

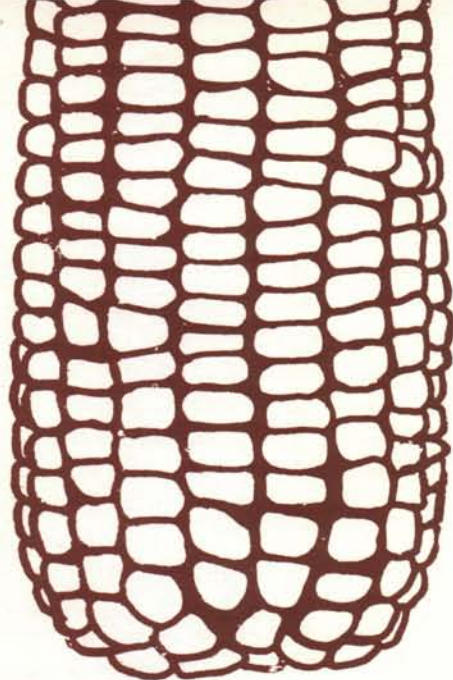
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Michigan Corn Production Hybrids Compared
Michigan State University Extension Service
E.C. Rossman, Farm Crops; Bary M. Darling, Jerry Taylor, Allan Reese, Crop Science
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Michigan Corn Production

HYBRIDS COMPARED 1966

COOPERATIVE EXTENSION SERVICE
MICHIGAN STATE UNIVERSITY

BY: E. C. ROSSMAN, BARY M. DARLING, JERRY TAYLOR, AND ALLAN REESE
Authors are respectively Professor of Crop Science and Crop Science Aides

HYBRID CORN TRIALS are conducted each year by the Michigan Experiment Station in cooperation with the Cooperative Extension Service, Michigan Crop Improvement Association, seed corn companies, and farmers.

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

ENTRIES

Two groups of entries are included in the trials:

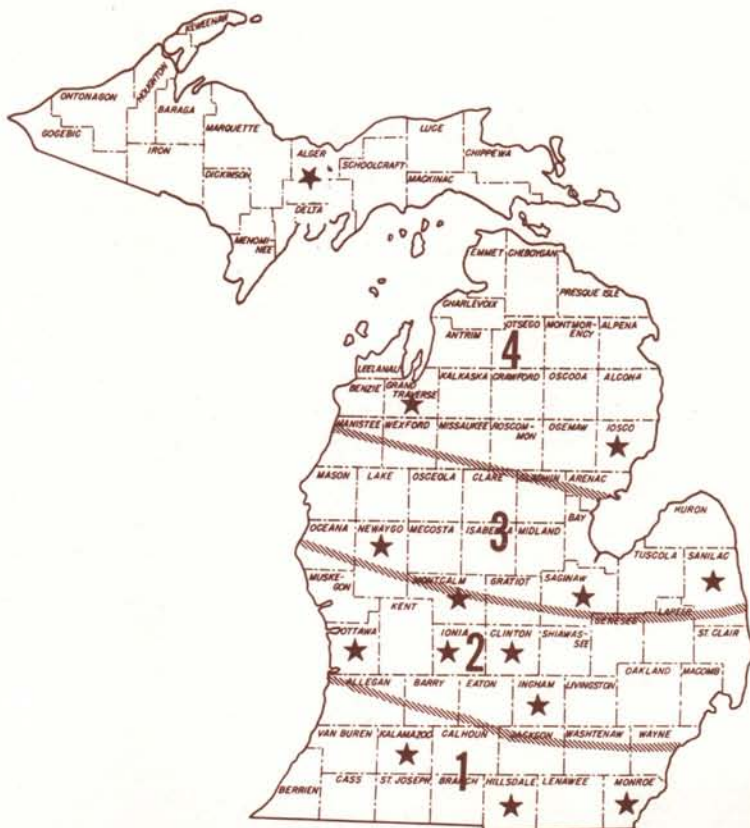
(1) **Voluntary entries.**—All seed companies are invited each year to enter their hybrids in the trials. A fee is charged to cover some of the direct expenses.

(2) **Extension entries.**—Some seed companies do not participate with voluntary fee-assessed entries and others do not include some of their hybrids that are planted in Michigan. Extension entries are included to provide performance data on some of the hybrids not entered as voluntary entries. They are hybrids suggested by County Extension personnel on the basis of extent of use in the various areas of the state.

No distinction between, or identification of, voluntary and extension entries is made in reporting the results. All hybrids were randomized and compared in the same field using the same procedure.

Single cross hybrids are indicated with (2X) and three-way hybrids with (3X) following the hybrid name and number in the tables. All others are double-cross hybrids.

Michigan experimental hybrids and some experimental hybrids from seed companies are not listed since seed is not yet available for farm use.



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. Equal numbers of seeds were counted for each plot of all hybrids. Each hybrid was replicated several times in the field. Plots were planted with a standard two-row 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 chance for any 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, except the Iosco County trial, which was hand harvested. Field data were processed with high speed electronic computers.

Silage yields were taken on all hybrids in the Ingham, Grand Traverse, Iosco, and Alger County trials (Tables 7, 14, 16 and 17).

All hybrids in the Monroe, Ingham, and Saginaw County trials were compared at two plant populations (Tables 1, 6, and 10).

HOW TO USE THIS BULLETIN

Two and three-year averages are presented for all hybrids tested during 1963, 1964 and 1965. Since one-year data are less reliable than two or three-year averages, they are not included in this report. Confidence in corn performance data increases with more 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 percent 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 except Tables 7, 14, 15, 16, and 17 which report moisture content based on ear corn samples.

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 the yields of any two hybrids, the difference should be greater than 4 bushels before you consider it to be a real difference. When comparing moisture content (as an indication of relative maturity), the difference should be greater than 1 percent before you consider it to be a real difference.

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 CORN HYBRID

Adaptation.—The map on the cover shows 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.

Rate of planting.—A population of 12,000 plants per acre is best for corn soils producing 50 bushels or less per acre. Populations of 16 to 17,000 are best for soils producing more than 50 bushels per acre. Higher populations (20,000) should be considered only for soils consistently producing more than 100 bushels per acre. Rainfall deficiencies with high plant population usually result in no increase and frequently a decrease in yield compared to 16 to 17,000. 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 percent in the grain or 40 percent in the ear. Ear corn is safe to crib when moisture content is below 25 percent.

