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1984 Michigan Soybean Performance Report
Michigan State University Extension Service
O.B. Hesterman, T. G. Isleib, R. Leep, D. E. Wolfe, Crop and Soil Sciences
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1984 MICHIGAN SOYBEAN PERFORMANCE REPORT

Extension Bulletin E-1206, January 1985

By O.B. Hesterman, T.G. Isleib, R. Leep,
and D.E. Wolfe
Crop and Soil Sciences Dept.

This bulletin provides information on the performance of soybean varieties available in Michigan.

Comprehensive variety yield trials were conducted in Southeastern Michigan (Lenawee County), Southwestern Michigan (St. Joseph County), Far Southwestern Michigan (Berrien County), South-central Michigan (Ingham County), Central Michigan (Gratiot and Tuscola Counties), and East Central Michigan (Sanilac County). Smaller trials were conducted in Alger and Delta Counties.

Testing Procedures

Commercial varieties voluntarily entered were obtained from seed companies. Public varieties were supplied by the Michigan Foundation Seed Association.

Cooperators, planting and harvest dates, fertilizer practices, previous crops, and soil management groups at the nine locations are listed in Table 1.

Maturity groups of all varieties tested are listed in tables 2 and 7. Seed of entries was planted in plots 20 feet long with a 20-inch row spacing. Seeds were planted 1½" deep at 4.5 seeds per foot of row. Each plot was randomized in the field and replicated 3 times. Fourteen feet of the center two rows were harvested for yield.

Evaluation of Characteristics

YIELD — Yield is expressed in bushels per acre at 13% moisture.

MATURITY DATE — Entries were considered mature when 95% of the pods had lost all green color and would crack under finger pressure. Additional field drying was required before the plants were ready to harvest. Dates were recorded by month and day.

HEIGHT — Plant height, in inches, was measured at maturity from the soil surface to the tip of the main stem.

LODGING — Lodging rates reflect the erectness of the plants before harvest. Ratings are based on the

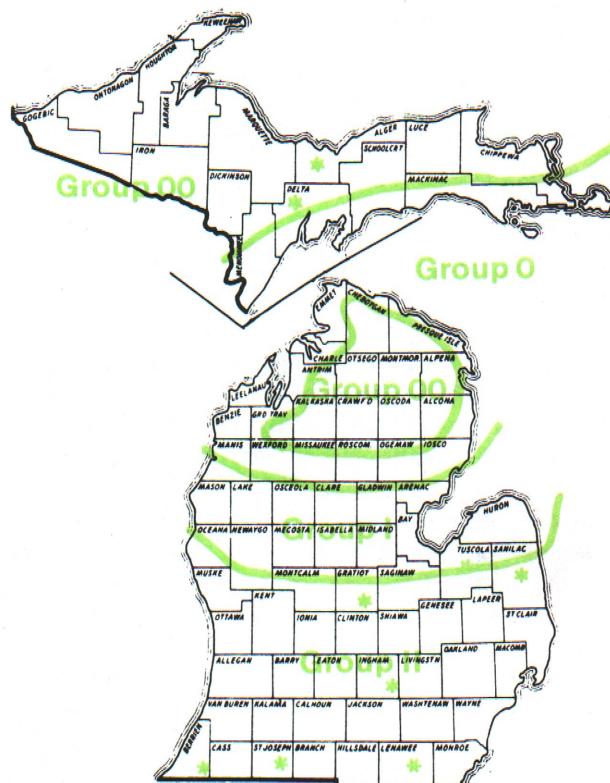
following scale:

1. Almost all plants erect
2. All plants leaning slightly, or fewer than 25% of the plants down
3. All plants leaning moderately (45°), or 25% to 50% of the plants down
4. All plants leaning considerably, or 50% to 80% of the plants down
5. Almost all plants down

Results

Tables 2 through 7 show results of 1984 soybean variety trials. Values given are the averages of all replications harvested at each location.

A severe outbreak of white mold (Sclerotinia



Soybean Maturity Zones for Full-Season Varieties in Michigan, and Locations (*) of Trials.

sclerotiorum) depressed yields at Sanilac County plots. As in the past, "Gnome" was particularly affected. Due to a high degree of stem breakage in all plots, height and lodging data were not recorded.

June and July were unusually dry for much of the southern region. Drought stress was evident in Berrien, Ingham, and Gratiot Counties. The test site at St. Joseph County was irrigated with 7 inches of water delivered with a traveling gun. Tuscola and Sanilac Counties received heavy rains in June.

The LSD (least significant difference) value is useful when comparing two varieties in the same table. Two varieties with the same genetic potential for yield may have different yields due to variation in soil fertility, compaction, and other environmental factors. If the difference is less than the LSD value, the difference between the varieties may be due to chance or minor environmental differences. However, if the difference between two varieties is greater than the LSD, there is a 95% or better probability that the performance is actually different.

Selecting a Variety

The primary consideration in selecting a variety is yield. When evaluating a variety, consider yield performance over several years, if available. Give preference to data obtained in the nearest variety trial. Use all trials in determining a variety's performance under various environmental conditions.

Considerations other than yield are important in selecting a variety, and in some cases result in choosing a variety with only moderate performance. It is especially important to select a variety with proper maturity. From past weather data, farmers can determine the percent probability of the first fall frost. A general rule of thumb is to choose a variety that will mature (see maturity date definition) before the average date for 25% chance of the first killing frost in the fall. Farmers growing soybeans for the first time may wish to contact neighbors to determine what varieties mature before frost in their area. When large acreages of soybeans are planted, varieties of different maturities provide staggered maturity dates for a longer harvest season.

The degree of lodging varies among varieties. Lodged plants in variety trials are manually picked up and threshed, thus yield losses from lodging are not reflected in the yields reported. Lodging ratings should be used to evaluate potential losses. Farmers who have experienced lodging in the past and have had harvest problems may select a more lodging-resistant variety. Alternately, a variety susceptible to lodging may be planted at a slightly lower population to increase standability. Evaluate lodging data over all locations to determine a variety's lodging characteristics.

Note seed size when selecting planting rates. Plant-

ing rates should be based on number of seeds per foot of row and not on pounds per acre.

Many diseases occur in soybean fields in Michigan. The diseases which contribute most significantly to yield reduction are seed and seedling diseases and those causing root and stem rot. Root rots of soybeans are generally recognized when plants turn yellow prematurely, wilt, or die. Less noticeable is the yield reduction that occurs when root rot destroys part of the root system, but causes no visible symptoms to aboveground parts. The fungi that cause root rots often survive in the soil for several years, even in the absence of a host plant. Once root rot fungi are established in a field, control is difficult, even with crop rotation.

New varieties with resistance to one or more diseases are being developed, particularly varieties resistant to *Phytophthora* root rot. Consult seed dealers or Cooperative Extension Service personnel for information on varietal disease resistance characteristics.

It is often beneficial for growers to select a few good varieties for planting each year. Yield determination and careful field evaluation during the growing season will add to the grower's knowledge of varietal performance and allow better selection.

More information about variety selection and cultural practices can be found in Extension Bulletin E-1549, "Soybean Production in Michigan" (free).

Use of Data

Table 2 presents multiple-environment averages from all tests in the Southern and Central Michigan regions since 1975. The column labeled N refers to the number of tests in which each variety was included. The column labeled DEV. refers to the difference (in bushels per acre) between the mean yield of the variety over N tests and the mean yield of all varieties in those tests. The maturity checks used for tests of Group I and Group II varieties were "Hodgson 78" (H78) and "Corsoy 79" (C79), respectively. A positive relative maturity value means that the variety matured later than the check and a negative value means that the variety matured earlier than the check. The value is the actual number of days in either direction.

Data presented in Tables 3 through 7 are from both regional and site-specific performance trials. Both 1984 yields and multiple-year average yields from all tests since 1975 are given. Maturity, height (in inches), and lodging scores are the 1984 regional averages. Maturity for U.P. trials is expressed as the date of maturity, all others are + or - days as compared with the check variety. For 1984 yield data, all starred entries designate yields not significantly different from the highest yield for that location. Multiple-environment and multiple-year averages comprised of a greater number of tests (greater N) should be con-

sidered more reliable.

The presentation of data for the entries tested does not suggest approval or endorsement of varieties by the authors or by those responsible for conducting the performance trials.

