

1981 MICHIGAN Soybean Performance Report

EXTENSION BULLETIN E-1206, DECEMBER 1981

by F. W. Pearsall, T. J. Johnston, 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 Central Michigan (Gratiot County) and Southeastern Michigan (Lenawee County). A smaller trial, in St. Joseph County, compared variety performance under irrigated and non-irrigated conditions in three row spacings.

Testing Procedures

Commercial varieties were obtained from seed companies. No attempt was made to include commercial varieties not voluntarily entered in the 1981 trials. Public varieties were supplied by the Michigan Foundation Seed Association. Table 9 provides the names and locations of the companies and entries included in the trials.

Extension and farm cooperators, planting and harvest dates, fertilizer practices, and soil management groups at the three locations are listed in Table 1.

At the Central and Southeastern locations, entries were planted in plots 18 feet long and four rows wide with a 30" row spacing. The planting rate was 9 seeds per foot of row and seeds were planted 1½" deep. Each plot was randomized in the field and replicated 3 times. Thirteen feet of the center two rows were harvested for yield determinations.

At the St. Joseph location, varieties were planted in 10", 20", and 30" rows with average populations of 3, 5, and 7 seeds per foot of row. Varieties in the 20" and 30" row spacings were planted in four row plots 18 feet long, and 13 feet of the center two rows were harvested. Varieties in the 10" row spacing were planted in eight row plots 18 feet long, and 13 feet of five rows were harvested.

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 obtained mature pod color and the pods would crack under finger pressure. Additional field drying was required before

the plants were ready to harvest. Dates were recorded by month and day.

LODGING—Lodging ratings reflect the erectness of the plants before harvest and are as follows: 1 = all plants upright; 2 = leaning slightly; 3 = plants lodged at 45° angle; 4 = considerable lodging; 5 = all plants flat.

HEIGHT—Plant height, in inches, was measured at maturity from the soil surface to the uppermost node on the main stem.

SEED SIZE—The number of seeds per pound was determined as a measure of seed size. The determination was made on clean, unsized seed.

SEED TYPE—Seed type indicates the genetic composition of the entries. P = pure varieties, B1 = blend of two or more pure varieties.

Results

Growing conditions were variable among locations. In Gratiot County, cool, wet weather this fall caused formation of *Sclerotinia* stem rot (called white mold in dry beans) in many plots. Lenawee County received frequent rains during the summer with an especially large amount in early August. However, the variety trials did not seem to be adversely affected. In St. Joseph County, weather was dry in late June and early July and again in mid-to-late August. The irrigated portion of the trials had to be irrigated four times.

Tables 2 through 8 show results of the 1981 variety trials. Values given are the averages of all replications at each location.

LSD values are given at the bottom of each table. The LSD (least significant difference) value is useful when comparing two varieties in the same table. Even though two varieties have the same genetic potential for yield, they may have different yields due to slight differences in soil fertility, compaction, and other environmental factors. If the difference between two varieties 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% probability that their performance abilities actually are different.

Selecting a Variety

The primary consideration in selecting a variety is harvestable 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 important to select a variety with a proper maturity date. From past weather data, farmers can determine the percent probability of the first fall frost. Choose a variety that will reach maturity (see maturity date definition) before the average date of the first damaging frost. 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 are planted in soybeans, growing varieties of different maturities provides 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 potential 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 problems combining may want to 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. Planting rates based on number of seeds per foot of row eliminates seed size bias.

Many diseases occur in soybean fields in Michigan. The diseases which contribute most significantly to yield reduction are seed and seedling diseases and root rot and stem rot diseases. Root rots of soybeans are

generally recognized when plants prematurely turn yellow, wilt or die. Less noticeable is the yield reduction that occurs when root rot destroys part of the root system and reduces the uptake of water and minerals, but causes no visible symptoms to above-ground 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 in following years.

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

Use of Data

All data presented are of varietal performance in 1981, except the 1980-81 and 1979-81 yield averages. The varieties are arranged in order of yield within a maturity at each location.

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

Michigan State University, and the Cooperative Extension Service thereof, approve the reproduction of the information and data presented in this publication only if no portion is deleted, if appropriate credit footnotes are given, and if the data is not rearranged or otherwise manipulated.