For grain.—It is better to choose an early corn (below average moisture content) than a late corn for grain. The tables show that a good yield does 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.
- (6) Early hybrids with lower moisture content at harvest reduces cost for drying and market discount for moisture is less.
- (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**MONROE COUNTY TRIAL**

Two and Three Year Averages — 1963, 1964, 1965

HYBRID	% Moisture		Bushels per acre				% Stalk Lodging			
	2 yrs.	3 yrs.	2 yrs. 15,400 plants	3 yrs. 19,900 plants	3 yrs. 15,600 plants	20,000 plants	2 yrs. 15,400 plants	3 yrs. 19,900 plants	3 yrs. 15,600 plants	20,000 plants
Michigan 270	22	20	77	71	74	70	9	8	7	7
Michigan 300	23	21	88	73	79	66	11	8	8	7
Michigan 250	24	21	78	71	71	67	5	5	5	6
Michigan 370	26	23	92	84	85	75	7	2	7	4
Michigan 400	26	24	89	79	84	75	2	1	2	1
Michigan 402-2X (2X)	27	—	99	91	—	—	5	3	—	—
Michigan 430	27	25	94	86	87	78	5	9	5	8
Michigan 425	27	25	99	87	92	79	5	5	4	4
Supercro 337	28	—	99	93	—	—	5	6	—	—
Michigan 570	29	26	103	88	97	82	12	8	10	7
Michigan 550	29	26	109	102	100	93	2	3	1	2
DeKalb 238	29	—	100	94	—	—	1	4	—	—
Pioneer 371	29	26	90	92	84	81	6	4	5	3
DeKalb 400 (2X)	29	27	104	99	100	92	3	3	3	3
United Hagie 130	30	—	104	99	—	—	5	4	—	—
Michigan 490	30	27	105	100	91	85	7	9	6	8
Pioneer 352A	30	—	96	82	—	—	3	3	—	—
DeKalb 427	30	28	93	96	86	86	2	4	2	3
DeKalb 414	31	—	108	92	—	—	5	3	—	—
Supercro S5 (2X)	31	—	99	94	—	—	7	3	—	—
Northrup King PX 66 (2X)	31	—	103	78	—	—	7	3	—	—
P.A.G. SX 66 (2X)	31	—	104	95	—	—	9	7	—	—
Andersons A105	31	—	80	66	—	—	4	3	—	—
Funk Bros. G70	31	—	95	78	—	—	4	4	—	—
DeKalb XL 45 (2X)	31	—	94	89	—	—	2	5	—	—
Michigan 620	31	29	104	96	97	84	3	3	2	2
Hulting 260SC	32	—	96	87	—	—	10	4	—	—
Northrup King KM 567	32	—	109	94	—	—	7	2	—	—
Supercro 3340	32	—	92	66	—	—	2	3	—	—
P.A.G. SX 9 (2X)	32	—	111	90	—	—	4	4	—	—
United Hagie 146H (2X)	33	—	105	78	—	—	6	7	—	—
DeKalb 441	33	30	96	94	89	86	2	1	2	1
Genetic Giant G10	33	—	97	77	—	—	3	3	—	—
Gries 640	34	—	103	74	—	—	1	2	—	—
United Hagie 146C (2X)	34	—	103	72	—	—	5	7	—	—
Anderson A110A	35	—	94	72	—	—	7	2	—	—
United Hagie X138B (2X)	36	—	99	77	—	—	5	6	—	—
Average	30	25	98	86	89	81	5	4	5	4
Range	22 to 36	20 to 30	77 to 111	66 to 102	71 to 100	66 to 93	1 to 12	1 to 9	1 to 10	1 to 8

	1963	1964	1965
Planted	May 9	May 6-7	May 11
Harvested	October 24	October 13	October 22
Soil type	Brookston loam	Brookston loam	Brookston loam
Previous crop	Corn	Corn	Wheat
Populations	16,000 and 20,100	15,700 and 20,600	15,100 and 19,200
Fertilizer	128-108-201	121-83-42	131-122-86
Soil test: pH	6.0	6.2	7.0
P	44 (high)	44 (high)	20 (medium)
K	138 (medium)	196 (high)	167 (medium)

Farm Cooperator: Earl Creech, Dundee.

County Extension Agent, Agriculture: R. J. Laser, Monroe.

Table 2

Zone 1

SOUTHERN MICHIGAN**HILLSDALE COUNTY TRIAL**

Two and Three Year Averages — 1963, 1964, 1965

HYBRID	% Moisture		Bushels per acre		% Stalk Lodging	
	2 yrs.	3 yrs.	2 yrs.	3 yrs.	2 yrs.	3 yrs.
	Michigan 270	23	21	80	82	8
Michigan 250	24	22	80	78	3	3
Michigan 300	25	22	88	87	4	5
Michigan 370	28	25	92	92	3	3
Michigan 400	28	26	97	98	6	5
Michigan 402-2X (2X)	29	—	104	—	6	—
Wyckoff W5X	30	—	93	—	6	—
DeKalb 400 (2X)	32	29	110	108	2	2
Michigan 425	32	28	102	89	4	3
Funk Bros. G32	33	—	108	—	1	—
Wyckoff W9X	33	—	104	—	1	—
DeKalb 427	33	30	113	108	2	2
DeKalb 414	33	—	103	—	1	—
Michigan 430	33	30	100	96	8	7
Michigan 550	34	30	109	106	2	3
DeKalb 409	34	—	95	—	3	—
DeKalb 238	34	31	98	100	4	4
Michigan 570	34	30	97	96	7	5
Todd 505A	34	—	105	—	2	—
DeKalb XL 45 (2X)	35	31	104	105	1	2
Funk Bros. G34	35	31	94	90	1	2
Michigan 490	35	31	96	95	4	4
Todd 303 (3X)	35	31	89	91	1	1
P.A.G. 285	35	31	94	96	1	1
P.A.G. SX 49 (2X)	35	31	99	96	4	4
Wyckoff W10A	35	31	108	102	4	3
Pioneer 371	35	31	94	94	1	2
Northrup King PX 66 (2X)	36	—	101	—	2	—
Northrup King KM 567	36	—	100	—	1	—
P.A.G. SX 66 2X	36	—	108	—	4	—
Michigan 620	37	34	104	103	6	4
Funk Bros. G70	39	34	98	97	5	5
Pioneer 352A	39	—	104	—	3	—
DeKalb XL 361 (3X)	40	36	108	104	1	1
Average	33	29	99	97	3	3
Range	23 to 40	21 to 36	80 to 113	78 to 108	1 to 8	1 to 7

	1963	1964	1965
Planted	May 2	May 15	May 8
Harvested	October 23	October 23	October 20
Soil type	Fox sandy loam	Fox loam	Fox sandy loam
Previous crop	Corn	Corn	Corn
Population	16,700	15,600	16,300
Fertilizer	119-75-75	132-66-33	Manure, 125-60-60
Soil test: pH	6.5	6.8	6.5
P	71 (high)	33 (medium)	53 (high)
K	164 (high)	72 (low)	87 (low)

Farm Cooperator: Keith Brown, Jonesville.
 County Extension Agent, Agriculture: A. T. Hall, Hillsdale.