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TABLE 1. Variety Trial Information

County	Lenawee	St. Joseph	Berrien	Ingham	Gratiot	Tuscola	Sanilac	Delta	Alger
CES Director/Agent	N.H. Bless G.A. Wuethrich	F.J. Henningsen D. Bowen	J.E. Neibauer D. Mroczek	M.M. Preston R.A. Morrison	V.V. Varner D.J. Rossman	W.L. Bortel D.A. Stein	A.R. Sieting R.C. Weber	D.L. Pellegrini	J.M. Middleton
Farmer Cooperator	D. Woods	B. Marantette	R. & R. Sherrill		J. Biddinger	S. Bierlein	Mezo Farms	T. Klink	
Address	10992 Holloway Rd. Britton, MI	25660 Simpson Rd. Mendon, MI	RR 2, Box 136 Three Oaks, MI	MSU Campus E. Lansing, MI	5958 E. Washington Rd. Ithaca, MI	6196 Hart Rd. Vassar, MI	1640 W. Walker Rd. Sandusky, MI	Garden, MI	MSU Exp Stn., U.P. Chatham, MI
Soil Type	Lenawee silty clay loam	Elston sandy loam	Kibbie loam Crosier silt loam	Capac loam	Corunna sandy loam Selfridge loamy sand	Brookston loam	Capac loam Parkhill loam	Brookston loam	Trenary loam
Soil Management Group	1.5 c	4 a	2.5 b-s 2.5 b	2.5 b	3/2 c 4/2 b	2.5 c	2.5 b 2.5 c	2.5 c	3 a
Previous Crop	Wheat	Wheat	Corn	Wheat/Oats	Corn	Wheat	Wheat	Alfalfa	Fallow
Fertilizer	300# 47-17-40	200# 4-17-41	200# 10-26-26	200# 6-24-24 (3% Mg)	300# 7-18-36	350# 0-10-30	200# 21-0-21 200# 9-23-30	400# 12-24-24	300# 12-24-24
Planting Date	5/10/84	5/24/84	6/4/84	6/6/84	5/21/84	5/17/84	5/16/84	5/29/84	5/30/84
Harvest Date									
Early to Medium Maturity	10/2/84	10/18/84	11/8/84	10/22/84	11/17/84	11/19/84	11/21/84		
Medium to Late Maturity	10/24/84	10/18/84	11/8/84	10/23/84	11/17/84	11/19/84	11/21/84	11/13/84	10/13/84

TABLE 2. PERFORMANCE SUMMARY FOR VARIETIES ENTERED IN THE MICHIGAN TRIALS IN 1984.

BRAND	ENTRY	YIELD (BU/A) WITH DEVIATION FROM MEAN				MATURITY RELATIVE TO CHECKS									
		SOUTHERN		CENTRAL		SOUTHERN			CENTRAL			LODGING			
		YIELD	(N)	DEV.	YIELD	(N)	DEV.	DATE	H78	C79	DATE	H78	C79	SOUTH.	CENTRAL
PUBLIC VARIETIES	AMCOR (II)	43.0	(10)	0.0	44.4	(10)	-0.4	9-26	9	3	10-7	9	4	2.7	2.9
	AMSOY 71 (II)	40.3	(17)	-0.7	39.6	(21)	0.0	9-24	7	2	10-5	10	4	2.1	2.2
	BEESON 80 (II)	41.2	(10)	-2.1	42.2	(12)	-1.3	9-24	7	1	10-7	8	2	1.9	2.4
	CENTURY (II)	44.8	(11)	0.9	43.7	(13)	0.7	9-27	9	3	10-7	9	3	1.7	2.0
	CORSOY (III)	42.6	(17)	1.6	39.7	(20)	0.2	9-21	5	0	10-1	6	0	2.0	2.0
	CORSOY 79 (II)	43.9	(16)	2.1 *	45.6	(21)	2.9 *	9-22	6	-	10-3	6	-	2.3	2.5
	CUMBERLAND (III)	37.4	(6)	-1.2	-----	-----	-----	9-29	13	6	-----	-----	2.2	---	---
	DAWSON (O)	----	----	----	41.8	(7)	-1.8	----	----	----	9-20	-5	-11	---	1.6
	ELGIN (II)	46.8	(8)	2.1	47.7	(8)	3.2 *	9-22	6	0	10-3	6	-1	2.2	2.0
	EVANS (O)	36.0	(17)	-3.6 *	38.5	(21)	-1.3	9-13	-3	-8	9-20	-4	-12	1.4	1.6
	GNOME (II)	41.9	(14)	-0.6	38.4	(16)	-5.7 *	9-26	10	5	10-6	8	2	1.4	1.6
	HARCOR (II)	46.4	(12)	2.2	44.0	(14)	1.6	9-24	6	0	10-4	6	0	2.7	2.8
	HARDIN (I)	44.4	(10)	2.5	49.1	(13)	5.2 *	9-20	3	-2	9-30	4	-2	1.8	2.4
	HOBBIT (III)	38.2	(8)	0.7	-----	-----	-----	9-26	11	5	-----	-----	1.0	---	---
	HODGSON 78 (I)	42.1	(18)	1.0	44.1	(23)	1.6	9-17	--	-5	9-27	--	-6	1.9	1.8
	LAKOTA (I)	37.9	(9)	-3.1	43.3	(10)	-1.0	9-18	1	-4	9-27	1	-6	2.1	2.8
	NEBSOY (II)	42.4	(11)	-1.5	40.8	(13)	-2.2	9-22	5	-1	10-4	6	0	1.7	1.8
	OZZIE (II)	----	----	----	40.2	(7)	-3.4	----	----	----	9-20	-5	-12	---	1.2
	PELLA (III)	38.0	(6)	-0.6	45.7	(6)	1.8	9-28	11	5	10-5	7	2	1.5	1.7
	SIMPSON (O)	----	----	----	38.3	(7)	-5.3	----	----	----	9-22	-3	-10	---	1.4
	SPRITE (III)	38.8	(9)	-0.4	-----	-----	-----	9-28	13	7	-----	-----	1.3	---	---
	VICKERY (II)	45.3	(11)	1.4	43.4	(14)	1.1	9-21	4	-1	10-3	5	-1	2.8	2.7
	WEBER (I)	43.7	(6)	1.0	42.9	(10)	0.2	9-19	3	-1	9-29	1	-5	2.3	2.7
	WEBER 84 (I)	40.3	(4)	-0.2	39.7	(4)	-1.2	9-23	2	-3	9-29	4	-2	2.6	2.8
	WELLS II (III)	42.2	(13)	-1.6	41.7	(15)	-0.1	9-22	4	-2	10-3	5	-1	1.5	1.5
	WILLIAMS 82 (III)	39.4	(3)	0.0	-----	-----	-----	10-1	13	8	-----	-----	2.8	---	---

(CONT'D)

* STATISTICALLY SIGNIFICANT DEVIATION ($P < .05$)

TABLE 2. PERFORMANCE SUMMARY FOR VARIETIES ENTERED IN THE MICHIGAN TRIALS IN 1984 (CONT'D).

