

Data from 2006 Field Crop Variety Performance Test - BC Peace River Region  
pages 15 & 16

Oats		Variety Descriptions					
Variety	Type	BC Peace Avg. (2003-2006)			Resistance to:		Distributor
		Maturity as days +/- check	Height cm	Bushel Weight lbs/bu	Lodging	Smuts	
■ 7600M (OT 566)	milling	0	79	42	G	R	Agricore United
AC Jordon *	milling / feed	3	58	42	XX	XX	SeCan
■ AC Juniper	milling	-2	76	41	VG	I	Agricore United
AC Morgan	milling	2	77	42	VG	R	SeCan
■ AC Mustang	feed / forage	1	82	42	G	I	MASTIN SEEDS
■ CANMORE *	milling	2	46	41	XX	XX	Semican Atlantic
Cascade	feed	0	85	42	G	S	SeCan
CDC Baler	forage	6	87	40	XX	S	FarmPure Seeds
■ CDC Dancer	milling	0	49	41	G	R	FarmPure Seeds
■ CDC Orrin	milling	3	78	42	G	R	FarmPure/Cargill
■ CDC Sol-Fi	milling	0	81	39	F	R	Agricore United
■ CDC Weaver	milling	5	74	40	F	R	FarmPure Seeds
■ Furlong	milling / feed	1	80	40	G	R	Canterra/Cargill
■ Hi Fi *	milling	0	44	41	XX	XX	Seed Depot
■ Leggett	milling	2	71	41	G	R	FarmPure Seeds
Lu	feed	-3	73	41	G	R	SeCan
■ Murphy	forage	2	92	40	XX	S	SeCan
■ Ronald	milling	1	67	43	VG	R	SeCan
■ SW Betania	milling	-1	69	41	G	R	Agricore United

Cascade - check variety

■ Protected by Plant Breeders' Rights  
XX = insufficient data

EX = excellent, VG = very good, G = good, F = fair, P = poor (susceptible)  
S = Susceptible I = Intermediate R = Resistant  
\* first year tested, very limited data available

# OATS

Oats are usually a feed crop but some varieties are also suitable for higher value feed and food markets. The milling industry prefers higher protein varieties with plump kernels and lower hull content, while the horse industry prefers white hulled varieties. Hulless oat varieties have excellent feed and food value but need to be stored drier than normal varieties (<12% moisture) and do not flow as well in the bin due to their pubescence (hairs), which seem to "lock together". Yield values for hulless oat varieties are expressed after hull removal, which reduces the seed weight by 20-25% compared to the normal varieties. Keep in mind while comparing hulless to hulled. No hulless lines are currently being tested (see earlier reports).