Table 3

Zone 1

SOUTHERN MICHIGAN**KALAMAZOO COUNTY TRIAL**

Two and Three Year Averages — 1963, 1964, 1965

HYBRID	% Moisture		Bushels per acre		% Stalk Lodging	
	2 yrs.	3 yrs.	2 yrs.	3 yrs.	2 yrs.	3 yrs.
	Michigan 270	25	23	52	50	5
Michigan 300	27	25	50	50	2	2
Michigan 250	27	25	52	51	4	3
Michigan 370	32	29	57	56	1	1
Michigan 400	32	29	63	61	2	2
Funk Bros. G 17 A	32	—	58	—	1	—
Wyckoff W 5 X	33	—	62	—	1	—
Michigan 430	33	31	59	57	6	4
Funk Bros. G 34	33	32	62	56	2	2
Michigan 402-2X (2X)	34	—	61	—	2	—
Michigan 425	34	31	61	58	1	1
Funk Bros. G 32	34	32	54	54	1	1
Wyckoff W 9 X	34	—	58	—	1	—
P.A.G. 285	35	33	59	53	1	0
DeKalb 400 (2X)	35	—	73	—	0	—
DeKalb 409	35	—	57	—	4	—
Michigan 570	35	33	59	54	6	5
DeKalb 427	36	34	70	64	2	2
Michigan 550	36	33	67	64	2	1
DeKalb 238	36	—	67	—	4	—
Michigan 490	37	34	71	65	4	3
P.A.G. SX 49 (2X)	37	34	56	52	5	3
P.A.G. SX 66 (2X)	37	—	65	—	3	—
Michigan 620	37	35	63	57	1	1
Northrup King PX 66 (2X)	37	—	63	—	1	—
Pioneer 371	37	35	60	56	5	4
Pioneer 368	37	34	67	62	5	4
DeKalb XL 361 (3X)	38	36	61	60	0	1
Northrup King KM 567	38	—	56	—	2	—
Wyckoff W 10 A	38	35	59	57	1	1
DeKalb 414	38	—	53	—	2	—
DeKalb XL 45 (2X)	38	35	69	64	0	1
P.A.G. SX 9 (2X)	38	36	61	57	2	2
Average	35	32	61	57	2	2
Range	25 to 38	23 to 36	50 to 73	50 to 65	0 to 6	0 to 5

	1963	1964	1965
Planted	May 17	May 12	May 15
Harvested	October 19	October 11	October 26
Soil type	Fox loam	Fox loam	Fox loam
Previous crop	Corn	Wheat	Corn
Population	11,500	13,100	16,100
Fertilizer	95-60-60	Manure, 112-48-24	93-72-72
Soil test: pH	6.8	6.8	6.6
P	53 (high)	67 (high)	88 (high)
K	168 (high)	324 (very high)	172 (medium)

Farm Cooperators: Reese and Richard VanVranken, Climax.
 County Extension Agent, Agriculture: Vern Minz, Kalamazoo.

Table 4

Zone 2

SOUTH CENTRAL MICHIGAN**OTTAWA COUNTY TRIAL**

Two and Three Year Averages — 1963, 1964, 1965

HYBRID	% Moisture		Bushels per acre		% Stalk Lodging	
	2 yrs.	3 yrs.	2 yrs.	3 yrs.	2 yrs.	3 yrs.
	Michigan 270	23	25	81	69	4
Michigan 250	24	25	75	67	4	3
Michigan 300	25	27	90	75	5	3
Northrup King PX 487 (3X)	27	30	86	66	6	6
Michigan 400	28	29	91	74	2	2
Funk Bros. G 17 A	28	29	92	75	4	3
Michigan 370	29	30	90	72	3	2
DeKalb 57	29	29	88	72	5	4
Michigan 402-2X (2X)	29	—	97	—	5	—
Northrup King KE 497	30	30	91	71	5	3
Michigan 430	30	31	91	70	8	5
P.A.G. SX 49 (2X)	30	32	105	83	6	4
P.A.G. SX 36 (2X)	30	32	95	77	2	1
Michigan 425	30	32	96	76	4	4
Wolverine 66A	31	—	80	—	11	—
P.A.G. SX 66 (2X)	31	—	112	—	12	—
DeKalb 400 (2X)	31	32	109	84	4	3
P.A.G. 234	31	32	86	66	4	3
Pioneer 371	31	33	104	80	3	2
Northrup King KM 555	31	—	81	—	5	—
Michigan 550	32	32	103	80	2	1
Michigan 490	32	33	99	80	4	3
Northrup King KM 567	32	—	95	—	3	—
DeKalb 238	32	33	91	71	3	3
DeKalb XL 325 (3X)	32	33	86	70	4	3
P.A.G. 285	32	34	87	65	4	2
Michigan 570	33	33	89	69	6	4
Pioneer 352 A	34	—	87	—	3	—
DeKalb 441	34	36	105	82	3	2
DeKalb 427	34	34	96	78	5	4
DeKalb XL 45 (2X)	34	—	97	—	3	—
Michigan 620	35	36	105	80	4	2
Average	31	31	94	74	4	3
Range	23 to 35	25 to 36	75 to 112	65 to 84	1 to 12	1 to 6

	1963	1964	1965
Planted	May 16	May 21	May 7
Harvested	October 17	October 14	October 30
Previous crop	Corn	Corn	Corn
Population	16,500	16,100	15,000
Fertilizer	16-64-90	Manure, 111-104-21	Manure, 133-115-80
Soil test: pH	6.1	7.0	6.9
P	46 (high)	86 (high)	122 (very high)
K	216 (high)	256 (high)	342 (very high)

Farm Cooperators: Gerrit J. Buth & Sons, Coopersville (1963); Marvin Patnos, Jamestown (1964 and 1965).

County Extension Agent, Agriculture: R. J. Van Klompenberg, Grand Haven.

Table 5

Zone 2

SOUTH CENTRAL MICHIGAN**IONIA COUNTY TRIAL**

Two and Three Year Averages — 1963, 1964, 1965

HYBRID	% Moisture		Bushels per acre		% Stalk Lodging	
	2 yrs.	3 yrs.	2 yrs.	3 yrs.	2 yrs.	3 yrs.
	Michigan 270	22	24	64	73	8
Michigan 250	25	25	59	67	3	2
Michigan 300	26	26	61	70	9	6
Northrup King PX 481 (3X)	27	—	68	—	6	—
Michigan 370	27	28	72	79	5	3
Michigan 400	27	28	74	81	3	3
Pioneer 385	27	29	70	76	5	4
Northrup King PX 487 (3X)	28	29	59	67	9	6
Michigan 430	29	29	65	73	5	4
Michigan 402-2X (2X)	29	—	83	—	4	—
Northrup King KE 497	29	31	67	72	8	6
Michigan 425	30	31	66	74	4	3
Funk Bros. G 17 A	30	30	65	74	12	8
DeKalb XL 325 (3X)	30	31	68	74	3	2
Pioneer 3775 (2X)	30	31	67	73	3	2
Wolverine 66A	30	30	71	76	2	1
Michigan 550	31	31	72	81	2	1
Funk Bros. G 10 A	31	—	53	—	6	—
DeKalb 409	31	32	66	72	4	2
DeKalb 400 (2X)	31	—	65	—	0	—
Supercroft 337	31	—	69	—	10	—
Michigan 490	33	33	69	71	6	4
DeKalb 427	33	34	73	75	2	2
Northrup King KM 555	33	—	61	—	5	—
Michigan 570	33	33	69	76	3	3
DeKalb 238	34	35	66	73	3	2
P.A.G. SX 49 (2X)	34	35	71	73	5	4
Northrup King KM 567	34	—	60	—	6	—
Michigan 620	37	—	57	—	6	—
Average	30	30	66	74	5	4
Range	22 to 37	24 to 35	53 to 83	67 to 81	0 to 12	1 to 8