BRAND	ENTRY	YIELD (BU/A) WITH DEVIATION FROM MEAN						MATURITY RELATIVE TO CHECKS							
		SOUTHERN			CENTRAL			SOUTHERN			CENTRAL				
		YIELD	(N)	DEV.	YIELD	(N)	DEV.	DATE	H78	C79	DATE	H78	C79	SOUTH.	CENTRAL
AGRACETUS	CEM-78 (II)	39.6	(4)	-1.2	---	--	---	9-27	7	0	---	---	---	2.4	---
	CEM-80 (II)	40.3	(4)	-0.4	---	--	---	9-28	8	1	---	---	---	2.2	---
	CEM-81 (II)	39.9	(4)	-0.8	---	--	---	9-27	7	0	---	---	---	2.6	---
	CMC-78 (I)	---	--	---	45.9	(4)	5.0 +L	---	---	---	9-30	5	-2	---	2.4
	CMC-79 (I)	---	--	---	43.2	(4)	2.3	---	---	---	9-30	6	-1	---	2.6
	CMC-80 (I)	---	--	---	44.2	(4)	3.3	---	---	9-30	6	-1	---	2.8	
ASGROW	A1564 (I)	43.4	(9)	1.6	45.0	(13)	0.6	9-17	1	-3	9-27	1	-5	1.8	1.9
	A1937 (I)	44.5	(9)	3.5 +	48.9	(10)	4.3 +	9-19	2	-3	9-29	3	-4	1.7	2.0
	A2522 (III)	40.6	(4)	-0.1	44.6	(4)	2.7	9-26	6	0	10-5	5	2	2.5	2.5
	A2943 (III)	44.0	(4)	3.3	---	--	---	10-1	11	4	---	---	---	1.3	---
	A3127 (III)	41.0	(6)	2.4	---	--	---	9-29	12	6	---	---	---	1.6	---
CALLAHAN	1250 (I)	39.1	(6)	0.5	45.1	(4)	0.0	9-26	10	3	10-10	11	4	1.7	1.8
	3210 (II)	41.8	(6)	3.3 *	42.0	(4)	0.1	9-23	7	0	10-4	5	2	1.7	1.7
	3310 (III)	43.8	(8)	3.3 *	---	--	---	9-28	10	5	---	---	---	2.0	---
	5150X (I)	---	--	---	40.1	(4)	-0.8	---	---	---	9-26	2	-5	---	1.5
	5200X (I)	---	--	---	41.7	(4)	0.8	---	---	---	9-30	6	-1	---	2.1
	5260X (II)	44.8	(4)	4.1 *	---	--	---	9-30	10	3	---	---	---	2.2	---
	5340X (III)	42.6	(4)	2.0	---	--	---	10-1	12	5	---	---	---	2.5	---
	5350X (III)	43.2	(4)	2.5	---	--	---	10-1	11	4	---	---	---	2.4	---
	9160 (I)	44.7	(7)	1.6	47.7	(9)	3.8 +	9-18	1	-3	9-30	3	-3	1.4	2.5
DAIRYLAND	DSR-120 (I)	---	--	---	45.6	(11)	0.6 L	---	---	---	9-23	-3	-9	---	1.6
	DSR-141 (I)	39.2	(11)	-1.5	45.7	(13)	1.3	9-17	1	-4	9-26	0	-6	1.7	2.0
	DSR-171 (I)	45.0	(11)	2.5 *	47.1	(12)	2.4	9-21	4	-1	9-30	4	-3	1.9	2.2
	DSR-207 (II)	43.3	(11)	-0.6	44.8	(7)	-2.0 *	9-24	6	1	10-6	9	1	1.8	1.8
	DSR-212 (II)	39.3	(8)	-1.2	44.8	(8)	0.7	9-11	5	0	10-5	6	1	1.5	1.5
	DSR-227 (II)	40.7	(5)	-2.2	40.6	(4)	-5.6	9-21	6	2	10-7	8	2	1.8	1.8
	DSR-232 (III)	41.8	(12)	-0.8	42.8	(9)	-1.5	9-26	9	4	10-6	8	3	2.4	2.3
	DSR-320 (III)	39.7	(8)	-0.8	---	--	---	9-30	12	7	---	---	---	2.1	---
	DST-1203 (I)	36.7	(6)	-1.8	44.2	(7)	0.6	9-18	2	-4	9-26	1	-6	1.7	1.8
	DST-1205 (I)	38.6	(4)	-1.9	42.4	(4)	1.5	9-20	0	-6	9-24	0	-7	1.7	2.2
DEKALB-PFIZER	DST-1301 (I)	41.4	(4)	0.9	39.6	(4)	-1.3	9-24	4	-2	10-1	7	0	1.8	2.1
	DST-2102 (II)	37.9	(4)	-2.8	42.7	(4)	0.8	9-25	6	-1	10-2	3	0	2.0	2.3
	CB200 (II)	43.7	(12)	1.1	45.1	(12)	1.1	9-23	6	0	10-5	7	2	2.4	2.6
FUNK	CX134 (I)	31.6	(3)	-5.8	41.9	(7)	-1.7	9-17	1	-3	9-28	3	-4	1.3	1.6
	CX155 (I)	40.4	(10)	0.0	44.7	(14)	1.2	9-22	5	0	10-3	7	-1	2.0	2.7
	CX174 (I)	40.9	(9)	0.4	41.5	(4)	0.6	9-25	4	-1	10-1	6	0	1.7	2.3
	CX254 (II)	39.0	(4)	-1.8 H	41.0	(4)	-0.9	9-29	9	2	10-5	6	2	1.8	1.6
	CX273 (II)	39.5	(8)	-1.0	44.5	(8)	0.5	9-26	9	3	10-7	8	3	1.8	1.9
	CX283 (III)	40.9	(4)	0.2	---	--	---	9-29	9	2	---	---	---	2.2	---
FFR	CX324 (III)	38.2	(6)	-0.3	---	--	---	9-28	11	5	---	---	---	2.2	---
	12003 (I)	41.4	(4)	1.0	---	--	---	9-25	4	-1	---	---	---	1.7	---
GREAT LAKES	G3115 (I)	---	--	---	43.6	(7)	0.0	---	---	---	9-30	5	-1	---	1.6
	G3145 (I)	---	--	---	42.8	(4)	2.0	---	---	---	9-29	5	-2	---	1.9
	G3213 (II)	42.2	(4)	1.6	---	--	---	9-26	6	0	---	---	---	2.3	---
	G3239 (II)	---	--	---	41.8	(4)	0.0	---	---	---	10-5	6	3	---	1.9
JACQUES	GL1937 (I)	---	--	---	46.5	(7)	2.9 +	---	---	---	9-30	5	-1	---	2.1
	GL2250 (II)	43.9	(7)	-1.1	45.8	(10)	0.8 L	9-22	6	0	10-6	8	3	1.6	1.9
	GL2634 (II)	46.8	(9)	4.9 *	47.0	(6)	3.1 H	9-26	9	4	10-3	5	0	1.9	2.3
	XP1976 (I)	---	--	---	45.3	(4)	4.4 +L	---	---	---	10-2	7	1	---	2.0
	XP2040 (II)	---	--	---	40.7	(4)	-1.2	---	---	---	10-4	4	2	---	1.7
	XP2586 (II)	40.0	(4)	-0.6	41.8	(4)	0.0	9-29	9	2	10-6	6	3	1.8	2.0
	XP2908 (II)	42.3	(4)	1.6	---	--	---	10-1	12	5	---	---	---	2.2	---
KING GRAIN	J-82 (O)	---	--	---	40.5	(7)	-0.4	---	---	---	9-24	0	-7	---	2.3
	J-103 (II)	43.7	(9)	1.8	---	--	---	9-23	6	0	---	---	---	1.5	---
	E84100 (II)	42.4	(4)	1.7	---	--	---	9-26	6	0	---	---	---	1.9	---
	E84104 (II)	41.6	(4)	1.0	---	--	---	9-28	8	2	---	---	---	1.8	---
LAND O' LAKES	KG70 (I)	42.9	(3)	-1.7	43.5	(9)	0.0	9-21	-2	-4	9-26	0	-6	1.4	1.5
	KG1650 (II)	---	--	---	39.3	(4)	-2.6	---	---	---	10-5	6	2	---	2.3
	KG2007 (I)	---	--	---	39.0	(4)	-1.9	---	---	---	9-22	-2	-9	---	2.6
	KG3028 (III)	---	--	---	45.1	(4)	3.2	---	---	---	10-4	5	2	---	2.6
LOWE	L1771 (I)	---	--	---	42.5	(4)	1.7	---	---	---	9-26	2	-5	---	2.2
	L2330 (II)	41.0	(4)	0.3	42.5	(4)	0.7	9-26	6	0	10-4	4	1	2.4	2.6
	L4207 (II)	40.0	(4)	-0.6	---	--	---	10-1	11	4	---	---	---	2.6	---
	L4303 (II)	35.7	(4)	-5.0	40.2	(4)	-1.7	9-24	5	-2	10-3	4	0	1.9	1.8
MAUMEE VALLEY	200 (II)	39.6	(4)	-1.1	41.2	(4)	-0.6	9-25	6	-1	10-4	4	2	1.9	2.1
	211 (II)	36.0	(4)	-4.8 *	40.4	(4)	-1.4	9-29	9	2	10-5	5	2	1.9	2.2
	CALIBER (I)	43.0	(4)	2.4	---	--	---	9-24	4	-2	---	---	---	2.0	---
NAPB (AGRIPRO)	MV-2E1 (II)	41.8	(4)	1.1	---	--	---	9-30	10	4	---	---	---	1.6	---
	WASHINGTON V (III)	42.0	(4)	1.2	---	--	---	9-25	5	-2	---	---	---	2.6	---
	AP200 (II)	44.2	(11)	0.3 L	46.8	(11)	2.4	9-19	1	-4	10-1	3	-3	2.0	2.1
NORTHROP KING	AP240 (II)	40.9	(8)	0.4	41.8	(6)	-2.1	9-25	7	2	10-3	5	0	1.4	1.8
	HP2530 (III)	46.0	(7)	2.0	44.2	(7)	0.9	9-25	6	1	10-6	7	2	1.9	2.4
	S1346 (I)	41.0	(7)	-0.5	44.2	(13)	0.2	9-17	1	-4	9-26	1	-6	1.5	1.3
NORTHROP KING	S1460 (I)	---	--	---	42.8	(7)	-0.8	---	---	---	9-26	1	-6	---	1.5
	S1492 (II)	40.6	(16)	0.5	45.6	(7)	1.3	9-22	6	0	10-7	10	3	1.7	2.2
	S1884 (I)	42.9	(8)	2.8 *	49.7	(9)	6.1 *	9-20	3	-2	10-1	4	-2	1.5	1.8
	S23-03 (II)	43.3	(4)	2.6	---	--	---	9-26	6	-1	---	---	---	2.1	---
	S2596 (III)	47.5	(9)	1.5	45.9	(6)	1.0	9-26	7	0	10-8	10	2	1.8	1.5

(CONT'D)

- * STATISTICALLY SIGNIFICANT DEVIATION ($P < .05$)
- H VARIETY EXHIBITS HIGHER THAN AVERAGE RESPONSE TO HIGHLY PRODUCTIVE ENVIRONMENTS
- L VARIETY EXHIBITS LOWER THAN AVERAGE RESPONSE TO HIGHLY PRODUCTIVE ENVIRONMENTS

TABLE 2. PERFORMANCE SUMMARY FOR VARIETIES ENTERED IN THE MICHIGAN TRIALS IN 1984 (CONT'D).

