

References

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5.0 La Co-op Fédérée oat variety evaluation

Project duration : 2019

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Objectives

To determine yield potential of 28 oat varieties in Manitoba.

Background

Oats are adapted to a wide range of environmental conditions such as low rainfall regions, infertile and somewhat saline soils (Liu et al. 2011). The crop is considered to be of high nutritional value and can be used as both food for human consumption and livestock feed in the form of grain or forage. A major component of oats is β -glucans, a soluble fibre, which plays a significant role of lowering cholesterol levels in humans (White, 2000). An increase in the world's populations means more demand for food, feed and fibre, which in turn calls for availability of higher yielding varieties to meet the demand. Furthermore, the change in climate also requires availability of varieties that are well adapted to these conditions. Selection of varieties with high plasticity would help improve yield and adaptation to different environments which can help producers in making decisions (Sadras et al., 2017).

Materials and Methods

The trial was established on the 1st of May 2019 on Waskada loam soils under no till system. A randomized complete block design with 28 treatments (varieties) and 3 replicates was used. Seeds were placed into good moisture conditions at 1" depth using a Seedhawk dual knife air seeder. Fertilizer was side banded at the same time as seeding at a rate of 108-35-20-7-2Zn actual lb ac⁻¹ and this was based on soil analysis results. Post emergence weed control was done using 0.5 L ac⁻¹ Mextrol tank mixed with 0.15 L ac⁻¹ Puma for the control of broad leaf weeds and some grasses. Inclusion of Puma herbicide in the application was an error since oats plots were close to wheat plots but no significant damage was caused due to low rates. Data collected included; emergence percentage, plant height, early and late lodging, days to maturity,