	1963	1964	1965
Planted	May 8	May 18	May 13
Harvested	October 11	October 17	November 12-13
Soil type	Brookston-Conover loam	Brookston-Conover loam	—
Previous crop	Corn	Corn	Corn
Population	16,400	16,400	17,400
Fertilizer	110-114-60	121-81-33	133-132-96
Soil test: pH	6.4	5.9	6.3
P	26 (medium)	28 (medium)	20 (medium)
K	172 (high)	136 (medium)	74 (medium)

Farm Cooperators: Herb Crosby, Portland (1963 and 1964); Alvin Simon, Pewamo (1965).

County Extension Agents, Agriculture: William Pryer and Lance Jepson, Ionia.

Table 6

Zone 2

SOUTH CENTRAL MICHIGAN

GRAIN — INGHAM COUNTY TRIAL

Two and Three Year Averages — 1963, 1964, 1965

HYBRID	% Moisture		Bushels per acre				% Stalk Lodging			
			2 yrs.		3 yrs.		2 yrs.		3 yrs.	
	2 years	3 years	16,200 plants	20,700 plants	16,500 plants	20,800 plants	16,200 plants	20,700 plants	16,500 plants	20,800 plants
Michigan 270	30	29	56	59	62	63	5	9	2	8
Michigan 250	31	30	61	61	65	66	3	6	2	4
Michigan 300	31	30	55	63	65	67	3	2	2	2
Northrup King PX 487 (3X)	34	32	51	45	61	57	2	12	2	9
Michigan 400	34	33	66	62	72	67	2	2	1	1
Funk Bros. G17A	34	33	74	61	74	67	1	3	0	3
Michigan 370	34	33	62	65	68	68	3	2	3	3
Michigan 430	35	34	64	65	71	70	2	1	2	1
P.A.G. 62	35	—	57	47	—	—	3	1	—	—
Michigan 425	35	34	66	62	73	69	3	4	2	3
Wolverine 64	35	—	62	54	—	—	3	2	—	—
Michigan 402-2X (2X)	35	—	72	68	—	—	0	2	—	—
Northrup King KE 497	36	33	59	55	64	61	1	5	1	4
Northrup King KM 555	36	—	50	49	—	—	1	3	—	—
United Hagie X129F (2X)	36	—	71	64	—	—	0	1	—	—
Pioneer 368	37	—	57	54	—	—	5	2	—	—
DeKalb XL325 (3X)	37	35	68	70	72	74	2	3	2	2
Michigan 550	37	36	75	75	82	81	1	1	1	2
Wolverine 66A	37	—	53	57	—	—	1	1	—	—
Michigan 570	37	36	61	57	70	66	3	2	2	2
DeKalb 414	37	36	59	57	68	67	2	2	2	2
P.A.G. 234	37	36	59	48	69	59	2	2	1	1
Northrup King KM 567	38	—	74	74	—	—	1	6	—	—
DeKalb 400 (2X)	38	36	61	56	69	62	1	1	1	1
DeKalb 427	38	36	68	55	69	61	3	1	2	1
Pioneer 371	38	36	63	56	68	61	3	2	2	2
Pioneer 352A	39	—	68	60	—	—	1	2	—	—
United Hagie 3H30 (2X)	39	—	55	56	—	—	1	1	—	—
Supercroft 337	39	37	48	44	62	56	2	2	1	3
Supercroft X2570	39	37	65	65	71	70	2	2	2	2
Michigan 490	39	37	62	50	66	58	3	2	2	1
DeKalb XL-45 (2X)	40	—	70	61	—	—	1	1	—	—
Michigan 620	40	38	66	71	73	76	0	3	0	2
DeKalb 441	41	40	51	40	58	52	2	3	2	2
Average	36	35	62	58	68	65	2	3	2	3
Range	30	29	50	40	58	52	0	1	0	1
	to	to	to	to	to	to	to	to	to	to
	41	40	75	75	82	81	5	12	3	9

	1963	1964	1965
Planted	May 3	May 5	May 5
Harvested	October 9	October 1	October 12
Soil type	Conover clay loam	Conover clay loam	Conover clay loam
Previous Crop	Corn	Corn	Corn
Populations	17,000 and 21,000	17,000 and 21,800	15,400 and 19,600
Fertilizer	17,000 = 123-89-56 21,000 = 239-149-181	17,000 = 170-50-50 21,800 = 290-50-50	15,400 = 140-80-190 19,600 = 410-270-360
Soil test: pH	6.1	6.5	6.7
P	46 (high)	45 (high)	51 (high)
K	236 (high)	156 (high)	205 (high)

Farm Cooperator: Michigan State University, East Lansing, Michigan.

Table 7

Zone 2

SOUTH CENTRAL MICHIGAN

SILAGE — INGHAM COUNTY TRIAL

Two and Three Year Averages — 1963, 1964, 1965

HYBRID	% Moisture		Tons per acre				% ears in dry weight	
			Green wt.		Dry wt.			
	2 yrs.	3 yrs.	2 yrs.	3 yrs.	2 yrs.	3 yrs.	2 yrs.	3 yrs.
Michigan 270	35	37	9.4	10.0	4.3	4.2	38	43
Michigan 250	35	38	11.1	11.7	4.5	4.4	40	43
Michigan 300	37	40	10.2	10.9	4.3	4.3	45	47
Northrup King PX 487 (3X)	39	41	10.8	10.2	4.3	4.0	49	54
Michigan 370	39	43	10.4	10.6	4.7	4.5	47	51
Michigan 400	40	42	12.7	12.9	4.8	4.6	46	49
Funk Bros. G17A	40	42	10.9	11.1	4.6	4.4	45	50
Northrup King KE 497	40	43	11.6	11.6	5.4	4.5	47	49
Michigan 402-2X (2X)	40	—	12.6	—	5.4	—	48	—
DeKalb 224	41	43	11.3	11.5	4.2	4.2	39	45
DeKalb XL 325	41	43	12.3	12.2	4.9	4.6	42	48
Northrup King KM 589	42	—	14.1	—	5.2	—	41	—
P.A.G. 62	42	—	11.8	—	4.9	—	40	—
Michigan 425	43	46	11.4	12.4	4.2	4.3	48	50
Michigan 430	43	45	11.8	12.1	4.8	4.7	43	47
P.A.G. 234	43	45	13.8	14.5	5.2	5.1	39	43
Supercroft 2570	43	45	13.3	13.3	4.7	4.7	41	46
Wolverine 64	43	—	9.2	—	3.6	—	45	—
Northrup King KM 555	43	—	10.6	—	4.0	—	38	—
United Hagie UHX129F	43	—	14.2	—	5.3	—	35	—
DeKalb 427	44	48	13.9	13.6	5.2	4.8	46	50
Wolverine 66A	44	—	11.8	—	4.2	—	39	—
Michigan 550	44	48	14.8	14.6	5.6	5.3	46	49
Michigan 570	45	47	13.4	13.5	5.1	4.9	44	49
Michigan 490	45	48	14.1	13.6	5.1	4.8	46	49
Michigan 620	45	49	15.3	14.7	6.1	5.4	43	47
DeKalb XL 45	45	—	13.7	—	5.2	—	47	—
Pioneer 368	45	—	11.6	—	4.7	—	39	—
United Hagie UH 3H30	45	—	12.5	—	4.6	—	35	—
Northrup King KM 567	46	—	14.1	—	4.7	—	35	—
Pioneer 371	47	50	12.2	12.3	4.5	4.4	36	42
DeKalb 400 (2X)	47	51	13.5	14.0	5.3	5.0	45	47
DeKalb 414	47	51	13.3	13.6	5.1	4.7	31	37
Pioneer 352A	48	—	14.3	—	4.7	—	35	—
DeKalb 441	50	53	14.5	14.4	5.5	5.0	45	45
Average	43	45	12.5	12.6	4.8	4.7	42	47
Range	35	37	9.2	10.0	3.6	4.0	31	37
	to	to	to	to	to	to	to	to
	50	53	15.3	14.7	6.1	5.4	49	54
L.S.D.*	2	1	.8	.5	.3	.2		