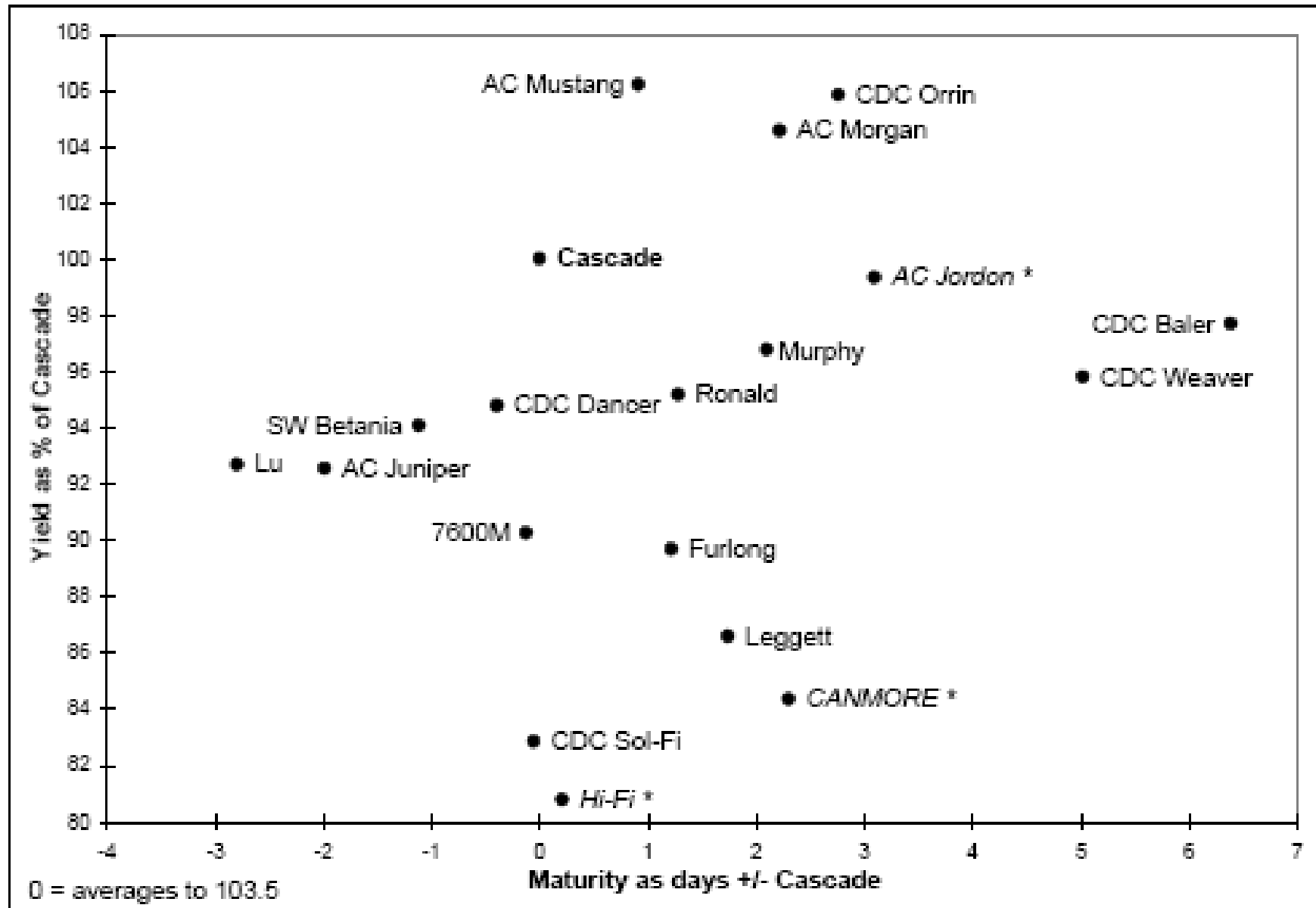
Oats		Yield as % of Cascade										
		Dawson Creek				Fort St. John				B.C. Peace		
Variety	Colour	2006 Yield		2003-2006		2006 Yield		2003-2006		2006	2003-2006	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
7600M (OT 566)	white	26 bcd	76	85	[3]	73 a-e	96	96	[3]	86	90	[6]
<i>AC Jordan</i> *		29 a-d	86	86	[1]	86 ab	113	113	[1]	99	99	[2]
AC Juniper	white	28 a-d	82	89	[4]	63 de	83	96	[4]	82	93	[8]
AC Morgan	white	36 ab	105	102	[4]	85 ab	112	107	[4]	109	105	[8]
AC Mustang	white	33 abc	98	104	[4]	87 a	115	109	[4]	106	106	[8]
<i>CANMORE</i> *	white	27 bcd	79	79	[1]	68 cde	90	90	[1]	84	84	[2]
<b>Cascade</b>	<b>yellow</b>	<b>34 abc</b>	<b>100</b>	<b>100</b>	<b>[4]</b>	<b>76 a-e</b>	<b>100</b>	<b>100</b>	<b>[4]</b>	<b>100</b>	<b>100</b>	<b>[8]</b>
CDC Baler (forage oat)	white	22 d	64	90	[4]	74 a-e	98	106	[4]	81	98	[8]
CDC Dancer	white	30 a-d	89	94	[2]	67 cde	89	95	[2]	89	95	[4]
CDC Orrin	white	38 a	111	105	[4]	77 a-e	101	107	[4]	106	106	[8]
CDC Sol-Fi	white	28 a-d	82	80	[2]	67 cde	88	86	[2]	85	83	[4]
CDC Weaver	white	31 a-d	90	91	[2]	81 abc	107	100	[2]	99	96	[4]
Furlong	tan	28 a-d	82	84	[3]	70 b-e	92	95	[3]	87	90	[6]
<i>Hi-Fi</i> *	white	27 bcd	80	80	[1]	62 de	81	81	[1]	81	81	[2]
Leggett (OT 2021)	white	24 cd	72	82	[3]	68 cde	89	91	[3]	81	87	[6]
Lu	yellow	28 a-d	83	89	[4]	61 e	80	96	[4]	81	93	[8]
Murphy (forage oat)	white	26 bcd	76	88	[3]	78 a-d	102	106	[3]	89	97	[6]
Ronald	yellow	28 bcd	81	89	[3]	71 a-e	94	102	[3]	87	95	[6]
SW Betania		32 abc	94	91	[2]	76 a-e	101	97	[2]	97	94	[4]
	LSD (P=.05) =	5.75				9.41						
	CV value (%) =	13.91				9.04						

