

Does uniform emergence translate to top yield? A planter vs. drill comparison

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Doing the best job possible at seeding pays dividends throughout the year, but is planter-precision necessary for top canola yield?

That's just one question research is trying to answer, not only on a trial basis but at a field level as well.

Ken Coles, general manager of Farming Smarter, says it's not always possible to take small plot learning to field-scale, but that a four-year project is looking to do just that: comparing canola and other crop yields when seeded with either a drill or planter.

For the canola study, Coles says that they looked at seeding with a Pillar Laser air drill on 12" row spacing versus a Monosem planter, also with 12" row spacing. That configuration is somewhat unique, of course, as most planters work at 22" or 30" spacing, but for the purpose of this research, Coles says they wanted to use a row spacing that they knew would work in the dry climate of southern Alberta.

At the outset, Coles says the planter definitely resulted in better emergence, with excellent seed to soil contact, depth control, and precise metering — all expected advantages to the unit. But when taken to yield, there was far more variability between plots. Coles says that soil conditions, weather, and the growing season differences meant that yields were actually quite similar between the air drill and planter plots under dryland conditions.

That changes under irrigation, Coles explains. While there was no real yield advantage under dryland production, the planter-planted fields showed as much as a 20 per cent yield advantage over the air drill plots, in three of eight site years. For the other five, Coles says the air drill and planter yielded about the same.

Row spacing does have an impact, too. Coles says they saw a reduction in yield at 20" row spacing, which was expected but is also good to confirm. Some farmers look at wider rows as a means to lower seed costs, but there is definitely a limit to how wide you can go before it costs in yield.

This is just year one of the project, and Coles says that already there are more questions to ask: given the huge differences in early establishment, could there be gains made on herbicide or fungicide timing, or getting a growth regulator right? The sky really is the limit for adding complexity to the question of achieving maximum yield, starting with that most important first pass.