

LOCAL CORN VARIETIES TRIAL

Corn production in Alberta has been steadily growing as producers explore its potential for silage, grain and feedstock purposes. However, Alberta's unique climatic conditions, including its shorter growing season, variable weather patterns, and diverse soil types, present distinct challenges that make hybrid selection critical for success. Average annual corn heat units (CHU) for north central Alberta typically range between 1800 and 2000.

In the fall of 2023, GRO was fortunate to acquire a used 2-row precision planter equipped with variable row spacing and discs capable of precisely planting seeds of all sizes, from corn to canola. This equipment has significantly reduced the manual labour, time, and challenges previously associated with precise seed placement in corn trials. It has also expanded opportunities for a broader range of corn research and demonstration plots.

The 2025 local corn trial was conducted to evaluate the performance of 14 corn hybrids through a side-by-side comparison. Some of these hybrids may not yet be commercially available. The trial targeted a plant population of 32,000 plants per acre, with row spacing set at 30 inches.

AGRONOMIC INFORMATION:

Seeded: June 5, 2025

Seed Depth: $\frac{3}{4}$ inch

Soil Temp: 20 °C

Rainfall recorded: June 1 to Sept. 30, 2025: 162.3 mm

Fertilizer:

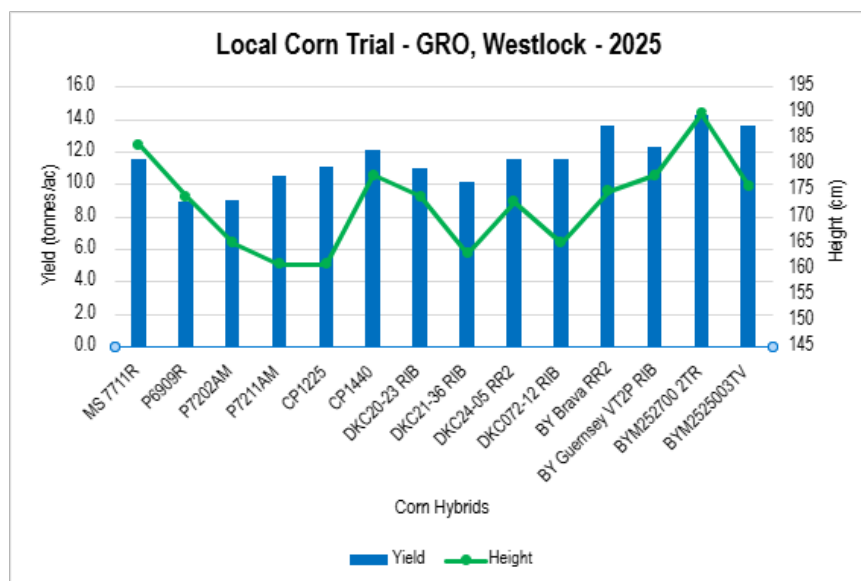
Deep Banded: 28.29-5.78-15.42-1.93 @ 518.8 lbs/ac

147 lbs/ac Actual N; 30 lbs/ac Actual P; 80 lbs/ac Actual K' 10 lbs/ac Actual S

Pre-emergence: Glyphosate @ 280 g ae/ac on June 10, 2025

Herbicides: Glyphosate + Laudis + Pardner @ 360 g ae/ac + 89 ml/ac + 202.3 ml/ac on July 15, 2025

Harvested: Oct. 10, 2025



LOCAL CORN TRIAL - GRO, WESTLOCK - 2025

Trt No.	Treatment Name	Corn Heat Units	CP (%)	ADF (%)	NDF (%)	TDN (%)	Starch (%)	Calcium (%)	Phosphorus (%)	Potassium (%)	Magnesium (%)	RFV
1	MS 7711R	2175	6.2	26.3	44.6	68.4	20.6	0.24	0.19	0.75	0.16	143
2	P6909R	1950	7.0	23.3	39.3	70.8	30.3	0.22	0.18	0.73	0.16	167
3	P7202AM	2050	6.1	27.8	45.5	67.3	24.7	0.23	0.18	0.8	0.16	138
4	P7211AM	2050	6.2	28.7	46.3	66.6	22.8	0.23	0.18	0.86	0.16	134
5	CP1225	-	6.6	36.1	55.6	60.8	16.5	0.21	0.19	1.01	0.17	102
6	CP1440	2150	6.7	31.9	49.9	64.0	20.8	0.21	0.18	0.77	0.17	119
7	DKC20-23 RIB	2050	6.9	32.5	50.2	63.6	19.0	0.22	0.18	0.8	0.17	118
8	DKC21-36 RIB	2075	6.8	27.8	44.7	67.2	25.4	0.21	0.17	0.79	0.16	140
9	DKC24-05 RR2	2100	6.7	33.3	51.0	62.9	18.5	0.21	0.18	0.81	0.17	115
10	DKC072-12 RIB	2075	6.6	32.1	48.8	63.9	18.3	0.22	0.17	0.74	0.17	122
11	BY Brava RR2	2150	6.4	32.8	50.8	63.3	17.3	0.23	0.19	0.91	0.17	116
12	BY Guernsey VT2P RIB	2150	6.6	30.5	47.7	65.1	20.0	0.23	0.18	0.88	0.16	127
13	BYM252700 2TR	-	6.8	30.4	47.8	65.2	21.0	0.23	0.18	0.81	0.16	127
14	BYM2525003TV	-	6.4	31.6	48.0	64.3	19.8	0.22	0.18	0.81	0.17	125

Nutritional data is presented on a dry matter basis (% of Dry Matter). CP = Crude Protein; ADF = Acid Detergent Fiber; NDF = Neutral Detergent Fiber; TDN = Total Digestible Nutrients; and RFV = Relative Forage Value.

RESULTS AND DISCUSSION:

The trial was seeded approximately two weeks later than the recommended seeding window due to delays with other trials, events and weather conditions. The site also experienced a drier summer and received less **precipitation than the long-term average. Despite these conditions, the trial performed well overall. No statistically significant differences were observed in yield or plant height among hybrids, although some numerical trends were present.**

The tallest and highest-yielding corn hybrid in the trial was **BYM252700 2TR**, which is not currently commercially available. **P6909** recorded the highest CP, TDN, starch and RFV and the lowest ADF and NDF, resulting in higher silage quality relative to other hybrids in the trial. Calcium, phosphorus, and magnesium levels were similar across hybrids; however, greater variation was observed in potassium levels, with CP1225 recording the highest amount at 1.01%. Due to cost constraints, as this trial was funded internally by GRO, only one composite sample per corn hybrid was sent for feed analysis. More samples per hybrid would give a more accurate assessment of hybrid performance and improve data reliability. **It is important to note that hybrid performance can vary significantly depending on your specific farm conditions.** We recommend conducting thorough diligence before making decisions based solely on this data.

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