Organic Oats Variety Evaluation

Project duration:May 2020 – October 2020Objective:To evaluate oat varieties for organic production.Collaborators:Jennifer Mitchell-Fetch, AAFC Brandon

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. The trial was grown on certified organic land belonging to a local organic producer.

Results

The majority of the entries in this test are unregistered varieties. The yield results are shown in Table 1 for reference and to allow interested producers to track the entries in the future.



Table 1: Organic oat yield (bu/ac)

Materials and methods

Experimental Design:	Random Complete Block Design
Entries:	25 varieties
Seeding:	May 14
Harvest:	Sep 2

Table 2:	Varieties	included	at Roblin	2020
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AC Morgan	Summit	AAC Oravena	AAC Kongsore	CS Camden
CDC Arborg	CDC Skye	CDC Endure	11P03-AV	11P20-15-TM
11P22-16-FB	11P19-16-FB	11P22-16-JM	08P12-14-JD	16P02-AW
16P07-AU	16P07-AJ	16P02-AJ	16P07-BC	16P05-BR
16P02-AM	16P02-BL	16P07-AB	16P07-AZ	15P14-AY

Data collected	Date collected
Maturity:	Aug 15-17
Height:	Aug 14
Lodging:	Sep 2
Yield:	Sep 2
Moisture:	Sep 2

Agronomic info	
Previous year's crop:	Organic wheat
Soil Type:	Erickson Clay Loam
Landscape:	Rolling with trees to the south
Seedbed preparation:	Cultivated and harrowed

Table 3: Spring 2020 Soil Test

	Available	
Ν	73 lb/ac	
Ρ	5 ppm	
К	168 ppm	

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. <u>https://www.dal.ca/faculty/agriculture/oacc/en-home/about/about-oacc/documents/newpaper-articles/newsarticles-2012/newsarticles-2012-fetch.html</u>