Table 1. Variety Trial Information.

County	Gratiot	Lenawee	St. Joseph	Delta	Menominee
CES Director	Dan Rossman	Mike Kovacic	Fred Henningsen	Don Pellegrini	Richard Breyer
Farmer Cooperator	Larry Coon	Larry Ivan	Bud Marantette	John TaLulip	Matt Koch
Address	3869 St. Charles Rd. Ithaca	6500 Downing Rd. Britton	Box 837 Mendon	Fayette	Stephenson
Soil Type	Parkhill Loam	Pewamo Mucky Clay Loam	Elston Sandy Loam	-----	-----
Soil Management Group	2.5c	1.5c	4.0a	2.5b	2.5b
Fertilizer	200# 19-19-19	200# 0-0-60	300# 7-28-28	280# 12-24-24	280# 12-24-24
Planting Date	5-27-81	5-8-81	5-22-81	6-2-81	5-27-81
Harvest Dates	10-27-81 Early to Medium Maturity 10-28-81 Medium to Late Maturity	10-5-81 Early to Medium Maturity 10-13-81 Medium to Late Maturity	10-3-81 Non-Irrigated 10-7-81 Irrigated	10-30-81	10-7-81

Table 2. Southeastern Michigan, Early to Medium Maturity, 1981—Lenawee County.

Brand	Variety	1981 Yield (Bu/A)	1980-81 Avg. Yield (Bu/A)	1979-81 Avg. Yield (Bu/A)	1981 Maturity Date	Lodging	Height (inches)	Seed Size (seeds/lb)	Seed Type
Prosoy	104	57.5	54.2		9-11	1.7	34	2871	P
	*Hardin	56.0	55.1		9-13	1.5	33	3150	P
Callahan	9160	53.2	53.4		9-11	1.2	31	2835	P
SRF	74-72-72	52.2			9-21	2.3	36	2853	P
Payco	PS0019	51.9	50.1		9-12	1.2	33	2716	B1
Hyland	8005	51.8			9-12	1.0	28	2577	P
Asgrow	A1937	51.8			9-13	1.2	31	2749	P
	*Coles	51.7	50.4	48.7	9-13	1.7	39	2637	P
Great Lakes	GL2317	51.5			9-24	1.7	39	2140	P
Dairyland	DSR141	49.9	49.0		9-11	1.2	35	2479	P
Asgrow	A1564	49.8	48.9	49.3	9-10	1.2	33	2716	P
Smith Douglas	SD619	49.5	50.1	47.0	9-13	1.3	31	3150	P
Prosoy	E1105	49.4			9-13	2.0	36	3086	P
Hyland	Hawk	49.3			9-12	1.2	30	2700	P
NK	*S1346	49.3	52.3	51.0	9-12	1.0	26	2400	P
Dairyland	*DSR171	49.3			9-16	1.5	35	3004	P
	*Hodgson 78	48.0	49.9	49.8	9-13	1.0	29	2413	P
Pfizer	CX155	46.6	49.1	51.1	9-18	1.2	30	2954	P
	Vinton	45.6			9-13	1.0	27	1906	P
	*Evans	45.5	45.8	45.3	9-6	1.0	28	2653	P
	*Lakota	44.8	49.4		9-14	2.0	37	2908	P
Payco	PS0011	44.5	46.2		9-9	1.0	27	2563	P
	*Hodgson	42.6			9-13	1.0	27	2637	P
Average		48.8			9-13	1.3	32		
LSD (.05)		8.9			2	0.6	4		

*Certified Varieties

Table 3. Southeastern Michigan, Medium to Late Maturity, 1981—Lenawee County.