*Least significant differences.

	1963	1964	1965
Planted	May 3	May 5	May 1
Harvested	September 13	September 12	September 17
Soil type	Conover clay loam	Conover clay loam	Conover clay loam
Previous crop	Corn	Corn	Corn
Population	17,000	16,600	17,100
Fertilizer	123-89-156	170-50-50	150-60-180
Soil test: pH	6.1	6.5	6.6
P	46 (high)	45 (high)	62 (high)
K	236 (high)	156 (high)	253 (high)

Farm Cooperator: Michigan State University, East Lansing, Michigan.

Table 8

Zone 2

SOUTH CENTRAL MICHIGAN
(MUCK SOIL) CLINTON COUNTY TRIAL
One and Two Year Averages — 1964 and 1965*

HYBRID	% Moisture		Bushels per acre		% Stalk Lodging	
	1965	2 yrs.	1965	2 yrs.	1965	2 yrs.
	A.E.S. 202	33	28	35	43	13
Michigan 270	36	46	42	33	10	9
DeKalb XL 304 (3X)	37	—	43	—	6	—
Michigan 250	37	32	41	44	8	7
Pioneer 388	38	35	31	36	15	12
DeKalb XL 307 (3X)	38	—	32	—	6	—
Michigan 370	39	45	43	35	4	5
Michigan 300	39	31	44	48	9	11
Northrup King PX 481 (3X)	39	35	38	42	1	3
Funk Bros. G 11 A	39	40	33	31	18	13
DeKalb XL 15 (2X)	40	34	34	47	5	4
DeKalb XL 315 (3X)	40	—	46	—	4	—
Funk Bros. G 10 A	40	34	29	40	10	10
Northrup King KE 477	41	—	26	—	10	—
Funk Bros. G 17 A	41	45	47	40	7	4
Asgrow H64138 (2X)	42	—	38	—	8	—
Michigan 400	42	35	39	50	1	1
Pioneer 383	43	48	24	28	10	7
Haapala H366A	43	—	26	—	12	—
Northrup King KE 497	43	37	36	43	7	3
Asgrow H64139 (3X)	43	—	23	—	2	—
P.A.G. 45	44	35	24	32	6	7
Pioneer 385	44	—	33	—	12	—
Northrup King PX 527 (3X)	44	—	43	—	1	—
DeKalb XL 325 (3X)	44	44	28	30	7	4
Michigan 402-2X (2X)	44	49	35	33	6	5
Taylor Evans Exp. 6424	45	—	27	—	5	—
Taylor Evans Exp. 6426 (2X)	45	—	20	—	6	—
DeKalb 57	45	38	27	36	5	3
Michigan 425	45	47	22	27	10	6
Michigan 430	45	46	33	31	5	5
Pioneer 3773	45	—	26	—	3	—
Supercroft 2610	45	36	37	47	1	3
Pioneer 371	45	43	31	33	4	2
Taylor Evans Exp. 6423	45	—	28	—	4	—
Michigan 490	46	39	35	37	7	6
Michigan 550	46	40	30	38	5	5
DeKalb 224	47	—	23	—	5	—
Northrup King KM 555	47	46	19	24	5	4
Pioneer 352A	48	—	23	—	12	—
Average	42	39	33	37	7	6
Range	33	28	19	24	1	1
	to	to	to	to	to	to
	48	49	47	50	18	13

	1964	1965
Planted	May 19	May 20th
Harvested	October 30	October 13
Previous crop	Corn	Corn
Population	16,300	15,700
Fertilizer	19-38-76	25-100-100

*1963 trial was destroyed by summer frosts.

Cooperator: Robert Gillespie, M.S.U. Muck Soil Experimental Farm, Laingsburg.

Table 9

Zone 3

NORTH CENTRAL MICHIGAN
SANILAC COUNTY TRIAL
Two and Three Year Averages — 1963, 1964, 1965

HYBRID	% Moisture		Bushels per acre		% Stalk Lodging	
	2 yrs.	3 yrs.	2 yrs.	3 yrs.	2 yrs.	3 yrs.
	A.E.S. 202	26	26	72	69	8
Michigan 270	28	28	85	88	6	5
Michigan 250	29	29	81	82	8	6
Pioneer 388	30	31	84	86	8	6
Jacques 900 J	30	—	83	—	5	—
Michigan 300	30	30	88	86	5	3
Funk Bros. G 11 A	32	33	84	86	8	6
Michigan 370	32	33	90	88	7	5
DeKalb 58	33	—	81	—	13	—
Northrup King PX 487 (3X)	33	34	92	91	6	5
DeKalb 57	33	35	86	87	5	3
Northrup King KE 471	33	33	73	78	7	5
DeKalb XL 15 (2X)	34	—	95	—	3	—
Wolverine 46 A	34	33	85	85	4	3
Northrup King PX 481 (3X)	34	34	81	78	6	4
P.A.G. 45	34	35	93	91	4	3
Supercroft 2610	35	—	90	—	2	—
Pioneer 383	35	—	89	—	10	—
Pioneer 3658	35	—	87	—	6	—
Michigan 402-2X (2X)	35	—	98	—	5	—
Michigan 400	35	35	92	91	4	2
P.A.G. 62	35	—	86	—	6	—
Funk Bros. G 17 A	36	—	98	—	7	—
Michigan 550	36	37	90	87	3	2
P.A.G. SX 36 (3X)	37	38	79	77	3	2
Michigan 430	37	37	80	81	8	6
Michigan 425	37	37	91	90	5	4
Northrup King KE 497	38	38	86	86	3	2
DeKalb XL 325 (3X)	39	39	83	84	2	2
Michigan 570	41	40	77	80	6	4
Michigan 490	41	40	82	81	4	3
DeKalb 400 (2X)	41	41	86	85	2	1
Average	34	34	86	84	6	4
Range	26	26	72	69	2	1
	to	to	to	to	to	to
	41	41	98	91	13	6

