9	—	—	151.3	—	—	1.2	—	—	3.0				
Bayless SX434 (2X) ¹	32.9	—	—	151.4	—	—	1.7	—	—	0.6				
Gutwein 10 (2X)	33.0	28	28	108.6	103	96	1.2	5	5	19.8				
Bayless SX415 (2X)	33.0	30	31	129.5	144	144	0.6	2	2	21.9				
Northrup King PX610 (3X) ¹	33.0	30	30	157.8	162	149	0.0	2	2	4.7				
Hulting X536	33.1	30	31	134.7	135	136	0.6	2	2	14.8				
Wyckoff W10A ¹	33.1	30	31	149.8	151	147	1.2	2	2	3.6				
Brodbecks 352	33.3	30	—	141.0	144	—	1.8	4	—	10.1				
Migro 22A SX (2X)	33.4	30	31	122.9	129	129	0.0	1	2	8.9				
Hulting X345 ¹	33.5	30	—	148.4	145	—	5.1	4	—	14.0				
Cowbell SX112 (2X)	33.6	30	30	137.4	141	140	2.3	3	3	4.1				
Gutwein 17 (3X)	33.7	29	29	124.4	133	126	0.0	2	1	5.4				
Pride R539 (3X) ¹	33.9	—	—	148.5	—	—	1.2	—	—	6.6				
P.A.G. 272 (3X)	34.2	31	32	109.8	119	126	0.6	2	2	7.4				
Pride R450 (2X) ¹	34.7	30	—	149.4	152	—	0.6	2	—	7.8				
Migro 5401	36.6	31	32	166.9	164	150	1.2	1	1	2.4				
Bayless SX601 (2X)	37.5	32	33	129.8	140	143	0.0	2	1	12.7				
Hulting X928	37.7	32	32	136.8	150	147	0.6	2	1	8.5				
P.A.G. SX7 (2X) ¹	40.6	34	—	151.2	155	—	2.4	3	—	4.2				

Table 3 — BRANCH COUNTY TRIAL (Continued)

Hybrid	Moisture (%)			Bushels per acre			Stalk lodging (%)			Root lodging %
	2 3		1969	2 3		1969	2 3		1969	
	1969	Yrs. Yrs.		Yrs. Yrs.	Yrs. Yrs.		Yrs. Yrs.			
Average	32.0	28 29	134.1	138 135	2.4	3 3	8.5			
Range	23.7	22 22	95.8	96 96	0.0	1 1	0.6			
	to	to	to	to	to	to	to	to	to	
	40.6	34 33	166.9	167 158	11.9	11 6	24.8			
Least significant difference	1.4	0.8 0.6	14.3	6 4						

¹ Significantly better than average yield in 1969.

	1969	1968	1967
Planted	May 28	May 3	May 19
Harvested	Oct. 20	Oct. 19	Nov. 1
Soil type	Gilford sandy loam	Gilford sandy loam	Gilford sandy loam
Previous crop	Corn	Corn	Corn
Population	19,100	19,400	19,200
Rows	30"	30"	36"
Fertilizer	152-92-72	116-92-90	36-90-0
Soil test: pH	6.6	6.8	6.4
P	106 (high)	79 (very high)	112 (high)
K	251 (high)	323 (very high)	199 (high)

Farm Cooperator: George Matthews, Union City

County Extension Director: Paul Thompson, Coldwater

Table 4. SOUTHERN MICHIGAN (ZONE 1)
KALAMAZOO COUNTY TRIAL

One, Two, and Three Year Averages —
1969, 1968, 1967

Hybrid	Moisture (%)			Bushels per acre			Stalk lodging (%)			Root lodging %
	1969	2	3	1969	2	3	1969	2	3	
		Yrs.	Yrs.		Yrs.	Yrs.		Yrs.	Yrs.	
Michigan 280	23.8	23	24	102.8	118	114	1.2	1	2	0.0
Michigan 275-2X (2X)	24.4	—	—	106.2	—	—	4.3	—	—	0.0
Michigan 400	26.3	27	28	121.0	123	116	0.6	0	1	0.0
Funk Bros. G4252 (3X)	27.5	—	—	114.4	—	—	1.8	—	—	0.0
Pioneer 385	28.1	27	—	92.1	108	—	4.8	2	—	0.0
DeKalb XL315 (3X)	28.2	28	—	103.7	111	—	1.2	1	—	0.0
Michigan 402-2X (2X)	28.3	28	29	129.1	128	128	2.9	2	3	0.0
Migro 1010 SX (2X)	29.3	—	—	131.4	—	—	0.6	—	—	0.0
Michigan 463-3X (3X)	29.5	29	30	123.3	131	130	0.0	1	1	0.0
Pioneer 3773 (2X) ¹	29.7	29	30	140.2	148	143	0.0	0	0	0.0
Cowbell 300 (3X)	30.0	—	—	92.9	—	—	0.6	—	—	0.0
Northrup King PX525 (Sp) ¹	30.0	30	30	133.7	143	135	2.9	2	2	0.0
Funk Bros. G5207	30.2	29	—	111.6	118	—	0.6	1	—	0.0
DeKalb XL306 (3X)	30.6	29	—	112.4	120	—	0.6	0	—	0.0
Gutwein 10 (2X)	30.9	28	—	122.7	111	—	2.9	2	—	1.1
Northrup King PX519 (Sp)	31.4	31	—	128.4	139	—	1.7	2	—	0.6
Michigan 500-2X (2X)	31.5	30	31	129.3	143	140	0.6	0	1	0.0
Michigan 555-3X (3X) ¹	31.7	32	—	136.9	156	—	2.4	1	—	0.0
Funk Bros. G4444 (2X)	31.8	—	—	125.3	—	—	1.1	—	—	0.0
Northrup King PX556 (3X)	31.8	30	—	131.8	149	—	0.6	0	—	0.0
Cowbell SX112 (2X)	31.8	31	—	122.1	141	—	0.6	0	—	0.0
Pride R539 (3X)	31.9	—	—	113.1	—	—	3.4	—	—	0.0
Pioneer 368	32.0	30	30	118.9	129	124	0.0	0	1	0.0
Michigan 568-3X (3X)	32.0	31	—	129.5	142	—	0.0	0	—	0.0
Northrup King PX50 (2X) ¹	32.1	32	33	145.7	151	131	2.3	1	2	0.0
Pride R407 (2X) ¹	32.2	31	—	140.4	148	—	0.0	0	—	0.0
Pioneer 371	32.2	31	33	123.1	130	117	1.2	1	1	0.0
Migro 12 SX (2X)	32.4	31	32	103.9	125	115	0.0	0	1	0.0
DeKalb XL325 (3X)	32.8	31	—	101.8	111	—	0.6	0	—	0.0
Northrup King PX545 (3X) ¹	32.9	—	—	141.5	—	—	2.9	—	—	0.0
Pride R450 (2X)	33.0	32	34	99.2	123	115	1.8	2	2	0.0
Acco TGG 440	33.1	32	33	109.9	115	113	0.6	0	1	0.0
Pioneer 3775 (2X)	33.3	31	31	123.3	137	132	0.0	0	0	0.0
Migro M140	33.4	32	32	124.1	126	119	0.6	0	1	0.0
Migro 22A SX (2X) ¹	33.6	33	33	144.9	126	115	0.6	1	1	0.0
P.A.G. SX52 (2X)	33.9	32	—	123.4	127	—	0.0	0	—	0.0
DeKalb XL45 (2X)	34.1	33	33	120.3	123	121	1.2	1	1	0.0
Funk Bros. G4333 (2X) ¹	34.2	33	—	137.7	138	—	0.0	0	—	0.0
Pioneer 3570 (2X)	34.4	33	—	126.8	143	—	2.3	1	—	0.0
Northrup King PX580 (3X)	34.4	—	—	119.8	—	—	0.0	—	—	0.0

Table 4 KALAMAZOO COUNTY TRIAL (Continued)

Hybrid	Moisture (%)			Bushels per acre			Stalk lodging (%)			Root lodging (%)
	2 3		1969	2 3		1969	2 3		1969	
	1969	Yrs. Yrs.		Yrs. Yrs.	Yrs. Yrs.		Yrs. Yrs.			
Northrup King PX610 (3X)	34.5	33	33	127.8	138	125	0.6	1	1	0.0
Pioneer 3567 (2X)	34.7	34	34	122.9	134	124	0.6	0	1	0.0
Northrup King PX47 (2X)	35.2	33	—	116.6	141	—	1.8	1	—	0.0
Migro 540 ¹	37.1	—	—	148.4	—	—	0.6	—	—	0.0
Average	31.6	31	31	121.9	132	125	1.2	.7	1.2	0.0
Range	23.8	23	24	92.1	108	113	0.0	0	0	0.0
	to	to	to	to	to	to	to	to	to	to
	37.1	34	34	149.5	156	143	4.8	2	3	1.1
Least significant difference	1.4	1	1	11.7	4	4				

¹ Significantly better than average yield in 1969.

	1969	1968	1967
Planted	May 28	May 9	May 26
Harvested	Oct. 23	Oct. 17	Nov. 3
Soil type	Warsaw loam	Warsaw loam	Warsaw loam
Previous crop	Corn	Corn	Corn
Population	19,800	19,600	17,800
Rows	30"	30"	36"
Fertilizer	132-64-122	116-64-122	145-80-20
Soil test: pH	6.9	7.1	7.3
P	47 (high)	59 (very high)	35 (med. high)
K	236 (high)	291 (high)	210 (high)

Farm Cooperator: Richard Van Vranken, Climax

County Extension Director: Vern Hinz, Kalamazoo

Table 5. SOUTHERN MICHIGAN (Zone 1)
IRRIGATED UPLAND SOIL — CASS COUNTY TRIAL

One, Two, and Three Year Averages —
1969, 1968, 1967

Hybrid	Moisture (%)			Bushels per acre			Stalk lodging (%)			Root lodging %
	1969	2	3	1969	2	3	1969	2	3	
		Yrs.	Yrs.		Yrs.	Yrs.		Yrs.	Yrs.	
Michigan 275-2X (2X)	20.1	—	—	115.6	—	—	15.6	—	—	0.0
Michigan 280	21.3	21	—	109.2	110	—	16.5	10	—	2.4
Michigan 400	21.9	22	—	114.8	124	—	13.3	9	—	3.9
P.A.G. SX48 (2X)	21.9	22	—	77.6	89	—	42.8	25	—	0.0
Michigan 463-3X (3X)	23.0	24	25	119.6	124	124	14.6	11	9	0.0
Michigan 402-2X (2X)	23.1	23	24	122.9	120	119	16.4	11	9	4.1
Migro 1010 SX (2X)	23.0	—	—	128.6	—	—	11.1	—	—	0.0
Migro 12 SX (2X)	23.1	24	25	119.8	136	127	15.0	8	9	0.0
Blaney B401 (2X)	23.3	24	—	119.0	121	—	18.3	10	—	0.8
Northrup King PX525 (Sp)	23.4	24	26	123.7	130	125	11.5	6	6	0.0
Migro 110A	24.0	24	—	115.1	118	—	7.0	6	—	5.5
Michigan 500-2X (2X)	24.2	25	27	133.3	144	139	9.0	5	4	0.0
Funk Bros. G5207	24.2	—	—	93.6	—	—	12.2	—	—	1.5
Blaney B6606A (2X)	24.3	25	—	104.0	116	—	6.1	4	—	0.8
Teweles SXT24 (2X)	24.3	25	—	107.2	130	—	9.1	7	—	0.0
Northrup King PX519 (Sp) ¹	24.4	25	—	149.3	143	—	5.4	4	—	0.8
Blaney B501 (2X)	24.5	26	—	134.3	143	—	8.7	5	—	0.0
Pioneer 3773 (2X) ¹	24.7	26	27	137.5	145	140	8.5	5	4	0.8
Pride R407 (2X) ¹	24.7	—	—	146.8	—	—	3.1	—	—	1.6
Todd M30 (2X)	24.7	—	—	130.2	—	—	5.3	—	—	4.5
Parker 360 (2X)	24.7	—	—	126.4	—	—	10.6	—	—	2.3
Cowbell SX112 (2X)	25.0	26	27	121.7	136	131	11.5	7	6	1.5
Michigan 568-3X (3X)	25.0	26	—	131.8	143	—	10.0	8	—	1.5
Northrup King PX545 (3X)	25.0	—	—	136.4	—	—	5.4	—	—	0.8
Moews SM239 (3X)	25.1	—	—	83.1	—	—	22.3	—	—	4.7
Michigan 555-3X (3X) ¹	25.1	26	—	137.4	152	—	9.7	7	—	2.3
Pioneer 3561 (2X)	25.2	—	—	86.3	—	—	30.5	—	—	0.0
Weather Master EP 40	25.2	25	—	94.8	104	—	31.3	17	—	1.6
Pioneer 3775 (2X)	25.4	25	—	122.9	129	—	18.3	9	—	0.8
Migro 22A SX (2X)	25.5	27	28	109.5	118	121	10.3	8	6	1.6
Northrup King PX47 (2X)	25.5	26	—	127.9	140	—	4.5	4	—	0.7
Lowe SX2TP (2X)	25.6	26	—	109.7	122	—	7.8	5	—	0.0
Funk Bros. G4444 (2X) ¹	25.6	—	—	159.6	—	—	5.3	—	—	0.8
Pride R369 (3X)	25.6	—	—	134.7	—	—	5.4	—	—	2.3
Parker 250 (3X)	25.8	26	—	108.7	118	—	7.1	4	—	0.0

Table 5 — CASS COUNTY TRIAL (Continued)

Hybrid	Moisture (%)		Bushels per acre		Stalk lodging (%)		Root lodging (%)	
	2	3	2	3	2	3	2	3
	1969	Yrs. 1969	Yrs. 1969	Yrs. 1969	1969	Yrs. 1969	1969	Yrs. 1969
Pride R450 (2X)	26.0	—	120.3	—	8.3	—	2.3	—
Migro M140	26.0	26	27	114.2	122	117	6.2	5
Northrup King PX50 (2X) ¹	26.0	26	28	140.0	147	133	5.4	3
Todd M55 (2X) ¹	26.1	27	—	145.7	143	—	8.4	5
Northrup King PX580 (3X)	26.2	—	—	125.8	—	—	8.6	—
Pride R539 (3X)	26.2	—	—	113.7	—	—	10.9	—
DeKalb XL45 (2X)	26.2	27	28	121.3	126	126	15.7	9
P.A.G. SX52 (2X)	26.2	26	27	100.1	111	119	15.9	9
Parker 333 (3X) ¹	26.2	—	—	156.7	—	—	6.0	—
Northrup King PX556 (3X) ¹	26.3	27	—	135.9	142	—	5.4	4
Moews SM337 (3X)	26.6	—	—	134.0	—	—	6.1	—
Moews SM327 (2X)	26.8	27	—	132.6	141	—	9.1	7
Bayless 615-5 (2X) ¹	27.0	28	29	139.2	145	138	10.0	10
Todd M40A (2X)	27.3	—	—	94.2	—	—	16.2	—
Northrup King PX610 (3X) ¹	27.3	27	28	146.6	156	142	7.6	5
Funk Bros. G4384 (2X) ¹	27.7	27	28	143.0	154	135	4.6	3
Pioneer 3570 (2X) ¹	28.2	28	—	135.5	152	—	2.3	2
Migro 540 ¹	29.0	—	—	149.8	—	—	4.5	—
Average	25.2	25	27	123.1	131	129	11.3	7
Range	20.1	21	24	77.6	89	117	2.3	2
	to	to	to	to	to	to	to	to
	29.1	28	29	159.6	156	142	42.8	25
Least significant difference	0.9	0.7	0.6	11.9	6	4		

¹ Significantly better than average yield in 1969.

