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Canola School: Comparing vacuum planter and air seeder results

The ability to precisely place individual seeds in a row, as with corn or soybeans, has led some canola growers to switch from air seeders to vacuum planters.

Trials in southern Alberta support the hypothesis that better seed-to-soil contact from using a planter results in improved germination and emergence, says Mike Gretzinger, research manager for Farming Smarter.

“The main difference between a vacuum planter and an air seeder: an air seeder will use something like rollers to distribute the seed and then a big fan and a rush of air to spread seed throughout the openers, whereas a vacuum planter will actually use plates and it will use vacuum suction to suck all the seed to those plates, and then individually place each seed as you go along the row,” he explains in this [Canola School](#) video. “And the whole idea being that you are going to improve your seed to soil contact and emergence, which is especially critical with a small oilseed like canola. “

The not-for-profit farmer research organization is currently in the second year of a three-year study comparing air seeder and vacuum planter results on different row spacings and seeding rates at Medicine Hat and Lethbridge.

“The first year that we did the study we saw, overall, a 35 per cent increase in emergence on our 12 inch spacing. That’s compared to our air drill at 9.5 inches. And then we saw about 10 or 15 per cent more with the vacuum planter at 20 inch spacing, compared to the air drill at 9.5 inches. So I think the benefit was that seed to soil contact, the very even emergence and distribution of the seeds, and just really good seed bed utilization,” he says.

One potential challenge with planting canola is fertilizer placement, due to seed row toxicity if rates are too high, but Gretzinger says they were surprised how high they could push their phosphorus application rate.

For more on Farming Smarter’s findings on canola planting, phosphorus rates, dryland versus irrigated results, and more, check out this Canola School video filmed at Farming Smarter’s Field Day in Medicine Hat, Alberta:

https://www.youtube.com/watch?v=BtC8i0jP3_g