	1963	1964	1965
Planted	May 14	May 11	May 18
Harvested	October 21	October 25	November 6
Soil type	Brookston clay loam	Brookston clay loam	Brookston clay loam
Previous crop	Corn	Corn	Corn
Population	17,000	17,000	17,500
Fertilizer	110-80-80	98-94-47	99-55-55
Soil test: pH	7.2	6.5	6.1
P	8 (low)	33 (medium)	32 (medium)
K	60 (low)	172 (high)	156 (medium)

Farm Cooperator: Orville Orchard, Applegate.
County Extension Agent, Agriculture: Keith Sowerby, Sandusky.

Table 10

Zone 3

NORTH CENTRAL MICHIGAN

SAGINAW COUNTY TRIAL

Two and Three Year Averages — 1963, 1964, 1965

HYBRID	% Moisture		Bushels per acre				% Stalk Lodging			
			2 yrs.		3 yrs.		2 yrs.		3 yrs.	
	2 years	3 years	15,300 plants	19,100 plants	15,300 plants	19,100 plants	15,300 plants	19,100 plants	15,300 plants	19,100 plants
Michigan 270	20	21	60	59	68	66	10	7	7	6
Michigan 250	22	23	62	61	67	69	7	9	5	7
Michigan 300	22	24	57	57	67	68	7	3	5	2
DeKalb 57	23	25	61	56	76	71	6	10	4	7
United Hagie X125 (2X)	23	—	69	67	—	—	10	9	—	—
Michigan 370	25	27	66	63	78	77	2	2	1	2
Michigan 400	25	26	69	66	76	76	3	4	2	4
DeKalb XL15 (2X)	25	27	59	52	72	69	4	5	3	5
Wolverine W135 (2X)	25	—	61	66	—	—	6	7	—	—
Northrup King KE 497	25	27	65	61	76	69	3	3	2	3
Michigan 402-2X (2X)	25	—	73	71	—	—	1	0	—	—
Northrup King PX 487 (3X)	26	28	53	53	65	65	4	8	3	8
Michigan 430	26	27	61	57	72	67	10	5	7	7
Michigan 550	26	28	71	62	81	77	1	4	1	3
Michigan 425	27	27	70	60	79	74	6	5	4	4
DeKalb XL 325 (3X)	27	—	72	64	—	—	1	2	—	—
Supercrost 2570	27	—	72	68	—	—	6	4	—	—
DeKalb 400 (2X)	27	29	74	67	83	73	1	2	1	1
Pioneer 381 A	27	27	59	61	70	72	7	5	4	4
Northrup King KM 555	28	—	57	54	—	—	4	4	—	—
DeKalb XL 45 (2X)	28	—	72	66	—	—	0	2	—	—
DeKalb 409	28	—	64	61	—	—	6	8	—	—
Northrup King 571	28	—	58	55	—	—	4	4	—	—
P.A.G. 70	28	—	59	61	—	—	5	5	—	—
Funk Bros. G32	29	30	63	53	74	65	6	7	4	5
P.A.G. SX 49 (2X)	29	—	67	60	—	—	2	2	—	—
Pioneer 371	29	30	65	66	76	72	3	3	2	2
Michigan 570	30	30	67	61	77	70	7	8	6	6
Michigan 490	30	31	71	65	78	71	5	2	3	2
Michigan 620	32	33	65	58	74	67	4	7	3	5
Average	27	28	65	62	75	72	5	5	3	5
Range	20 to 32	21 to 33	53 to 74	52 to 71	65 to 81	65 to 77	0 to 10	0 to 10	1 to 7	1 to 8

	1963	1964	1965
Planted	May 4	May 4	May 5-6
Harvested	October 15	October 20	November 1
Soil type	Brookston clay loam	Brookston clay loam	Brookston clay loam
Previous Crop	Beans	Corn	Corn
Populations	16,100 and 20,200	15,500 and 20,300	15,300 and 19,100
Fertilizer	76-79-40	213-262-72	114-56-28
Soil test: pH	6.9	7.2	7.0
P	24 (medium)	Medium	45 (high)
K	192 (high)	Medium high	160 (medium)

Farm Cooperators: Walter Reinbold and Sons, Reese.
County Agricultural Agent: Ray Vasold, Saginaw.

Table 11

Zone 3

NORTH CENTRAL MICHIGAN

MONTCALM COUNTY TRIAL

Two and Three Year Averages — 1963, 1964, 1965

HYBRID	% Moisture		Bushels per acre		% Stalk Lodging	
			2 yrs.		3 yrs.	
	2 yrs.	3 yrs.	2 yrs.	3 yrs.	2 yrs.	3 yrs.
Michigan 270	23	25	62	69	6	5
DeKalb XL 304 (3X)	24	—	67	—	11	—
Michigan 300	25	27	60	67	10	8
Michigan 250	26	27	61	67	11	8
Michigan 370	27	29	61	68	9	7
Northrup King PX 481 (3X)	27	—	54	—	9	—
Northrup King PX 487 (3X)	27	30	49	60	17	11
Michigan 402-2X (2X)	27	—	67	—	5	—
Pioneer 385	27	—	47	—	5	—
DeKalb XL 308 (3X)	28	—	47	—	3	—
Funk Bros. G 10 A	28	30	55	65	15	10
DeKalb XL 15 (2X)	28	—	61	—	11	—
Michigan 400	28	30	66	70	9	6
Funk Bros. G 17 A	28	31	54	64	15	10
Michigan 425	29	30	57	62	3	3
Tomco TGG 180	29	—	60	—	6	—
Pioneer 385 A	29	—	46	—	15	—
Funk Bros. G 18 A	30	—	62	—	16	—
DeKalb XL 325 (3X)	30	32	56	65	1	1
Michigan 430	30	31	53	59	14	9
Michigan 550	31	33	56	65	4	3
Northrup King KE 497	31	33	56	62	6	4
Pioneer 3775 (2X)	32	34	54	60	2	2
Northrup King KM 555	32	—	52	—	5	—
Michigan 570	33	35	51	58	6	4
Michigan 490	34	34	53	60	6	4
Average	29	31	56	64	9	6
Range	23 to 34	25 to 35	47 to 67	59 to 70	1 to 16	1 to 11

	1963	1964	1965
Planted	May 6	May 5	May 17
Harvested	October 14	November 1	November 9
Soil type	Beans	Montcalm-McBride sandy loam	loam
Previous crop	Corn	Corn	Corn
Population	16,700	15,200	17,100
Fertilizer	118-70-70	94-47-26	150-80-130
Soil test: pH	6.7	7.0	6.8
P	165 (high)	186 (very high)	118 (high)
K	204 (high)	232 (high)	136 (medium)

Farm Cooperators: Henry and Kenneth McDaniels, McBride.
County Extension Agent, Agriculture: James Crosby, Stanton.