BRAND	ENTRY	YIELD (BU/A) WITH DEVIATION FROM MEAN						MATURITY RELATIVE TO CHECKS							
		SOUTHERN		CENTRAL		SOUTHERN		CENTRAL		LODGING					
		YIELD	(N)	DEV.	YIELD	(N)	DEV.	DATE	H78	C79	DATE	H78	C79	SOUTH.	CENTRAL
PIONEER	1282 (I)	---	--	45.0	(7)	1.4	---	--	--	9-25	0	-7	---	1.9	
	2480 (II)	38.2	(6)	-0.4	46.4	(6)	2.5	9-23	7	0	10-4	6	1	1.6	2.0
	9271 (II)	41.8	(4)	1.1	43.7	(4)	1.8	9-27	7	0	10-4	4	1	1.3	1.8
	9292 (II)	43.3	(4)	2.6 *	43.4	(4)	1.5	9-25	5	-2	10-3	3	0	1.2	1.7
PRIDE	B152 (I)	---	--	42.2	(4)	1.4	---	--	--	9-25	1	-6	---	2.3	
	B203 (I)	45.8	(4)	-1.5	44.2	(7)	1.5 H	9-20	0	-4	10-2	6	-1	1.2	2.0
	B216 (II)	40.6	(13)	0.5	43.3	(13)	0.2	9-21	5	0	10-3	5	1	1.8	1.8
	B242 (II)	44.1	(4)	3.4 *	----	--	9-30	10	4	---	--	--	1.8	---	
PROSOY	PS104 (I)	41.1	(12)	-0.2	45.6	(13)	1.2	9-19	1	-4	9-29	2	-4	1.7	2.0
	PS210 (II)	42.4	(8)	-0.2	47.1	(8)	2.0 L	9-22	5	-1	10-3	6	1	1.7	2.1
	PS234 (II)	44.2	(12)	0.4	43.0	(10)	-2.0	9-24	6	1	10-6	8	2	1.7	2.0
	PS246 (III)	40.9	(9)	-1.0	41.4	(9)	-3.0	9-25	8	3	10-8	9	4	1.7	1.8
	PS332 (III)	43.1	(8)	1.7	----	--	10-1	14	7	---	--	--	2.4	---	
RUPP	RS2100 (I)	42.9	(4)	2.4	40.2	(7)	-0.7	9-24	3	-2	9-29	5	-2	2.1	2.4
	RS2300 (II)	45.2	(11)	1.3	46.2	(10)	2.0	9-21	3	-2	10-2	4	-1	1.5	1.7
	RS2330 (II)	38.3	(8)	-2.2	44.6	(8)	0.6 L	9-26	9	4	10-7	7	3	1.2	1.4
	RS2460P (II)	46.8	(4)	6.1 *	42.0	(4)	0.1	9-29	10	3	10-6	6	3	1.8	2.0
SRF	76-24486W (I)	---	--	38.3	(4)	-2.6	---	--	--	9-29	4	-2	---	2.1	
	76-29329 (I)	42.1	(4)	1.6	----	--	9-26	5	0	---	--	--	1.8	---	
STANTON	SB190 (I)	---	--	40.2	(4)	-0.7	---	--	--	9-29	4	-2	---	2.3	
STINE	1350 (I)	---	--	42.1	(4)	1.3	---	--	--	9-26	1	-5	---	2.0	
	2510 (II)	41.2	(4)	0.5	----	--	9-26	6	-1	---	--	--	2.2	---	
VORIS	V147 (I)	---	--	38.4	(4)	-2.4	---	--	--	9-25	0	-6	---	2.1	
	V207 (II)	46.6	(8)	0.9 L	46.5	(12)	2.3	9-19	2	-4	10-3	4	-2	1.8	2.2
	V227 (II)	44.2	---	43.1	(4)	1.2	---	--	--	10-3	4	0	---	2.0	
	V247 (II)	43.2	(11)	-0.7	46.4	(8)	0.7	9-22	4	-1	10-5	8	0	1.4	1.4
	V311 (III)	44.6	(4)	4.0	----	--	10-1	11	4	---	--	--	2.8	---	

* STATISTICALLY SIGNIFICANT DEVIATION (P<.05)

H VARIETY EXHIBITS HIGHER THAN AVERAGE RESPONSE TO HIGHLY PRODUCTIVE ENVIRONMENTS

L VARIETY EXHIBITS LOWER THAN AVERAGE RESPONSE TO HIGHLY PRODUCTIVE ENVIRONMENTS

TABLE 3. SOUTHERN MICHIGAN REGION, EARLY TO MEDIUM MATURITY.

BRAND	ENTRY	YIELD (BU/A)						MATERIALS						
		ENTIRE SOUTHERN REGION		SOUTHEAST (LENAWEE CO.)		SOUTHWEST (ST. JOSEPH CO.)		FAR SOUTHWEST (BERRIEN CO.)		SOUTH CENTRAL (INGHAM CO.)		URINE		
		1984	AVG. (N)	1984	AVG. (N)	1984	AVG. (N)	1984	AVG. (N)	1984	AVG. (N)	Y	T	
PUBLIC	EVANS (O)	36.2	36.0 (17)	45.0	39.8 (9)	38.3*	30.5 (4)	23.2	33.5 (3)	38.2	35.6 (3)	-3	30	2.0
PUBLIC	HARDIN	41.9*	44.4 (10)	59.6*	53.8 (5)	42.0*	33.4 (2)	27.8	35.2 (2)	38.3	--	1	37	1.8
PUBLIC	+ HODGSON 78	42.6*	42.1 (18)	49.2	49.8 (8)	37.3*	31.3 (5)	32.3	37.8 (4)	51.7*	45.4 (2)	9-20	38	2.4
PUBLIC	LAKOTA	35.6	37.9 (9)	54.0*	47.7 (4)	23.9	22.6 (2)	22.1	31.6 (2)	42.3	--	0	40	2.3
PUBLIC	WEBER 84	40.3*	-- (4)	59.3*	--	36.6*	--	24.4	--	40.8	--	3	40	2.7
PUBLIC	CORSOY 79 (II)	40.8*	43.9 (16)	53.8*	53.3 (8)	35.7	29.0 (2)	29.7	38.5 (3)	44.0	44.8 (2)	6	42	2.2
ASGROW	A1937	44.2*	44.5 (9)	59.1*	52.2 (4)	41.1*	34.6 (2)	30.1	38.3 (2)	46.3*	--	3	40	2.2
DAIRYLAND	DSR-141	37.0	39.2 (11)	51.6	44.0 (6)	29.7	27.6 (2)	24.7	34.6 (2)	42.1	--	-1	37	2.0
DAIRYLAND	DSR-171	43.2*	45.0 (11)	57.0*	51.3 (6)	42.4*	34.1 (2)	29.3	37.5 (3)	44.1	--	4	40	1.9
DAIRYLAND	DST-1203	37.7	36.7 (6)	50.6	47.6 (2)	29.3	27.1 (2)	25.2	--	45.5	--	2	36	2.1
DAIRYLAND	DST-1205	38.6	-- (4)	52.6	--	32.5	--	28.2	--	41.0	--	-1	38	1.7
DAIRYLAND	DST-1301	41.4*	-- (4)	52.1	--	37.4*	--	25.7	--	50.4*	--	4	35	1.8
DEKALB-PFIZER	CX155	38.7	40.4 (10)	52.1	47.0 (6)	34.9	27.4 (2)	30.6	--	37.2	36.5 (2)	5	41	2.1
DEKALB-PFIZER	CX174	40.9*	-- (4)	52.7*	--	32.4	--	33.5	--	44.9*	--	5	37	1.7
FFR	12003	41.5*	-- (4)	57.2*	--	34.3	--	29.4	--	44.9*	--	5	40	1.7
MAUMEE VALLEY	CALIBER	43.0*	-- (4)	52.1	--	41.7*	--	30.8	--	47.2*	--	4	41	2.0
NORTHRUP KING	S1884	41.8*	42.9 (8)	56.2*	54.1 (3)	39.1*	30.8 (2)	30.2	38.8 (2)	41.8	--	2	36	1.8
PROSOY	PS104	37.3	41.1 (12)	54.0*	48.4 (7)	36.0	29.8 (2)	22.3	28.4 (2)	37.1	--	1	37	2.0
RUPP	RS2100	42.9*	-- (4)	54.6*	--	41.6*	--	31.3	--	44.1	--	3	39	2.1
SRF	76-29329	42.1*	-- (4)	54.0*	--	44.5*	--	30.0	--	39.9	--	5	35	1.9
	LSD(.05)	5.27		6.93		7.89		NS		7.12		2.6	4.1	.75
	TEST MEAN	40.38		53.84		36.53		28.05		43.69		2.3	37.8	2.01

+ CHECK VARIETY USED TO CALCULATE DEVIATION OF MATURITY FROM STANDARD.

