

Barley Variety Trial

Summary:

Barley variety trials were conducted in 2019 to evaluate the performance of several varieties and their potential in the brown soil zone (Consort) as part of the Alberta and Saskatchewan Regional Variety Testing Program. Varieties in the Alberta trial ranged in yield from 104 to 130 bu/A, with a mean yield of 117 bu/A. The Saskatchewan trial ranged from 100 to 148 bu/A, with a mean of 126 bu/A.

Cooperator: Barry Redel, Consort NW 12-35-07-W4

Site Information:

Table 1 **Soil Analysis**

Soil Analysis	Consort
Nitrogen* (0-24")	36 lb/A (D)
Phosphorus* (0-6")	27 lb/A (D)
Potassium* (0-6")	664 lb/A (O)
Sulfate* (0-24")	62 lb/A (O)
Soil Salinity* (E.C.)	0.38 (G)
pH	6.4 (neutral)
OM (%)	2.4 (normal)
Soil Texture	Loam

* D = Deficient, M = Marginal, O = Optimum, E = Excess,

Table 2 **Agronomic Information**

	Consort
Previous Crop	Lentils
Seeding Date	May 10
Seeding Depth	1.5 – 2.0 inches
Seedbed Condition	Adequate moisture conditions for germination
Seeding Rate	18 plants per square foot
Fertilizer	140 lb/A of 26-18-5-3 placed between the paired seed rows
Seeder	Henderson 500 drill (5 paired rows on 11" spacing, fertilizer between rows)
Seedbed Preparation	Pre-seed glyphosate
Herbicide	Buctril M, Achieve plus Turbocharge
Fungicide	None
Harvest Date	August 30

Table 3 **Precipitation 2019 (inches)**

Month	Consort
May	.9
June	2.3
July	2.9
August	.9
Total	7.0

Results:Table 4 **Alberta Two Row Barley Trial – Consort 2019**

Variety	Yield (lb/A)	% AC Metcalf	Yield (bu/A at 48 lb/bu)	Height (cm)	Bushel Weight (lb/bu)	TKW (grams)
AAC Connect	5018	97.1	104	79	53	50
AAC Synergy	5316	102.9	111	82	53	50
AB Advantage (SR16511)	6244	120.9	130	111	49	49
AB Cattlelac (SR14501)	5925	114.7	123	91	50	44
AC Metcalfe	5165	100.0	108	87	54	49
Altorado	5827	112.8	121	80	54	51
CDC Austenson	5722	110.8	119	80	54	49
CDC Copeland	5407	104.7	113	90	53	48
CDC Copper	5384	104.2	112	77	51	47
CDC Goldstar	5508	106.6	115	92	54	51
Claymore	5038	97.5	105	72	53	47
Oreana	5898	114.2	123	71	54	52
SR17515	6240	120.8	130	85	51	43
SR17519	5868	113.6	122	84	50	47
TR15155	5660	109.6	118	75	53	48
TR16629	5786	112.0	121	95	51	47
TR16742	5252	101.7	109	71	54	47
TR17163	5596	108.3	117	83	55	52
TR17639	5765	111.6	120	84	53	47
Mean	5612		117	84		
LSD (0.05)	833			11		
C.V. %	8.96			8.14		

Comments: The Alberta two row barley variety trial at Consort averaged 117 bu/A, ranging from 104 to 130 bu/A. These variety yields showed no statistical differences. A numbered 6 row variety (SR 17515) yielded the highest while AAC Connect was the lowest.



Table 5. Saskatchewan Two Row Barley Trial – Consort 2019

Variety	Yield (lb/A)	% AC Metcalf	Yield (bu/A at 48 lb/bu)	Height (cm)	Bushel Weight (lb/bu)	TKW (grams)
AAC Connect	5721	94.0	119	78	53	52.1
AAC Synergy	5824	95.7	121	77	54	51.7
AB Advantage	5555	91.3	116	93	48	49.2
AB Cattelac	7123	117.1	148	96	51	46.8
AC Metcalfe	6083	100.0	127	80	53	50.5
Altorado	7123	117.1	148	77	54	50.1
CDC Ascent	4808	79.0	100	82	60	44.4
CDC Copeland	5829	95.8	121	84	52	48.4
CDC Copper	6304	103.6	131	72	52	49.2
CDC Fraser	6316	103.8	132	79	53	53.6
CDC Goldstar	6035	99.2	126	81	54	50.5
Lowe	5561	91.4	116	78	52	53.1
Sirish	6467	106.3	135	68	54	51.6
TR15155	5720	94.0	119	76	51	49.9
TR16629	6848	112.6	143	95	51	50.2
TR16742	5362	88.1	112	71	53	184.2
TR17163	6140	100.9	128	81	54	52.2
TR17639	6304	103.6	131	82	53	50.0
Mean	6062		126	81	53	57.7

Comments: The two row barley yield variety trial for the Saskatchewan set behaved a bit differently than the Alberta RVT group, having a higher yield in the same varieties. The average yield was 126 bu/A, ranging from 100 to 148 bu/A. The average yield was 9 bu/A higher than the Alberta set. AB Cattelac and Altorado were the highest yielding varieties. Lowest was CDC Ascent.

