



Michigan Soybean Performance Report — 1977

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THIS 1977 MICHIGAN SOYBEAN REPORT provides information to farmers on the relative performance of many varieties available in Michigan.

Variety trials were conducted at two locations, one in southeastern and one in central Michigan. The results of these trials, plus available information regarding seed quality, availability and price, should help farmers make appropriate selections of varieties for 1978 plantings.

TESTING PROCEDURE

Commercial entries were obtained voluntarily from seed companies. Seeds of the public releases were supplied by the Michigan Foundation Seed Association.

The central Michigan test was located in Eaton County on a Parkhill loam (management group 2.5c). All entries were planted May 19. Group 0 maturity varieties were harvested on September 28 and the others on October 14. The fertility program consisted of 175 lb of 6-24-24 banded at planting.

The southeastern Michigan trial was conducted in Monroe County on a Toledo silty clay loam (management group 1c). All entries were planted on May 17. Group I soybean varieties were harvested October 7, and the remaining varieties on October 15. Two hundred pounds of a 14-14-14 fertilizer were applied at planting.

At both locations, each entry was a plot of four rows 20 feet long. Row spacing was 28 inches and the resulting final stand was seven plants per foot of row. Planting depth was 1½ inches. Each entry was replicated three times and randomized in the field. Weed control consisted of a preemergence herbicide treatment and two cultivations during the growing season. Sixteen feet of each of two center rows of a plot were harvested for yield determination at each location.

Trials in 1976 were conducted in Lenawee and Eaton Counties. In 1975, the trials were conducted

in Monroe and Ingham Counties. Testing procedures in these two previous years were similar to those in 1977.

EVALUATION OF CHARACTERS

Descriptions of the varietal characteristics evaluated and importance of characteristics in varietal selections are discussed below. Results of 1977 varietal performances are listed in Tables 1 and 2. Values presented are averages of the three replications at each location.

Yield—Harvested seed was dried to a constant moisture. Yields were expressed in bushels per acre at 13% moisture. Yield is perhaps the most important criterion on which to select a variety. However, the following characters are important because they have the potential to affect overall varietal performance.

Maturity Date—An entry was considered mature when 95% of the pods had turned brown. Dates were recorded by month and day. It is important to select a variety that will mature just prior to the average date of the first killing frost. This will assure that the potential yield of the variety is attained and will decrease the possibility of harvesting losses and poor seed quality.

Lodging—Lodging ratings were as follows: 1 = all plants upright; 2 = slight lodging; 3 = plants lodged at 45° angle; 4 = severe lodging; 5 = all plants completely flat. The ratings were made just prior to harvest. If considerable lodging occurs, yield reductions are possible because of decreased light utilization, increased disease susceptibility and increased harvest losses.

Height—Plant height was measured in inches from the soil surface to the top node of the main stem that had at least one pod. The measurement was made in advance of harvest. Height is often associated with lodging; that is the taller the plant, the more lodging.

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Table 1 — Southeastern Michigan — 1977 Soybean Variety Performance Results*
(location: 1977-Monroe County; 1976-Lenawee County; 1975-Monroe County)