Brand	Variety	1981 Yield (Bu/A)	1980-81 Avg. Yield (Bu/A)	1979-81 Avg. Yield (Bu/A)	1981 Maturity Date	Lodging	Height (inches)	Seed Size (seeds/lb)	Seed Type
Prosoy	332	66.9	64.7		10-9	2.8	38	2653	P
Callahan	9330	61.7	63.1		10-2	2.8	42	2749	B1
Pfizer	CX276	61.2	60.3	56.4	9-26	3.0	40	2653	P
Great Lakes	XP2034	58.8			9-24	2.2	37	2965	P
Rupp	RS2460	58.6			9-22	2.0	34	3086	P
Voris	247	57.5	57.2		9-16	1.2	31	2732	P
Jacques	J103	57.4			9-20	1.8	33	2616	P
Callahan	9240R	57.0			9-24	2.3	36	2853	P
Prosoy	201	56.8	56.1		9-15	1.2	33	2749	P
NK	*S2596	56.0	56.7	55.7	9-19	1.5	32	2413	P
Pfizer	CX321	55.7			9-26	2.5	37	3004	P
Rupp	RS2300	55.6	55.0	54.3	9-15	1.4	35	2783	P
Smith Douglas	SD839	55.6			10-3	2.8	38	2888	P
Voris	207	55.4	54.2	53.3	9-14	1.3	36	3086	P
Jacques	J105	55.1	56.1		9-24	1.8	35	2492	P
	*Amcor	54.9	54.3		9-25	2.7	43	2766	P
Smith Douglas	SD834 Improved	54.8	54.2	52.8	9-25	2.5	42	2853	P
Migro	HP2530	54.8			9-19	1.5	31	2908	P
Payco	PS0021	54.7	52.4		9-15	1.7	34	2945	B1
SRF	*SRF250	54.5	55.5	53.0	9-25	1.7	36	3410	P
Prosoy	246	54.5			9-23	1.5	36	2548	P
NK	Multivar 24-59	54.1	56.1	55.1	9-20	1.5	33	2716	B1
Voris	285	54.1	56.2	52.0	9-28	2.8	43	2622	P
	*Corsoy	53.9	52.3	52.4	9-17	2.2	36	2853	P
	*Corsoy 79	53.7	54.4	53.9	9-20	2.5	39	2871	P
	*Century	53.6	56.7	55.6	9-23	1.7	40	2732	P
Migro	HP20-20	53.6	56.0		9-14	1.5	33	2520	P
Great Lakes	GL2250	53.4	50.9		9-19	1.5	36	2668	P
	Sprite	53.3			10-9	1.0	22	2577	P
	*Wells II	53.3	54.1	51.2	9-14	1.4	35	2817	P
Voris	B202	53.3	55.0		9-16	1.9	35	3107	B1
Asgrow	A2575	53.0	59.0	57.7	9-16	1.4	38	2871	P
	*Harcor	52.6	53.0	54.4	9-18	1.7	37	2817	P
Asgrow	A2656	52.6	52.1	51.1	9-18	2.0	37	2783	P
Pfizer	1250	52.6			9-22	1.7	34	3217	P
Callahan	CB200	52.4	54.6	55.1	9-19	2.0	36	3065	B1
NK	*S1492	52.3	55.1	52.5	9-18	1.7	34	2889	P
SRF	*SRF200	52.3	51.2	49.0	9-24	2.7	41	3335	P
	*Beeson	52.0	53.2	51.0	9-20	1.7	36	2577	P
	*Beeson 80	52.0	53.2		9-19	2.2	36	2637	P
	*Nebsoy	51.9	51.3	50.4	9-16	1.3	31	2871	P
Dairyland	DSR-207	51.9	51.7	51.0	9-19	1.5	31	2668	P
King Grain	PR119403	51.8			9-14	1.5	30	3004	P
Smith Douglas	SD724	51.4	53.3	52.9	9-18	1.7	35	2965	P
Jacques	J102A	51.4	57.2	57.3	9-19	1.7	34	2926	P
Hyland	7904	51.4			9-13	1.3	31	2732	P
	*Vickery	51.3	55.4	56.1	9-17	2.3	35	2926	P
	*Amsoy 71	51.3	54.0	51.5	9-19	2.3	40	3065	P
Prosoy	222	50.9	54.5		9-19	1.7	36	2817	P
Asgrow	A2858	50.7	53.0	51.6	9-21	1.5	30	2383	P
Prosoy	234	50.6	55.8		9-21	1.8	35	2548	P
Agripro	AP230	50.5			9-15	1.7	33	2908	P
Callahan	2200	50.4			9-15	1.7	31	2534	P
Payco	PS0031	50.2	56.9		9-20	2.3	35	2213	P
Dairyland	DSR-232	50.2	54.1	51.8	9-22	2.5	37	3128	P
Gries	SRF200	50.0	54.1		9-20	2.7	40	3150	P
	*Gnome	50.0	51.8		10-2	1.0	22	3086	P