Means followed by the same letter do not significantly differ (P=.05, LSD)

Average maturity for Cascade is 103.5 days.

# Oats

## Regional Variety Performance 2003-2006



Oats for Feed

\*first year tested, very limited data available.

## Oats for Feed

Oats are often sown to provide fodder in the form of silage or greenfeed. Oats will yield more silage or greenfeed per unit area than any other cereal crop. If managed properly, it can provide 3-4.5 tons of dry matter per acre, or more, of high quality feed containing up to 10 percent protein<sup>1</sup>. Many years of comparing yields of oats with barley have shown oats to be superior in the Black and Grey Wooded soil zones<sup>1</sup>. Although the percent protein level in barley is higher than in oats, the total amount of protein produced on a given area is higher with oats than with barley<sup>1</sup>. Oats have about 22-26 percent hull whereas barley averages about 12-14 per cent hull on a weight basis<sup>1</sup>. When choosing a variety, the seed yield as well as the forage yield should be considered, thereby keeping one's options open to harvest as forage or grain<sup>1</sup>. We do not currently evaluate oat varieties for forage yield in these tests.

## Forage Oats

It is believed by some farmers that one variety might be better than another because it appears "leafier"; however, tests on a number of varieties have shown very little variation in leafiness<sup>2</sup>. Having said that however, such work has not likely included the newer lines of forage oats that are entering the market place now. These new "forage only" lines, such as *CDC Baler* and *Murphy*, have usually been much larger plants in our tests than their traditional counterparts developed for seed quality, which should translate to more biomass to be available for forage production. Note however, that traditionally our oat tests do not lodge and so it is unclear as to whether larger plants are going to be a concern for early lodging in a large-scale forage production practice in our area. Lodging data here is from Alberta Agdex 100/32.

## Other Comments

On heavier soils and in the more moist areas, lodging resistance should be considered, but again, traditionally lodging has not been a concern in our BC Peace oat trials, and as mentioned above, lodging data provided here is from Alberta Agdex 100/32. The variation in straw feed quality between oat varieties is insignificant and should not be used as a variety selection criterion<sup>3</sup>. The average feed values are: protein 4%, fibre 49%, calcium 0.27%, and phosphorus 0.08%<sup>3</sup>.

Source<sup>1,2,3</sup>: Alberta Agriculture, Food, and Rural Development website [www.agric.gov.ab.ca](http://www.agric.gov.ab.ca)