



**Plot2
Farm**

Comparison of AC Foremost (CNHR) to AAC Goodwin (CPS)

Figure 1: Side by side visual comparison of AC Foremost (left) and AAC Goodwin (right). Image taken on July 8, 2020. Growth stage was BBCH 49 for AAC Goodwin and BBCH 55 for AC Foremost.

Introduction

Partnering with Gordon Ellis of Ellis Agriculture Ltd. (Olds, AB), this trial compared performance of AC Foremost (CNHR) and AAC Goodwin (CPS). The trial was seeded using a 50-foot Bourgault 3320 paralink with 3" paired openers, 10" row spacings and mid row banders. Target plant stand was 30 plants/sqft. Seeding rates were determined using thousand kernel weight, germination percentage and mortality percentage. Seeding rates were 146.4 lbs/ac and 169.5 lbs/ac for AC Foremost and AAC Goodwin, respectively. At 21 days after seeding, recorded plant stands were not significantly different at 29.5 plants/sqft for AC Foremost and 28.2 plants/sqft for AAC Goodwin. At harvest, data was collected from a single combine pass within each treatment. Yield measurements were taken using a weigh wagon.

Protocol #	Closest Town	Soil Type	Seeding Date	Harvest Date	Row Spacing (cm)	Varieties	Reps	Previous Crop	Tillage
W-0001	Olds, Alberta	Medium textured Orthic Black Chernozem	May 7, 2020	Sept. 21, 2020	25.4cm (10")	AC Foremost and AAC Goodwin	4	Peas	Pro-tilled in fall of 2019

Herbicides	Seed Treatment	Foliar Fungicides	Fertilizer	Seed Placed	Rainfall				
					May	June	July	Aug	Sept
Pre: Round Up + Prepass	Insure Cereal FX	Prosaro XTR – Head Timing	Midrow Band: 36.5 – 0 – 12.3 @220lbs/ac Fall 2019: 300lbs/ac of Biosol	8.8 – 41.7 – 11.7 @ 90lbs/ac	92.5mm (3.64")	108mm (4.25")	77.7mm (3.06")	42.7mm (1.68")	19.8mm (0.78")
In-Crop: Tandem + MCPA-ester					Total Rainfall				340.7mm (13.41")

* No irrigation and no foliar insecticides.

Results

Cultivar	Yield at 14.5% seed moisture content (bu/ac)	Protein %	Test Weight (kg/hL)	Ergot %	Midge %	Sprouted %	Fusarium %
AC Foremost	123.20 a†	10.1	83.2	0.007	0.53	0.17	0.09
AAC Goodwin	100.02 b	11.3	78.4	0.017	0.90	0.21	0.11
p-value	0.0045	n/a*	n/a	n/a	n/a	n/a	n/a
CV%	11.64%	6.41%	3.92%	52.95%	31.88%	17.85%	17.43%

†Values with the same letter are not significantly different. *n/a - Due to the large number of missing data points, this could not be analyzed.

Summary

- AC Foremost yielded 23.18 bushels higher than AAC Goodwin.
- Although proper statistical comparisons were not able to be made due to loss of grain samples in transport, available samples indicated AAC Goodwin protein percentage trended higher than AC Foremost.

Additional notes

- AC Foremost appeared to have increased levels of foliar disease as compared to AAC Goodwin. However, overall foliar disease levels were minimal.

- AAC Goodwin appeared to be 4 to 5 days later maturing than AC Foremost. Although not measured, this delay in maturity increased occurrences of combine slow down.