(Continued)

Table 3 (continued)

Brand	Variety	1981 Yield (Bu/A)	1980-81 Avg. Yield (Bu/A)	1979-81 Avg. Yield (Bu/A)	1981 Maturity Date	Lodging	Height (inches)	Seed Size (seeds/lb)	Seed Type
King Grain	B220	49.8	54.9		9-16	1.3	31	2800	P
Dairyland	DSR-227	49.5			9-26	2.3	37	2984	P
Gries	G240	49.5	54.6		9-18	1.5	36	2716	P
Rider's Pride	KD60	49.4			10-10	2.7	43	2637	B1
Agripro	AP200	48.0	50.8	50.9	9-15	1.8	35	2800	P
King Grain	KG28110	47.7			9-12	1.3	32	2835	P
Prosoy	210	47.5	55.4		9-16	1.7	34	2889	P
Pfizer	CX290	47.3	49.1	49.1	9-22	2.7	37	2749	P
Rider's Pride	KD70	47.1			10-11	2.5	45	2853	B1
Voris	257	46.5			9-25	2.7	39	2926	P
Agripro	18	46.0	53.0	51.9	9-24	1.0	35	2596	B1
Average		53.0			9-21	1.9	36		
LSD (.05)		7.0			4.3	0.6	4		

*Certified Varieties

Table 4. Central Michigan, Early to Medium Maturity, 1981—Gratiot County.

Brand	Variety	1981 Yield (Bu/A)	1980-81 Avg. Yield (Bu/A)	1979-81 Avg. Yield (Bu/A)	1981 Maturity Date	Lodging	Height (inches)	Seed Size (seeds/lb)	Seed Type
Asgrow	A1937	58.8			9-29	3.0	40	2668	P
Asgrow	A1564	58.7	55.8	51.6	9-28	2.5	39	2732	P
Callahan	9160	58.6	57.3	54.2	10-1	3.0	41	2465	P
Dairyland	*DSR171	58.5	54.1	49.3	10-5	3.3	43	2668	P
Prosoy	104	57.8	56.3	51.6	10-1	2.3	37	2684	P
	*Hardin	57.7	58.1		10-4	2.7	40	2871	P
Dairyland	DSR141	57.4	51.8	48.9	9-27	2.7	41	2479	P
Payco	PS0019	56.1	52.9		9-28	2.3	38	2800	B1
SRF	*SRF150P	54.9	53.2		10-3	2.8	37	3173	P
Payco	PS0011	54.2	49.6		9-26	1.7	35	3004	P
NK	*S1346	54.2	51.5	48.2	9-27	2.0	31	2492	P
	*Hodgson 78	53.8	50.8	48.1	9-25	2.0	36	2783	P
Hyland	Hawk	53.8	54.6		9-29	3.2	34	2684	P
Hyland	8005	53.4	51.7		9-23	2.7	38	2945	P
SRF	74-72-72	53.0			10-7	3.2	40	2926	P
	*Lakota	51.5			9-29	3.5	45	2817	P
Pfizer	CX155	51.4	51.7	51.3	10-7	3.0	40	2908	P
Callahan	2150	50.3			9-28	3.7	39	3128	P
	Vinton	49.9			9-29	1.8	30	1890	P
	*Hodgson	49.9	49.9		9-24	2.5	38	2871	P
	*Coles	49.9	49.6	45.0	9-30	3.0	41	2387	P
NK	S0990	49.7	49.3		9-24	2.3	36	2607	P
Great Lakes	GL2317	49.5			10-13	2.7	43	2202	P
Callahan	9140	49.0			9-27	2.8	36	3044	P
Jacques	J88	48.8	52.6		9-26	2.3	37	2817	P
Dairyland	DSR120	48.2	49.3		9-23	2.8	35	2700	P
Voris	147	47.4			9-30	2.5	35	3128	P
SRF	SRF101	47.0	49.4		9-24	1.8	27	3572	P
	*Evans	46.7	46.7	46.9	9-23	2.5	35	2653	P
Jacques	J84A	46.1	47.3	43.5	9-24	3.0	41	2965	P
Prosoy	E1105	45.7			9-26	3.3	39	3107	P
Asgrow	A1179	45.6			9-24	2.0	36	3024	P
Voris	135	44.2			10-10	3.3	42	3150	P
Average		51.4			9-29	2.7	37		
LSD (.05)		5.5			3	0.7	3		