Source	Variety	1977 Yield (Bu/A)	1975-77 Avg. Yield (Bu/A)	Maturity date	Lodging	Height (inches)	Seed size seeds/lb.
Public Releases**	Amsoy	39.5	40.0	9-22	1.0	34	2490
	Beeson	40.0		9-25	1.4	34	2140
	Coles	33.4		9-18	1.0	32	2550
	Corsoy	44.9	42.8	9-24	1.6	34	2870
	Evans	28.6	30.0	9-10	1.0	28	2940
	Hark	33.8	35.9	9-16	1.0	29	2550
	Harosoy 63	35.8	36.6*	9-19	1.5	36	2490
	Hodgson	35.1	35.6	9-15	1.0	32	2550
	Swift	29.1	29.3*	9-11	1.0	31	3020
	Steele	33.7	34.4	9-12	1.0	29	2640
The Andersons	APS 200	47.0		9-26	2.0	40	2000
Farmers Forage Research	FFR 225	46.4		9-27	1.5	36	2440
	FFR 1050	47.9		9-27	1.5	33	2410
W. Lafayette, IN	FFR 2070	36.6		9-23	1.5	34	2520
	FFR 2140	41.7		9-28	1.5	33	2360
	FFR 2189	51.0		9-30	1.7	42	2270
Ferry-Morse Seed Co. Geneseo, IL	Gold Tag 1220	36.6		9-13	1.0	32	2440
	McKay 1100	26.3		9-22	1.0	34	2580
Funks Seed Int'l Bloomington, IL	Beechwood	22.1		9-10	1.0	29	2550
	Nairn	30.3		9-12	1.0	30	2700
Jacob Farms, Inc. Blissfield, MI	JFI 106	34.0		9-22	1.0	34	2490
	JFI 106SB4	40.6		9-25	2.3	42	2220
	JFI 110	37.2		9-24	1.0	32	2550
	JFI 112	45.5		9-24	1.5	37	2550
	JFI 114	49.4		9-28	2.0	42	2310
Jacques Seed Co. Prescott, WI	J 98	39.5	37.8	9-24	2.0	39	2870
	J 94A	28.9		9-15	1.0	31	2770
	J 104	40.7	39.1*	9-24	1.5	34	2700
N. American Plant Breeders Ames, Iowa	Agripro 14	40.2		9-15	1.0	30	2390
	Agripro 18	36.9	35.9*	9-23	1.5	36	2640
	Agripro 20	43.8	40.5	9-24	1.5	34	2100
	NA Ex. 111	39.4		9-17	1.5	32	2580
Northrup, King and Company Washington, IA	Multivar 41	31.5	33.7*	9-10	1.0	27	2700
	***Multivar 51	44.9	42.0*	9-26	2.5	40	2550
	***S 1244	28.8	31.8	9-11	1.0	28	2640
	S 1346	38.5	36.6	9-16	1.0	25	2550
	***S 1474	44.4	42.4	9-25	2.0	38	2640
	S 1492	45.0	40.3*	9-22	1.0	25	2700
	S 1578	40.5		9-25	1.5	37	2410
Peterson Seed Division Grand Rapids, OH	P-85	22.5	26.3*	9-10	1.0	26	2770
	P105-P	44.5		9-25	2.0	38	2640
	P118-11	31.1	32.9*	9-15	1.0	27	2640
	P0877	32.3		9-10	1.0	29	2670
	P1677	44.0		9-17	1.5	35	3020
	P2477	45.7		9-24	2.0	32	2700
	P2877	31.5		9-25	1.5	35	2700
	P3100	42.9		9-24	1.4	37	2580
	P3105	45.6	44.5*	9-28	2.5	42	2580
	Pride Co., Inc. Glenhaven, WI	B186	34.7	35.6	9-15	1.5	34
***B216		42.9	42.9	9-23	1.5	35	2390
Soybean Research Foundation Mason City, IL	**SRF 150-P	37.1	37.5	9-16	1.0	32	2980
	**SRF 200	44.2	41.8	9-24	2.0	40	2640
	72-3176	44.8		9-28	2.0	42	2520
	72-3299	28.9		9-29	1.5	40	2490
Voris Seeds, Inc. Windfall, IN	VB 120	34.0		9-20	1.0	33	2730
	VS 135	35.8		9-23	1.5	36	2550
	VB 200	43.4		9-20	1.0	34	2640
	VS 245	38.8	39.6*	9-24	2.0	36	2800
V.R. Seeds, Inc. Flora, IN	Beam	39.0		9-21	1.5	32	2670
	Buccaneer	46.2		9-23	1.5	38	2520
	Burr	44.0		9-29	2.5	41	2340
	Classic I	43.5		9-26	1.5	38	2670
	Viking	33.5		9-24	1.0	34	2900

*For explanation of characters listed, refer to text.

*1976-1977 two year average yields only.

**These varieties are currently on the "Recommended for Certification" list.

***These varieties are currently on "Eligible for Certification" list.

Table 2—Central Michigan—1977 Soybean Variety Performance Results*
(location: 1977, 1976-Eaton County; 1975-Ingham County)