	1969	1968	1967
Planted	May 13	May 4	May 6
Harvested	Oct. 21	Oct. 15	Nov. 8
Soil type	Kalamazoo sandy loam	Kalamazoo sandy loam	Kalamazoo sandy loam
Previous crop	Corn	Corn	Potatoes
Population	25,300	23,800	17,200
Rows	28"	28"	40"
Fertilizer	218-54-138	174-42-6	148-127-0
Irrigation	5 inches	5 inches	4 inches
Soil test: pH	6.0	6.8	6.7
P	58 (high)	84 (high)	138 (high)
K	97 (low)	272 (high)	389 (very high)

Farm Cooperators: 1969 and 1968 = Dave Cripes, Cassopolis; 1967 = Cliff Moulton, Decatur

County Extension Director: Fred Sackrider, Cassopolis

Table 6. SOUTHERN MICHIGAN (Zone 1)
MUCK SOIL — CASS COUNTY TRIAL
One and Two Year Averages — 1969 and 1968

Hybrid	Moisture (%)		Bushels per acre		Stalk lodging %		Root lodging %	
	2	3	2	3	2	3	2	3
	1969	Yrs. 1969	1969	Yrs. 1969	1969	Yrs. 1969	1969	Yrs. 1969
Michigan 275-2X (2X)	20.5	21	99.3	97	10.9	11	1.8	—
Blaney B220 (3X)	21.3	—	79.0	—	14.8	—	2.3	—
Michigan 250	21.9	22	89.7	84	10.2	10	0.8	—
Bayless SX210 (2X)	22.5	—	95.6	—	9.0	—	0.0	—
Michigan 300	22.5	23	87.5	90	7.8	6	0.0	—
Michigan 280	22.5	22	93.3	99	6.3	7	1.6	—
Blaney B401 (2X)	23.7	24	118.2	110	1.5	3	0.0	—
Michigan 400	24.5	25	115.7	100	4.8	5	0.0	—
Michigan 402-2X (2X)	25.3	25	103.6	104	7.8	5	0.0	—
Northrup King PX480 (Sp)	26.1	—	110.2	—	8.9	—	0.0	—
Blaney 6606A (2X)	26.6	27	129.5	116	2.3	3	0.0	—
Northrup King PX525 (Sp)	26.6	26	125.9	118	3.9	3	0.0	—
Michigan 463-3X (3X)	26.7	27	121.1	105	5.4	9	0.0	—
Gutwein 10 (2X)	26.7	26	94.5	91	2.3	3	0.0	—
Gutwein 20 (2X)	26.7	27	127.3	114	1.2	6	0.0	—
Migro 1010 SX (2X)	26.8	—	133.0	—	0.8	—	0.0	—
Funk Bros. G4444 (2X) ¹	27.0	—	152.0	—	8.4	—	0.0	—
Cowbell 112 SX (2X)	27.2	27	135.1	114	1.6	4	0.0	—
Migro 110A	27.3	26	101.3	93	1.6	3	0.0	—
Northrup King PX519 (Sp)	27.3	27	129.2	127	5.3	6	1.5	—
Michigan 555-3X (3X) ¹	27.4	28	147.6	135	6.2	8	0.8	—
Super Crost S27 (2X) ¹	27.4	—	143.8	—	7.8	—	0.8	—
Parker 360 (2X) ¹	27.4	—	154.8	—	7.1	—	0.0	—
Lowe TWX2 (3X)	27.4	—	125.3	—	3.1	—	0.0	—
Northrup King PX47 (2X) ¹	27.4	27	158.0	141	4.7	5	0.8	—
Migro 12 SX (2X)	27.5	27	113.1	111	1.6	2	0.0	—
Northrup King PX556 (3X) ¹	27.5	28	152.8	128	0.0	4	0.0	—
DeKalb Ex. 29 (2X)	27.6	—	107.2	—	0.8	—	0.0	—
Blaney B601 (2X)	27.7	27	139.0	111	3.0	4	0.0	—
Bayless SX434 (2X) ¹	27.7	—	144.5	—	2.4	—	0.0	—
Pioneer 3773 (2X)	27.7	27	136.0	136	2.4	3	0.0	—
Michigan 500-2X (2X) ¹	27.7	27	144.0	138	4.9	4	1.6	—
Northrup King PX545 (3X) ¹	27.9	—	148.4	—	3.1	—	0.0	—
Northrup King PX50 (2X) ¹	28.1	28	156.3	126	3.1	4	0.0	—
Michigan 568-3X (3X)	28.1	28	137.0	131	3.1	5	0.8	—
Pioneer 3561 (2X)	28.1	—	104.6	—	5.6	—	0.0	—
Lowe SX2TP (2X)	28.2	28	137.5	114	3.1	5	0.0	—
Bayless SX615-5 (2X) ¹	28.2	28	151.2	132	2.3	5	0.0	—
Super Crost 233 (3X)	28.3	—	136.2	—	0.8	—	0.0	—
Bayless SX415 (2X)	28.4	28	134.7	127	3.9	6	0.0	—
Gutwein 222	28.4	—	120.5	—	6.8	—	0.0	—
Pioneer 3414 ¹	28.4	—	144.4	—	3.8	—	0.0	—
Moews SM337 (3X) ¹	28.6	—	154.9	—	2.3	—	0.0	—
Northrup King PX610 (3X)	28.6	28	115.6	114	3.1	5	0.8	—
Funk Bros. G4384 (2X) ¹	28.7	28	155.7	134	1.6	7	0.0	—
Northrup King PX580 (3X)	29.9	—	124.6	—	3.9	—	0.0	—
Migro 22A SX (2X)	30.0	29	135.4	116	3.1	3	0.0	—
Pioneer 3570 (2X) ¹	30.4	29	141.5	122	4.6	5	0.0	—
Migro 540 ¹	31.7	—	149.5	—	2.3	—	0.8	—
Average	27.0	26	127.3	115	4.3	5	0.3	—
Range	20.4	20	79.0	84	0.0	2	0.0	—
	to	to	to	to	to	to	to	—
	31.7	29	158.0	141	14.8	12	2.3	—
Least significant difference	1.0	0.7	13.4	6				—

¹ Significantly better than average yield in 1969.

	1969	1968
Planted	May 16	May 15
Harvested	Oct. 21	Oct. 15
Soil type	Carlisle muck	Carlisle muck
Previous crop	Corn	Corn
Rows	30"	40"
Population	19,900	18,800
Fertilizer	97-62-129	82-92-132+1% copper and zinc
Soil test: pH	5.4	5.6
P	173 (high)	101 (very high)
K	666 (very high)	658 (very high)

Farm Cooperators: Oliver, Russell and Roger Anderson, Cassopolis

County Extension Director: Fred Sackrider, Cassopolis

Table 7. SOUTH CENTRAL MICHIGAN (Zone 2)
OTTAWA COUNTY TRIAL
 One, Two, and Three Year Averages —
 1969, 1968, 1967

Hybrid	Moisture (%)			Bushels per acre			Stalk lodging (%)			Root lodging (%)		
	1969 Yrs. Yrs.			1969 Yrs. Yrs.			1969 Yrs. Yrs.			1969 Yrs. Yrs.		
	1969	2	3	1969	2	3	1969	2	3	1969	2	3
Michigan 275-2X (2X)	23.1	22	—	109.1	119	—	11.0	11	—	0.0	—	—
Michigan 270	23.1	22	24	82.7	88	94	17.9	13	14	1.8	—	—
Michigan 280	23.4	22	24	99.0	115	114	13.1	10	11	0.0	—	—
Michigan 250	24.0	22	24	91.9	102	105	18.8	15	14	1.1	—	—
Michigan 300	25.1	23	25	102.7	103	106	11.8	9	10	1.8	—	—
Northrup King PX476 (3X)	25.3	—	—	98.3	—	—	9.0	—	—	0.0	—	—
Funk Bros. G4252 (2X)	27.5	—	—	96.5	—	—	9.8	—	—	0.0	—	—
Michigan 400	27.7	26	28	106.8	116	116	12.7	9	9	3.0	—	—
Pioneer 3799 (3X)	28.2	26	—	84.7	92	—	14.6	13	—	0.0	—	—
Funk Bros. G4287 (3X)	28.4	27	28	83.7	98	105	14.0	10	11	1.8	—	—
Cowbell SX102 (2X)	28.4	26	—	111.8	123	—	10.3	10	—	0.6	—	—
Blaney B401 (2X)	28.5	—	—	109.0	—	—	4.8	—	—	0.0	—	—
Michigan 402-2X (2X)	28.5	27	28	107.0	118	123	11.6	8	11	0.0	—	—
Pioneer 3675	29.3	27	—	98.9	108	—	9.2	5	—	0.9	—	—
Michigan 463-3X (3X)	29.6	28	29	110.8	118	123	12.6	10	9	3.4	—	—
Wolverine 66A	29.7	28	29	91.4	104	107	23.6	16	17	0.0	—	—
Weather Master EPX-3P (2X)	29.7	27	—	89.3	92	—	10.3	7	—	0.0	—	—
Blaney B300 (2X)	29.7	—	—	78.5	—	—	13.4	—	—	1.2	—	—
Weather Master EP35 (3X)	29.8	—	—	84.0	—	—	13.5	—	—	1.2	—	—
DeKalb XL306 (3X)	30.0	28	—	87.1	104	—	11.0	10	—	0.0	—	—
Northrup King PX525 (Sp) ¹	30.4	28	29	126.9	138	135	7.9	7	6	0.0	—	—
Funk Bros. G17A	30.6	28	29	88.7	107	113	17.7	12	15	2.3	—	—
Northrup King PX519 (Sp)	30.6	29	—	98.6	119	—	11.5	8	—	2.9	—	—
Funk Bros. G4292 (3X)	30.7	29	—	86.3	95	—	8.9	6	—	1.8	—	—
Blaney B601 (2X) ¹	31.0	—	—	115.3	—	—	8.5	—	—	0.6	—	—
Pioneer 371	31.2	30	32	104.2	121	119	18.5	14	13	1.7	—	—
Michigan 555-3X (3X) ¹	31.3	29	—	128.4	141	—	9.4	9	—	1.8	—	—
Blaney B-AA (2X) ¹	31.3	—	—	116.0	—	—	8.0	—	—	0.0	—	—
Michigan 568-3X (3X) ¹	31.5	29	—	125.6	136	—	8.4	7	—	1.2	—	—
Northrup King PX560 (Sp)	31.7	30	31	90.2	107	109	16.4	11	10	0.0	—	—

Hybrid	Moisture (%)			Bushels per acre			Stalk lodging (%)			Root lodging (%)		
	1969 Yrs. Yrs.			1969 Yrs. Yrs.			1969 Yrs. Yrs.			1969 Yrs. Yrs.		
	1969	2	3	1969	2	3	1969	2	3	1969	2	3
Pioneer 3773 (2X) ¹	31.8	29	30	118.8	136	133	9.8	7	12	0.8	—	—
Michigan 500-2X (2X) ¹	31.8	30	31	134.4	142	139	10.4	9	7	1.8	—	—
Pride R369 (3X) ¹	31.9	—	—	113.9	—	—	5.7	—	—	0.0	—	—
Pride R407 (2X)	32.0	31	—	98.1	125	—	6.2	5	—	3.4	—	—
DeKalb XL315 (3X)	32.0	29	—	86.4	98	—	11.0	8	—	0.0	—	—
Blaney 6905A (2X)	32.5	—	—	90.5	—	—	8.3	—	—	1.2	—	—
Pride R450 (2X)	32.9	31	33	105.8	128	129	6.8	6	6	2.3	—	—
Crows 420 (2X)	33.0	—	—	105.2	—	—	14.5	—	—	1.7	—	—
DeKalb XL45 (2X) ¹	33.4	31	—	128.4	131	—	8.7	10	—	2.9	—	—
Northrup King PX545 (3X)	34.2	—	—	108.2	—	—	4.0	—	—	0.0	—	—
Pride R539 (3X)	34.5	—	—	97.8	—	—	2.3	—	—	2.3	—	—
Crows 428 (2X)	37.0	—	—	97.9	—	—	7.6	—	—	2.9	—	—
Average	30.0	27	28	101.3	115	117	11.2	9	11	1.1	—	—
Range	23.1 to 37.0	22 to 31	24 to 33	78.5 to 134.4	88 to 142	94 to 139	2.3 to 23.6	2 to 16	6 to 17	0.0 to 3.4	—	—
Least significant difference	1.0	0.7	0.5	11.2	5	4	—	—	—	—	—	—

¹ Significantly better than average yield in 1969.

	1969	1968	1967
Planted	May 27	May 17	May 25
Harvested	Oct. 28	Oct. 31	Nov. 21
Previous crop	Corn	Corn	Corn
Population	20,100	19,300	17,800
Rows	30"	30"	36"
Fertilizer	170-80-40	160-80-40	140-64-32
Soil test: pH	6.5	6.2	6.2
P	145 (very high)	120 (very high)	65 (high)
K	293 (high)	242 (high)	277 (high)

Farm Cooperator: Marvin Patmos, Jamestown

County Extension Director: Richard Machiele, Grand Haven

Table 8. SOUTH CENTRAL MICHIGAN (Zone 2)
GRAIN — INGHAM COUNTY TRIAL
 One, Two, and Three Years — 1969, 1968, 1967

Hybrid	Moisture (%)			Bushels per acre						Stalk lodging (%)						Root Lodging (%)	
	1969 Yrs. Yrs.			1969		2 Yrs.		3 Yrs.		1969		2 Yrs.		3 Yrs.		1969	
	1969	2	3	19,400	24,900	19,500	24,900	19,100	24,800	19,400	24,900	19,500	24,900	19,100	24,800	19,400	24,900
Michigan 270	22.3	24	26	82.2	89.3	90	90	96	99	2.8	5.3	2	8	2	6	8.3	14.3
Michigan 275-2X (2X)	23.2	25	—	113.9	126.6	120	129	—	—	1.6	6.3	3	5	—	—	0.0	0.0
Michigan 250	23.7	25	26	100.7	106.9	105	106	109	113	2.3	1.9	3	5	2	3	0.0	9.6
Michigan 300	23.7	26	28	101.2	103.3	105	109	106	111	4.3	0.0	4	1	3	1	6.0	6.2
P.A.G. SX48 (2X)	24.7	27	28	103.0	93.8	106	99	110	109	8.3	11.9	5	7	3	5	1.7	0.0
Michigan 280	24.9	26	26	104.2	121.4	111	124	113	128	3.4	0.0	3	1	2	1	4.3	3.4
Blaney B401 (2X)	26.3	29	30	120.8	114.7	118	117	120	120	1.6	0.0	1	1	1	1	4.7	2.0
Northrup King PX476 (3X)	26.8	—	—	105.0	125.6	—	—	—	—	2.4	0.6	—	—	—	—	4.7	1.3
Michigan 400	26.8	29	30	117.0	124.6	110	121	109	118	1.6	0.0	2	1	1	1	0.0	2.5
Funk Bros. G4287 (3X)	26.9	28	—	104.0	112.1	105	106	—	—	4.0	4.7	3	4	—	—	0.0	4.7
Pioneer 3911 (2X)	27.0	29	—	105.5	127.3	113	126	—	—	5.5	0.0	4	1	—	—	0.0	0.0
Cowbell 300 (3X)	27.3	—	—	116.7	124.6	—	—	—	—	0.8	2.4	—	—	—	—	1.6	1.8
Funk Bros. G4240 (2X)	27.3	—	—	101.9	97.2	—	—	—	—	0.8	4.7	—	—	—	—	0.0	0.0
Michigan 402-2X (2X)	27.4	30	30	121.3	128.5	120	127	122	136	3.1	2.7	2	2	1	2	2.4	2.7
Pioneer 3799 (3X)	27.4	29	—	93.5	93.4	103	107	—	—	2.5	3.3	2	3	—	—	0.0	0.0
Funk Bros. G17A	27.6	29	30	114.1	104.6	111	108	116	115	0.9	4.9	3	3	2	2	3.6	2.8
Super Crost S19 (2X)	27.9	30	—	121.8	119.1	124	122	—	—	1.6	3.9	2	2	—	—	6.4	0.0
Cowbell HK58	28.0	30	—	107.9	92.9	102	91	—	—	1.6	2.6	2	2	—	—	0.8	6.6
DeKalb XL315 (3X)	28.1	30	30	101.4	99.9	99	113	108	117	1.7	1.4	1	2	1	1	0.0	0.0
Michigan 463-3X (3X)	28.2	30	32	123.4	120.4	118	119	121	124	0.0	7.1	3	5	2	3	3.4	1.9
DeKalb XL306 (3X)	28.4	29	—	97.2	99.4	98	133	—	—	1.6	3.1	2	2	—	—	0.0	0.0
Migro 1010 SX (2X)	28.5	—	—	123.6	128.7	—	—	—	—	0.8	0.0	—	—	—	—	0.0	1.2
DeKalb Ex. 26 (2X)	28.7	30	—	100.2	94.2	106	103	—	—	0.0	4.9	0	2	—	—	0.0	0.0
Blaney 6905A (2X)	28.7	—	—	112.1	130.4	—	—	—	—	0.0	0.6	—	—	—	—	1.6	4.3
Funk Bros. G4222 (2X)	29.3	31	—	117.9	114.8	117	118	—	—	1.5	0.0	2	0	—	—	0.0	2.5
Wolverine W133 (2X)	29.3	—	—	98.1	109.3	—	—	—	—	0.0	0.7	—	—	—	—	0.8	0.0
Wolverine 66A	29.3	31	32	117.6	111.1	109	111	108	109	0.8	4.5	2	3	1	3	7.5	2.6
Funk Bros. G4444 (2X) ^{1,2}	29.4	—	—	154.2	149.9	—	—	—	—	1.6	1.2	—	—	—	—	0.0	2.4
Blaney 6606A (2X) ^{1,2}	29.4	31	32	136.1	138.5	139	142	137	147	0.8	2.5	1	2	1	1	3.9	0.0
Pioneer 3773 (2X)	29.7	31	33	108.5	107.8	118	117	121	118	0.8	0.7	0	0	1	0	0.0	0.0