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELD WITHIN THAT COLUMN.

NS VARIATION IN YIELD AMONG ENTRIES WAS NOT STATISTICALLY SIGNIFICANT.

TABLE 4. SOUTHERN MICHIGAN REGION, MEDIUM TO LATE MATURITY.

BRAND	ENTRY	YIELD (BU/A)										M A T U R E I G I O T H N R G E				
		ENTIRE SOUTHERN REGION		SOUTHEAST (LENAWEE CO.)		SOUTHWEST (ST. JOSEPH CO.)		FAR SOUTHWEST (BERRIEN CO.)		SOUTH CENTRAL (INGHAM CO.)						
		1984	Avg.	(N)	1984	Avg.	(N)	1984	Avg.	(N)	1984	Avg.	(N)	1984	Avg.	(N)
PUBLIC	HODGSON 78 (1)	37.7	42.1	(18)	50.8	49.8	(8)	33.6	31.3	(5)	27.4	37.8	(4)	39.2	45.4	(2)
PUBLIC	AMCOR	40.6	43.0	(10)	56.7*	52.2	(5)	34.8	27.2	(2)	28.1	35.8	(2)	42.7	--	--
PUBLIC	AMSOY 71	35.1	40.3	(17)	48.2	44.8	(9)	33.1	31.1	(4)	17.4	38.8	(3)	41.6	38.0	(3)
PUBLIC	BEESON 80	36.3	41.2	(10)	45.0	48.4	(5)	27.6	23.9	(2)	30.1	40.0	(2)	42.4	--	--
PUBLIC	CENTURY	40.4	44.8	(11)	48.5	52.1	(6)	39.9*	30.2	(2)	32.0	39.0	(2)	41.4	--	3 41 1.7
PUBLIC	CORSOY	40.1	42.1	(17)	52.9	48.0	(9)	36.5*	33.2	(4)	21.6	39.1	(3)	49.3	41.4	(3) 0 41 2.3
PUBLIC	+ CORSOY 79	40.2	43.9	(16)	51.7	53.3	(8)	30.0	29.0	(4)	33.6*	38.5	(3)	45.5	44.8	(2) 9-26 43 2.7
PUBLIC	ELGIN	42.2*	46.8	(8)	50.3	51.2	(5)	38.5*	--	--	34.2*	--	--	45.9	--	0 33 2.1
PUBLIC	GNOME	41.7	41.9	(14)	51.8	46.8	(7)	36.0	24.5	(3)	30.7	45.5	(3)	48.5	--	3 26 1.7
PUBLIC	HARCOR	39.6	46.4	(12)	49.2	52.9	(6)	37.3*	30.8	(2)	32.4*	46.0	(3)	39.6	--	0 43 2.9
PUBLIC	NEBSOY	40.0	42.4	(11)	47.7	48.2	(6)	35.1	28.6	(2)	32.0	37.4	(2)	45.2	--	0 37 1.9
PUBLIC	VICKERY	39.5	45.3	(11)	52.0	53.6	(6)	36.6*	28.4	(2)	26.8	38.6	(2)	42.7	--	-2 42 2.8
PUBLIC	WELLS II	38.1	42.2	(13)	47.7	47.3	(6)	35.1	32.3	(3)	26.7	41.7	(3)	43.0	--	-1 39 1.6
PUBLIC	CUMBERLAND (III)	41.4	37.4	(6)	53.3	49.2	(2)	35.9	24.8	(2)	30.3	--	--	46.2	--	6 41 2.6
PUBLIC	HOBBIT	43.7*	38.2	(8)	57.5*	50.6	(3)	43.0*	26.4	(3)	27.8	--	--	46.6	--	5 27 1.1
PUBLIC	PELLA	42.9*	45.7	(6)	54.9*	48.2	(2)	38.0*	26.4	(2)	32.4*	--	--	46.2	--	4 41 1.7
PUBLIC	SPRITE	42.5*	38.8	(9)	58.5*	51.2	(4)	39.6*	24.2	(3)	28.6	--	--	43.4	--	5 28 1.7
PUBLIC	WILLIAMS 82	40.7	39.4	(3)	54.1*	--	--	33.8	--	--	30.2	--	--	--	--	7 41 2.7
AGRACETUS	CEM-78	39.5	--	(4)	46.7	--	--	32.7	--	--	34.9*	--	--	43.9	--	0 42 2.4
AGRACETUS	CEM-80	40.3	--	(4)	52.0	--	--	37.1*	--	--	28.2	--	--	44.0	--	1 43 2.2
AGRACETUS	CEM-81	39.9	--	(4)	50.9	--	--	33.8	--	--	28.7	--	--	46.3	--	0 41 2.6
AGRIPRO	AP200	39.5	44.2	(11)	44.7	48.8	(6)	37.2*	33.7	(2)	30.1	40.1	(2)	46.1	--	-5 40 1.8
AGRIPRO	AP240	39.7	40.9	(8)	49.9	48.5	(3)	41.2*	33.4	(2)	25.8	36.4	(2)	42.1	--	2 34 1.8
AGRIPRO	HP2530	43.3*	46.0	(7)	54.1*	51.2	(3)	35.0	40.9	(2)	32.5*	47.7	(4)	51.8	--	2 43 2.3
ASGROW	A2522	40.6	--	(4)	56.2*	--	--	29.5	--	--	27.3	--	--	49.4	--	0 42 2.5
ASGROW	A2943	44.0*	--	(4)	54.8*	--	--	40.1*	--	--	36.6*	--	--	44.6	--	4 38 1.3
ASGROW	A3127	45.0*	41.0	(6)	55.8*	51.4	(2)	39.9*	29.4	(2)	34.9*	--	--	49.3	--	6 37 1.9
CALLAHAN	1250	42.8*	39.1	(6)	50.9	45.8	(2)	42.6*	32.6	(2)	32.6*	--	--	45.2	--	4 40 1.8
CALLAHAN	3210	43.4*	41.8	(6)	55.5*	54.2	(2)	38.6*	31.6	(2)	31.6	--	--	47.9	--	1 37 1.8
CALLAHAN	3310	43.3*	43.8	(8)	54.7*	52.8	(3)	37.8*	28.8	(2)	35.4*	44.8	(2)	43.3	--	4 39 2.0
CALLAHAN	5260X	44.8*	--	(4)	55.9*	--	--	40.5*	--	--	36.1*	--	--	46.6	--	3 41 2.1
CALLAHAN	5340X	42.6*	--	(4)	54.2*	--	--	39.8*	--	--	31.6	--	--	44.9	--	5 42 2.5
CALLAHAN	5350X	43.2*	--	(4)	58.5*	--	--	37.5*	--	--	33.1*	--	--	43.8	--	4 41 2.4
DAIRYLAND	DSR207	39.7	43.3	(11)	51.8	50.2	(6)	37.9*	30.0	(2)	27.5	36.8	(2)	41.5	--	-1 39 2.0