*Certified Varieties

Table 5. Central Michigan, Medium to Late Maturity, 1981—Gratiot County.

Brand	Variety	1981 Yield (Bu/A)	1980-81 Avg. Yield (Bu/A)	1979-81 Avg. Yield (Bu/A)	1981 Maturity Date	Lodging	Height (inches)	Seed Size (seeds/lb)	Seed Type
Voris	207	55.5	53.9	47.9	10-7	2.2	41	3004	P
	*Harcor	52.2	54.1	50.5	10-8	3.0	43	3065	P
Payco	PS0021	51.3			10-4	2.2	37	3194	B1
Callahan	1250	51.3			10-10	2.0	37	3311	P
Callahan	9240R	50.8			10-11	2.0	36	2984	P
Rupp	RS2460	50.6			10-9	2.2	40	3128	P
Dairyland	DSR-232	50.5			10-9	2.5	40	2817	P
Agripro	AP200	50.4	52.7	48.7	9-30	2.5	39	2565	P
Great Lakes	GL2250	50.3	51.8		10-7	2.5	40	2653	P
Prosoy	222	50.2	49.5		10-9	2.8	43	2637	P
Prosoy	234	50.2	52.7		10-7	2.2	38	2749	P
	*Corsoy 79	49.9	53.3	48.6	10-5	2.7	44	3044	P
NK	*S1492	49.6	49.2	46.0	10-6	2.2	37	2800	P
	*Corsoy	49.2	50.6	47.2	10-5	2.5	41	3024	P
King Grain	B220	48.8	50.9	47.8	10-4	2.0	37	2817	P
King Grain	PR119403	48.8			9-30	1.8	36	3128	P
	*Amsoy 71	48.3	51.4	47.2	10-8	2.7	43	2908	P
Migro	HP20-20	48.2	51.2		10-2	2.0	38	2749	P
Prosoy	210	48.1	48.2		10-10	2.3	38	2668	P
Agripro	18	47.9	50.6	47.5	10-11	1.5	33	2563	B1
Asgro	A2656	47.7	47.2	45.8	10-7	2.3	42	3172	P
NK	Multivar 24-59	47.5	49.6	47.6	10-8	1.8	36	3044	B1
King Grain	KG28110	47.3			10-1	2.2	37	2766	P
Prosoy	246	47.2			10-11	2.2	39	2684	P
	*Amcor	47.0	46.7		10-12	3.3	44	2908	P
	*Vickery	46.9	49.9	46.5	10-3	2.7	41	3287	P
	*Century	46.7	51.3	46.2	10-6	1.8	40	2766	P
Rupp	RS2460	46.7	49.0	42.9	10-2	1.5	35	3217	P
Gries	SRF200	46.7	53.0		10-11	3.3	41	3065	P
	*Nebsoy	46.7	48.9	44.0	10-8	2.0	37	2766	P
NK	*S2596	46.6	54.5	49.9	10-7	1.8	36	2783	P
Pfizer	CB200	46.3	48.3	44.4	10-8	3.2	42	3263	B1
Callahan	2200	46.3			10-2	2.3	34	2637	P
	*Wells II	46.1	49.6	48.1	10-1	1.7	37	3516	P
Asgrow	A2575	46.0	48.3	44.9	10-7	1.8	41	2871	P
Migro	HP2530	45.8			10-8	1.8	33	2889	P
	*Beeson 80	45.7	46.4		10-9	2.7	39	2716	P
Dairyland	DSR-207	45.4	49.1		10-7	2.0	38	2965	P
Hyland	7904	44.6	49.4		10-4	2.0	35	3086	P
Voris	247	44.4	51.4		10-3	1.7	33	3044	P
Gries	G240	43.5	49.2	48.2	10-6	1.8	40	2945	P
Payco	PS0031	42.7			10-9	3.2	39	2246	P
Voris	257	42.2			10-12	2.7	43	3086	P
Great Lakes	GL1858	42.0			9-29	2.0	36	3065	P
Pfizer	CX276	41.9	45.3	41.2	10-11	3.0	43	2926	P
Prosoy	201	41.5			10-6	2.2	37	2766	P
	*Beeson	40.2	48.8	45.0	10-10	2.8	40	2668	P
	*Gnome	38.0	42.4		10-11	1.2	22	2835	P
Rider's Pride	KD70	34.2			10-26**	3.2	46	3107	B1
Rider's Pride	KD60	33.0			10-19**	3.0	45	3086	B1
Average		46.6			10-7	2.3	39		
LSD (.05)		7.7			3	0.5	3		

