

BRAZEAU COUNTY
AGRICULTURAL SERVICE BOARD
ADDITIONS TO THE AGENDA

DATE: April 17, 2019
TIME: 1:00 p.m.
PLACE: Brazeau County Administration Building
Drayton Valley, Alberta
EOC Room

1. Donation Request – West Central Forage Association Corn Variety Trial **(Pages 1-8)**



Last Update March 29, 2019 FZB

Project Title: Evaluation corn varieties in the West Central Alberta area.

Project duration: One year (March 2019 - March 2020)

Site location: West-Central Forage Association (WCFA) Forage Research Site, Drayton Valley AB

Direction to the site: West of Entwistle on Highway 16, South on RR 92A

Objectives:

- To evaluate different corn varieties for maturity, quality and yield grown
- To demonstrate the different varieties the can grow in the west central area
- To make recommendations to cattle producers that intend to grow corn for winter grazing or silage.

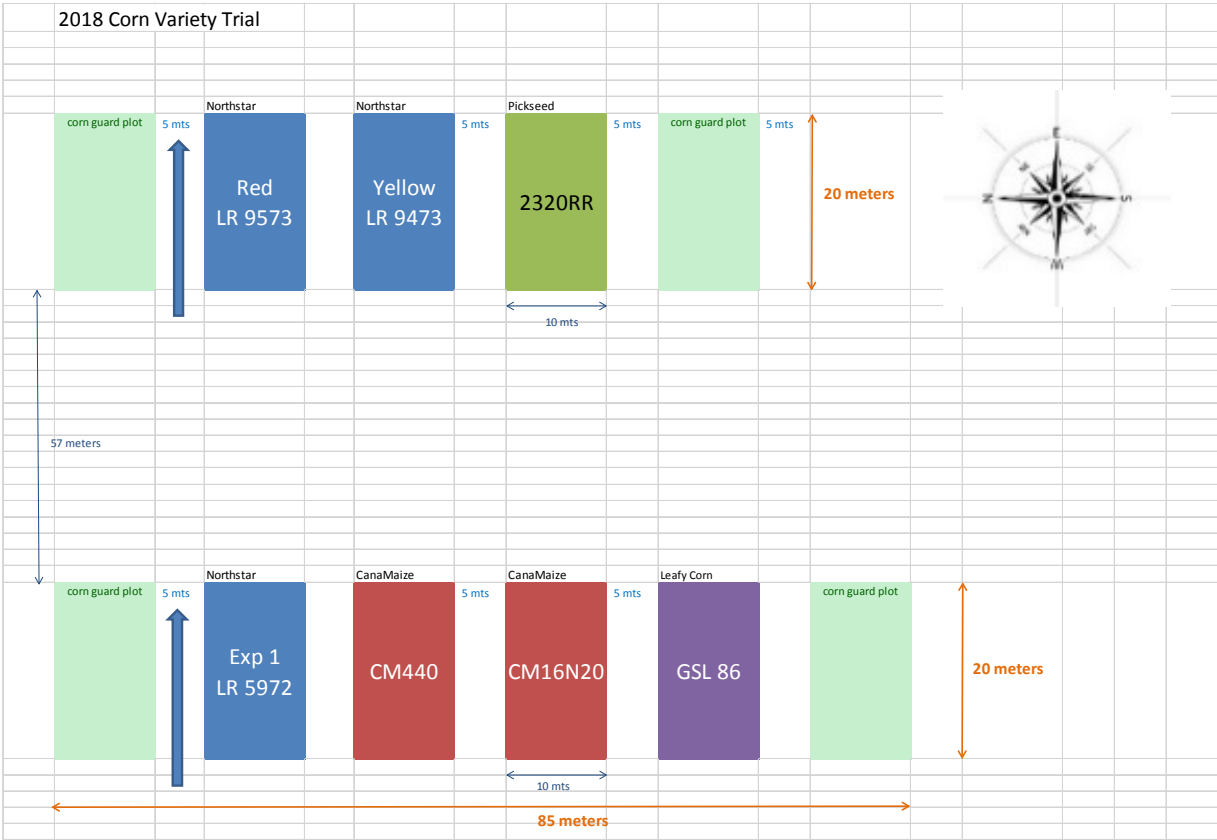
Design: Demonstration strip design

Treatments

Company	Variety	CHU
Pickseed	TBD	
Northstart	TBD	
Brett Young	TBD	
Performance Seed	TBD	
Northstart	TBD	
Green Bos Farms	TBD	
Thunder Seed	TBD	
Canamaize	TBD	
Cat Corn	TBD	
Nutrien	TBD	
Pioneer	TBD	

All varieties will be planted at the same time once the soil reaches the ideal temperature.

Field Map (2018 Example)





Seeding and fertility management

Soil Test:

- Soil test pre-seeding for N, P, K and S in spring
- Plots will not be grown where corn plots were seeded the previous year

Seed:

- All corn varieties in the trial will be similar "Heat Unit" and "Round Up Ready"
- Each company to provide 10 kg for each treatment.

Seeding method, time, depth and rate:

- Seeding with a John Deere 1710 precision planter VacuMeter 12 row @ 30 inch spacing
- Seed mid-end of May if possible or dependent on field conditions
- Soil temperature of 8- 10 °C is needed; seed 1.5 inch depth
- Rate 30,000 seeds per acre or as per recommended rate.

