

ORGANIC OAT VARIETY TESTING IN MICHIGAN—2018

Authors: Lauren Voelker, Megan Goldenberg, Christian Kapp, Brook Wilke, & Dean Baas.

Trials featuring organic oats were initiated in 2018 at the W.K. Kellogg Biological Station (KBS) and the Upper Peninsula Research and Extension Center (UPREC), which are research stations of Michigan State University. Objectives included assessing oat varieties for yield and quality parameters related to malting, de-hulling, and human consumption. This report summarizes the data and observations made from the KBS trial through July 24, 2018. Once data is received back from UPREC and the processing and quality tests, another article will be released with further information.



Figure 1. Harvesting oat plots at the Kellogg Biological Station.

*Organic Oat's are
the number one
produced organic
crop in the United
States. Around
3.6% of all oats
grown in the
United States are
organic.
-USDA*

Key Agronomic Practices for Organic Oats

1. Oats can be the first crops planted in the spring. They will germinate when soil reaches 38 degrees F.
2. Planting depth for oats should be approximately 1"
3. Planting as early as possible is important. Since oats are a fast growing crop, and can grow during cool weather, they have a better ability to outcompete weeds compared to other spring planted cereal crops.



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2018 KBS Organic Oat Variety Trial Data

Variety	Average Heading Date	Height (in.)	Lodging	Crown Rust	Yield (Bu/Acre)	Yield Standard Error
Horsepower	6/16/2018	30.25	50%	2.75	46.4	2.60
Shelby	6/14/2018	37.50	100%	1.25	53.9	8.45
Beta Gene	6/19/2018	36.50	0%	1.00	95.1	5.24
Jerry	6/13/2018	40.50	100%	2.25	62.0	4.16
Excel	6/18/2018	33.75	50%	2.00	72.7	4.72
Ida	6/15/2018	35.00	0%	1.25	62.4	5.55
Rockford	6/15/2018	43.00	25%	1.50	62.2	2.66
Souris	6/13/2018	38.00	75%	2.25	58.0	7.62
Newburg	6/15/2018	42.75	100%	1.50	66.8	5.39
Saber	6/18/2018	37.00	25%	2.50	71.1	5.03
Badger	6/12/2018	31.75	100%	2.25	63.2	8.67
Deon	6/16/2018	37.00	75%	0.25	47.0	10.08
Hayden	6/15/2018	42.25	75%	1.25	59.3	8.50
Reins	6/15/2018	29.25	0%	1.75	80.8	6.84
Streaker	6/15/2018	41.75	25%	1.25	48.3	5.07
Sumo	6/16/2018	36.50	25%	1.00	82.8	6.47

The data table to the left represents yield and agronomic data from the 2018 organic variety trial at the W.K. Kellogg Biological Station.

All varieties were replicated 4 times and the results shown are the averages for each variety. All varieties were planted on **4/25/18** with 1.5 million seeds/acre at 1" depth. Two tons of pelletized chicken manure was applied prior to planting (split between fall and spring)

Dark green highlighted cells indicate optimum yields scores while **yellow** cells indicate average and **red** indicates below average.

Crown Rust ratings were 0= no crown rust to 5=severe rust.

Lodging and height were taken immediately before harvest.

All grain samples are being sent for processing and grain quality evaluations, including protein, de-hulling and micro-malting.

Takeaways from 2018 Trial Data

- Oat yields varied by nearly 50 bushels per acre between the lowest and highest yielding variety.
- Lodging varied substantially between varieties and overall was enhanced by three days of wet weather immediately prior to harvest.



The picture above shows the different varieties of organic oats just before flowering.