

# Organic Oats Variety Evaluation

**Project duration** - May 2017 – October 2017

**Objective** - To evaluate oat varieties for organic production.

**Collaborators** - Jennifer Mitchell-Fetch, AAFC Brandon

## Results

The average grain yield by variety and the mean yield for all varieties are provided in Figure 1.

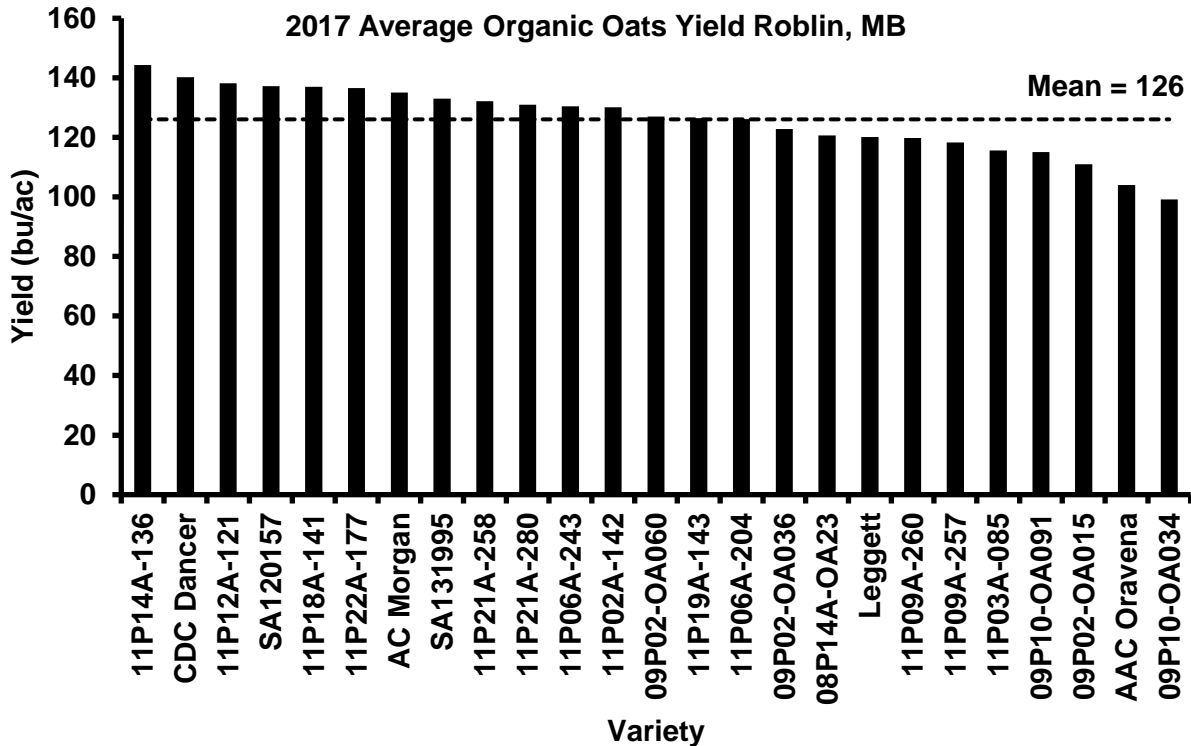


Figure 1. Average organic oats yield, Roblin, 2017

## Project findings

Good early-season soil moisture provided excellent growing conditions for oats. Dry growing conditions resulted in relatively low incidence of disease, and appeared to hasten maturity. Dry conditions also appeared to suppress weed competition. The yield results for Roblin 2017 represent only one site year, and should not be used to draw broader conclusions. For more information, contact Jennifer Mitchell-Fetch at Agriculture and Agri-food Canada, Jennifer.Mitchellfetch[at]agr.gc.ca.

## Background

Research suggests that selection of cereal crops specific to organic agriculture should be conducted on organically managed land [1,2]. Conventional management systems may mask or confound certain plant characteristics, resulting in selection of sub-optimal cultivars for organic production systems. Organic management conditions were used for the trial at PCDF, although the site was not certified organic.

## Materials & Methods

Experimental Design: Random Complete Block Design  
Entries: 25 varieties  
Seeding: May 15  
Harvest: September 8

**Table 1: Varieties included at Roblin 2017**

11P03A-085	CDC Dancer	11P14A-136	11P12A-121	AAC Oravena
11P22A-177	11P21A-280	09P10-OA034	SA131995	Leggett
11P06A-204	AC Morgan	11P21A-258	09P10-OA091	SA120157
09P02-OA015	11P18A-141	11P19A-143	08P14A-OA23	11P02A-142
09P02-OA036	11P09A-257	11P09A-260	11P06A-243	09P02-OA060

## Data collected and date collected

Emergence date: May 21  
Heading: July 9  
Maturity: Sept 1  
Vigour Rating: Aug 1  
Disease Rating: Aug 1  
Height: Aug 21  
Yield:  
Moisture:

## Agronomic info

Previous year's crop: Oat barley silage  
Soil Type: Erickson Loam Clay  
Landscape: Rolling with trees to the east  
Seedbed preparation: Heavy harrowed twice

**Table 2: Spring 2017 Soil Test**

Available

<b>N</b>	86 lb/ac
<b>P</b>	10 ppm
<b>K</b>	183 ppm
<b>S</b>	184 lb/ac

## References

[1] Reid, T., Yang, R.-C., Salmon, D. and Spaner, D. (2009). Should spring wheat breeding for organically managed systems be conducted on organically managed land? *Euphytica* 169:239-252.

[2] Dalhousie University, Organic Agriculture Centre of Canada. The crafting of organic oats. <https://www.dal.ca/faculty/agriculture/oacc/en-home/about/about-oacc/documents/newpaper-articles/newsarticles-2012/newsarticles-2012-fetch.html>