AGRONOMY RESEARCH UPDATE

Soybean Seeding Rate Effect On Yield in Eastern Canada

2016

Background and Objective

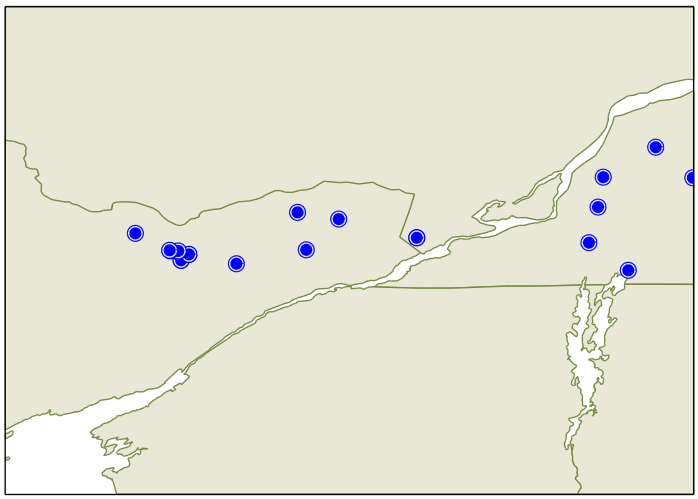
- Modern soybean varieties are distinctively more aggressive in growth. Lush soybean plant stands can lead to more white mold pressure in humid, moist growing seasons.
- One key strategy to helping reduce white mold is to reduce soybean plant populations.
- A study was conducted at several locations 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/Brand[1]:	91Y01 (R) and P08T96R

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 it challenges, and seeding rates should be adjusted according to spring planting conditions.



Locations of 2016 trials in Eastern Ontario and Western Quebec.

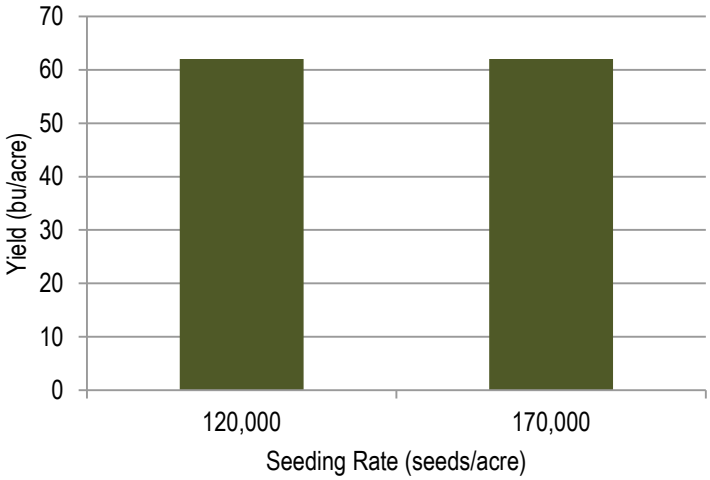


Figure 1. Average soybean yield by seeding rate across 24 trials in 2015 and 2016.

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