Bourgault Agronomy

Split application of Phosphorus in the Seed Row & Mid Row Bander

Bourgault Canola Phosphorus Trial Summary

Question: Can phosphorus (P) be put through the Mid Row Bander fertilizer applicators and expect uptake in canola? The answer is **YES**.

Trial Years Conducted: 2015-2017

Land: A Dark Grey Chernozem, Clay Loam at St.Brieux, SK with Low Residual Phosphorus ~8PPM.

Trial Details:

- 400' by 30' Strip Trials replicated 3 times.
- All trials swathed at appropriate timing.
- Yield determined by weigh wagon.
- All trials sampled and sent to elevator for evaluation.
- Yield adjusted to 10% moisture and 0% dockage.
- Plant counts were taken in three areas of every strip trial and averaged.
- A seeding rate was selected each year to achieve a total of 10 seeds/ft^2.
- A different quarter of land was used each year.

Treatments:

1) 0lbs P_2O_5 (P)
2) 55lbs P in the Seed Row (SR)
3) 55lbs P in the Mid Row Bander (MRB)
4) 15lbs P in the SR, 40lbs P in the MRB

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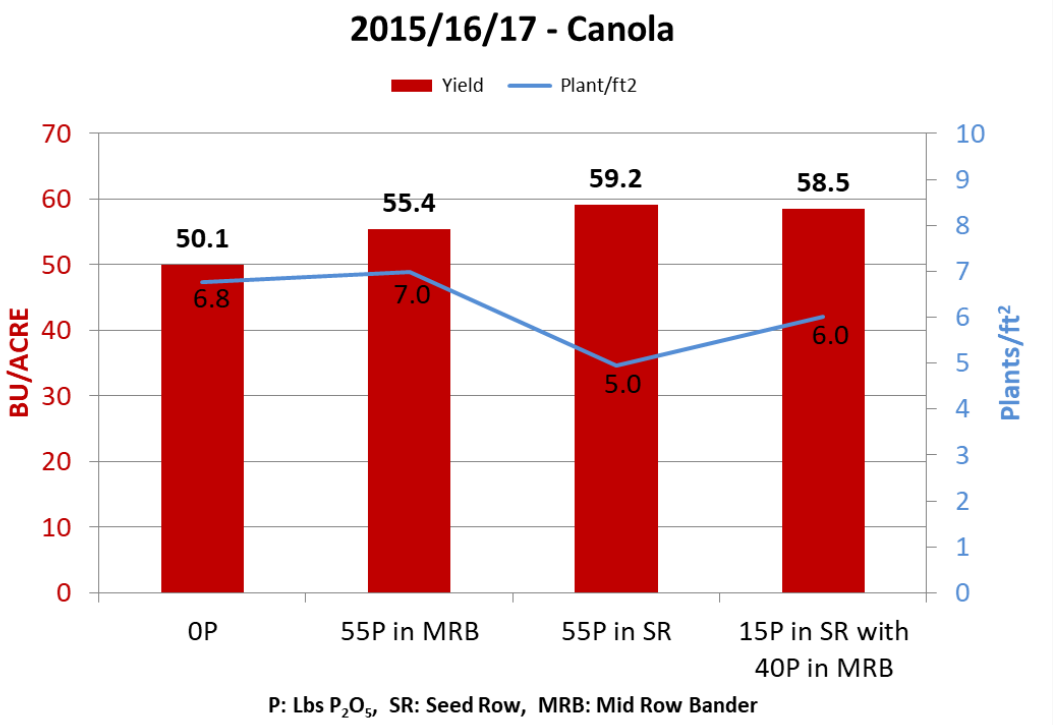
Results:



P: Lbs P_2O_5, SR: Seed Row, MRB: Mid Row Bander

Notes:

- There was always a bump in yield when P was placed in the MRB over that of the 0P treatment. It was significantly different in 1 of 3 years. With all else being the same, there is a high probability that the bump in yield came from uptake of P in the MRB in that year of application.
- The 55P in the Seed Row had the highest overall yield, but also had the longest time-to-maturity as the plant counts were lower. This is the riskiest placement when compared to lower amounts of P placed in the Seed Row.
- There was a pop up effect when as little as 15P was placed in the Seed Row.

Recommendation:

When growers want to increase their Phosphate application in canola, placing a portion in the MRB is an excellent practice where uptake in the year of application should be expected. It is recommended to place a safe rate of P in the Seed Row to take advantage of the pop up effect, with the balance put through the MRBs.

Additional agronomic information is available at our website.