

2019 ORGANIC SOYBEAN VARIETY TRIALS YIELD RESULTS

Dean Baas—MSUE, Bob Battel—MSUE and Dechun Wang—MSU Soybean Breeding Program

In 2019, The Organic Farmers of Michigan (OFM), Michigan State University (MSU) MSU Extension (MSUE) partnered to continue the organic soybean variety trials. This is the eighth year of evaluating organic and non-GMO soybean varieties under organic management to identify existing and promising varieties to improve the productivity and quality of soybeans for organic growers in Michigan. The 2019 Organic Soybean Variety Trials include 43 different varieties from seven seed companies and two universities. Variety trials were planned at three locations. However, due to excessive spring precipitation, the Isabella County location was prevented from planting.



Variety Trial Plots in Tuscola during the OFM Fall Field Day.

TEST SITE INFORMATION

Tuscola County

Nearest city: Unionville

Cooperator: Dave Sting

Soil type: Tappan-Londo Loam

Planting date: 5/17/19

Kalamazoo County

Nearest city: Hickory Corners

Cooperator: W. K. Kellogg Bio Station

Soil type: Sandy Loam

Planting Date: 6/12/19

Isabella County

Due to challenging spring weather conditions, the Isabella County site was prevented planting and could not be included in the trial for 2019.

Growing season considerations

The wet spring weather conditions resulted in late planting in Kalamazoo County followed by a dry period during the summer and a wet fall that delayed harvest. Yields at this location were lower than normal with higher variability as indicated by a CV of 19.7.

Purpose of this report

1. This preliminary report is published to provide yield results to assist farmers in making variety purchasing decisions for next year's growing season.
2. Samples from 2019 have been submitted for quality analyses. A final report will be published early in 2020 including quality and additional agronomic results.
3. Varieties that were included in previous trials have been noted. Results for yield, % oil, % protein, maturity days after planting, height and seeds/lb are available for reference in previous reports at http://organicfarmersofmichigan.com/test_plot_data.html.



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2019 Organic Soybean Variety Trials Yield Results

Source	Variety	Group	Hilum Color	Yield (bu/A)			Previous Reports****									
				Kalamazoo	Tuscola	Average	2012	2013	2014	2015	2016	2017	2018			
Albert Lea Seed	Viking 0.2188AT12N	2.5	Yellow	22.6	66.3	44.7						X	X	X		
Albert Lea Seed	Viking 0.2518N	2.5	Black	25.0	63.7	42.7						X		X		
Albert Lea Seed	Viking 0.2155N	2.1	Black	24.6	58.5	41.9										
Albert Lea Seed	Viking 0.1518N	1.5	Black	17.7	53.0	36.3						X	X	X		
Albert Lea Seed	Viking 0.1202N	1.2	Brown	13.2	51.1	33.9										
Blue River Hybrids	22DC6	2.2	Buff	26.3	51.0	40.3							X	X	X	
Blue River Hybrids	20FC6	2.0	Yellow	23.4	52.9	39.2							X	X	X	
Blue River Organic Seed	1F44	1.4	Yellow	20.4	45.5	31.4										
DF Seeds	DF 260 N	2.6	Buff	35.7	60.8	46.7										
DF Seeds	DF 210 N	2.1	Buff	28.5	63.6	44.8										
DF Seeds Inc	DF 187 N	1.8	Clear	26.2	58.2	43.8								X	X	
DF Seeds	DF 227 N	2.2	Brown	31.9	56.1	41.7								X	X	
DF Seeds Inc	DF 155 N	2.5	Clear	27.9	48.9	39.3	X	X	X	X	X	X	X	X	X	
DKB Farms	Vinton 81	1.9	Clear	20.6	39.1	30.4	X	X	X	X	X	X	X	X	X	
LG Seeds	C2300	2.3	Brown	28.9	59.3	43.2									X	
LG Seeds	LGS2010	2.0	Brown	24.3	62.9	40.6										
Michigan State University	E10174	2.7	Yellow	35.4	61.9	47.0	X	X	X	X	X	X	X	X	X	
Michigan State University	E17205	2.7	Buff & Yellow Mix	26.2	63.8	46.7										
Michigan State University	E14077	2.4	Dark Imperfect Black	27.8	60.8	46.3								X	X	
Michigan State University	E17506T	2.1	Yellow	24.0	62.6	44.2										
Michigan State University	E13902-20***	2.5	Dark Buff	29.9	57.7	43.3								X	X	
Michigan State University	E17275	2.2	Buff	32.7	55.6	43.3										
Michigan State University	E17181	1.9	Yellow	24.9	59.1	43.1										
Michigan State University	E15165T	1.9	Yellow	28.7	55.6	41.8								X	X	
Michigan State University	E15079T	2.2	Yellow	26.6	61.5	41.8								X	X	
Michigan State University	E15346T	1.6	Yellow	26.9	57.7	41.6								X	X	
Michigan State University	E11128T	2.6	Yellow	28.7	56.9	41.2					X	X	X	X	X	
Michigan State University	E13268	1.5	Black	21.6	58.3	40.3								X	X	X
Michigan State University	E13036T	2.4	Yellow	24.6	51.2	37.0						X	X	X	X	
Michigan State University	E17333	2.1	Brown	18.4	52.5	36.7										
Michigan State University	E15338	1.5	Dark Buff	18.2	46.4	36.6										
Michigan State University	E07158-T	2.3	Yellow	25.7	45.5	35.9	X	X	X	X	X	X	X	X	X	
Michigan State University	E07130-T	2.3	Yellow	26.9	48.0	35.1	X	X	X	X	X	X	X	X	X	
Pioneer	P21A20	2.1	Yellow	26.6	55.5	39.9										
Pipeline Foods**	SR 354	2.2	Yellow	20.8	57.9	38.1								X	X	X
Pipeline Foods**	SR 129	1.8	Yellow	26.2	43.6	36.7								X	X	X
Pipeline Foods**	SR 20	2.0	Yellow	22.0	54.1	34.1									X	
University of Minnesota	M07-297007	1.7	Black	25.0	56.2	41.4								X	X	X
University of Minnesota	M08-365100	1.5	Grey	21.0	55.2	40.4								X	X	
University of Minnesota	M10-254090	1.6	Yellow	16.7	54.8	36.0										
University of Minnesota	M09-285149	1.5	Buff	15.4	51.2	34.3										
University of Minnesota	M07-209037	1.6	Yellow	17.8	48.2	33.5										
University of Minnesota	MN1806CN	1.8	Yellow	6.8*	31.1*	21.4*							X	X	X	
GRAND MEAN				24.3	54.7	39.5										
Max. Mean				35.7	66.3	47.0										
Min. Mean				6.8	31.1	21.4										
LSD				7.9	8.0	6.8										
CV				19.7	8.8	14.7										
Number of replications				4	4	8										

*Low yields due to poor germination.

**Formerly SunOpta, varieties listed under SunOpta in previous reports.

***E13902-20 was derived from E13902 referenced in previous reports.

****Varieties included in previous reports. Previous results for yield, % oil, % protein, maturity days after planting, height and seeds/lb available for reference at http://organicfarmersofmichigan.com/test_plot_data.html.



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