Table 12

Zone 3

NORTH CENTRAL MICHIGAN**NEWAYGO COUNTY TRIAL**

Two and Three Year Averages — 1963, 1964, 1965

HYBRID	% Moisture		Bushels per acre		% Stalk Lodging	
	2 yrs.	3 yrs.	2 yrs.	3 yrs.	2 yrs.	3 yrs.
	A.E.S. 202	24	24	62	60	10
Michigan 270	27	26	72	71	12	9
Funk Bros. G31A	27	—	56	—	26	—
Michigan 250	27	27	64	65	7	5
Michigan 300	28	27	64	65	8	6
DeKalb 58	28	29	64	60	11	8
Funk Bros. G 11 A	30	29	61	62	12	8
Michigan 370	30	29	68	68	8	5
Haapala H 366 A	30	29	70	67	14	10
DeKalb 57	30	30	67	66	11	7
Northrup King PX 481 (3X)	30	30	58	62	12	8
Northrup King KE 449	31	30	59	58	11	8
DeKalb XL 15 (2X)	31	—	69	—	8	—
Funk Bros. G 10 A	31	30	59	60	11	8
Michigan 400	31	30	75	74	2	1
Michigan 402-2X (2X)	32	—	70	—	8	—
Michigan 425	32	32	68	70	3	2
Funk Bros. G 17 A	32	32	63	64	11	8
DeKalb XL 325 (3X)	32	32	69	71	4	3
Pioneer 385	33	31	67	68	5	4
Funk Bros. G 4350 (2X)	33	—	68	—	8	—
Michigan 430	33	32	64	65	13	11
Michigan 550	34	33	71	70	4	3
Haapala H 135 A	34	33	59	57	4	3
Northrup King KE 497	35	33	58	58	6	4
DeKalb 400 (2X)	35	—	71	—	5	—
Funk Bros. G 4390 (3X)	37	—	64	—	7	—
Michigan 490	38	37	61	63	11	8
Funk Bros. G32	39	—	53	—	21	—
Michigan 570	39	—	51	—	10	—
DeKalb 238	42	40	64	63	4	3
Average	32	31	64	65	9	6
Range	24	24	51	57	2	1
	to	to	to	to	to	to
	42	40	75	74	26	11

	1963	1964	1965
Planted	May 7	May 20	May 19
Harvested	October 26	October 30	November 4
Previous Crop	Wheat seeded to clover	Corn	Corn
Population	14,400	17,100	16,700
Fertilizer	110-150-108	Manure, 18-70-35	121-84-42
Soil test: pH	6.8	6.6	7.2
P	41 (high)	47 (high)	23 (medium)
K	140 (medium)	360 (very high)	108 (low)

Farm Cooperators: Merrill Eady, Grant (1963); Collin Graybill, Grant (1964); Ivan Norris, Hesperia (1965).
County Extension Agent, Agriculture: Lane Rushmore, Fremont.

Table 13

Zone 4

NORTHERN MICHIGAN**GRAIN — GRAND TRAVERSE COUNTY TRIAL**

Two and Three Year Averages — 1963, 1964, 1965

HYBRID	% Moisture		Bushels per acre		% Stalk Lodging	
	2 yrs.	3 yrs.	2 yrs.	3 yrs.	2 yrs.	3 yrs.
	A.E.S. 202	31	27	50	48	24
DeKalb 29	33	28	49	49	22	15
Michigan 270	36	30	58	56	14	10
Northrup King KCs	37	32	41	42	26	19
Michigan 300	38	33	51	48	15	10
DeKalb XL 304 (3X)	38	—	57	—	16	—
Northrup King KE 435	39	32	49	44	17	12
Funk Bros. G 31 A	39	—	54	—	28	—
Northrup King KE 449	39	—	57	—	24	—
DeKalb 45	39	33	51	49	6	5
Michigan 370	40	34	55	53	16	10
Funk Bros. G 10 A	41	—	45	—	13	—
Northrup King KE 497	41	—	50	—	14	—
Northrup King KE 471	42	—	47	—	11	—
DeKalb XL 15 (2X)	42	37	58	53	16	11
Average	39	32	48	51	17	12
Range	31	27	41	42	6	5
	to	to	to	to	to	to
	42	37	58	56	28	19

	1963	1964	1965
Planted	May 18	May 22	May 14
Harvested	October 29	October 28	November 16
Soil type	Emmett sandy loam	Emmett sandy loam	Emmett sandy loam
Previous crop	Alfalfa	Alfalfa	Corn
Population	16,100	14,800	17,000
Fertilizer	10-40-40	120-37-217	120-120-120
Soil test: pH	6.0	7.1	6.8
P	30 (medium)	24 (medium)	49 (high)
K	88 (low)	68 (low)	113 (low)

Farm Cooperators: Herb and Karl Wagner, Grawn.
County Extension Agent, Agriculture: A. W. Glidden, Traverse City.

Table 14

Zone 4

NORTHERN MICHIGAN

SILAGE — GRAND TRAVERSE COUNTY TRIAL
Two and Three Year Averages — 1963, 1964, 1965

HYBRID	% Moisture in ears		Tons per acre				% ears in dry weight	
	2 yrs.	3 yrs.	Green wt.		Dry wt.		2 yrs.	3 yrs.
			2 yrs.	3 yrs.	2 yrs.	3 yrs.		
A.E.S. 202	50	48	10.2	9.8	3.4	3.4	55	56
Northrup King KE 435	53	50	10.9	10.1	3.4	3.4	54	54
Northrup King KC 3	53	51	12.0	10.4	3.7	3.3	54	57
DeKalb 29	53	50	9.4	8.7	3.2	3.0	49	53
Michigan 270	54	52	12.7	11.7	3.9	3.6	51	52
DeKalb XL 304 (3X)	54	—	14.1	—	4.2	—	52	—
Michigan 250	55	53	13.8	12.4	4.1	3.8	47	50
Michigan 370	57	55	14.7	12.8	4.2	3.7	43	45
Michigan 300	57	55	14.3	13.2	4.3	3.9	45	44
Funk Bros. G 31 A	57	—	10.7	—	3.1	—	55	—
DeKalb 45	58	55	12.4	11.1	3.6	3.3	47	49
Northrup King KE 449	61	—	13.3	—	3.6	—	46	—
Funk Bros. G 10 A	61	—	15.2	—	4.2	—	42	—
Northrup King KE 471	62	—	15.1	—	4.3	—	45	—
DeKalb XL 15 (2X)	64	62	15.1	13.7	4.0	3.7	46	46
Northrup King KE 497	65	—	14.9	—	4.2	—	39	—
Average	57	53	13.1	11.3	3.8	3.5	45	50
Range	50 to 65	48 to 62	9.4 to 15.2	8.7 to 13.7	3.1 to 4.3	3.0 to 3.9	39 to 55	44 to 57

	1963	1964	1965
Planted	May 18	May 22	May 14
Harvested	September 17	September 15	September
Soil type	Emmett sandy loam	Emmett sandy loam	Emmett sandy loam
Previous crop	Alfalfa	Alfalfa	Corn
Population	16,100	14,800	17,000
Fertilizer	10-40-40	120-37-217	120-120-120
Soil test: pH	6.0	7.1	6.8
P	30 (medium)	24 (medium)	49 (high)
K	88 (low)	68 (low)	113 (low)

Farm Cooperators: Herb and Karl Wagner, Grawn.
County Extension Agent, Agriculture: A. W. Glidden, Traverse City.