Table 8 — INGHAM COUNTY TRIAL (Continued)

Hybrid	Moisture (%)			Bushels per acre						Stalk lodging (%)						Root Lodging (%)	
	1969	2	3	1969		2 Yrs.		3 Yrs.		1969		2 Yrs.		3 Yrs.		1969	
	Yrs.	Yrs.	Yrs.	19,400	24,900	19,500	24,900	19,100	24,800	19,400	24,900	19,500	24,900	19,100	24,800	19,400	24,900
Teweles SXT86 (3X)	29.7	32	—	105.6	105.2	107	110	—	—	0.0	2.6	0	5	—	—	1.6	0.6
DeKalb XL325 (3X)	29.7	32	33	105.1	102.5	104	114	106	113	1.6	0.0	1	1	1	1	2.3	0.0
Michigan 500-2X (2X) ²	29.7	31	33	126.8	141.8	136	144	133	148	0.0	2.0	0	2	0	1	0.8	0.0
Teweles SXT80 (3X)	29.8	31	—	105.8	123.3	120	125	—	—	2.5	0.6	1	1	—	—	0.0	3.7
Super Crost S27 (2X) ²	29.8	32	—	122.0	135.7	130	133	—	—	0.0	0.0	0	0	—	—	1.6	0.0
Pioneer 3775 (2X) ²	29.9	32	33	124.4	138.9	119	126	114	122	0.8	0.7	2	1	1	1	8.4	0.0
Michigan 555-3X (3X) ^{1,2}	29.9	32	—	137.5	145.5	142	151	—	—	2.4	5.0	2	4	—	—	0.0	2.5
Northrup King PX545 (3X) ^{1,2}	29.9	—	—	137.4	144.2	—	—	—	—	0.8	1.3	—	—	—	—	0.0	0.0
Blaney BAA (2X)	30.1	—	—	118.2	140.0	—	—	—	—	0.8	2.5	—	—	—	—	6.5	0.0
Michigan 568-3X (3X) ²	30.1	32	—	120.5	135.6	129	136	—	—	1.8	2.1	1	2	—	—	0.9	0.0
P.A.G. 70	30.2	32	34	113.7	110.7	112	109	110	111	2.4	2.4	2	4	1	2	3.1	4.8
Blaney B601 (2X) ¹	30.3	32	33	138.2	130.5	138	137	138	135	1.6	0.0	1	0	1	0	0.0	2.6
Northrup King PX525 (Sp.) ^{1,2}	30.3	31	32	144.2	147.7	143	142	130	135	2.4	0.0	1	2	1	1	0.0	0.0
Northrup King PX519 (Sp.)	30.3	32	—	103.0	116.6	118	128	—	—	0.8	0.0	0	0	—	—	0.0	1.9
Migro 12 SX (2X)	30.5	33	34	107.0	100.3	100	107	107	115	1.7	1.3	1	1	1	1	0.8	0.6
Wolverine W176 (2X)	30.5	—	—	120.4	131.2	—	—	—	—	0.0	0.6	—	—	—	—	0.0	0.0
Cowbell SX206 (2X) ²	30.7	32	—	121.6	134.1	129	124	—	—	0.0	0.6	1	2	—	—	0.0	0.6
Cowbell 112SX (2X) ¹	30.8	32	32	132.3	126.4	135	131	134	132	0.8	1.3	0	1	0	1	0.0	1.9
Wolverine W175A (2X)	31.1	—	—	119.6	123.5	—	—	—	—	0.0	0.0	—	—	—	—	0.0	3.2
P.A.G. SX52 (2X)	31.3	34	—	116.9	130.3	119	130	—	—	1.6	1.2	1	1	—	—	5.6	3.7
DeKalb XL45 (2X)	31.5	33	34	115.6	126.3	119	129	118	127	0.0	0.0	0	0	0	0	1.6	5.5
Pride R450 (2X) ^{1,2}	31.5	33	—	129.3	145.3	132	139	—	—	0.8	0.6	0	1	—	—	0.0	0.0
OYO 360 (3X) ²	31.5	33	—	121.5	145.4	118	126	—	—	1.6	0.6	1	0	—	—	1.6	0.0
Wolverine W175 (2X) ²	31.6	—	—	130.5	145.2	—	—	—	—	1.6	0.0	—	—	—	—	0.0	3.7
Pride R407 (2X) ^{1,2}	31.8	33	—	134.7	138.9	126	137	—	—	0.8	0.0	2	0	—	—	0.0	0.6
Wolverine W170 (2X)	32.1	—	—	118.3	112.8	—	—	—	—	0.0	0.0	—	—	—	—	3.2	0.0
Super Crost 233 (3X)	32.2	—	—	122.0	126.2	—	—	—	—	1.6	0.0	—	—	—	—	0.0	2.4
P.A.G. 272 (3X)	32.4	35	35	111.4	127.6	122	123	120	128	2.4	0.0	2	0	1	0	3.2	1.9
Super Crost S30A (2X)	32.5	34	36	109.1	119.0	120	121	113	120	2.4	0.0	1	0	1	0	0.0	4.7
Funk Bros. G4333 (2X)	33.6	—	—	127.3	112.2	—	—	—	—	0.0	0.7	—	—	—	—	6.6	1.5
Average	29.0	31	31	115.4	120.6	117	121	117	122	1.5	1.7	2	2	1	1	1.8	1.9
Range	22.3	24	26	82.2	89.3	90	90	96	99	0.0	0.0	0	0	0	0	0.0	0.0
	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to
	33.6	35	36	154.2	149.9	143	151	138	148	8.3	11.9	5	8	3	6	8.4	14.3
Least significant difference	1.0	0.7	0.5	12.3	12.8	6	6	4	4								

¹ Significantly better than average yield at 19,400 population in 1969.² Significantly better than average yield at 24,900 population in 1969.

	1969	1968	1967
Planted	May 5	May 4	May 16
Harvested	Oct. 8	Oct. 5	Oct. 14
Soil type	Conover clay loam	Conover clay loam	Conover clay loam
Previous crop	Corn	Corn	Corn
Population	19,400 and 24,900	19,500 and 25,000	18,400 and 24,600
Rows	36"	36"	36"
Fertilizer	185-70-70*	150-60-60	18,400 = 150-60-60 24,600 = 252-104-104
Soil test: pH	7.0	6.6	6.6
P	41 (high)	59 (high)	99 (high)
K	224 (high)	315 (high)	275 (high)

Farm Cooperator: Michigan State University

* Acknowledgment: Anhydrous ammonia donated by Klein Fertilizer Co., Fowlerville, Mich.

Table 9. SOUTH CENTRAL MICHIGAN (Zone 2)
GRAIN — INGHAM COUNTY TRIAL
One and Two Years — 1969 and 1968

Hybrid	Bushels per acre							
	Moisture (%)		36" rows		30" rows		18" rows	
	1969	2 Yrs.	1969	2 Yrs.	1969	2 Yrs.	1969	2 Yrs.
Michigan 270	22.3	24	82.2	90	80.4	88	95.0	107
Michigan 275-2X (2X)	23.2	25	113.9	120	116.8	125	118.5	124
Michigan 250	23.7	25	100.7	105	97.0	102	96.0	102
Michigan 300	23.7	26	101.2	105	105.3	108	119.0	124
P.A.G. SX48 (2X)	24.7	27	103.0	106	101.2	102	99.2	104
Michigan 280	24.9	26	104.2	111	110.1	124	112.0	117
Blaney B401 (2X)	26.3	29	120.8	118	113.5	116	111.0	123
Northrup King PX476 (3X)	26.8	—	105.0	—	97.3	—	106.3	—
Michigan 400	26.8	29	117.0	110	118.6	123	119.1	118
Funk Bros. G4287 (3X)	26.9	28	104.0	105	102.7	105	97.0	110
Pioneer 3911 (2X)	27.0	29	105.5	113	119.3	125	106.5	111
Cowbell 300 (3X)	27.3	—	116.7	—	126.2	—	120.6	—
Funk Bros. G4240 (2X)	27.3	—	101.9	—	112.8	—	119.7	—
Michigan 402-2X (2X) ²	27.4	30	121.3	120	137.5	137	129.7	137
Pioneer 3799 (3X)	27.4	29	93.5	103	109.4	115	104.1	114
Funk Bros. G17A	27.6	29	114.1	111	116.8	124	110.4	119
Super Crost S19 (2X) ³	27.9	30	121.8	124	130.8	137	138.5	133
Cowbell HK58	28.0	30	107.9	102	94.2	105	101.8	111
DeKalb XL315 (3X)	28.1	30	101.4	99	106.3	112	103.8	113
Michigan 463-3X (3X)	28.2	30	123.4	118	123.7	118	124.5	125
DeKalb XL306 (3X)	28.4	29	97.2	98	107.9	110	100.4	106
Migro 1010SX (2X)	28.5	—	123.6	—	123.9	—	130.5	—
DeKalb Ex. 26 (2X)	28.7	30	100.2	106	93.2	102	98.5	108
Blaney 6905A (2X)	28.7	—	112.1	—	115.8	—	109.1	—
Funk Bros. G4222 (2X)	29.3	31	117.9	117	127.3	129	119.3	128
Wolverine W133 (2X)	29.3	—	98.1	—	100.2	—	100.1	—
Wolverine 66A	29.3	31	117.6	109	127.1	116	121.5	121
Funk Bros. G4444 (2X) ^{1,2,3}	29.4	—	154.2	—	151.5	—	143.9	—
Blaney 6606A (2X) ^{1,2,3}	29.4	31	136.1	139	154.4	156	143.5	152
Pioneer 3773 (2X) ³	29.7	31	108.5	118	129.7	145	141.7	151
Teweles SXT86 (3X)	29.7	32	105.6	107	99.8	113	105.1	109
DeKalb XL325 (3X)	29.7	32	105.1	104	120.3	118	120.7	116
Michigan 500-2X (2X) ^{2,3}	29.7	31	126.8	136	141.8	147	144.0	157
Teweles SXT80 (3X)	29.8	31	105.8	120	129.2	140	128.8	127
Super Crost S27 (2X)	29.8	32	122.0	130	128.9	139	132.6	128
Pioneer 3775 (2X) ^{2,3}	29.9	32	124.4	119	139.9	135	145.9	139
Michigan 555-3X (3X) ^{1,2}	29.9	32	137.5	142	142.9	149	137.2	152
Northrup King PX545 (3X) ^{1,2,3}	29.9	—	137.4	—	138.9	—	145.3	—
Blaney BAA (2X) ^{2,3}	30.1	—	118.2	—	140.1	—	139.6	—
Michigan 568-3X (3X)	30.1	32	120.5	129	115.8	132	120.8	132
P.A.G. 70	30.2	32	113.7	112	102.7	114	117.0	122
Blaney B601 (2X) ¹	30.3	32	138.2	138	130.3	134	129.3	135
Northrup King PX525 (Sp) ^{1,2,3}	30.3	31	144.2	143	160.2	164	148.3	159
Northrup King PX519 (Sp)	30.3	32	103.0	118	108.2	127	117.3	143
Migro 12SX (2X)	30.5	33	107.0	100	122.3	114	115.1	105
Wolverine W176 (2X) ^{2,3}	30.5	—	120.4	—	142.6	—	147.5	—
Cowbell SX206 (2X)	30.5	32	121.6	129	133.3	139	135.4	129
Cowbell 112SX (2X) ¹	30.8	32	132.3	135	130.8	138	128.7	129
Wolverine W175A (2X)	31.1	—	119.6	—	123.2	—	124.7	—
P.A.G. SX52 (2X)	31.3	34	116.9	119	134.8	135	125.7	124
DeKalb XL45 (2X)	31.5	33	115.6	119	121.3	131	116.8	127
Pride R450 (2X) ¹	31.5	33	129.3	132	130.0	137	134.5	131
OYO 360 (3X)	31.5	33	121.5	118	134.3	125	127.6	130
Wolverine W175 (2X) ^{2,3}	31.6	—	130.5	—	146.2	—	152.7	—
Pride R407 (2X) ¹	31.8	33	134.7	126	128.3	127	129.6	137
Wolverine W170 (2X)	32.1	—	118.3	—	132.9	—	129.7	—
Super Crost 233 (3X) ³	32.2	—	122.0	—	133.8	—	138.5	—
P.A.G. 272 (3X)	32.4	35	111.4	122	119.7	128	113.3	125
Super Crost S30A (2X)	32.5	34	109.1	120	124.7	137	117.6	136
Funk Bros. G4333 (2X)	33.6	—	127.3	—	127.1	—	117.0	—
Average	29.0	31	115.4	117	123.5	126	124.4	126
Range	22.3 to 33.6	24 to 35	82.2 to 154.2	90 to 143	80.4 to 160.2	88 to 164	95.0 to 157.1	102 to 159
Least significant difference	1.0	0.7	12.3	6	13.9	6	13.7	6

¹ Significantly better than average yield in 36" rows.

² Significantly better than average yield in 30" rows.

³ Significantly better than average yield in 18" rows.

	1969	1968
Planted	May 5	May 4
Harvested	Oct. 8	Oct. 5
Soil type	Conover clay loam	Conover clay loam
Previous crop	Corn	Corn
Rows	36", 30", 18"	36", 30", 18"
Population	36" = 19,400; 30" = 19,800; 18" = 19,500	36" = 19,500; 30" = 19,800; 18" = 19,300
Fertilizer	185-70-70	150-60-60
Soil test: pH	7.0	6.6
P	41 (high)	59 (high)
K	224 (high)	316 (high)

Farm Cooperator: Michigan State University, East Lansing

*Acknowledgment: Anhydrous ammonia donated by Klein Fertilizer Co., Fowlerville, Mich.