*Certified Varieties

**Maturity delayed due to frost on 10-3-81

Table 6. Delta County.

Variety	1981 Yield (Bu/A)	1980-81 Avg. Yield (Bu/A)	Maturity Date	Height (Inches)	Lodging
Ada	35.7	28.1	10- 4	25	1.8
Clay	33.6	26.3	10- 1	24	1.9
Maple Arrow	31.3	30.4	9-19	26	1.5
Maple Presto	25.5		9- 8	22	1.0
McCall	35.5	31.0	9-19	25	1.5
Wilkin	29.3	27.9	10- 1	23	1.6
LSD (.05)	3.8				

Table 7. Menominee County.

Variety	1981 Yield (y/ng)	1980-81 Avg. Yield (Bu/A)	Maturity Date	Height (Inches)	Lodging
Ada	22.4	25.9	10- 1	26	1.8
Clay	26.5	28.8	9-26	25	1.9
Maple Arrow	32.1	36.1	9-15	28	1.5
Maple Presto	20.1		9- 4	22	1.0
McCall	28.6	28.9	9-16	26	1.5
Wilkin	28.4	29.4	9-26	22	1.8
LSD (.05)	3.2				

Table 8. St. Joseph County Irrigation Study.

	Row Space	IRRIGATED				NON-IRRIGATED			
		1981 Yield (Bu/A)	Maturity Date	Lodging	Height (inches)	1981 Yield (Bu/A)	Maturity Date	Lodging	Height (inches)
Hodgson 78	10	51.4	9-16	3.0	35	44.7	9-13	1.8	29
	20	46.7	9-16	2.9	36	48.3	9-13	1.8	30
	30	46.8	9-15	2.9	35	40.7	9-12	2.2	31
SRF150P	10	53.7	9-22	3.6	34	44.9	9-14	1.7	26
	20	52.4	9-22	3.4	35	43.7	9-14	1.9	29
	30	44.5	9-20	3.6	34	38.7	9-14	2.2	31
SRF200	10	60.6	9-28	3.8	40	52.5	9-19	2.2	33
	20	66.7	9-28	3.7	41	49.7	9-19	2.6	35
	30	47.8	9-28	3.6	40	44.2	9-19	3.0	36
Corsoy 79	10	57.5	9-23	3.5	41	54.6	9-18	2.6	33
	20	56.6	9-24	3.3	42	52.6	9-18	2.8	34
	30	49.3	9-23	3.5	41	44.2	9-18	2.9	36
Harcor	10	61.5	9-25	3.6	41	53.5	9-21	2.9	33
	20	59.1	9-23	3.4	42	53.1	9-20	3.0	36
	30	49.9	9-24	3.9	42	45.3	9-19	3.2	36
Nebsoy	10	53.8	9-21	2.0	35	53.6	9-18	1.6	28
	20	53.4	9-21	2.0	35	48.1	9-16	1.8	29
	30	50.6	9-21	2.0	35	40.3	9-17	1.9	30
Gnome	10	57.9	10-1	1.7	22	55.5	9-27	1.3	22
	20	50.2	9-30	1.5	22	51.7	9-26	1.5	22
	30	50.5	10-1	1.7	22	45.8	9-27	1.8	22
Hardin	10	57.5	9-22	3.2	40	49.4	9-16	2.3	29
	20	54.1	9-20	3.1	39	55.0	9-15	2.3	31
	30	49.1	9-19	3.4	38	42.8	9-15	2.8	33
Wells II	10	53.9	9-17	2.5	37	47.5	9-12	1.7	30
	20	52.8	9-15	2.5	37	47.5	9-14	1.7	31
	30	44.8	9-16	2.4	37	39.7	9-13	1.8	31
Avg. Yield	10	56.4				50.7			
	20	54.7				50.1		LSD (.05) ^a 5.7	
	30	48.2				42.4		LSD (.05) ^b 5.0	
Overall Yield		53.1				47.7		LSD (.05) ^c 5.3	