DAIRYLAND	DSR212	41.2	39.3	(8)	52.2	45.7	(3)	38.4*	30.6	(2)	31.9	36.8	(2)	42.5	--	0 37 1.9
DAIRYLAND	DSR232	37.5	41.7	(12)	48.8	47.3	(7)	28.6	24.2	(2)	27.2	37.9	(3)	45.5	--	2 40 2.4
DAIRYLAND	DSR320	39.3	39.7	(8)	45.2	46.7	(3)	37.4*	27.4	(2)	32.7*	40.2	(2)	42.1	--	6 40 2.6
DAIRYLAND	DST-2102	37.9	--	(4)	49.8	--	--	29.8	--	--	22.6	--	--	49.3	--	-1 39 2.0
DEKALB-PFIZER	CB200	40.1	43.7	(12)	52.4	49.4	(7)	36.6*	30.8	(2)	25.1	34.8	(2)	46.5	--	0 43 2.6
DEKALB-PFIZER	CX254	38.9	--	(4)	53.9	--	--	32.6	--	--	22.9	--	--	46.4	--	3 39 1.8
DEKALB-PFIZER	CX273	37.3	39.5	(8)	48.7	47.5	(3)	35.2	28.6	(2)	19.1	34.8	(3)	46.3	--	3 38 2.2
DEKALB-PFIZER	CX283	40.9	--	(4)	51.8	--	--	35.9	--	--	29.0	--	--	47.0	--	3 39 2.1
DEKALB-PFIZER	CX324	40.4	38.2	(6)	45.4	48.3	(2)	33.0	24.8	(2)	34.0*	--	--	49.2	--	6 44 2.7
FUNK	G3213	42.2*	--	(4)	52.3	--	--	38.0*	--	--	34.5*	--	--	44.2	--	0 45 2.3
GLH	GL2634	44.3*	46.8	(9)	54.1*	53.9	(4)	38.6*	32.4	(2)	36.9*	46.5	(2)	47.5	--	3 41 2.1
GLH	XP2586	40.0	--	(4)	49.9	--	--	37.8*	--	--	31.5	--	--	41.0	--	2 36 1.7
GLH	XP2908	42.3*	--	(4)	59.0*	--	--	34.4	--	--	33.0*	--	--	42.9	--	5 40 2.2
JACQUES	E84100	42.4*	--	(4)	54.7*	--	--	34.5	--	--	33.5*	--	--	47.0	--	0 39 1.9
JACQUES	E84104	41.6	--	(4)	53.2	--	--	40.3*	--	--	27.0	--	--	46.1	--	2 40 1.8
JACQUES	J-103	40.7	--	(4)	52.0	--	--	36.5*	--	--	24.9	--	--	49.5	--	0 36 1.6
LAND O' LAKES	L2330	41.0	--	(4)	53.8	--	--	38.5*	--	--	27.4	--	--	44.3	--	0 39 2.3
LAND O' LAKES	L4207	40.0	--	(4)	51.5	--	--	34.3	--	--	32.7*	--	--	41.7	--	5 38 2.6
LAND O' LAKES	L4303	35.7	--	(4)	47.5	--	--	30.3	--	--	19.7	--	--	45.2	--	-2 35 1.9
LOWE	200	39.6	--	(4)	50.1	--	--	35.6	--	--	28.8	--	--	44.0	--	-1 38 1.9
LOWE	211	35.9	--	(4)	46.6	--	--	32.0	--	--	24.7	--	--	40.5	--	2 38 1.9
MAUMEE VALLEY	MV-2E1	41.8	--	(4)	51.0	--	--	37.3*	--	--	34.8*	--	--	44.2	--	4 40 1.6
MAUMEE VALLEY	WASHINGTON V	41.9	--	(4)	60.1*	--	--	38.3*	--	--	27.7	--	--	41.7	--	-1 47 2.6
NORTHRUP KING	S1492	41.1	40.6	(16)	50.4	45.1	(9)	36.8*	32.0	(4)	31.6	39.6	(2)	45.5	41.5	(3) 0 39 2.3
NORTHRUP KING	S2303	43.3*	--	(4)	51.6	--	--	40.4*	--	--	37.6*	--	--	43.5	--	-1 41 2.1
NORTHRUP KING	S2596	41.6	47.5	(9)	56.4*	53.9	(5)	35.6	--	--	33.2*	40.8	(2)	41.1	--	1 36 1.8
PIONEER	2480	39.3	38.2	(6)	51.6	48.7	(2)	36.2	31.2	(2)	26.4	--	--	43.1	--	1 38 1.7
PIONEER	9271	41.8	--	(4)	55.1*	--	--	36.5*	--	--	26.4	--	--	49.3	--	0 33 1.3
PIONEER	9292	43.3*	--	(4)	55.8*	--	--	40.4*	--	--	30.4	--	--	46.7	--	-2 32 1.2
PRIDE	B216	39.3	40.6	(13)	56.4*	46.2	(8)	36.6*	28.6	(2)	21.8	32.6	(2)	42.3	39.6	(3) -1 37 2.1
PRIDE	B242	44.1*	--	(4)	55.3*	--	--	38.5*	--	--	33.0*	--	--	49.5	--	4 43 1.7
PROSOY	PS210	39.8	42.4	(8)	55.3	52.7	(4)	34.9	29.5	(2)	23.1	--	--	46.0	--	-1 38 1.7
PROSOY	PS234	39.3	44.2	(12)	51.7	51.7	(6)	34.2	29.4	(2)	31.0	40.2	(3)	40.3	--	2 41 1.9
PROSOY	PS246	38.4	40.9	(9)	57.3*	50.3	(4)	30.8	26.2	(2)	26.8	38.0	(2)	38.6	--	3 41 2.1
PROSOY	PS332	40.6	43.1	(8)	55.5*	56.9	(3)	31.5	25.0	(2)	30.6	39.8	(2)	44.7	--	6 46 2.6
RUPP	RS2300	39.7	45.2	(11)	53.6	52.8	(6)	32.0	29.6	(2)	27.6	37.8	(2)	45.8	--	-3 39 1.4
RUPP	RS2330	38.0	38.3	(8)	48.3	45.7	(3)	38.4*	28.4	(2)	23.3	35.3	(2)	42.0	--	3 36 1.4
RUPP	RS2460P	46.8*	--	(4)	61.4*	--	--	44.7*	--	--	31.7	--	--	49.5	--	3 38 1.7
STINE	2510	41.2	--	(4)	53.8	--	--	38.2*	--	--	31.3	--	--	41.4	--	-1 35 2.2
VORIS	V247	37.0	43.2	(11)	49.1	52.0	(6)	33.5	25.8	(2)	26.6	36.2	(2)	39.0	--	-2 34 1.2
VORIS	V311	44.6*	--	(4)	54.5*	--	--	38								