Table 10. SOUTH CENTRAL MICHIGAN (Zone 2)
SILAGE — INGHAM COUNTY TRIAL
One and Two Year Averages — 1969 and 1968

Hybrid	Moisture (%)				Tons per acre				Ears (%) in			
	in ears		Green weight		Dry weight		Dry weight		dry weight		dry weight	
	1969	2 Yrs.	1969	2 Yrs.	1969	2 Yrs.	1969	2 Yrs.	1969	2 Yrs.	1969	2 Yrs.
Michigan 280	31.6	36	13.6	13.6	7.7	6.7	60.3	61				
Michigan 270	32.5	36	11.9	11.4	6.4	5.6	61.3	61				
Michigan 250	34.4	36	11.9	12.0	6.5	5.8	57.8	59				
P.A.G. SX48 (2X)	36.5	—	10.9	—	6.0	—	57.0	—				
Michigan 275-2X (2X)	36.6	38	12.3	12.4	6.8	6.1	59.3	64				
Cowbell 112SX (2X)	37.2	41	14.9	15.8	7.6	6.8	49.7	54				
Michigan 300	37.2	40	12.7	12.3	7.2	6.0	62.1	60				
Northrup King PX476 (3X)	40.1	—	14.4	—	7.2	—	52.3	—				
Funk Bros. G4287 (3X)	40.3	41	12.1	13.3	6.5	6.2	63.2	61				
Wolverine W133 (2X)	40.3	—	14.0	—	7.3	—	59.0	—				
DeKalb XL306 (3X)	40.9	41	12.8	13.5	6.4	5.9	45.0	52				
Migro 1010 SX (2X)	41.4	—	15.7	—	8.9	—	51.4	—				
Michigan 400	41.8	42	15.8	14.1	7.8	6.7	59.1	57				
Funk Bros. G17A	42.5	43	12.0	12.8	5.8	5.5	53.9	55				
P.A.G. 70	42.8	44	16.3	16.0	8.1	6.9	47.7	52				
Blaney B401	42.8	42	15.3	14.5	7.2	6.3	54.7	57				
Funk Bros. G4240 (2X)	43.0	—	10.4	—	4.8	—	52.3	—				
Cowbell HK58	43.0	44	15.6	15.1	7.7	6.5	52.4	59				
Michigan 402-2X	43.1	42	15.9	15.1	6.8	6.3	60.2	61				
DeKalb Exp. 26 (2X)	43.2	44	14.9	14.1	6.2	5.5	51.2	57				
Michigan 463-3X (3X)	43.6	43	14.6	13.8	6.8	6.2	56.3	57				
Pioneer 3911 (2X)	44.1	43	13.5	13.7	6.4	5.9	46.5	54				
Super Crost 233 (2X)	44.3	—	18.5	—	7.9	—	45.5	—				
Cowbell 300 (3X)	44.4	—	15.3	—	7.2	—	51.5	—				
Michigan 500-2X (2X)	44.5	45	17.3	17.5	7.5	6.8	49.3	57				
Blaney 6905A (2X)	44.5	—	18.2	—	7.6	—	43.5	—				
Super Crost S19 (2X)	44.8	44	15.9	14.9	7.3	6.5	49.7	55				
Michigan 555-3X (3X)	45.2	46	18.6	19.4	7.9	7.4	56.7	58				
Funk Bros. G4444 (2X)	45.2	—	15.5	—	7.0	—	54.6	—				
Northrup King PX525 (Sp)	45.7	45	17.3	16.8	8.0	7.0	44.2	51				
Migro 12 SX (2X)	45.7	47	18.4	17.4	8.2	6.8	43.5	49				
DeKalb XL325 (3X)	45.9	46	15.9	14.7	7.2	5.9	54.7	57				
Michigan 568-3X (3X)	45.9	46	16.5	17.6	6.9	6.6	53.4	56				
Funk Bros. G4222 (2X)	46.0	45	14.4	15.2	6.4	6.1	55.3	57				
Blaney B601 (2X)	46.0	45	19.2	17.9	8.3	7.3	49.8	52				
Blaney B-AA (2X)	46.1	—	17.5	—	7.9	—	47.6	—				
Pioneer 3799 (3X)	46.2	44	14.6	13.6	6.0	5.6	49.0	55				
Super Crost S27 (2X)	46.4	45	16.4	15.5	7.4	6.6	54.9	57				
Pioneer 3775 (2X)	46.9	46	15.3	15.6	7.3	6.7	44.1	50				
Pride R407 (2X)	47.0	48	19.2	17.6	8.3	6.9	49.7	53				
Blaney 6606 A (2X)	47.2	47	17.3	15.6	7.4	6.4	47.4	54				
Super Crost S30A (2X)	47.3	48	15.6	16.3	7.3	6.6	44.8	52				
Teweles SXT 80 (3X)	47.5	46	15.9	16.4	7.2	6.7	42.6	49				
DeKalb XL45 (2X)	47.6	48	16.7	16.2	6.8	6.0	49.2	54				
Northrup King PX545 (3X)	47.8	—	19.1	—	8.1	—	44.3	—				
Pride R450 (2X)	48.1	49	16.9	18.2	6.8	6.7	49.8	53				
Pioneer 3773 (2X)	48.2	47	17.5	16.6	7.9	6.8	46.9	53				
Cowbell SX206 (2X)	48.3	47	15.8	15.2	6.7	6.1	51.8	56				
P.A.G. SX52 (2X)	48.5	47	15.5	16.2	6.6	6.2	54.0	57				
Wolverine W175 (2X)	48.7	—	19.8	—	7.6	—	44.1	—				
Wolverine 66A	48.9	47	15.0	14.6	6.3	5.7	52.8	55				

Table 11. NORTH CENTRAL MICHIGAN (Zone 3)
SANILAC COUNTY TRIAL

One, Two, and Three Year Averages —
1969, 1968, 1967

Hybrid	Moisture (%)			Bushels per acre			Stalk lodging (%)			Root lodging %
	1969	2	3	1969	2	3	1969	2	3	
		Yrs.	Yrs.		Yrs.	Yrs.		Yrs.	Yrs.	
Northrup King PX417 (3X)	24.6	23	—	101.7	104	—	7.8	5	—	0.0
Michigan 270	24.7	23	25	96.5	103	112	5.2	7	6	0.0
Michigan 275-2X (2X) ¹	25.0	23	—	108.7	124	—	0.8	3	—	0.0
Michigan 280	25.2	23	26	96.2	116	122	4.1	4	3	0.0
Asgrow SX108 (2X)	25.2	—	—	72.4	—	—	0.7	—	—	0.0
Northrup King PX428 (3X)	25.7	—	—	62.4	—	—	1.8	—	—	0.0
Michigan 250	25.8	23	26	91.5	101	108	0.8	4	3	0.0
Asgrow H68307 (2X)	25.9	—	—	44.2	—	—	6.5	—	—	0.0
Northrup King PX442 (Sp)	26.4	25	—	86.1	105	—	2.0	2	—	0.0
P.A.G. SX48 (2X)	26.7	25	27	89.6	106	116	2.2	4	3	0.0
Michigan 300	26.8	24	27	101.3	106	110	4.1	4	4	5.5
Northrup King PX446 (Sp)	26.9	25	27	101.1	115	115	1.2	2	2	0.0
Pioneer 388	27.1	25	28	68.8	95	107	5.0	6	4	0.0
Jacques 900J	27.7	25	28	80.3	82	94	4.4	4	4	0.0
Asgrow ATC35A (3X)	27.9	—	—	92.6	—	—	0.8	—	—	0.0
Pioneer 3956 (2X)	28.1	26	—	104.3	122	—	0.7	1	—	0.0
Pioneer 3959 (3X)	28.1	—	—	87.9	—	—	5.6	—	—	0.0
Pioneer 3854	28.3	24	—	91.4	100	—	1.8	3	—	0.0
Green Belt 31	28.5	26	28	91.3	100	110	0.0	2	1	0.0
Michigan 400 ¹	29.2	26	29	113.8	125	122	1.7	2	2	1.7
Northrup King PX476 (3X)	29.2	—	—	102.5	—	—	0.0	—	—	0.0
Asgrow SX 127A (2X) ¹	29.2	—	—	97.3	—	—	0.0	—	—	0.0
Green Belt SX 362 (2X) ¹	29.4	27	29	112.7	128	129	1.3	2	1	0.0
Funks Bros. G4110 (2X)	29.5	26	—	81.5	86	—	4.5	7	—	0.0
DeKalb XL304 (3X)	30.1	27	—	104.5	108	—	1.2	2	—	0.0
Asgrow XXXATC 39 (3X)	30.1	—	—	98.1	—	—	0.0	—	—	0.0
Wolverine 46A	30.3	27	28	102.4	113	114	0.0	0	1	0.0
Green Belt YWE-16	30.4	—	—	77.3	—	—	0.0	—	—	0.0
Wolverine 39	30.5	28	30	96.6	107	111	2.6	3	2	0.0
Green Belt YW41	30.6	—	—	76.4	—	—	0.8	—	—	0.0

Hybrid	Moisture (%)			Bushels per acre			Stalk lodging (%)			Root lodging (%)
	2 3		1969	2 3		1969	2 3		1969	
	1969	Yrs.		Yrs.	1969		Yrs.	Yrs.		
P.A.G. 45	30.6	28	30	105.1	126	123	0.0	1	1	0.0
Michigan 402-2X (2X) ¹	30.7	27	30	118.5	132	133	2.3	2	2	0.0
DeKalb XL315 (3X)	30.9	28	—	93.6	111	—	4.5	4	—	0.0
Asgrow ASC 43 (2X)	30.9	—	—	104.5	—	—	3.8	—	—	0.0
Asgrow ATC 45 (3X)	31.1	28	—	88.8	108	—	1.2	1	—	0.0
Funk Bros. G4287 (3X)	31.1	27	—	90.0	109	—	3.0	3	—	0.0
Funk Bros. G4240 (2X)	31.6	—	—	100.0	—	—	0.0	—	—	1.3
Michigan 500-2X (2X) ¹	32.4	30	34	114.5	135	137	1.8	1	1	0.0
Asgrow 1XL4 (2X) ¹	32.5	—	—	117.1	—	—	0.6	—	—	0.0
Pride R369 (3X) ¹	32.6	—	—	118.9	—	—	0.0	—	—	0.0
Michigan 463-3X (3X)	32.8	30	33	108.1	121	125	0.7	4	3	0.0
Pioneer 3773 (2X) ¹	33.2	31	—	112.2	136	—	0.0	0	—	0.0
Weather Master EP35 (3X)	33.3	—	—	93.3	—	—	3.4	—	—	0.0
Michigan 555-3X (3X) ¹	33.3	—	—	143.4	—	—	1.3	—	—	0.0
Pride R407 (2X)	33.5	—	—	104.6	—	—	0.7	—	—	0.0
Michigan 568-3X (3X) ¹	33.8	—	—	113.5	—	—	0.7	—	—	0.0
Average	29.3	26	29	96.6	115	120	2.0	3	3	0.2
Range	24.6	23	25	44.2	82	94	0.0	0	1	0.0
	to	to	to	to	to	to	to	to	to	to
	33.8	31	34	143.4	145	144	7.8	7	6	5.5
Least significant difference	0.9	0.6	0.5	11.1	5	4				

¹ Significantly better than average yield in 1969.

	1969	1968	1967
Planted	May 17	May 6	May 6
Harvested	Oct. 28	Oct. 29	Oct. 26
Soil type	Brookston clay loam	Brookston clay loam	Brookston clay loam
Previous crop	Corn	Corn	Corn
Population	19,000	18,900	17,100
Rows	30"	30"	36"
Fertilizer	155-60-60	143-70-160	115-60-30
Soil test: pH	6.5	6.5	6.8
P	51 (high)	54 (high)	52 (high)
K	138 (medium)	136 (medium)	175 (medium)

Farm Cooperator: Orville Orchard, Applegate
County Extension Director: Rex Sieting, Sandusky

Table 12 NORTH CENTRAL MICHIGAN (Zone 3)
SAGINAW COUNTY TRIAL

One, Two, and Three Year Averages — 1969, 1968, 1967

Hybrid	Moisture (%)			Bushels per acre						Stalk lodging (%)						Root Lodging (%)	
	2 3		1969	2 Yrs.		3 Yrs.		1969	2 Yrs.		3 Yrs.		1969	2 Yrs.		1969	25,000
	1969	Yrs. Yrs.		19,800	25,000	19,600	24,900		19,800	25,000	19,600	24,900		19,800	24,000		
Northrup King PX417 (3X)	20.6	21	—	63.8	68.3	67	75	—	2.5	7.6	4	8	—	—	—	0.8	0.0
Asgrow H68307 (2X)	22.1	—	—	64.2	68.7	—	—	—	10.1	26.0	—	—	—	—	—	0.0	0.0
Michigan 275-2X (2X)	22.3	22	—	106.0	103.6	110	113	—	9.5	5.8	4	4	—	—	—	0.0	0.0
Northrup King PX446 (Sp.)	22.5	22	23	90.8	83.6	91	86	95	16.0	22.2	8	14	6	9	0.0	0.0	0.0
Michigan 270	22.5	22	23	80.0	80.7	87	86	91	14.0	19.7	12	17	10	12	0.0	0.0	0.0
Northrup King PX428 (3X)	23.1	—	—	85.5	73.6	—	—	—	2.7	2.3	—	—	—	—	—	0.0	0.0
Michigan 250	23.3	23	23	90.8	89.5	95	100	97	6.6	5.4	4	4	3	3	0.0	0.0	0.0
Weather Master EPX-2P (2X)	23.3	—	—	104.4	102.5	—	—	—	2.4	4.1	—	—	—	—	—	0.0	2.4
Pioneer 3956 (2X)	23.6	22	—	91.7	85.0	91	89	—	1.5	1.2	2	3	—	—	—	1.5	2.9
Pioneer 3854	23.7	22	23	85.9	74.0	88	82	89	9.7	9.0	5	7	3	5	0.0	0.0	0.0
Michigan 280	23.8	24	26	94.8	91.2	104	100	107	3.9	9.5	4	7	3	5	0.0	2.3	0.0
Asgrow ATC 35A (3X)	24.5	—	—	87.3	80.4	—	—	—	0.0	2.9	—	—	—	—	—	0.0	0.0
Northrup King PX442 (Sp.)	24.6	23	—	87.6	86.9	92	101	—	4.7	10.3	3	6	—	—	—	0.8	1.7
Michigan 300	24.7	24	25	96.0	98.7	97	97	97	6.5	5.1	3	6	3	5	1.6	0.6	0.0
Pride R200 (2X)	25.2	25	—	97.1	89.7	100	95	—	3.1	7.0	2	5	—	—	—	0.0	0.0

Table 12 — SAGINAW COUNTY TRIAL (Continued)

