

Soybean Seeding Rate Effect On Yield in Eastern Canada

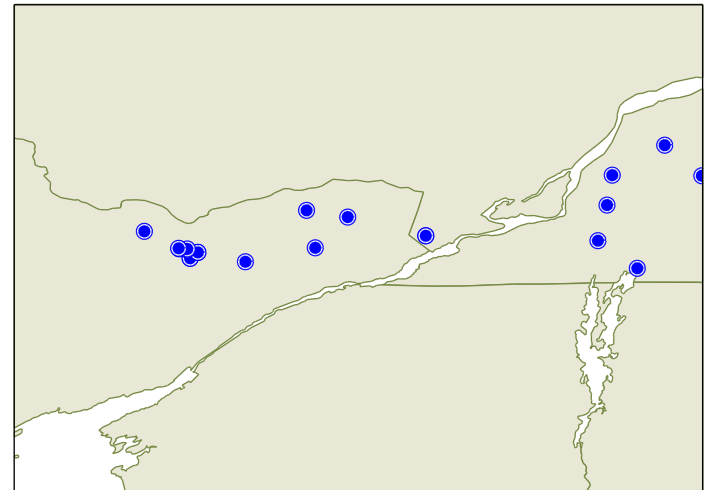
2016

Background and Objective

- Modern soybean varieties are distinctively more aggressive in growth. Lush soybean plant stands can lead to more white mold pressure in humid, moist growing seasons.
- One key strategy to helping reduce white mold is to reduce soybean plant populations.
- A study was conducted at several locations in Eastern Ontario and Western Quebec in 2015 and 2016 that compared two soybean seeding rates and their effect on yield.

Study Description

Locations:	24 co-operator sites in Eastern Ontario and Western Quebec
Plot Layout:	Field-length strips
Replicates:	1-2 replications per location
Planting Timing:	Various
Seeding Rate:	120,000 and 170,000 seeds/acre
Row Width:	Various
Variety/Brand¹:	91Y01 (R) and P08T96R



Locations of 2016 trials in Eastern Ontario and Western Quebec.

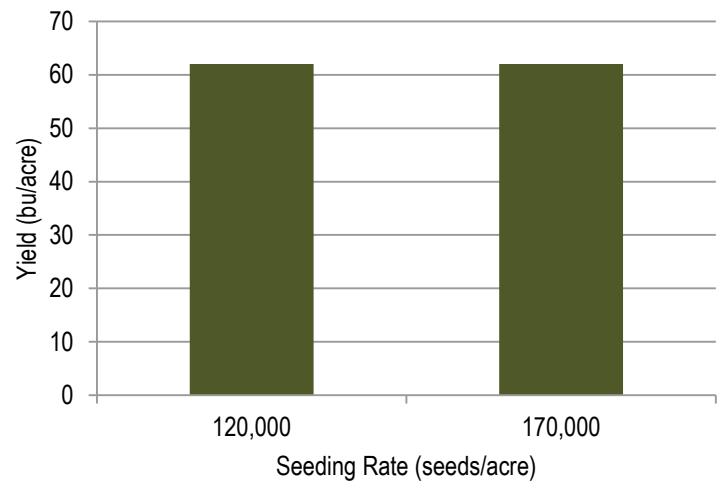


Figure 1. Average soybean yield by seeding rate across 24 trials in 2015 and 2016.

Results and Management Considerations

- Over the two-year study period, there was no difference in yield between the two seeding rates (Figure 1).
- Seeding rates can be reduced on highly productive soils with early planting dates, especially in areas where white mold is historically present.
- Earlier planting dates will result in more branch development and subsequent increases in potential flowers and seed set. For later planting dates or in lower yielding environments, higher seeding rates may be warranted.
- Heavy corn residue situations such as no-till may warrant higher seeding rates under cool and moist soil conditions.
- Variety selection is important when looking at reducing seeding rates. For untreated seed, consider planting at higher seeding rates than treated seed.
- Every growing season has its challenges, and seeding rates should be adjusted according to spring planting conditions.

Special thanks to our cooperators:

Bit-Ta-Luk Farms, Vernon Valley Farms, Tom Speck, Ferme Kathyvac, Jeremy Nixon, Jim Parks, Robbie Parks, John Crawford, Bruce and Spencer Hill, Ferme Bertrand Simoneau Inc, Ferme Y.M. Richer enr., Ferme R.S. Jeanson et fils, G.A. Marleau Inc, Ferme Nault Inc, Ferme Martial Savoie & fils, Maïs St-Denis Inc.

Authors: Paul Hermans, Cynthia Lajoie, and Laura Sharpe

Glyphosate Tolerant R - Contains the Glyphosate Tolerant trait. Always follow grain marketing, stewardship practices and pesticide label directions. Varieties with the Glyphosate Tolerant trait (including those designated by the letter "R" in the product number) contain genes that confer tolerance to glyphosate herbicides. Glyphosate herbicides will kill crops that are not tolerant to glyphosate.

The foregoing is provided for informational use only. Please contact your Pioneer sales professional for information and suggestions specific to your operation. 2015-2016 data are based on average of all comparisons made in 24 locations through Dec. 1, 2016. Multi-year and multi-location is a better predictor of future performance. Do not use these or any other data from a limited number of trials as a significant factor in product selection. Product responses are variable and subject to a variety of environmental, disease, and pest pressures. Individual results may vary.

¹ All Pioneer products are varieties unless designated with LL, in which case some are brands. Pioneer® brand products are provided subject to the terms and conditions of purchase which are part of the labeling and purchase documents.