TABLE 5. CENTRAL MICHIGAN REGION, EARLY TO MEDIUM MATURITY.

BRAND	ENTRY	YIELD (BU/A)										M	A	T	H	L	D	S		
		ENTIRE CENTRAL REGION			SOUTH CENTRAL (INGHAM CO.)			CENTRAL (GRATIOT CO.)		CENTRAL (TUSCOLA CO.)		EAST CENTRAL (SANILAC CO.)			R	I	G	C	I	O
		1984	Avg.	(N)	1984	Avg.	(N)	1984	Avg.	(N)	1984	Avg.	(N)	1984	Avg.	(N)	Y	T	G	E
PUBLIC	DAWSON (O)	38.6	41.8	(7)	45.0	--	--	35.9	34.2	(3)	36.5	34.2	(3)	36.8*	50.0	(2)	-6	31	2.1	
PUBLIC	EVANS	41.8*	38.5	(21)	38.2	35.6	(3)	37.7	38.3	(12)	48.0*	38.3	(12)	43.4*	39.4	(2)	-5	33	2.4	
PUBLIC	OZZIE	40.8	40.2	(7)	40.9	--	--	42.0	38.6	(3)	44.4	38.6	(3)	35.7	45.4	(2)	-6	31	1.4	
PUBLIC	SIMPSON	35.3	38.3	(7)	37.4	--	--	38.8	31.4	(3)	31.1	31.4	(3)	34.0	45.9	(2)	-3	35	1.8	
PUBLIC	HARDIN (I)	46.0*	49.1	(13)	38.3	--	--	48.8	50.2	(7)	50.9*	50.2	(7)	45.9*	50.0	(4)	2	38	2.3	
PUBLIC	+ HODGSON 78	45.9*	44.1	(23)	51.7*	45.4	(2)	40.5	42.7	(13)	49.0*	42.7	(13)	42.5*	46.4	(7)	9-25	39	2.8	
PUBLIC	LAKOTA	39.8	43.3	(10)	42.3	--	--	40.0	43.6	(5)	48.7*	43.6	(5)	28.2	40.4	(3)	0	41	3.2	
PUBLIC	WEBER 84	39.7	--	(4)	40.8	--	--	43.1	43.2	(2)	43.3	43.2	(2)	31.6	--	--	4	40	2.8	
PUBLIC	CORSOY 79 (II)	44.1*	45.6	(20)	44.0	44.8	(2)	43.1	45.6	(12)	49.8*	45.6	(12)	39.6*	47.2	(6)	7	44	2.8	
AGRACETUS	CMC-78	45.9*	--	(4)	47.3*	--	--	46.0	47.3	(2)	48.6*	47.3	(2)	41.6*	--	--	5	40	2.4	
AGRACETUS	CMC-79	43.2*	--	(4)	53.9*	--	--	38.8	40.6	(2)	42.4	40.6	(2)	37.6*	--	--	6	38	2.6	
AGRACETUS	CMC-80	44.2*	--	(4)	51.1*	--	--	43.4	43.6	(2)	43.9	43.6	(2)	38.3*	--	--	6	39	2.8	
ASGROW	A1564	44.7*	45.0	(13)	49.0*	--	--	40.2	45.0	(8)	49.1	45.0	(8)	40.6*	45.7	(3)	3	41	2.6	
ASGROW	A1937	46.7*	48.7	(10)	46.3	--	--	41.3	48.8	(5)	57.0*	48.8	(5)	42.6*	48.6	(3)	4	40	2.9	
CALLAHAN	5150X	40.1	--	(4)	44.2	--	--	44.9	42.6	(2)	40.4	42.6	(2)	30.8	--	--	2	33	1.5	
CALLAHAN	5200X	41.7*	--	(4)	42.8	--	--	41.1	44.4	(2)	47.7*	44.4	(2)	35.1	--	--	6	36	2.1	
CALLAHAN	9160	42.9*	47.7	(9)	41.6	--	--	41.9	52.0	(6)	51.5*	52.0	(6)	36.6*	38.0	(2)	3	37	2.2	
DAIRYLAND	DSR120	43.7*	45.6	(11)	50.4*	--	--	43.5	44.9	(6)	41.9	44.9	(6)	39.0*	44.3	(3)	-3	35	2.4	
DAIRYLAND	DSR141	43.1*	45.7	(13)	42.1	--	--	40.8	45.3	(8)	49.1*	45.3	(8)	40.4*	46.9	(3)	-2	37	2.6	
DAIRYLAND	DSR171	42.6*	47.1	(12)	44.1	--	--	41.3	46.8	(7)	51.1*	46.8	(7)	33.8	48.3	(3)	4	40	2.6	
DAIRYLAND	DST-1203	43.2*	44.2	(7)	45.5	--	--	43.1	41.4	(3)	48.4*	41.4	(3)	35.9	49.6	(2)	2	38	2.5	
DAIRYLAND	DST-1205	42.4*	--	(4)	41.0	--	--	43.3	46.4	(2)	49.6*	46.4	(2)	35.6	--	--	0	40	2.2	
DAIRYLAND	DST-1301	39.6	--	(4)	50.4*	--	--	35.8	35.7	(2)	35.6	35.7	(2)	36.5*	--	--	7	35	2.1	
DEKALB-PFIZER	CX134	36.0	41.9	(7)	27.0	--	--	37.3	41.5	(3)	46.1	41.5	(3)	33.6	45.0	(2)	4	34	2.2	
DEKALB-PFIZER	CX155	40.7	44.7	(14)	37.2	36.5	(2)	39.8	45.0	(8)	45.9	45.0	(8)	39.8*	46.5	(4)	5	40	2.2	
DEKALB-PFIZER	CX174	41.5*	--	(4)	44.9	--	--	43.6	44.0	(2)	44.5	44.0	(2)	32.9	--	--	7	39	2.3	
FUNK	G3115	40.0	43.6	(7)	42.4	--	--	38.1	41.0	(3)	43.9	41.0	(3)	35.6	46.2	(2)	6	35	1.8	
FUNK	G3145	42.9*	--	(4)	41.2	--	--	39.8	45.2	(2)	50.5*	45.2	(2)	39.9*	--	--	5	36	1.9	
GLH	GL1937	44.9*	46.5	(7)	47.2*	--	--	43.3	45.5	(3)	51.7*	45.5	(3)	37.5*	48.6	(2)	6	38	2.7	
GLH	XP1976	45.3*	--	(4)	46.5	--	--	44.7	47.0	(2)	49.4*	47.0	(2)	40.6*	--	--	7	39	2.0	
JACQUES	J-82	40.5	--	(4)	43.8	--	--	37.1	42.4	(2)	47.8*	42.4	(2)	33.2	--	--	0	38	2.3	
KING GRAIN	KG2007	39.0	--	(4)	38.0	--	--	43.2	41.5	(2)	39.7	41.4	(2)	35.0	--	--	-3	33	2.6	
KING GRAIN	KG70	41.4*	43.5	(9)	41.9	--	--	39.3	41.2	(4)	42.7	41.2	(4)	41.5*	46.3	(3)	0	38	1.8	
LAND O' LAKES	L1771	42.5*	--	(4)	41.1	--	--	40.6	45.6	(2)	50.7*	45.6	(2)	37.7*	--	--	2	35	2.2	
NORTHRUP KING	S1346	44.4*	44.2	(13)	45.8	42.5	(3)	44.6	45.2	(8)	48.9*	45.2	(8)	38.4*	43.7	(3)	2	34	2.1	
NORTHRUP KING	S1460	41.5*	42.8	(7)	48.6*	--	--	35.2	39.8	(3)	43.9	39.8	(3)	38.1*	45.6	(2)	1	34	2.1	
NORTHRUP KING	S1884	44.0*	49.7	(9)	41.8	--	--	42.5	48.8	(4)	47.9*	48.8	(4)	43.8*	52.9	(3)	5	36	1.8	
PIONEER	1282	42.3*	45.0	(7)	45.1	--	--	38.2	41.8	(3)	46.1	41.8	(3)	39.6*	51.1	(2)	0	38	2.6	
PRIDE	B152	42.3*	--	(4)	41.8	--	--	44.1	45.0	(2)	46.0	45.0	(2)	37.1*	--	--	1	36	2.3	
PRIDE	B203	41.3*	44.2	(7)	45.1	--	--	43.3	49.6	(4)	47.7*	49.6	(4)	28.9	33.0	(2)	6	36	2.1	
PROSOY	PS104	41.5*	45.6	(13)	37.1	--	--	44.0	47.5	(8)	55.5*	47.5	(8)	29.5	42.8	(3)	4	38	2.1	
RUPP	RS2100	40.2	--	(4)	44.1	--	--	40.1	42.0	(2)	43.8	42.0	(2)	32.7	--	--	5	40	2.4	
SRF	76-24486W	38.3	--	(4)	44.0	--	--	36.6	40.0	(2)	43.4	40.0	(2)	29.2	--	--	5	40	2.1	
STANTON	SB190	40.2	--	(4)	44.3	--	--	38.1	42.9	(2)	47.7*	42.9	(2)	30.6	--	--	5	39	2.3	
STINE	1350	42.1*	--	(4)	49.1*	--	--	49.1	45.6	(2)	45.0	45.6	(2)	28.3	--	--	1	33	2.0	
VORIS	V147	38.5	--	(4)	42.8	--	--	42.8	42.8	(2)	44.6	42.8	(2)	25.5	--	--	1	35	2.1	
LSD (.05)		5.85			7.12			NS			9.49			9.47			6.1	5.6	0.86	
TEST MEAN		41.89			43.69			41.10			46.24			36.61			1.0	38.0	2.29	

4. CHECK VARIETY USED TO CALCULATE DEVIATION FROM STANDARD MATURITY

* CHECK VARIETY USED TO CALCULATE DEVIATION FROM STANDARD MATURITY.
* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELD WITHIN THAT COLUMN.

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELD WITHIN THAT COLUMN.
NS VARIATION IN YIELD AMONG VARIETIES WAS NOT STATISTICALLY SIGNIFICANT.

TABLE 6. CENTRAL MICHIGAN, MEDIUM TO LATE MATURITY.

