

Trial Two

Planter and Drill Canola Comparison

River Crest Farms



Seeding Date: May 7th, 2025

Harvest Date: September 20th, 2025

Variety: Canterra CS4000LL

Trial Area: Flatrock, BC

Planter Vs. Drill Comparison Trial

River Crest Farms - Flatrock, BC

Project Goal: To compare a Planter vs. Drill in a side by side replicated comparison, seeding canola for a fourth year.

Seeding Date: May 7th, 2025

Fertility: For this field, fertilizer was fall-banded in October 2024 at a rate of 80 lb N, 15 lb P, 10 lb K, 10 lb S, and 12 lb Ca per acre. The fertilizer was placed in a band on 10-inch spacing. Starter fertilizer was applied at planting. The planter used a liquid starter blend, while the drill utilized a granular blend.

Variety: Canterra CS4000LL

Herbicide: Liberty

Weather and Growing Conditions:

- The field was underseeded with creeping red fescue prior to planting, which helped provide ground cover and soil stability.
- At the time of planting, seedbed moisture was good, allowing for uniform emergence and a strong early start to the crop.
- Rainfall was minimal in May, leading to progressively drier soil conditions as the season advanced.
- June received approximately 2 inches of rainfall, which provided some relief but was not enough to fully replenish soil moisture.
- July followed with only about 1 inch of rain, contributing to ongoing moisture stress.
- There was no significant rainfall in August or September, resulting in prolonged dry conditions late in the growing season.



1	Planter 260k seeds/ac
2	Drill 3lb/ac
3	Drill 5lb/ac
4	Drill 3lb/ac
5	Planter 260k seeds/ac
6	Drill 5lb/ac
7	Planter 260k seeds/ac
8	Drill 5lb/ac
9	Drill 3lb/ac

Seeding Equipment



Planter: CASE 1245 Early Riser Planter - 38.6 ft Width on 15-inch Row Spacing (31 Rows)

The River Crest Farms planter is set up for high-speed, no-till planting. For this trial, all plots were planted at 7 mph using the planter, with a planting depth of 1.25 inches. The planter's closing system and single-rank configuration allow for deeper placement of canola seed compared to a conventional drill. The planter is equipped to apply liquid starter fertilizer only, which is placed directly on top of the seed row. As a result, the majority of the fertility must be applied in a separate pass from the planter.

Seeding Rate: A seeding rate of 260,000 seeds per acre is equivalent to 2.86 lb per acre, based on a thousand-seed weight of 5 grams. When seeding canola with a planter, rates can be reduced due to improved precision and accuracy of seed placement. Planters distribute seed more evenly, resulting in consistent spacing and less risk of overcrowding. Properly spaced canola plants have better access to nutrients, sunlight, and moisture, which supports healthier growth and improved yield potential.

Drill: Bourgault 3720 with

New Holland P4580 Air Cart

The Bourgault 3720 seed drill is 60 ft wide with 10-inch row spacing. It is a no-till coultter drill that uses a single disc to open the seed trench, with a seed firmer to press the seed into the trench. The NH P4580 air cart uses individual sectional metering, providing sectional control and more accurate metering by section. The Bourgault 3720 is set up with six sections.

Seeding Rate: A low seeding rate of 3 lb/ac was used for this trial. Although yields were acceptable at this rate, the canola stand was patchy within individual rows. Based on these results, the grower does not recommend using an ultra-low seeding rate with this drill configuration. All drill plots were seeded at 6 mph.



Harvest Information:

Combined date: September 20th, 2025

Canola was left to mature naturally and straight combined on September 20, 2025. No substantial difference was detected in the maturity of the planter plots in comparison to the drill plots. All plots were weighted and samples were taken to confirm individual moisture of the plots.

Overall Yield Information:

Plot #	Plot Description	Acres	Yield Measurements				Yield Bu/ac
			Gross Weight LBS	Gross Metric Tonne	Mt per acre	lbs/ac	
1	Planter 260k seed count	1.10	2860	1.297	1.179	2600.000	52.00
5	Planter 260k seed count	1.10	2780	1.261	1.146	2527.273	50.55
7	Planter 260k seed count	1.10	2750	1.247	1.134	2500.000	50.00
AVERAGES: Planter 260k seed count		1.10	2796.67	1.27	1.15	2542.42	50.85
3	Drill 5lbs/ac	1.10	2510	1.139	1.035	2281.818	45.64
6	Drill 5lbs/ac	1.10	2225	1.009	0.917	2022.727	40.45
8	Drill 5lbs/ac	1.10	2405	1.091	0.992	2186.364	43.73
AVERAGES: Drill 5lbs/ac		1.10	2380.00	1.08	0.98	2163.64	43.27
2	Drill 3lbs/ac	1.10	2460	1.116	1.014	2236.364	44.73
4	Drill 3lbs/ac	1.10	2510	1.139	1.035	2281.818	45.64
9	Drill 3lbs/ac	1.10	2423	1.099	0.999	2202.727	44.05
AVERAGES: Drill 3lbs/ac		1.10	2464.33	1.12	1.02	2240.30	44.81