

High Moisture Grain Corn Varietal Assessment

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Project Objectives

The objective of the high moisture grain corn research is to determine the potential for growing grain corn as a livestock feed in Newfoundland and Labrador.

Specifically:

- determine if grain corn can reach maturity to be harvested as high moisture in western NL (<40 per cent moisture content);
- assess earliness of varieties;
- determine grain yield potential;
- determine grain quality potential; and
- establish growing practices.

unit requirements along with an understanding of high moisture grain handling and storage has made high moisture grain corn cultivation possible in many regions across Newfoundland and Labrador, warranting assessment in small plot and acre trials.



Background

Newfoundland and Labrador imports over 48,000 metric tonnes of grains each year for livestock feed, making it one of the largest on-farm expenses. A substantial portion of imported grain is corn due to its high starch and energy content and increased carcass gains versus other starch sources. Feed grain corn has not been grown on the Island historically mainly due to the unavailability of early maturing varieties. High moisture corn (up to 40 per cent moisture content) can be harvested earlier than traditional grain corn crops, allowing for a shorter season that is typical in the province. New crop varieties with lower corn heat



Technical Details

Small plot trials are currently being conducted in Pynn's Brook, Newfoundland and Labrador assessing five Pioneer and four Dekalb corn varieties for earliness, yield, and nutritional content. Measurements for height, stage and health will be taken weekly and during ripening moisture content will be determined. When the moisture content reaches 40 per cent, samples will be sent away for analysis while the remainder of the crop will be allowed to mature. Nutritional analyses will be conducted weekly until weather prohibits harvest or until dry grain status is reached at 13 per cent moisture content. The two to three varieties with the highest yield, quality, and earliness will be assessed on a larger acre trial next season to better assess management practices and crop potential.

Agriculture Industry Benefits

The addition of grain corn to the Grains and Oilseeds Program is a natural fit that may bring livestock farmers a step closer to self-sufficiency. Some farmers in

Newfoundland and Labrador are already sufficient for forages and the addition of the next largest feed import could greatly reduce import costs and increase feed security. Grain corn will complement wheat and canola rotations and provide another high-quality local option for Newfoundland and Labrador livestock farmers.

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