Hybrid	Moisture (%)			Bushels per acre						Stalk lodging (%)						Root Lodging (%)	
	1969	2	3	1969		2 Yrs.		3 Yrs.		1969		2 Yrs.		3 Yrs.		1969	
	Yrs.	Yrs.	Yrs.	19,800	25,000	19,600	24,900	18,800	24,000	19,800	25,000	19,600	24,900	18,800	24,000	19,800	25,000
Wolverine 39	25.5	25	—	86.7	73.5	92	89	—	—	3.1	4.0	2	3	—	—	0.0	1.7
Michigan 400 ¹	25.7	25	26	114.6	101.9	107	106	106	106	1.6	5.7	2	3	2	3	2.3	0.0
DeKalb XL304	26.0	24	25	78.0	88.2	87	93	92	94	10.3	8.5	9	5	7	4	0.0	0.0
Jacques 951E	26.1	25	25	98.8	93.0	92	99	—	—	8.3	11.7	5	6	—	—	0.8	0.0
Pioneer 3911 (2X)	26.1	25	—	105.5	96.5	109	105	—	—	18.7	29.8	10	17	—	—	0.0	0.0
DeKalb XL 15A (2X)	26.2	—	—	92.4	104.9	—	—	—	—	2.3	4.1	—	—	—	—	0.0	2.9
Michigan 402-2X (2X)	26.3	25	26	108.0	105.3	110	110	113	116	4.7	7.2	4	5	2	4	0.0	0.0
Northrup King PX476 (3X)	26.4	—	—	95.9	85.8	—	—	—	—	1.6	5.3	—	—	—	—	2.4	0.0
Blaney B401 (2X) ²	26.5	25	26	98.4	114.3	103	118	106	113	2.3	1.2	1	1	1	1	0.0	1.2
Weather Master PX-3P (2X)	26.5	—	—	100.4	100.5	—	—	—	—	6.5	9.8	—	—	—	—	0.0	0.0
Super Crost S19 (2X)	26.7	26	—	90.8	90.7	103	105	—	—	9.1	5.2	5	3	—	—	0.8	0.0
Michigan 463 (3X)	26.8	26	27	108.2	107.2	104	107	110	111	9.3	11.7	8	7	5	5	0.0	1.2
Funk Bros. G4287 (3X)	26.9	25	—	81.5	88.4	96	102	—	—	11.4	15.7	6	9	—	—	0.0	3.4
Pioneer 3675	27.1	25	26	102.2	80.6	100	91	102	93	3.2	12.0	2	8	2	6	0.0	0.0
Funk Bros. G4252 (3X)	27.1	—	—	91.2	73.2	—	—	—	—	13.1	14.2	—	—	—	—	0.0	0.0
Weather Master EP30 (3X)	27.1	26	27	77.5	88.7	84	79	92	89	4.2	24.4	3	14	2	10	0.0	0.0
DeKalb XL15 (2X)	27.4	26	27	94.9	103.6	97	100	105	103	15.1	12.1	13	7	9	6	0.0	0.0
Super Crost 163 (3X)	27.6	—	—	98.9	82.9	—	—	—	—	5.5	13.5	—	—	—	—	3.1	0.0
Wolverine 59 ^{1,2}	27.8	—	—	115.3	119.0	—	—	—	—	7.8	2.3	—	—	—	—	0.0	0.0
Pioneer 3775 (2X) ^{1,2}	28.2	28	29	114.3	120.9	103	117	106	116	3.2	5.7	2	3	1	2	0.0	0.6
Garno S92 (2X) ²	28.7	—	—	101.0	110.3	—	—	—	—	2.4	4.0	—	—	—	—	0.0	0.0
DeKalb XL306 (3X)	28.7	—	—	90.4	79.0	—	—	—	—	3.2	12.9	—	—	—	—	1.6	0.0
Funk Bros. G17A	29.0	28	28	87.1	100.2	91	100	94	101	12.9	15.5	7	8	6	6	0.0	0.6
Weather Master EP40	29.1	27	—	93.5	85.4	92	96	—	—	4.8	24.0	2	12	—	—	2.4	0.0
Wolverine 65 ¹	29.2	—	—	109.6	99.4	—	—	—	—	7.1	6.1	—	—	—	—	2.4	0.0
Pioneer 3715 (3X)	29.3	28	29	95.8	87.1	110	100	116	103	3.1	1.7	2	2	1	1	0.0	0.0
Northrup King KE497	29.3	27	28	76.1	72.4	91	94	95	97	11.3	18.8	8	10	6	7	0.0	0.0
Michigan 568-3X (3X) ^{1,2}	29.4	28	30	119.8	109.3	121	118	123	119	1.6	5.0	1	3	1	2	1.6	0.0
Pioneer 368 ^{1,2}	29.4	28	28	110.2	116.3	111	110	112	109	2.3	7.1	2	4	1	3	0.0	1.8
Asgrow ASX58 (2X) ²	29.6	—	—	108.7	110.0	—	—	—	—	1.6	2.4	—	—	—	—	0.0	1.2
Pioneer 371	29.6	28	—	104.2	91.7	108	100	—	—	5.5	5.7	3	4	—	—	0.0	0.0
Funk Bros. G4292 (3X)	29.7	28	—	98.2	85.9	102	93	—	—	4.7	10.0	3	6	—	—	0.0	1.1
DeKalb XL24 (2X) ¹	29.7	—	—	112.0	99.3	—	—	—	—	1.6	11.2	—	—	—	—	0.0	0.0
Michigan 500-2X (2X) ^{1,2}	30.5	29	29	125.2	128.3	124	131	124	128	3.1	5.7	2	3	2	3	0.0	0.0
Pioneer 3773 (2X) ^{1,2}	30.6	29	29	130.0	115.2	123	123	118	121	2.0	1.7	3	1	1	1	0.0	0.0
DeKalb XL325 (3X) ^{1,2}	31.0	29	30	116.7	122.4	112	109	117	113	3.1	8.8	2	4	1	3	1.6	0.0
Michigan 555-3X (3X) ^{1,2}	31.4	30	31	126.3	126.2	134	140	133	136	4.8	8.1	4	5	3	4	0.0	0.0
P.A.G. SX52 (2X) ²	31.9	—	—	108.2	114.1	—	—	—	—	7.0	8.3	—	—	—	—	1.6	0.0
Blaney 6606A (2X) ²	32.4	29	—	108.1	109.3	110	118	—	—	3.9	5.1	3	3	—	—	5.5	1.1
Funk Bros. G4333 (2X) ^{1,2}	32.4	30	—	113.3	121.1	117	126	—	—	3.9	2.9	2	2	—	—	1.6	0.6
DeKalb XL45 (2X) ^{1,2}	32.6	31	31	119.9	116.1	115	120	115	117	0.0	1.2	0	1	0	1	0.0	1.7
Average	27.3	26	27	98.3	97.0	102	103	107	106	5.8	9.1	4	6	3	4	0.6	0.5
Range	20.6 to 32.6	21 to 31	23 to 32	63.8 to 130.0	68.3 to 128.3	67 to 134	75 to 140	89 to 133	84 to 136	0.0 to 18.7	0.0 to 29.8	0 to 13	1 to 17	0 to 10	1 to 12	0.0 to 5.5	0.0 to 3.4
Least significant difference	1.1	0.7	0.5	10.6	11.0	5	5	4	4								

¹ Significantly better than average yield at 19,800 population in 1969.² Significantly better than average yield at 25,000 population in 1969.

	1969	1968	1967
Planted	May 23	May 7	May 3
Harvested	Oct. 20	Oct. 22	Nov. 2
Soil type	Brookston clay loam	Brookston clay loam	Brookston clay loam
Previous crop	Corn	Oats seeded to clover	Beets
Rows	30"	30"	36"
Population	19,800 and 25,000	19,400 and 24,900	17,200 and 22,000
Fertilizer	151-106-50	119-112-54	21-84-42
Soil test: pH	7.4	7.3	7.1
P	50 (high)	50 (high)	94 (high)
K	230 (high)	157 (medium)	505 (very high)

Farm Cooperators: Walter Reinhold and Sons, Reese
County Extension Director: Ray Vasold, Saginaw

Table 13. NORTH CENTRAL MICHIGAN (Zone 3)
GRAIN — HURON COUNTY TRIAL

One, Two, and Three Year Averages —
1969, 1968, 1967

Hybrid	Moisture (%)			Bushels per acre			Stalk lodging (%)			Root lodging %
	1969	2	3	1969	2	3	1969	2	3	
		Yrs.	Yrs.		Yrs.	Yrs.		Yrs.	Yrs.	
Michigan 200	20.7	—	—	54.3	—	—	15.3	—	—	0.0
Northrup King PX417 (3X)	21.3	21	—	67.2	48	—	36.1	40	—	0.0
Michigan 275-2X	21.3	21	—	88.6	67	—	29.3	36	—	0.0
Michigan 270	21.4	20	23	64.9	50	72	17.9	28	20	0.0
Northrup King PX442 (Sp)	21.8	22	—	62.6	45	—	8.5	13	—	0.0
Northrup King PX446 (Sp)	22.4	23	27	80.0	65	85	19.3	37	25	0.0
Michigan 250	22.5	22	25	86.7	64	80	21.2	26	27	0.0
P.A.G. SX48 (2X)	23.0	24	—	66.3	58	—	40.3	50	—	0.0
Funk Bros. G4287 (3X)	23.5	24	—	80.1	57	—	35.0	32	—	0.0
Wolverine 46 A	23.5	24	27	75.4	55	78	12.2	16	11	0.0
Michigan 280 ¹	23.5	22	25	107.5	78	98	13.2	18	13	0.0
Michigan 300	23.5	23	26	85.6	63	82	14.8	22	16	5.2
Super Crost 31 A	23.7	—	—	67.9	—	—	9.1	—	—	0.0
DeKalb XL15A (2X) ¹	23.8	—	—	94.6	—	—	6.7	—	—	0.0
Northrup King PX428 (3X)	23.8	—	—	68.3	—	—	2.6	—	—	0.0
Teweles 232	23.9	—	—	65.4	—	—	16.5	—	—	0.0
Funk Bros. G4110 (2X)	23.9	—	—	67.1	—	—	22.6	—	—	0.0
Michigan 402-2X (2X) ¹	24.0	24	27	94.0	71	88	22.2	28	20	0.8
Jacques 951 E	24.3	24	27	73.6	60	79	7.3	16	13	0.0
Michigan 400	24.3	24	27	88.6	69	87	2.6	7	5	0.0
Northrup King PX476 (3X)	24.3	—	—	72.6	—	—	13.4	—	—	0.0
Funk Bros. G4252 (3X)	24.6	—	—	84.5	—	—	15.6	—	—	0.0
Super Crost S27 (2X) ¹	25.2	27	—	99.5	71	—	15.6	20	—	0.8
Northrup King PX480 (Sp)	25.3	—	—	89.4	—	—	34.4	—	—	0.0
Funk Bros. G17A	25.5	26	29	79.8	58	80	19.2	24	17	6.7
Northrup King PX22 (2X)	25.8	25	—	77.3	62	—	5.6	19	—	0.0
DeKalb XL15 (2X)	26.0	26	—	88.1	67	—	31.3	25	—	0.0
Super Crost S19 (2X) ¹	26.2	25	—	96.0	73	—	5.6	18	—	0.0
Michigan 463-3X (3X)	26.2	26	29	84.5	62	85	15.5	20	13	1.7
Super Crost 233 (3X)	27.2	—	—	89.3	—	—	4.8	—	—	0.8
Pride R200 (2X)	27.4	—	—	80.0	—	—	7.0	—	—	0.0
DeKalb XL315 (3X)	27.4	—	—	89.6	—	—	25.5	—	—	0.0
Green Belt SX362 (2X)	27.5	27	30	77.4	60	88	9.8	23	15	0.0
Michigan 500-2X (2X) ¹	27.7	28	30	106.8	83	105	14.0	15	10	0.0
Michigan 568-3X (3X) ¹	28.2	28	32	92.4	78	97	24.8	19	14	0.0
Pioneer 3773 (2X)	28.5	—	—	85.8	—	—	7.5	—	—	0.0
Michigan 555-3X (3X) ¹	28.6	29	32	115.2	88	102	25.9	22	17	0.0
DeKalb XL45 (2X) ¹	29.5	30	33	97.5	77	93	18.6	15	10	0.0
Average	25.0	25	28	81.8	65	87	17.0	24	15	0.5
Range	20.7 to 29.5	20 to 30	23 to 33	54.3 to 115.2	45 to 88	72 to 105	2.6 to 40.3	7 to 50	5 to 27	0.0 to 6.7
Least significant difference	1.0	0.8	0.6	9.5	5	4				

¹ Significantly better than average yield in 1969.

	1969	1968	1967
Planted	May 1	May 1	May 2
Harvested	Oct. 16	Oct. 19	Oct. 21
Soil type	Brookston clay loam	Brookston loam	Brookston loam
Previous crop	Corn	Corn	Corn
Population	18,800	19,600	18,300
Rows	30"	30"	36"
Fertilizer	157-64-120	165-115-240	170-126-105
Soil test: pH	7.4	7.5	7.4
P	50 (high)	116 (very high)	83 (high)
K	230 (high)	295 (high)	289 (high)

Farm Cooperator: William McCrea, Bad Axe

County Extension Director: Lee Warschefsky, Bad Axe

Table 14. NORTH CENTRAL MICHIGAN (Zone 3)
SILAGE — HURON COUNTY TRIAL

One, Two, and Three Year Averages —
1969, 1968, 1967

Hybrid	Moisture (%) in ears			Tons per acre Green weight			Tons per acre Dry weight			Ears (%) in dry weight		
	2 3		1969	2 3		1969	2 3		1969	2 3		1969
	1969	Yrs. Yrs.		1969	Yrs. Yrs.		1969	Yrs. Yrs.		1969	Yrs. Yrs.	
Michigan 200	27.4	33	—	6.9	7.4	—	4.7	4.2	—	64.7	46	—
Northrup King PX417 (3X)	28.4	—	—	6.4	—	—	4.6	—	—	55.8	—	—
Northrup King PX428 (3X)	31.2	—	—	6.6	—	—	4.6	—	—	58.0	—	—
Michigan 275-2X (2X)	34.1	36	—	10.7	10.9	—	6.4	5.5	—	55.8	50	—
Northrup King PX22 (2X)	35.2	41	—	9.0	10.7	—	5.4	4.8	—	59.9	51	—
Michigan 250	35.7	36	39	9.9	12.5	15.9	5.9	5.3	6.1	51.3	42	43
Michigan 270	35.8	36	38	8.1	8.8	13.5	5.0	4.2	5.5	56.9	49	49
Funk Bros. G4110 (2X)	35.8	—	—	9.4	—	—	6.3	—	—	50.5	—	—
Michigan 280	35.9	36	39	10.0	12.4	16.4	5.7	5.7	6.6	52.8	45	46
P.A.G. SX48 (2X)	36.4	40	—	9.6	11.1	—	5.9	5.4	—	62.2	52	—
Michigan 300	36.7	38	42	10.6	11.5	14.8	6.3	5.1	6.1	52.7	44	45
Northrup King PX442 (Sp)	37.5	42	—	10.0	10.6	—	6.0	5.0	—	51.3	40	—
Funk Bros. G4252 (3X)	37.7	—	—	10.1	—	—	6.1	—	—	49.1	—	—
Michigan 400	37.9	42	45	11.2	13.1	15.5	5.9	5.0	5.9	51.1	45	45
Michigan 402-2X (2X)	38.2	43	45	11.7	13.3	16.6	6.2	5.5	6.5	51.4	48	45
Northrup King PX446 (Sp)	38.5	43	43	11.2	11.7	14.1	6.5	5.7	6.1	54.6	43	45
Funk Bros. G17A	39.6	45	47	10.4	13.0	16.2	6.0	5.2	6.0	53.8	41	41
Super Crost 31A	39.8	—	—	8.9	—	—	5.4	—	—	58.8	—	—
Pride R200 (2X)	40.3	—	—	9.2	—	—	5.3	—	—	51.7	—	—
Green Belt SX362 (2X)	40.7	46	46	11.3	12.9	15.8	6.3	5.4	6.2	58.1	46	47
DeKalb XL15A (2X)	41.0	—	—	10.0	—	—	5.7	—	—	56.1	—	—
Wolverine 46	41.1	45	45	9.6	11.0	13.7	5.3	4.7	5.4	50.9	42	45
Funk Bros. G4287 (3X)	41.2	43	—	9.4	11.4	—	5.4	5.1	—	60.3	48	—
Northrup King PX480 (Sp)	41.3	—	—	11.0	—	—	6.1	—	—	54.3	—	—
Teweles 232	41.9	—	—	7.2	—	—	4.1	—	—	49.1	—	—
Michigan 463-3X (3X)	41.9	46	47	11.6	13.3	16.2	6.1	5.3	6.6	55.8	48	48
Northrup King PX476 (3X)	41.9	—	—	10.3	—	—	5.7	—	—	46.3	—	—
Jacques 951 E	42.3	42	43	9.4	11.4	14.3	5.3	4.6	5.7	53.9	48	48
Super Crost 233 (3X)	42.3	—	—	11.9	—	—	6.2	—	—	53.2	—	—
Michigan 500-2X (2X)	43.4	48	49	12.2	14.7	17.7	6.4	5.6	6.5	51.9	44	45
DeKalb XL15 (2X)	44.3	49	—	10.5	12.3	—	5.6	5.0	—	49.9	46	—
Super Crost S27 (2X)	45.1	49	—	11.1	15.3	—	5.4	5.7	—	48.8	38	—
DeKalb XL315 (3X)	45.3	—	—	10.3	—	—	5.5	—	—	52.0	—	—
Super Crost S19 (2X)	46.0	49	—	11.3	12.0	—	5.7	4.9	—	55.8	41	—
Michigan 568-3X (3X)	46.0	49	51	12.9	15.3	19.2	5.7	5.7	6.7	54.8	44	46
Michigan 555-3X (3X)	46.4	52	53	14.2	17.5	21.0	6.9	6.5	7.3	52.5	41	43
DeKalb XL45 (2X)	47.1	52	53	12.9	14.2	17.0	6.5	5.3	6.1	50.3	40	42
Pioneer 3773 (2X)	47.5	52	52	12.0	14.6	16.9	5.9	5.6	6.2	47.9	41	44
Average	40.7	43	46	10.5	12.4	16.2	5.8	5.2	6.2	53.4	45	46
Range	27.4	33	38	6.4	7.4	13.5	4.1	4.2	5.4	46.3	38	41
	47.5	52	53	14.2	17.5	21.0	6.9	6.5	7.3	64.7	52	49
Least significant difference	1.8	1.2	0.9	1.0	0.7	0.5	.4	.3	.3	2.4	2	2

