

# Program: Effect of Seeding Date, Seeding Rate and Variety on Yield and Quality of Wheat, Barley and Oat



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**In Partnership With**  
Oat and Barley Council of Ontario  
Ontario Wheat Producers Marketing Board  
Ottawa Valley Seed Growers Association

## Program Outline and Objectives

1. To evaluate the effect of seeding date (including frost seeding), seeding rate and variety on yield of grain and straw, grain quality, lodging, crop height, disease, insect and weed factors.
2. To determine whether seeding rate can compensate for the yield advantage of early seeding.

Producers are concerned about the effects of seeding date on several aspects of spring cereals, including yield and pest management. Additionally, some companies are encouraging farmers to use higher seeding rates. The literature indicates that early seeding of cereal crops enhances the yield potential. The reason behind the theory is that the plants will have a longer time in the vegetative stage under optimum temperature and moisture conditions to build up the photosynthetic base to support bigger yield components such as greater number of kernels per head and heavier kernels. Results from the past 2 years have shown that as seeding date is delayed, yield decreases. While increasing the seeding rate can slightly improve yield, it cannot compensate for early seeding.



**A further year of the study are required to provide data points under different growing conditions to examine the impact of these conditions on the success of frost seeding as well as on the growth, development, yield and quality of wheat, barley and oats.**



**Community Benefits Include: Seeding strategy, Higher crop yields.**

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The Oat and Barley Council  
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