^aUsed to compare yields between irrigated and non-irrigated for the same variety and row spacing.

^bUsed to compare yields between row spacings for the same variety and water treatment.

^cUsed to compare yields between varieties for the same water treatment and row spacing.

Table 9. Seed Sources.

Source	Brand	Entry
Asgrow Seed Co. Kalamazoo, MI	Asgrow	A1179, A1564, A1937, A2575, A2656, A2858
Callahan Seeds Westfield, IN	Callahan	2150, 9140, 9160, 9240R, 2200, 1250, 9330
Dairyland Seed Co. West Bend, WI	Dairyland	DSR-120, DSR-141, DSR-171, DSR-207, DSR-232, DSR-227
Great Lakes Hybrids Ovid, MI	Great Lakes	GL2250, GL1858, GL2317, GL2034
Gries Seed Farms, Inc. Freemont, OH	Gries	G240, SRF200
W. G. Thompson & Sons, Ltd. Blenheim, Ontario	Hyland	Hawk, 8005, 7904
Jacques Seed Co. Prescott, WI	Jacques	J84A, J88, J102A, J103, J105
King Grain Limited Chatham, Ontario	King Grain	B220, PR119403, KG28110
North American Plant Breeders Ames, IA & Mission, KS	Agripro Migro	AP200, 18, AP230 HP20-20, HP2530
Northrup King Co. New Hope, MN	NK	S1492, S2596, S0990, S1396, Multivar 24-59

Table 9 (Continued)

Source	Brand	Entry
Payco Seeds, Inc. Dassel, MN	Payco	PS0011, PS0019, PS0021, PS0031
Pfizer Genetics Windfall, IN	Pfizer	CX155, CB200, CX321, CX276, CX290
Pro-Seed, Inc. Blissfield, MI	Prosoy	104, 201, 210, 234, 246, 332, 222, E1105
Rider's Pride, Inc. Union, MI	Rider's Pride	KD60, KD70
Rupp Seed Farm Wauseon, OH	Rupp	RS2300, RS2460
Smith-Douglas Riga, MI	Smith Douglas	SD619, SD724, SD839, SD834 Improved
Soybean Research Foundation Mason City, IL	SRF	SRF101, SRF150P, 74-72-72, SRF200, SRF250
Voris Seeds, Inc. Windfall, IN	Voris	147, 135, B202, 207, 247, 257, 285
Public Releases — Hardin, Hodgson 78, Hodgson, Lakota, Vin- ton, Coles, Evans, Harcor, Corsoy 79, Corsoy, Amsoy 71, Amcor, Vickery, Century, Nebsoy, Wells II, Beeson 80, Beeson, Gnome, Sprite, Ada, Clay, Maple Arrow, Maple Presto, McCall, Wilkin		



MSU is an Affirmative Action/Equal Opportunity Institution. Cooperative Extension Service programs are open to all without regard to race, color, national origin, or sex.

Issued in furtherance of cooperative extension work in agriculture and home economics, acts of May 8, and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Gordon E. Guyer, Director, Cooperative Extension Service, Michigan State University, E. Lansing, MI 48824.

This information is for educational purposes only. Reference to commercial products or trade names does not imply endorsement by the Cooperative Extension Service or bias against those not mentioned. This bulletin becomes public property upon publication and may be reprinted verbatim as a separate or within another publication with credit to MSU. Reprinting cannot be used to endorse or advertise a commercial product or company.