Source	Variety	1977 Yield (Bu/A)	1975-77 Avg. Yield (Bu/A)	Maturity date	Lodging	Height (inches)	Seed size seeds/lb.	
Public Releases**	Amsoy 71	33.6	37.5	9-23	2.0	37	2520	
	Beeson	34.9		9-25	1.6	26	2160	
	Coles	37.3		9-21	1.4	37	2440	
	Corsoy	33.6	39.3	9-23	1.3	39	2730	
	Evans	30.8	33.3	9-13	1.0	30	2520	
	Hark	28.2	33.4	9-22	1.3	33	2640	
	Harosoy 63	32.1		9-25	2.7	43	2470	
	Hodgson	37.2	41.2	9-19	1.5	35	2360	
	Swift	23.4	27.5*	9-20	2.2	38	2490	
	Steele	23.0	33.1	9-18	1.0	30	2520	
The Andersons Maumee, OH	APS 200	38.3		9-25	1.5	36	2440	
Farmers Forage Research Coop. W. Lafayette, IN	FFR 225	34.6		9-27	1.5	41	2490	
	FFR 1050	32.8		9-30	2.7	42	2440	
	FFR 2070	37.3		9-26	2.7	41	2360	
	FFR 2140	37.0		9-27	1.5	33	2390	
	FFR 2189	23.7		10-2	2.8	43	2470	
Ferry-Morse Seed Co. Geneseo, IL	Gold Tag 1140	36.5		9-22	1.5	37	2800	
	Gold Tag 1170	41.4		9-24	1.7	38	2310	
Funks Seeds Int'l Bloomington, IL	Beechwood	18.8		9-15	2.0	35	2360	
	Nairn	32.2		9-18	1.5	36	2600	
Jacques Seed Co. Prescott, WI	J 98	43.7	41.8	9-23	2.6	42	2700	
	J 94A	37.9		9-22	1.5	42	2520	
	J 104	38.1	40.0	9-26	2.8	42	2700	
N. American Plant Breeders Ames, IA	Agripro 14	35.3		9-22	2.0	36	2410	
	Agripro 18	36.0		9-24	2.8	43	2770	
	Agripro 20	38.5		9-24	1.2	35	2140	
	NAPB Ex. 111	35.2		9-22	1.3	36	2670	
Northrup, King and Company Washington, IA	Multivar 41	36.9	38.4*	9-23	1.5	35	2520	
	***Multivar 51	30.6	33.6*	9-24	1.5	35	2490	
	***S 1244	31.5	39.1	9-21	1.5	33	2290	
	S 1346	40.9	41.7	9-22	1.2	34	2360	
	***S 1474	38.8	42.0	9-25	2.5	44	2470	
	S 1492	35.9	39.5*	9-26	2.2	38	2550	
	S 1578	37.5		9-28	2.5	38	2410	
	Peterson Seed Division Grand Rapids, OH	P 85	28.2	33.1*	9-21	1.5	33	2550
P 105-P	37.3		9-25	2.5	40	2360		
P 118-11	P 118-11	40.7	38.3*	9-22	1.5	34	2490	
	P 0877	30.5		9-22	1.8	34	2290	
	P 1677	37.5		9-18	1.0	28	3340	
	P 2477	31.1		9-22	1.2	34	2640	
	P 2877	34.9		9-28	2.8	42	2700	
	P 3100	36.0	39.5*	9-22	1.2	34	2730	
	P 3105	38.6	38.4*	9-29	2.8	42	2550	
	Pfizer Genetics Inc. Beaman, IA	E 94-7	34.3		9-28	2.8	41	2080
		CX 114	34.5		9-25	2.7	40	2580
CX 155		35.8		9-21	1.4	35	2980	
CX 175		33.9		9-20	1.2	31	2910	
CB 188		33.8		9-22	1.0	34	2670	
CX 276	36.2		9-24	1.9	35	2360		
Pride Co., Inc. Glenhaven, WI	B 186	29.0	35.4	9-17	1.2	36	2520	
	***B 216	35.5	40.4	9-25	1.5	34	2640	
Soybean Research Foundation Mason City, IL	**SRF 150P	37.8	39.2	9-25	2.0	44	2770	
	**SRF 200	33.3	34.9	9-26	2.2	42	2940	
	72-3176	34.0		10-2	2.6	47	2600	
	72-3299	31.4		10-2	2.5	46	2490	
Voris Seeds, Inc. Windfall, IN	VB 120	35.3		9-24	1.8	35	2520	
	VS 135	31.6		9-24	1.8	41	2730	
	VB 200	39.3		9-25	2.0	42	2470	
	VS 245	35.3	37.0*	9-25	2.8	41	2700	
V.R. Seeds, Inc. Flora, IN	Beam	36.2		9-25	1.5	37	2640	
	Buccaneer	33.2		9-22	2.7	42	2470	
	Viking	38.2		9-25	2.9	42	2670	

*For explanation of characters listed, refer to text.

**1976-1977 two year average yields only.

***These varieties are currently on the "Recommended for Certification" list.

****These varieties are currently on the "Eligible for Certification" list.

Seed Size—The number of seeds per pound was determined as an expression of seed size. The smaller the seed, the more seeds per pound. The determination of seeds per pound was made on cleaned seed. Seed size is important in its effect on planting rate, depth, seed cleaning and other practices.

USE OF DATA

All data presented, except the 1975-1977 yield average, are of varietal performance in 1977. Order of data is alphabetical according to source, and in no

way implies superiority of one source over another.

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

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