Fertilizer:

- Up to 120 lbs. actual N/ac (135 kg/ha); dependent on soil test levels

Weed control:

- Pre-seed burn off with Roundup at pre-tillage
- Roundup at 0.33 L/ac before 3 leaf, except conventional varieties
- Roundup at 0.33 L/ac before 8 leaf, except conventional varieties
- For Conventional varieties, only recommended herbicides will be applied.

Tillage:

- Disc once in fall and againg on early spring.

At end of growing season:

Corn growth:

- i. Asses plant stage R1,R2, R3, R4, R5 or R6
- ii. Count and record number of cobs

Yield:

- i. Record the number of plants and cobs in 17.5 feet (2 samples per variety).
- ii. Cut all the material in 17.5 feet of row with 4 inches stubble height,
- iii. Record wet weights of entire sample
- iv. Chop whole plant samples and record wet weights on approximately 1 kg of material,
- v. Dry samples and record dry weights.



Quality

- i. From dry samples, combine 2 samples per variety to one composite sample,
- ii. Submit 1 sample (500 grams approx.) of each variety to the lab to determine:
 - o For A&L LABS Quality test select, **FN2WN** \$35 and **MLIK2006** \$25
 - o (CP, ADF, NDF, TDN, ME, Ca, P, Milk2006, RQV, Starch).

Environmental Records

- i. Heat units will be calculated during growing season
 - Daily CHU accumulation=(X+Y/2); where:
 - X=night time low above 4.4 °C;
 - Y=daytime high below 30 °C, above 10 °C
 - Accumulation starts on the last of 3 consecutive days of 12.8 °C
 - Accumulation ends on the first occurrence of -2 °C
- ii. Temperature (°C): May 1 to October 31
 - ✓ Daily °C – minimum and maximum temperature
- iii. Precipitation (mm): May 1 to October 31
 - ✓ Daily precipitation (snow and rain)



Work Schedule:

	2018			2019												2020	
Steps	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Planning						@											
Collecting Information			@	@	@	@											
Public Input				@	@	@											
Order Seed						@	@										
Location sites and Coops				@	@	@											
Plot Design					@	@											
Plot Layout								@									
Soil sampling							@	@									
Plot Seeding								@									
Signage									@								
Plot Maintenance									@	@	@	@	@				
Data Collection										@		@		@			
Data Analysis															@	@	
Project Evaluation															@	@	
Report Writing																@	@
Report Presentation						AGM											



Contacts

Contract Sign	Name/Company	Seed	Ad	CHU	RATE	Variety	Contact/Comments
	Canamaize						Haylee / / not this year
	Pickseed						Suzy / not this year
	Green Boss Farms						Clint / not this year
	Catt Corn						Ron & Linda / no awnser
	Northstart						Brian ?
	Performance						Vern ?
	Thunder Seed						Erin ?
	Brettyoung						Wayne ?
	Pioneer						Roger ?
	Nutrien						Robin ?



Pre-seeding:

<i>Date</i>	<i>What</i>	<i>Where</i>	<i>Comments</i>

Seeding

Trial ID: _____ Trial area: _____

Date: _____

Crop: _____ Variety: _____

Seed source: _____

Seeding equipment used: Fabro drill seeder

Seeding rate: _____

Depth: _____ Row Spacing: _____

Zero-Max settings: _____

Seed treatment/inoculant used, rate: _____

Fertilizer used, rate: _____

Post-seeding:

<i>Date</i>	<i>What</i>	<i>Where</i>	<i>Comments</i>

Cost per Treatment (20 m x 10 m)

Manpower	Hours	Cost/hour	Tot/trial
Trial design & setup	0.5	\$75	\$ 37.50
Site preparation	0.5	\$25	\$ 12.50
Seeding (Custom corn planter)	0.5	\$25	\$ 12.50
Pre-burn Hericide application	0.5	\$25	\$ 12.50
1st. Hericide application	0.5	\$25	\$ 12.50
2nd. Hericide application	0.5	\$25	\$ 12.50
Data Collection and Harvest	2	\$25	\$ 50.00
Accounting	0.25	\$75	\$ 18.75
Data analysis/Reports and Final Report	1	\$75	\$ 75.00
Technology transfer-Website/Newsletter	1	\$75	\$ 75.00
Social Media (Facebook/Integram/Twitter)	1	\$25	\$ 25.00
			\$ 343.75

Equipment and Facility	Hours	Cost/hour	Tot/trial
Seeding and Initial liquid fertilizer (Custom corn planter)	0.25	\$ 400.00	\$ 100.00
Sprayer and tools	0.25	\$ 150.00	\$ 37.50
Harvest (equipment and tools)	1	\$ 100.00	\$ 100.00
Site Maintenance (equipment and tools)	2	\$ 100.00	\$ 200.00
Facility	1	\$ 100.00	\$ 100.00
			\$ 537.50

Materials and Supplies	Unit	Cost/Unit	Tot/trial
Chemicals	0.5	\$ 180.00	\$ 90.00
Seed (Certified seed provide by Company) "kg"	10	\$ -	\$ -
Soil Samples	1	\$ 55.00	\$ 55.00
Forage Analysis (\$55 + 5 shipping)	2	\$ 60.00	\$ 120.00
Fertilizer	1	\$ 50.00	\$ 50.00
Labels, sample bags, flagging, sundries	1	\$ 150.00	\$ 150.00
			\$ 465.00

Travel (138 kms round trip)	km	cost/km	Tot/trial
Travel (Brazeau Site - 138 km) x 5	690	\$ 0.51	\$ 348.45
Travel with Trailer (Brazeau Site - 138 km) x 3	414	\$ 1.00	\$ 414.00
			\$ 762.45

Grand total per treatment \$2,109