BRAND	ENTRY	YIELD (BU/A)										M	A	L					
		ENTIRE CENTRAL REGION			SOUTH CENTRAL (INGHAM CO.)			CENTRAL (GRATIOT CO.)		CENTRAL (TUSCOLA CO.)		EAST CENTRAL (SANILAC CO.)		T	U	O			
		1984	AVG.	(N)	1984	AVG.	(N)	1984	AVG.	(N)	1984	AVG.	(N)	Y	E	G			
PUBLIC	HODGSON 78 (I)	41.2	44.1	(23)	39.2	45.4	(2)	47.9	42.7	(13)	39.5	42.7	(13)	38.1*	46.4	(7)	-3	40	2.4
PUBLIC	AMCOR (II)	41.5	44.4	(10)	42.7	--	--	46.1	44.2	(6)	37.8	44.2	(6)	39.3*	45.2	(3)	3	42	2.8
PUBLIC	AMSOY 71	44.3	39.2	(21)	41.6	38.0	(3)	56.1	41.7	(12)	46.5	41.7	(12)	33.0	35.9	(6)	3	42	2.7
PUBLIC	BESON 80	38.1	42.2	(12)	42.4	--	--	48.6	45.5	(7)	38.9	45.5	(7)	22.4	36.5	(4)	2	37	2.0
PUBLIC	CENTURY	40.1	43.7	(13)	41.4	--	--	51.5	45.4	(8)	40.6	45.4	(8)	27.0	40.8	(4)	3	41	2.0
PUBLIC	CORSOY	42.3	39.3	(20)	49.3	41.4	(3)	43.7	40.6	(12)	39.8	40.6	(12)	36.3	35.5	(5)	1	41	2.8
PUBLIC	+ CORSOY 79	46.0	45.7	(20)	45.5	44.8	(2)	53.6	45.5	(12)	45.8	45.5	(12)	39.3*	47.2	(6)	10-3	42	2.8
PUBLIC	ELGIN	45.2	47.7	(8)	45.9	--	--	42.3	48.8	(6)	50.0	48.8	(6)	42.5*	--	--	-1	36	1.7
PUBLIC	GNOME	37.1	38.4	(16)	48.5	--	--	42.0	37.8	(9)	49.3	37.8	(9)	8.7	37.5	(6)	2	31	1.8
PUBLIC	HARCOR	39.0	44.0	(14)	39.6	--	--	36.0	44.0	(9)	47.4	44.0	(9)	33.0	45.0	(4)	1	42	2.8
PUBLIC	NEBSOY	39.7	40.8	(13)	45.2	--	--	41.2	42.9	(8)	50.8	42.9	(8)	21.6	35.6	(4)	1	36	2.0
PUBLIC	VICKERY	39.1	43.4	(14)	42.7	--	--	36.6	43.6	(9)	46.0	43.6	(9)	31.1	43.3	(4)	0	41	3.0
PUBLIC	WELLS II	39.6	41.7	(15)	43.0	--	--	40.0	44.4	(9)	48.5	44.4	(9)	26.8	36.7	(5)	-0	39	1.9
PUBLIC	PELLA (III)	46.6	45.7	(6)	46.2	--	--	37.5	41.7	(3)	57.8	41.7	(3)	45.1*	51.4	(2)	2	41	1.5
AGRIPRO	AP200	41.9	46.8	(11)	46.1	--	--	40.8	48.2	(7)	46.8	48.2	(7)	33.8	43.6	(3)	-2	39	2.5
AGRIPRO	AP240	37.0	41.8	(6)	42.1	--	--	45.7	45.1	(3)	41.6	45.1	(3)	18.5	36.6	(2)	1	35	2.1
AGRIPRO	HP2530	43.0	44.2	(7)	51.8	--	--	45.3	47.7	(4)	42.5	47.7	(4)	32.3	33.4	(2)	2	41	2.9
ASGROW	A2522	44.6	--	(4)	49.4	--	--	42.7	45.6	(2)	48.4	45.6	(2)	37.8*	--	--	2	41	2.5
CALLAHAN	3210	42.0	--	(4)	47.9	--	--	43.2	46.5	(2)	49.8	46.5	(2)	27.1	--	--	2	38	1.7
DAIRYLAND	DSR212	42.8	44.8	(8)	42.5	--	--	43.7	44.5	(4)	46.6	44.5	(4)	38.4*	45.9	(3)	1	37	1.8
DAIRYLAND	DSR232	41.1	42.8	(9)	45.5	--	--	39.0	41.3	(5)	48.6	41.3	(5)	31.2	44.3	(3)	3	41	2.6
DAIRYLAND	DST-2102	42.7	--	(4)	49.3	--	--	45.0	46.2	(2)	47.3	46.2	(2)	29.1	--	--	-0	39	2.3
DEKALB-PFIZER	CB200	45.9	45.1	(12)	46.5	--	--	47.6	45.1	(8)	51.6	45.1	(8)	37.9*	44.8	(3)	1	44	3.1
DEKALB-PFIZER	CX254	41.0	--	(4)	46.4	--	--	44.3	46.5	(2)	48.7	46.5	(2)	24.7	--	--	3	38	1.6
DEKALB-PFIZER	CX273	42.2	44.5	(8)	46.3	--	--	42.8	44.7	(4)	43.6	44.7	(4)	36.0	43.7	(3)	2	40	2.4
FUNK	G3239	41.8	--	(4)	43.2	--	--	46.1	46.3	(2)	46.5	46.3	(2)	31.5	--	--	3	37	1.9
GLH	GL2250	43.5	45.8	(10)	45.8	--	--	41.9	47.0	(6)	47.9	47.0	(6)	38.6*	43.4	(3)	2	42	2.0
GLH	GL2634	42.2	47.0	(6)	47.5	--	--	40.7	44.2	(3)	51.2	44.2	(3)	29.5	50.9	(2)	-1	38	2.4
GLH	XP2040	40.7	--	(4)	43.6	--	--	39.9	45.0	(2)	50.1	45.0	(2)	29.1	--	--	2	39	1.7
GLH	XP2586	41.8	--	(4)	41.0	--	--	40.0	44.9	(2)	49.8	44.9	(2)	36.5*	--	--	3	36	2.0
KING GRAIN	KG1650	39.3	--	(4)	44.4	--	--	39.9	42.1	(2)	44.3	42.1	(2)	28.7	--	--	3	36	2.3
KING GRAIN	KG3028	45.1	--	(4)	49.9	--	--	42.6	45.4	(2)	48.2	45.4	(2)	39.6*	--	--	2	38	2.6
LAND O' LAKES	L2330	42.5	--	(4)	44.3	--	--	44.5	46.9	(2)	49.3	46.9	(2)	32.1	--	--	1	39	2.6
LAND O' LAKES	L4303	40.2	--	(4)	45.2	--	--	45.3	45.0	(2)	44.8	45.0	(2)	25.4	--	--	1	39	1.8
LOWE	200	41.2	--	(4)	44.0	--	--	42.9	48.2	--	48.6	48.2	--	29.4	--	--	2	37	2.1
LOWE	211	40.4	--	(4)	40.5	--	--	44.0	43.9	(2)	43.8	43.9	(2)	33.5	--	--	2	39	2.2
PIONEER	2480	42.5	46.4	(6)	43.1	--	--	44.4	45.4	(3)	46.4	45.4	(3)	36.3	49.6	(2)	2	39	2.1
PIONEER	9271	43.7	--	(4)	49.3	--	--	44.6	47.4	(2)	50.3	47.4	(2)	30.5	--	--	1	38	1.8
PIONEER	9292	43.3	--	(4)	46.7	--	--	39.3	45.0	(2)	50.8	45.0	(2)	36.6*	--	--	0	35	1.7
PRIDE	B216	40.2	43.3	(13)	42.3	39.6	(3)	39.0	45.1	(7)	44.3	45.1	(7)	35.3	41.1	(3)	-1	39	2.1
PROSOY	PS210	44.6	47.1	(8)	46.0	--	--	45.6	47.1	(5)	50.0	47.1	(5)	36.8*	47.6	(2)	0	38	2.0
PROSOY	PS234	39.5	43.0	(10)	40.3	--	--	42.6	44.2	(6)	42.7	44.2	(6)	32.5	41.5	(3)	3	39	2.4
PROSOY	PS246	38.8	41.4	(9)	38.6	--	--	44.5	41.9	(5)	42.0	41.9	(5)	30.3	41.4	(3)	4	41	2.1
RUPP	RS2300	42.9	46.2	(10)	45.8	--	--	40.8	46.6	(6)	48.4	46.6	(6)	36.5*	45.5	(3)	-1	36	1.7
RUPP	RS2330	42.8	44.7	(8)	42.0	--	--	43.2	47.4	(4)	50.9	47.4	(4)	35.2	41.9	(3)	2	37	1.8
RUPP	RS2460P	42.0	--	(4)	49.5	--	--	42.8	46.5	(2)	50.2	46.5	(2)	25.4	--	--	3	40	2.0
VORIS	V207	42.5	46.5	(12)	46.4	--	--	38.8	47.4	(7)	46.8	47.4	(7)	37.9*	45.0	(4)	-2	39	2.1
VORIS	V227	43.1	--	(4)	44.5	--	--	52.9	49.6	(2)	46.3	49.6	(2)	28.7	--	--	1	39	2.0
LSD(.05)		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	8.65	3.3	4.3	0.70		
TEST MEAN		41.85			44.78			42.33			47.96			32.41			1.2	38.8	2.19

+ CHECK VARIETY USED TO CALCULATE DEVIATION FROM STANDARD MATURITY.

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELD WITHIN THAT COLUMN.

NS VARIATION IN YIELD AMONG VARIETIES WAS NOT STATISTICALLY SIGNIFICANT.

TABLE 7. UPPER PENINSULA.

BRAND	ENTRY	YIELD (BU/A)										M	A	L
		ENTIRE UPPER PENINSULA			SOUTHWEST U.P. (DELTA CO.)			CENTRAL U.P. (ALGER CO.)		EAST CENTRAL (MICHIGAN CO.)		U	E	D S
		1984	AVG.	(N)	1984	AVG.	(N)	1984	AVG.	(N)	Y	T	G	I O G C
PUBLIC	CLAY (O)	26.2	29.3	(6)	27.2	35.1	(4)	25.1	17.7	(2)	9-27	27	1.5	
PUBLIC	MAPLE AMBER (OO)	30.6	34.1	(5)	31.4*	34.5	(3)	29.7*	33.6	(2)	9-14	33	1.7	
PUBLIC	MAPLE ARROW (OO)	30.6	33.1	(6)	28.9	33.1	(4)	32.2*	33.0	(2)	9-16	35	2.0	
PUBLIC	MCCALL (OO)	30.2	33.1	(6)	28.5	35.4	(4)	30.2*	28.4	(2)	9-15	35	2.8	
PIONEER	1282 (I)	26.0	--	--	21.8	--	--	30.2*	--	--	10-9	43	2.5	
NORTHROP KING	S09-90 (O)	28.4	--	--	25.0	--	--	31.7*	--	--	10-6	37	2.5	
LSD(.05)		NS	2.2		3.9									
TEST MEAN		28.64			27.13			30.15						

* NOT SIGNIFICANTLY DIFFERENT FROM HIGHEST YIELD WITHIN THAT COLUMN.

NS VARIATION IN YIELD AMONG VARIETIES WAS NOT STATISTICALLY SIGNIFICANT.

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