	1969	1968	1967
Planted	May 1	May 1	May 2
Harvested	Sept. 15	Sept. 12	Sept. 12
Soil type	Brookston loam	Brookston loam	Brookston loam
Previous crop	Corn	Corn	Corn
Rows	30"	30"	30"
Population	19,000	19,300	18,100
Fertilizer	157-64-120	165-115-240	170-126-105
Soil test: pH	7.4	7.5	7.4
P	50 (high)	116 (very high)	83 (high)
K	230 (high)	295 (high)	289 (high)

Farm Cooperator: William McCrea, Bad Axe

County Extension Director: Lee Warschefsky, Bad Axe

Table 15. NORTH CENTRAL MICHIGAN (Zone 3)
MONTCALM COUNTY TRIAL
One and Two Year Average — 1969, 1968

Hybrid	Moisture (%)						Bushels per acre						Stalk lodging (%)						Root lodging (%)					
	1969			1968			2 Yrs.			1969			2 Yrs.			1969			1969			1968		
	2	Yrs.	Irrig.	2	Yrs.	Irrig.	Irrig.	Not irrig.	Irrig.	Irrig.	Not irrig.	Irrig.	Irrig.	Not irrig.	Irrig.	Irrig.	Not irrig.	Irrig.	Irrig.	Not irrig.	Irrig.	Irrig.	Not irrig.	Irrig.
Michigan 200	20.0	—	116.3	69.8	—	—	—	—	—	1.9	16.9	—	—	—	—	0.0	0.0	—	—	—	—	—	—	—
Northrup King PX428 (3X)	20.1	—	114.0	79.2	—	—	—	—	—	4.0	11.9	—	—	—	—	0.0	0.0	—	—	—	—	—	—	—
Blaney B220 (3X)	20.8	—	116.5	67.3	—	—	—	—	—	1.6	21.3	—	—	—	—	0.0	0.0	—	—	—	—	—	—	—
Northrup King PX417 (3X)	21.1	—	96.7	73.0	—	—	—	—	—	7.8	20.0	—	—	—	—	0.0	0.0	—	—	—	—	—	—	—
Jacques JX592 (2X)	21.3	24	114.8	92.0	111	91	—	—	—	1.6	12.1	2	7	—	—	0.0	0.0	—	—	—	—	—	—	—
Michigan 270	21.5	22	114.4	88.0	119	91	—	—	—	10.6	23.0	8	17	—	—	0.0	0.0	—	—	—	—	—	—	—
Northrup King PX442 (Sp)	21.8	—	122.7	86.3	—	—	—	—	—	3.3	11.9	—	—	—	—	0.0	0.0	—	—	—	—	—	—	—
Michigan 275-2X (2X) ²	22.0	23	150.3	93.0	157	101	—	—	—	3.4	27.8	2	18	—	—	0.0	0.0	—	—	—	—	—	—	—
Cowbell SX24 (2X)	22.2	24	121.7	75.5	122	74	—	—	—	4.1	19.7	3	12	—	—	0.0	0.0	—	—	—	—	—	—	—
Michigan 250	22.2	24	126.9	82.9	136	91	—	—	—	5.6	19.2	5	13	—	—	0.0	0.0	—	—	—	—	—	—	—
Michigan 280	22.3	23	139.1	83.6	151	96	—	—	—	3.1	14.2	3	14	—	—	0.8	0.0	—	—	—	—	—	—	—
Weather Master EPX-2P (2X)	22.5	—	147.8	79.3	—	—	—	—	—	2.3	13.7	—	—	—	—	0.0	0.0	—	—	—	—	—	—	—
Pioneer 3854	22.5	24	121.4	73.0	116	77	—	—	—	0.8	23.0	0	16	—	—	0.0	0.0	—	—	—	—	—	—	—
Michigan 300	23.0	—	149.4	91.3	—	—	—	—	—	0.8	18.1	—	—	—	—	0.0	0.0	—	—	—	—	—	—	—
Weather Master EPX-1 (2X)	23.3	—	138.2	56.3	—	—	—	—	—	10.9	57.8	—	—	—	—	0.0	0.0	—	—	—	—	—	—	—
Northrup King PX446 (Sp) ^{1,2}	23.6	25	158.9	101.1	156	96	—	—	—	2.4	18.8	2	11	—	—	0.0	0.0	—	—	—	—	—	—	—
Weather Master EPX-1P (2X)	23.6	—	148.4	90.1	—	—	—	—	—	8.5	30.7	—	—	—	—	0.0	0.0	—	—	—	—	—	—	—
Northrup King PX476 (3X) ¹	23.9	—	157.9	91.6	—	—	—	—	—	0.8	18.6	—	—	—	—	0.0	0.0	—	—	—	—	—	—	—
Pioneer 388	24.0	25	127.2	70.4	114	74	—	—	—	3.3	19.2	4	11	—	—	0.0	0.0	—	—	—	—	—	—	—
Pioneer 3956 (2X)	24.1	—	152.4	79.5	—	—	—	—	—	0.0	11.5	—	—	—	—	0.0	0.0	—	—	—	—	—	—	—
DeKalb XL304 (3X)	24.4	26	119.0	75.9	126	73	—	—	—	2.3	14.4	2	9	—	—	1.5	0.0	—	—	—	—	—	—	—
Pioneer 3911 (2X)	24.6	25	148.4	92.2	153	101	—	—	—	8.5	24.4	4	16	—	—	0.0	0.0	—	—	—	—	—	—	—
Blaney B401 (2X) ¹	25.2	26	169.9	89.3	153	94	—	—	—	4.6	9.8	2	9	—	—	0.0	0.0	—	—	—	—	—	—	—
Teweles SXT14 (2X)	25.5	26	127.4	76.7	117	74	—	—	—	1.6	14.5	1	11	—	—	0.0	0.0	—	—	—	—	—	—	—
Jacques 951E ¹	25.5	26	157.9	87.7	137	85	—	—	—	0.8	21.5	0	12	—	—	0.0	0.0	—	—	—	—	—	—	—
Northrup King PX22 (2X)	25.5	27	132.9	76.3	131	84	—	—	—	0.0	26.8	0	15	—	—	0.0	0.0	—	—	—	—	—	—	—
Weather Master EP30 (3X)	25.6	27	151.8	74.3	123	70	—	—	—	0.8	19.5	0	12	—	—	0.0	0.0	—	—	—	—	—	—	—
Super Crost S19 (2X)	25.6	26	153.9	91.5	151	97	—	—	—	0.8	10.9	1	8	—	—	0.0	0.0	—	—	—	—	—	—	—
Michigan 400 ^{1,2}	25.7	26	160.3	96.6	151	97	—	—	—	2.3	8.3	2	8	—	—	0.0	0.0	—	—	—	—	—	—	—
Super Crost 163 (3X) ²	25.7	27	141.5	96.1	142	95	—	—	—	0.8	8.7	1	5	—	—	0.8	0.0	—	—	—	—	—	—	—
Funk Bros. G17A ¹	26.2	27	165.7	89.1	157	94	—	—	—	5.0	12.1	3	9	—	—	0.0	0.0	—	—	—	—	—	—	—
Weather Master EPX-3P (2X) ²	26.2	26	143.1	98.8	130	90	—	—	—	0.0	15.0	0	9	—	—	0.0	0.0	—	—	—	—	—	—	—
Michigan 402-2X (2X) ^{1,2}	26.3	26	164.8	98.4	157	105	—	—	—	7.4	24.4	4	16	—	—	0.0	0.0	—	—	—	—	—	—	—
DeKalb XL315 (3X)	26.4	28	130.6	72.4	135	76	—	—	—	3.2	17.8	2	10	—	—	0.0	0.0	—	—	—	—	—	—	—
Weather Master EP35 (3X)	26.7	—	144.7	82.5	—	—	—	—	—	1.6	18.5	—	—	—	—	0.0	0.0	—	—	—	—	—	—	—
DeKalb XL24 (2X)	27.1	—	149.0	88.1	—	—	—	—	—	1.5	11.0	—	—	—	—	0.0	0.0	—	—	—	—	—	—	—
Michigan 463-3X (3X) ²	27.3	28	154.8	95.1	155	100	—	—	—	2.4	19.5	3	12	—	—	0.0	0.0	—	—	—	—	—	—	—
Funk Bros. G4287 (3X)	27.3	27	149.9	88.2	146	90	—	—	—	3.1	14.8	3	7	—	—	0.0	0.8	—	—	—	—	—	—	—
Teweles SXT61 (3X) ²	27.3	28	153.3	93.7	151	101	—	—	—	2.3	5.6	1	4	—	—	0.0	0.0	—	—	—	—	—	—	—
Northrup King KE497	27.3	28	137.6	80.4	126	84	—	—	—	4.6	22.3	3	15	—	—	0.0	0.0	—	—	—	—	—	—	—
DeKalb XL306 (3X)	27.3	—	153.5	75.3	—	—	—	—	—	0.8	23.6	—	—	—	—	0.0	0.0	—	—	—	—	—	—	—
Wolverine 59	27.6	—	138.0	80.5	—	—	—	—	—	7.3	11.8	—	—	—	—	0.0	0.0	—	—	—	—	—	—	—
Pioneer 3773 (2X) ^{1,2}	27.7	28	184.9	101.2	164	109	—	—	—	0.0	15.2	1	8	—	—	0.0	0.0	—	—	—	—	—	—	—
Funk Bros. G4222 (2X)	28.0	29	141.8	81.2	137	91	—	—	—	1.6	14.5	2	9	—	—	0.0	0.0	—	—	—	—	—	—	—
Michigan 500-2X (2X) ^{1,2}	28.0	28	173.5	94.6	177	107	—	—	—	1.7	13.9	1	9	—	—	0.0	0.0	—	—	—	—	—	—	—
Pioneer 368 ²	28.3	29	148.1	93.4	152	100	—	—	—	1.5	14.2	2	9	—	—	0.0	0.0	—	—	—	—	—	—	—
Northrup King PX525 (Sp) ^{1,2}	29.1	29	156.4	94.9	155	98	—	—	—	0.8	19.0	1	11	—	—	0.0	0.0	—	—	—	—	—	—	—
Michigan 555-3X (3X) ^{1,2}	29.1	30	173.7	101.7	178	113	—	—	—	0.8	13.8	0	8	—	—	0.0	0.0	—	—	—	—	—	—	—
Michigan 568-3X (3X) ^{1,2}	29.2	30	157.9	104.3	162	111	—	—	—	1.6	17.1	1	9	—	—	0.0	0.0	—	—	—	—	—	—	—
DeKalb XL45 (2X) ¹	30.4	31	167.1	83.2	163	94	—	—	—	2.3	8.9	1	5	—	—	0.0	0.8	—	—	—	—	—	—	—
Average	25.0	26	143.5	83.3	143	92	—	—	—	2.7	17.8	2	11	—	—	0.1	0.1	—	—	—	—	—	—	—
Range	20.0	22	96.7	56.3	111	70	—	—	—	0.0	5.6	0	4	—	—	0.0	0.0	—	—	—	—	—	—	—
	30.7	31	184.9	104.3	178	113	—	—	—	10.9	57.8	8	18	—	—	1.5	6.0	—	—	—	—	—	—	—
Least significant difference	0.8	0.6	12.8	9.4	6	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

¹ Significantly better than average yield, irrigated 1969.
² Significantly better than average yield, not irrigated, 1969.

	1969	1969
Planted	May 3	May 4
Harvested	Oct. 31	Oct. 26
Soil type	Montcalm sandy loam	Montcalm sandy loam
Previous crop	Sorghum-sudan seeded to rye in fall.	Sorghum-sudan seeded to rye in fall.
Population	19,500	19,600
Rows	30"	30"
Fertilizer	205-160-160	236-190-190
Soil test: pH	6.2	6.2
P	242 (very high)	256 (very high)
K	237 (high)	220 (high)
Irrigation	6.0"	7.5"

Cooperator: Theron Comden, Entrican
County Extension Director: James Crosby, Stanton

Table 16. **NORTH CENTRAL MICHIGAN** (Zone 3)
NEWAYGO COUNTY TRIAL

One, Two, and Three Year Averages —
1968, 1967, 1966
1969 Trial Was Not Harvested

Hybrid	Moisture (%)			Bushels per acre			Stalk lodging (%)		
	2 3		1968	2 3		1968	2 3		
	1968	Yrs. Yrs.		Yrs. Yrs.	Yrs. Yrs.				
Michigan 270	20.9	26 25	91.4	92	93	4.0	2 5		
Michigan 250	21.0	27 26	92.2	95	93	2.5	1 2		
Michigan 275-2X (2X) ¹	21.6	—	114.2	—	—	0.0	—		
Michigan 280	22.3	28 —	100.9	106	—	1.2	1 —		
Northrup King PX442 (3X)	22.6	—	88.2	—	—	0.0	—		
Michigan 300	22.9	28 27	101.8	104	100	1.3	1 2		
Pride R118 (3X)	23.0	—	109.6	—	—	1.9	—		
Northrup King PX417 (3X)	23.2	—	73.0	—	—	1.4	—		
P.A.G. SX48 (2X)	23.8	—	95.2	—	—	0.7	—		
P.A.G. SX47 (2X)	23.8	—	82.3	—	—	0.7	—		
Funk Bros. G43	24.0	—	71.6	—	—	1.3	—		
Funk Bros. G4170 (3X)	24.3	28 —	72.3	71	—	2.9	2 —		
Pioneer 3956 (2X)	25.1	—	109.2	—	—	1.8	—		
P.A.G. 38	25.4	—	101.2	—	—	3.1	—		
Michigan 400	25.4	31 29	110.0	103	102	1.2	1 1		
Michigan 402-2X (2X) ¹	25.7	—	121.0	—	—	1.9	—		
Funk Bros. G10A	25.8	30 30	92.8	103	104	0.0	0 4		
Pioneer 3854 (2X)	25.9	30 28	80.4	92	90	0.0	0 1		
Northrup King PX446 (Sp)	25.9	30 —	89.3	96	—	0.0	0 —		
Tomco 2600-2X	26.0	—	89.8	—	—	1.9	—		
Michigan 463-3X (3X)	26.0	32 —	106.3	111	—	2.6	1 —		
Teweles 263	26.1	—	79.4	—	—	1.9	—		
Pioneer 3911 (2X) ¹	26.3	31 —	127.0	114	—	0.6	0 —		
Cowbell SX102 (2X) ¹	26.3	—	128.1	—	—	1.8	—		
DeKalb XL306 (3X)	26.3	31 29	98.8	105	102	0.6	0 1		
Funk Bros. G4287 (3X)	26.5	31 29	107.4	110	112	1.2	1 2		
Northrup King PX22 (2X)	26.7	—	100.5	—	—	0.0	—		
Funk Bros. G4350 (2X)	26.9	34 32	85.8	94	95	0.0	0 0		
Pioneer 3675	27.2	32 30	93.7	91	99	1.3	1 1		
Northrup King PX480 (Sp)	27.2	34 32	103.5	110	103	4.8	2 8		
Pioneer 385	27.8	32 30	93.9	103	103	0.0	0 2		
DeKalb XL115 (2X)	27.8	31 30	92.8	96	99	0.8	0 6		
Tomco 144	27.9	34 —	91.9	91	—	0.0	0 —		
Tomco 180	28.1	32 —	78.5	89	—	1.3	1 —		
Funk Bros. G17A	28.3	33 32	88.0	92	93	0.0	0 0		
DeKalb XL315 (3X)	28.5	34 32	104.1	99	98	0.6	0 3		
Northrup King KE497	28.9	—	100.7	—	—	0.0	—		
Tomco 160	28.9	—	91.5	—	—	1.5	—		
Northrup King PX525 (Sp) ¹	29.0	—	129.4	—	—	1.2	—		
Pioneer 3773 (2X) ¹	29.6	35 —	135.4	114	—	0.0	0 —		
Michigan 500-2X (2X) ¹	29.9	35 33	133.0	119	119	0.0	0 0		
Average	26.1	31 30	102.2	101	101	1.2	1 2		
Range	20.9 to 29.9	26 to 35	71.6 to 135.4	71 to 119	90 to 119	0.0 to 4.8	0 to 8		
Least significant difference	0.9	1 1	11.2	5	4				

¹ Significantly better than average yield in 1968.