Table 15

Zone 4

NORTHERN MICHIGAN

GRAIN — IOSCO COUNTY TRIAL
Two and Three Year Averages — 1963, 1964, 1965

HYBRID	% Moisture		Bushels per acre		% Stalk Lodging	
	2 yrs.	3 yrs.	2 yrs.	3 yrs.	2 yrs.	3 yrs.
A.E.S. 202	32	29	71	72	12	11
Michigan 270	35	35	77	80	7	7
Northrup King KC 3	35	—	64	—	11	—
Northrup King KE 435	37	37	72	74	17	14
Michigan 250	37	36	67	71	8	7
DeKalb XL 304 (3X)	37	—	70	—	7	—
Pride II	37	—	65	—	10	—
Michigan 300	41	37	65	73	3	3
Wolverine 39	41	—	69	—	9	—
Wolverine 46A	44	—	59	—	8	—
DeKalb XL 15 (2X)	44	43	70	75	10	9
Northrup King 449	47	—	71	—	9	—
Wolverine 66A	50	—	64	—	9	—
Northrup King KE 497	52	—	66	—	6	—
Wolverine 52	53	—	66	—	6	—
Average	41	36	68	74	9	8
Range	32 to 53	30 to 43	59 to 77	71 to 80	3 to 17	3 to 14

	1963	1964	1965
Planted	May 20	May 21	May 27
Harvested	October 8	October 29	November 8
Soil type	Kawkawlin-Nestor clay loam	loam	Nestor-Selkirk loam
Previous crop	Alfalfa	Corn	Corn
Population	14,300	13,100	15,000
Fertilizer	24-43-28	66-40-20	71-84-42, manure
Soil test: pH	7.5	—	—
P	240 (high)	—	—
K	220 (high)	—	—

Farm Cooperator: Brian Bellville, Whittemore.
County Extension Agent, Agriculture: Marvin Davenport, East Tawas.

Table 16

Zone 4

NORTHERN MICHIGAN
SILAGE — IOSCO COUNTY TRIAL
Two and Three Year Averages — 1963, 1964, 1965

HYBRID	% Moisture in ears		Tons per acre				% ears in dry weight	
			Green wt.		Dry wt.			
	2 yrs.	3 yrs.	2 yrs.	3 yrs.	2 yrs.	3 yrs.	2 yrs.	3 yrs.
A.E.S. 202	55	54	10.6	10.3	3.1	3.1	51	52
Northrup King KC 3	58	—	11.5	—	3.1	—	51	—
Northrup King KE 435	58	57	11.2	10.9	3.2	3.1	50	53
Michigan 270	58	57	12.3	12.4	3.2	3.4	49	51
Pride II	60	—	12.2	—	3.2	—	49	—
Northrup King KE 449	60	—	14.5	—	3.8	—	43	—
Michigan 250	61	60	14.2	13.6	3.5	3.4	44	46
DeKalb XL 304 (3X)	63	—	11.7	—	3.1	—	45	—
Wolverine 39	63	—	14.8	—	3.7	—	39	—
Northrup King KE 497	64	—	14.0	—	3.7	—	36	—
Michigan 300	65	64	13.6	13.6	3.4	3.5	36	40
Wolverine 46 A	65	—	13.5	—	3.4	—	42	—
Wolverine 52	67	—	14.2	—	3.7	—	41	—
DeKalb XL 15 (2X)	68	66	15.5	15.1	3.8	3.9	40	44
Wolverine 66 A	75	—	16.2	—	3.7	—	31	—
Average	63	60	13.3	12.7	3.4	3.4	43	48
Range	55 to 75	54 to 66	10.6 to 16.2	10.3 to 15.1	3.1 to 3.8	3.1 to 3.9	31 to 51	40 to 53
L.S.D.*	2	2	.9	.6	.3	.2		

*Least significant differences.

	1963	1964	1965
Planted	May 20	May 21	May 27
Harvested	September 11	September 2	September 28
Soil type	Kawkawlin-Nestor clay loam	Nestor-Selkirk loam	Nestor-Selkirk loam
Previous crop	Alfalfa	Corn	Corn
Population	14,300	13,100	15,000
Fertilizer	24-43-28	66-40-20	Manure, 71-84-42
Soil test: pH	7.5	—	—
P	240 (high)	—	—
K	220 (high)	—	—

Farm Cooperator: Brian Bellville, Whittemore.

County Extension Agent, Agriculture: Marvin Davenport, East Tawas.

Table 17

Zone 4

NORTHERN MICHIGAN
ALGER COUNTY TRIAL
SILAGE — One Year — 1965

HYBRID	% Moisture in ears	Tons per Acre			% Ears in dry weight	% Stalk Lodging
		Total green weight	weight Total dry	Ears dry weight		
DeKalb 29	67	8.4	2.3	0.8	37	27
Northrup King KC 3	67	6.8	2.0	0.7	36	21
A.E.S. 202	68	8.4	2.3	0.9	41	15
Northrup King KE 435	71	8.7	2.4	0.9	37	21
Pride II	72	8.6	2.3	0.9	40	24
Taylor Evans Exp. 6420	72	8.2	2.2	0.8	34	19
Northrup King KE 445	73	9.0	2.3	0.8	34	8
Michigan 250	73	9.4	2.5	0.8	31	1
Michigan 270	73	8.1	2.2	0.8	39	17
Northrup King KE 449	76	9.6	2.3	0.7	29	1
Wolverine 39	77	9.3	2.1	0.6	27	3
Michigan 300	79	10.0	2.3	0.5	24	9
Pioneer 3872	80	10.1	2.4	0.7	29	2
DeKalb XL 15 (2X)	84	8.3	1.7	0.5	27	9
Average	74	8.8	2.2	0.7	33	13
Range	67 to 84	6.8 to 10.1	1.7 to 2.5	0.5 to 0.9	24 to 41	1 to 27
L.S.D.*	3	1.0	0.2	0.1		

*Least significant differences.

Planted — May 21
Soil type — Chatham Stony Loam
Fertilizer — 400 pounds 6-24-12 per acre
Harvested — October 14-15
Population — 15,900

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