	1968	1967	1966
Planted	May 10	May 21	May 19
Harvested	Oct. 29	Nov. 8	Nov. 4
Soil type	Selkirk loam	Selkirk loam	Selkirk loam
Previous crop	Corn	Corn	Corn
Population	18,800	17,500	16,700
Rows	30"	36"	36"
Fertilizer	18-72-36	100-84-42	121-84-42
Soil test: pH	7.2	7.3	7.2
P	28 (medium)	62 (high)	23 (medium)
K	179 (medium)	187 (high)	108 (low)

Farm Cooperator: Ivan Norris, Hesperia

County Extension Director: Lane Rushmore, Fremont

Table 17. **NORTHERN MICHIGAN** (Zone 4)
GRAND TRAVERSE COUNTY TRIAL

One, Two, and Three Year Averages —
1969, 1968, 1967

Hybrid	Moisture (%)			Bushels per acre			Stalk lodging (%)			Root lodging %
	2 3		1969	2 3		1969	2 3		1969	
	1969	Yrs. Yrs.		Yrs. Yrs.	Yrs. Yrs.		Yrs. Yrs.			
Northrup King PX417 (3X)	30.9	26	—	76.8	53	—	6.2	25	—	0.0
Michigan 200	31.0	27	27	103.4	85	81	4.0	8	6	2.0
A.E.S. 202	31.1	27	27	86.3	74	71	7.7	12	8	0.0
Northrup King PX428 (3X)	31.4	—	—	86.0	—	—	2.5	—	—	0.6
Funk Bros. G43	32.7	28	—	80.7	55	—	5.6	25	—	0.0
Northrup King PX442 (Sp)	33.3	28	—	102.4	65	—	0.6	9	—	0.0
Michigan 280 ¹	33.7	27	28	114.2	81	78	7.8	15	11	4.5
Michigan 275-2X (2X) ¹	34.3	28	—	118.3	81	—	4.1	23	—	0.0
Michigan 270	34.4	27	28	86.3	60	62	4.4	21	14	0.0
DeKalb XL301 (3X)	34.6	—	—	92.2	—	—	3.9	—	—	6.5
Michigan 250	34.6	28	28	95.5	69	68	2.7	17	12	0.7
Pride R118 (3X)	34.6	29	—	92.5	63	—	1.3	36	—	6.4
Funk Bros. G4160 (3X)	34.9	—	—	72.5	—	—	4.3	—	—	0.0
Michigan 300 ¹	35.4	29	30	114.8	78	77	4.0	16	11	6.7
Pride R129 (3X)	36.5	30	—	83.8	60	—	4.7	34	—	1.2
Northrup King KE435	36.7	31	31	74.1	69	65	11.3	27	20	0.0
DeKalb 45	38.2	32	31	76.7	76	72	1.9	5	3	0.0
DeKalb XL304 (3X)	38.4	—	—	90.8	—	—	2.4	—	—	0.6
Funk Bros. G4287 (3X)	38.7	32	—	101.1	67	—	1.2	15	—	0.0
Pioneer 3956 (2X) ¹	38.7	30	30	110.3	69	72	5.3	16	11	0.0
Northrup King KE497	39.3	33	34	91.4	58	57	1.9	9	6	3.8
Weather Master EPX-1P (2X)	39.5	—	—	95.8	—	—	4.8	—	—	0.0
Northrup King PX480 (Sp)	39.6	—	—	98.5	—	—	0.6	—	—	1.2
Northrup King PX446 (Sp)	39.7	32	31	101.7	76	72	1.2	28	19	0.0
Average	35.5	29	29	93.7	73	72	4.0	17	10	1.3
Range	30.9 to 39.7	26 to 33	27 to 34	72.5 to 118.3	52 to 107	57 to 91	0.0 to 11.3	1 to 36	1 to 20	0.0 to 6.7
Least significant difference	1.2	0.8	0.6	10.2	5	4				

¹ Significantly better than average yield in 1969.

	1969	1968	1967
Planted	May 16	May 13	May 23
Harvested	Nov. 6	Nov. 4	Oct. 25
Soil type	Emmett sandy loam	Emmett sandy loam	Emmett sandy loam
Previous crop	Corn	Corn	Corn
Population	18,400	17,800	18,000
Rows	38"	38"	38"
Fertilizer	190-90-210	149-82-162	81-81-81
Soil test: pH	6.6	6.2	5.9
P	28 (medium)	67 (high)	62 (high)
K	81 (low)	139 (medium)	171 (medium)

Farm Cooperator: Karl Wagner, Grawn

County Extension Director: George McManus, Traverse City

Table 18. **NORTHERN MICHIGAN** (Zone 4)
GRAIN — ALPENA COUNTY TRIAL

One, Two, and Three Year Averages —
1969, 1968, 1967

Hybrid	Moisture (%)			Bushels per acre			Stalk lodging (%)			Root lodging %
	2 3		1969	2 3		1969	2 3		1969	
	1969	Yrs. Yrs.		Yrs.	Yrs.		Yrs. Yrs.	Yrs. Yrs.		
Trojan TX68	32.6	30	—	41.8	59	—	29.7	15	—	0.0
Northrup King PX417 (3X)	34.4	32	—	96.4	101	—	7.8	4	—	0.0
A.E.S. 202	34.8	32	34	106.7	116	103	5.7	3	2	0.0
Michigan 200	35.4	32	33	113.1	121	108	10.3	5	5	0.0
Northrup King PX428 (3X)	36.8	—	—	111.8	—	—	10.9	—	—	0.0
Seneca XX 150	37.5	—	—	105.8	—	—	10.1	—	—	0.0
Funk Bros. G43	37.6	36	36	102.3	113	100	17.5	9	7	0.0
Michigan 270	37.6	37	38	100.3	113	100	7.3	4	3	0.0
Seneca XX 155 ¹	38.7	35	35	123.4	121	104	3.4	2	1	0.0
Pride R118 (3X) ¹	39.2	—	—	122.5	—	—	5.8	—	—	0.0
Michigan 275-2X (2X) ¹	39.2	—	—	137.9	—	—	1.6	—	—	0.0
Funk Bros. G4160 (3X)	40.0	—	—	90.6	—	—	8.7	—	—	0.0
Michigan 250	40.3	39	40	96.5	111	98	5.1	3	2	0.0
DeKalb XT138	40.5	39	41	108.2	110	92	0.8	0	1	0.0
Michigan 280 ¹	40.9	39	41	136.6	138	116	4.6	2	2	0.0
Northrup King PX442 (Sp) ¹	41.3	39	—	129.9	126	—	0.8	0	—	0.0
DeKalb XL301 (3X)	42.5	39	—	92.3	96	—	0.8	0	—	0.0
Pride R129 (3X)	42.9	—	—	110.9	—	—	9.2	—	—	0.0
Pride 137 ¹	43.0	40	40	123.9	131	112	8.8	4	4	0.0
Michigan 300 ¹	43.4	—	—	124.0	—	—	3.1	—	—	0.0
Pioneer 3956 (2X)	43.8	40	40	113.2	127	110	0.8	0	1	0.0
Northrup King PX446 (Sp)	44.3	40	40	120.5	129	111	2.4	1	2	0.0
Average	39.4	37	38	109.5	120	106	6.9	3	3	0.0
Range	32.6	32	33	41.8	96	92	0.8	0	1	
	to	to	to	to	to	to	to	to	to	to
	44.3	41	41	137.9	138	116	29.7	9	7	
Least significant difference	1.5	1.0	0.7	11.6	6	4				

¹ Significantly better than average yield in 1969.

	1969	1968	1967
Planted	May 27	May 21	May 17
Harvested	Oct. 31	Oct. 17	Nov. 7
Soil type	Onaway loam	Onaway loam	Onaway sandy loam
Previous crop	Corn	Wheat	beans
Population	19,300	21,300	17,200
Rows	28"	28"	28"
Fertilizer	200-80-136	120-72-72	30-30-30

Farm Cooperators: 1969 and 1968 — William Bartow, Alpena; 1967 — A. H. Nickels, Alpena

County Extension Director: A. H. Nickels, Alpena

Table 19. **NORTHERN MICHIGAN** (Zone 4)
SILAGE — ALPENA COUNTY TRIAL

One, Two, and Three Year Averages —
1969, 1968, 1967

Hybrid	Moisture (%)			Tons per acre Green weight			Tons per acre Dry weight			Ears (%) in dry weight		
	2 3		1969	2 3		1969	2 3		1969	2 3		1969
	Yrs.	Yrs.		Yrs.	Yrs.		Yrs.	Yrs.		Yrs.	Yrs.	
Trojan TX68	47.6	45	—	13.5	15.3	—	5.4	5.5	—	46.2	50	—
Seneca XX150	52.6	—	—	22.7	—	—	6.3	—	—	46.4	—	—
Northrup King PX428 (3X)	53.1	—	—	20.9	—	—	6.9	—	—	46.5	—	—
A.E.S. 202	53.3	50	49	25.0	26.6	21.3	7.3	7.8	6.5	44.6	48	45
Funk Bros. G4160 (3X)	53.5	—	—	21.4	—	—	6.7	—	—	46.8	—	—
Funk Bros. G43	54.5	56	55	23.3	26.8	21.2	7.1	7.4	6.1	43.8	47	46
Michigan 200	54.7	51	51	23.5	26.1	21.2	6.7	7.8	6.7	44.5	48	46
Seneca XX155	55.6	53	53	26.2	26.6	22.2	7.0	7.6	6.6	44.8	43	40
Northrup King PX417 (3X)	55.6	53	—	20.1	22.6	—	6.3	7.0	—	39.5	46	—
Michigan 270	56.0	55	55	24.6	26.7	22.1	6.6	7.3	6.4	39.2	43	42
Pride R118 (3X)	56.3	—	—	28.7	—	—	7.9	—	—	44.9	—	—
DeKalb XT138	57.5	57	56	26.3	28.9	22.4	7.3	7.7	6.3	37.0	38	37
Northrup King PX446 (Sp)	58.5	58	59	28.0	31.7	25.1	7.5	8.4	7.0	37.2	39	36
Michigan 250	58.7	57	58	26.9	30.1	23.9	6.9	7.9	6.5	36.7	40	37
Northrup King PX442 (Sp)	59.0	58	—	28.6	29.4	—	7.7	7.9	—	44.5	45	—
DeKalb XL301 (3X)	59.7	59	—	23.0	25.7	—	6.4	6.8	—	36.3	40	—
Michigan 280	60.3	58	58	29.0	32.4	26.2	7.8	8.5	7.2	36.7	44	42
Pride 137	60.9	59	58	28.6	30.3	24.3	7.8	8.3	6.9	38.6	42	39
Michigan 275-2X (2X)	61.0	—	—	27.9	—	—	7.4	—	—	46.0	—	—
Pride R129 (3X)	61.9	—	—	28.7	—	—	7.1	—	—	42.3	—	—
Michigan 300	63.0	—	—	30.9	—	—	7.6	—	—	39.9	—	—
Pioneer 3956 (2X)	66.4	62	62	28.3	31.3	24.8	7.5	8.4	6.7	31.7	37	39
Average	57.9	57	56	25.1	28.5	23.2	7.2	7.8	6.7	41.1	43	41
Range	47.6	50	49	13.5	22.6	21.2	5.4	6.8	6.1	31.7	37	36
	to	to	to	to	to	to	to	to	to	to	to	to
	66.4	62	62	30.9	32.4	26.2	8.1	8.5	7.2	49.0	48	46
Least significant difference	2.0	1.4	1.0	1.4	0.9	0.6	.5	.3	.2	2.3	2	2

	1969	1968	1967
Planted	May 27	May 21	May 17
Harvested	Sept. 16	Sept. 18	Sept. 13
Soil type	Onaway loam	Onaway loam	Onaway sandy loam
Previous crop	Corn	Wheat	Beans
Rows	28"	28"	28"
Population	19,200	21,100	17,200
Fertilizer	200-80-136	120-72-72	30-30-30

Farm Cooperators: 1969 and 1968 — William Bartow, Alpena; 1967 — A. H. Nickels, Alpena

County Extension Director: A. H. Nickels, Alpena

Table 20. **NORTHERN MICHIGAN** (Zone 4)
SILAGE — ALGER COUNTY TRIAL

One, Two, and Three Year Averages —
1969, 1968, 1967

Hybrid	Moisture (%)			Tons per acre						Ears (%) in		
				Green weight		Dry weight				dry weight		
	1969	2	3	1969	2	3	1969	2	3	1969	2	3
	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.
Trojan TX68	47.9	64	—	8.4	10.3	—	2.7	3.0	—	53.5	37	—
Funk Bros. G2A	51.0	64	—	11.8	14.1	—	3.6	3.6	—	49.0	37	—
Weather Master CD-2	51.1	—	—	10.6	—	—	3.5	—	—	46.5	—	—
DeKalb 29	52.1	66	68	16.1	18.9	15.4	4.4	4.3	3.6	46.0	34	33
Northrup King KC3	55.3	67	70	15.5	17.3	15.1	4.3	3.9	3.6	41.7	31	31
A.E.S. 202	55.5	67	71	15.0	17.8	15.2	4.1	3.8	3.8	43.0	34	32
Northrup King PX428 (3X)	55.5	—	—	15.1	—	—	4.3	—	—	46.8	—	—
Wisconsin 243	55.5	68	70	14.8	17.0	14.5	3.9	3.6	3.2	40.3	30	29
Midland M380 (3X)	56.2	69	—	13.0	16.6	—	3.3	3.5	—	41.2	30	—
Michigan 200	56.5	67	69	16.0	18.1	15.5	4.0	3.9	3.5	43.9	36	34
Northrup King PX417 (3X)	58.2	68	—	15.0	16.5	—	4.1	3.8	—	41.6	32	—
Wisconsin 263	59.3	69	72	15.1	18.7	16.0	3.9	3.9	3.5	40.0	30	29
Teweles 201	60.4	70	—	17.3	19.8	—	4.5	4.2	—	39.6	30	—
Weather Master EPX-1 (2X)	60.7	—	—	15.9	—	—	4.0	—	—	29.0	—	—
Midland M485	61.2	70	—	18.1	20.6	—	4.4	4.2	—	36.9	28	—
Wisconsin 273	61.7	71	73	15.9	18.5	16.0	3.8	3.6	3.3	34.1	27	26
Michigan 270	62.5	71	74	17.2	18.3	15.8	4.3	3.5	3.2	34.7	27	24
Michigan 250	63.0	71	75	18.7	20.0	16.6	4.3	3.7	3.3	36.3	26	23
Midland M490	63.5	71	—	19.0	19.5	—	4.5	4.0	—	34.7	28	—
Northrup King PX442 (Sp)	63.6	71	—	15.6	19.6	—	3.9	3.8	—	36.9	28	—
Michigan 275-2X (2X)	64.4	—	—	18.5	—	—	4.8	—	—	36.2	—	—
Michigan 280	66.2	73	76	19.7	22.5	18.8	4.7	4.2	3.7	34.7	28	24
Pioneer 3956 (2X)	67.2	73	76	19.2	21.3	17.6	4.8	4.1	3.6	33.1	29	25
Northrup King PX476 (3X)	67.8	—	—	15.8	—	—	3.9	—	—	31.2	—	—
Northrup King PX446 (Sp)	68.5	74	76	16.8	20.0	16.9	4.0	3.7	3.4	29.8	25	23
Michigan 300	70.0	—	—	21.0	—	—	4.7	—	—	28.2	—	—
Average	60.1	69	72	16.3	18.2	16.1	4.2	3.8	3.5	38.7	30	28
Range	47.9	64	68	8.4	10.3	14.5	2.7	3.0	3.2	53.5	25	23
	to	to	to	to	to	to	to	to	to	to	to	to
	70.0	74	76	21.0	22.5	18.8	5.0	4.3	3.8	28.2	37	34
Least significant difference	2.2	1.7	1.3	1.5	0.9	0.6	.4	.3	.2	2.7	2	2

	1969	1968	1967
Planted	May 22-23	June 13	May 29
Harvested	Sept. 24-26	Sept. 27	Sept. 21-22
Soil type	Chatham stoney loam	Chatham stoney loam	Chatham stoney loam
Previous crop	Corn	Corn	
Rows	36"	36"	36"
Population	16,700	16,900	16,200
Fertilizer	26-77-77	78-72-72	70-78-78
Soil test: pH	7.5		
P	82 (high)		
K	135 (medium)		

Cooperators: Dr. Don Reid, Michigan State University, Chatham

Table 21. Index for 237 hybrids entered as 955 entries in the 1969 Michigan Corn Performance Trials. Numbers within parentheses refer to table numbers in which the hybrid appears; (2X) indicates a single-cross hybrid, (3X) indicates a three-way hybrid, (Sp) indicates a special-cross hybrid, and all others are double-cross hybrids.

ACCO Seed, 515 River Avenue North, Belmond, Iowa Acco TGG 144 (16) Acco TGG 160 (16) Acco TGG 180 (16) Acco TGG 440 (1, 3, 4) Acco UC 1900 (2X) (3) Acco UC 2600 (2X) (3) Acco UC 330 (2X) (3) Acco UC 3600 (2X) (1) Acco UC 4400 (2X) (1)	Merrill Eady, Funk Bros. Seed Co., Grant, Mich. Funk Bros. G 2A (20) Funk Bros. G 10A (16) Funk Bros. G 17A (7, 8, 9, 10, 12, 13, 14, 15, 16) Funk Bros. G 43 (16, 17, 18, 19) Funk Bros. G 4110 (2X) (11, 13, 14) Funk Bros. G 4160 (3X) (17, 18, 19) Funk Bros. G 4170 (3X) (16) Funk Bros. G 4222 (2X) (8, 9, 10, 15) Funk Bros. G 4240 (2X) (8, 9, 10, 11) Funk Bros. G4252 (3X) (4, 7, 8, 9, 10, 12, 13, 14) Funk Bros. G 4287 (3X) (7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17) Funk Bros. G4292 (3X) (7, 12) Funk Bros. G 4333 (2X) (3, 4, 12) Funk Bros. G 4350 (2X) (16) Funk Bros. G 4384 (2X) (1, 2, 3, 5, 6) Funk Bros. G 4444 (2X) (1, 2, 3, 4, 5, 6, 8, 9, 10) Funk Bros. G 5207 (1, 2, 3, 4, 5)	Midland Co-op, Powers, Mich. Midland M380 (3X) (20) Midland M485 (20) Midland M490 (20) Midwest Research Associates, Dassel, Minn. Weather Master CD2 (20) Weather Master EPX-1 (2X) (15, 20) Weather Master EPX-1P (2X) (15, 17) Weather Master EPX-2P (2X) (12, 15) Weather Master EPX-3P (2X) (7, 12, 15) Weather Master EPX-5P (2X) (1, 2) Weather Master EPX-6 (2X) (1) Weather Master EPX-6P (2X) (1, 2) Weather Master EP-30 (3X) (12, 15) Weather Master EP-35 (3X) (7, 11, 15) Weather Master EP-40 (5, 12) Migro Hybrids, Midwest Seed Growers Assn., Inc., Box 7, Mitchell, Ind. Migro 12 SX (2X) (1, 2, 3, 4, 5, 6, 8, 9, 10) Migro 22A SX (2X) (1, 2, 3, 4, 5, 6) Migro 110A (5, 6) Migro 140 (4, 5) Migro 540 (1, 2, 3, 4, 5, 6) Migro 1010 SX (2X) (1, 2, 3, 4, 5, 6, 8, 9, 10)	Pfister Associated Growers, Inc. Aurora, Ill. P.A.G. SX7 (2X) (3) P.A.G. SX9 (2X) (1) P.A.G. SX36 (2X) (2, 3) P.A.G. 38 (16) P.A.G. 45 (3, 11) P.A.G. SX47 (2X) (16) P.A.G. SX48 (2X) (3, 5, 8, 9, 10, 11, 13, 14, 16) P.A.G. SX 52 (2X) (4, 5, 8, 9, 10, 12) P.A.G. 70 (8, 9, 10) P.A.G. 272 (3X) (1, 3, 8, 9, 10)
Asgro Seed Co., Box 407, Oxford, Ind. Asgrow ATC 35A (3X) (11, 12) Asgrow XXXATC 39 (3X) (11) Asgrow ATC 45 (3X) (11) Asgrow ASC 43 (2X) (11) Asgrow ASX 58 (2X) (12) Asgrow H68307 (2X) (11, 12) Asgrow 1XL4 (2X) (11) Asgrow SX 108 (2X) (11) Asgrow SX 127A (2X) (11)	Bayless Hybrids, Route 1, Bluffton, Ind. Bayless SX 210 (2X) (6) Bayless SX 415 (2X) (3, 6) Bayless SX 433-8Q (2X) (1, 2, 3) Bayless SX 434 (2X) (1, 2, 3, 6) Bayless SX 485 (3X) (2, 3) Bayless SX 601 (2X) (3) Bayless SX 615-5 (2X) (2, 3, 5, 6) Blaney Farms, Inc., Route 3, Madison, Wis. Blaney B-AA (2X) (1, 7, 8, 9, 10) Blaney B220 (3X) (6, 15) Blaney B300 (2X) (7) Blaney B401 (2X) (1, 2, 5, 6, 7, 8, 9, 10, 12, 15) Blaney B601 (2X) (1, 2, 5, 6, 7, 8, 9, 10) Blaney B6606A (2X) (1, 5, 6, 8, 9, 10, 12) Blaney B6905A (3X) (1, 2, 7, 8, 9, 10)	Garno Seed Co., Deerfield, Mich. Garno S 92 (2X) (1, 12) Garno S 95 (2X) (1) Fred Gutwein & Sons, Francesville, Ind. Gutwein 10 (2X) (3, 4, 6) Gutwein 17 (3X) (3) Gutwein 20 (2X) (2, 3, 6) Gutwein 120 (3X) (3) Gutwein 222 (3, 6) G. E. Hulting & Sons, Geneseo, Ill. Hulting 218 (3) Hulting X345 (3) Hulting X536 (3) Hulting X928 (3) Hulting 2352 (3)	Pioneer Corn Co., Inc., 221 North Main St., Tipton, Ind. Pioneer 354A (1) Pioneer 368 (4, 12, 15) Pioneer 371 (4, 7, 12) Pioneer 385 (4, 16) Pioneer 388 (11, 15) Pioneer 3369A (2X) (1) Pioneer 3414 (3, 6) Pioneer 3466 (3) Pioneer 3561 (2X) (5, 6) Pioneer 3567 (2X) (4) Pioneer 3570 (2X) (1, 4, 5, 6) Pioneer 3582 (2X) (2) Pioneer 3658 (2) Pioneer 3675 (7, 12, 16) Pioneer 3715 (3X) (1, 3, 12) Pioneer 3773 (2X) (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16) Pioneer 3775 (2X) (1, 4, 5, 8, 9, 10, 12) Pioneer 3799 (3X) (7, 8, 9, 10) Pioneer 3854 (11, 12, 15, 16) Pioneer 3911 (2X) (8, 9, 10, 12, 15, 16) Pioneer 3956 (2X) (11, 12, 15, 16, 17, 18, 19, 20) Pioneer 3959 (3X) (11)
Brodbeck Seed Farms, State Road 155, Route 1, Wabash, Ind. Brodbeck SX2 (2X) (3) Brodbeck 352 (3) Cowbell Seeds, Inc., 156 W. Superior St., Wayland, Mich. Cowbell HK58 (8, 9, 10) Cowbell SX24 (2X) (15) Cowbell SX102 (2X) (7, 16) Cowbell SX112 (2X) (3, 4, 5, 6, 8, 9, 10) Cowbell SX206 (2X) (8, 9, 10) Cowbell 300 (3X) (3, 4, 8, 9, 10)	Jacques Seed Co., Prescott, Wis. Jacques 900 J (11) Jacques 951E (12, 13, 14, 15) Jacques JX952 (2X) (15) Lowe Seed Co., 217 South West Ave., P.O. Box 664, Kankakee, Ill. Lowe GG2A (Sp) (3) Lowe SX2TP (2X) (2, 3, 5, 6) Lowe TWX2 (3X) (3, 6) Michigan Crop Improvement Association, East Lansing, Mich. Michigan 200 (13, 14, 15, 17, 18, 19, 20) A.E.S. 202 (17, 18, 19, 20) Michigan 250 (6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20) Michigan 270 (7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20) Michigan 275-2X (2X) (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20) Michigan 280 (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20) Michigan 300 (6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20) Michigan 400 (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16) Michigan 402-2X (2X) (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16) Michigan 463-3X (3X) (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16) Michigan 500-2X (2X) (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16) Michigan 555-3X (3X) (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15) Michigan 568-3X (3X) (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15)	Moews Seed Co., Granville, Ill. Moews SM 239 (3X) (5) Moews SM 327 (2X) (5) Moews SM 337 (3X) (5, 6) Northrup King & Co., 1500 Jackson N.E., Minneapolis, Minn. Northrup King KC3 (20) Northrup King PX22 (2X) (13, 14, 15, 16) Northrup King PX47 (2X) (1, 2, 3, 4, 5, 6) Northrup King PX50 (2X) (1, 2, 3, 4, 5, 6) Northrup King PX417 (3X) (11, 12, 13, 14, 15, 16, 17, 18, 19, 20) Northrup King PX428 (3X) (11, 12, 13, 14, 15, 16, 17, 18, 19, 20) Northrup King KE435 (17) Northrup King PX442 (Sp) (11, 12, 13, 14, 15, 16, 17, 18, 19, 20) Northrup King PX446 (Sp) (11, 12, 13, 14, 15, 16, 17, 18, 19, 20) Northrup King PX476 (3X) (7, 8, 9, 10, 11, 12, 13, 15, 20) Northrup King PX480 (Sp) (6, 13, 14, 16, 17) Northrup King KE497 (3, 12, 15, 16, 17) Northrup King PX519 (Sp) (1, 2, 3, 4, 5, 6, 7, 8, 9, 10) Northrup King PX525 (Sp) (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 16) Northrup King PX545 (3X) (1, 2, 3, 4, 5, 6, 7, 8, 9, 10) Northrup King PX556 (3X) (1, 2, 3, 4, 5, 6) Northrup King PX560 (Sp) (7) Northrup King PX580 (3X) (1, 2, 3, 4, 5, 6) Northrup King PX610 (3X) (1, 2, 3, 4, 5, 6)	Pride Seed, Inc., P.O. Box 1088, Chatham, Ont., Can. Pride R118 (3X) (16, 17, 18, 19) Pride R129 (3X) (17, 18, 19) Pride 137 (18, 19) Pride R200 (2X) (12, 13, 14) Pride R369 (3X) (5, 7, 11) Pride R407 (2X) (3, 4, 5, 7, 8, 9, 10, 11) Pride R450 (2X) (1, 2, 3, 4, 5, 7, 8, 9, 10) Pride R539 (3X) (2, 3, 4, 5, 7) Pride R728 (3X) (2) Robson Seed Co., Hall, N. Y. Seneca XX150 (18, 19) Seneca XX155 (18, 19)
Crow's Hybrid Corn Co., Milford, Ill. Crow's 420 (2X) (7) Crow's 428 (2X) (7) DeKalb Agricultural Assoc., Inc., DeKalb, Ill. DeKalb XL 15 (2X) (12, 13, 14, 16) DeKalb XL 15A (2X) (12, 13, 14) DeKalb XL 24 (2X) (12, 15) DeKalb Ex 26 (2X) (3, 8, 9, 10) DeKalb Ex 29 (2X) (3, 6) DeKalb 29 (20) DeKalb 45 (17) DeKalb XL 45 (2X) (1, 2, 3, 4, 5, 7, 8, 9, 10, 12, 13, 14, 15) DeKalb XT 138 (18, 19) DeKalb XL 301 (3X) (17, 18, 19) DeKalb XL 304 (3X) (11, 12, 15, 17) DeKalb XL 306 (3X) (2, 3, 4, 7, 8, 9, 10, 12, 15, 16) DeKalb XL 315 (3X) (4, 7, 8, 9, 10, 11, 12, 14, 15, 16) DeKalb XL 325 (3X) (2, 4, 8, 9, 10, 12) DeKalb XL 346 (3X) (1) DeKalb XL 361 (3X) (2)	Michigan Hybrid Seed Co., 974 Rosewood, East Lansing, Mich. Wolverine 39 (11, 12) Wolverine 46A (11, 13, 14) Wolverine 59 (12, 15) Wolverine 65 (12) Wolverine 66A (7, 8, 9, 10) Wolverine W133 (2X) (8, 9, 10) Wolverine W170 (2X) (2, 8, 9, 10) Wolverine W175 (2X) (8, 9, 10) Wolverine W175A (2X) (2, 8, 9, 10) Wolverine W176 (2X) (2, 8, 9, 10)	Occidental Chemical Co., Applegate, Mich. Green Belt YWE-16 (11) Green Belt 31 (11) Green Belt YW41 (11) Green Belt SX360 (3X) Green Belt SX362 (2X) (13, 14) OYO Seed Associates, 757 Milford Ave., Marysville, Ohio OYO 180 (2X) OYO 210 (2X) (1, 2) OYO 225 (2X) (1, 2) OYO 333 (2X) (1, 2) OYO 360 (3X) (8, 9, 10)	Teweles Seed Co., Milwaukee, Wis. Teweles SXT14 (2X) (15) Teweles SXT24 (2X) (5) Teweles SXT61 (3X) (15) Teweles SXT80 (3X) (8, 9, 10) Teweles SXT86 (3X) (8, 9, 10) Teweles 201 (20) Teweles 232 (13, 14) Todd Hybrid Corn Co., Burlington, Ind. Todd M30 (2X) (2, 5) Todd M40A (2X) (5) Todd M55 (2X) (2, 5) Trojan Seed Co., Olivia, Minn. Trojan TX68 (18, 19, 20)
Edward J. Funk & Sons, Kentland, Ind. Super Crost S19 (2X) (8, 9, 10, 12, 13, 14, 15) Super Crost S 27 (2X) (1, 6, 8, 9, 10, 13, 14) Super Crost S 30A (2X) (8, 9, 10) Super Crost 31A (13, 14) Super Crost S33 (2X) (1) Super Crost 163 (3X) (12, 15) Super Crost 233 (3X) (1, 6, 8, 9, 10, 13, 14)	University of Wisconsin, Madison, Wis. Wisconsin 243 (20) Wisconsin 263 (20) Wisconsin 273 (20) Wyckoff Hybrids, Inc., Route 3, Valparaiso, Ind. Wyckoff WSX (2, 3) Wyckoff WSX (2) Wyckoff W10A (2, 3) Wyckoff W215 (2) Wyckoff W2412 SX (2X) (2)	Roy M. Parker & Sons, Inc., Kimmell, Ind. Parker 250 (3X) (5) Parker 333 (3X) (5) Parker 360 (2X) (5, 6)	

