



Varieties of Cereal and Oilseed Crops for Alberta – 2004

Introduction

The information in this publication is supplied by the University of Alberta, Agriculture and Agri-Food Canada, the Canadian Seed Growers Association, cereal and oilseed commodity groups, applied research associations, the Canadian Seed Trade Association and Alberta Agriculture, Food and Rural Development.

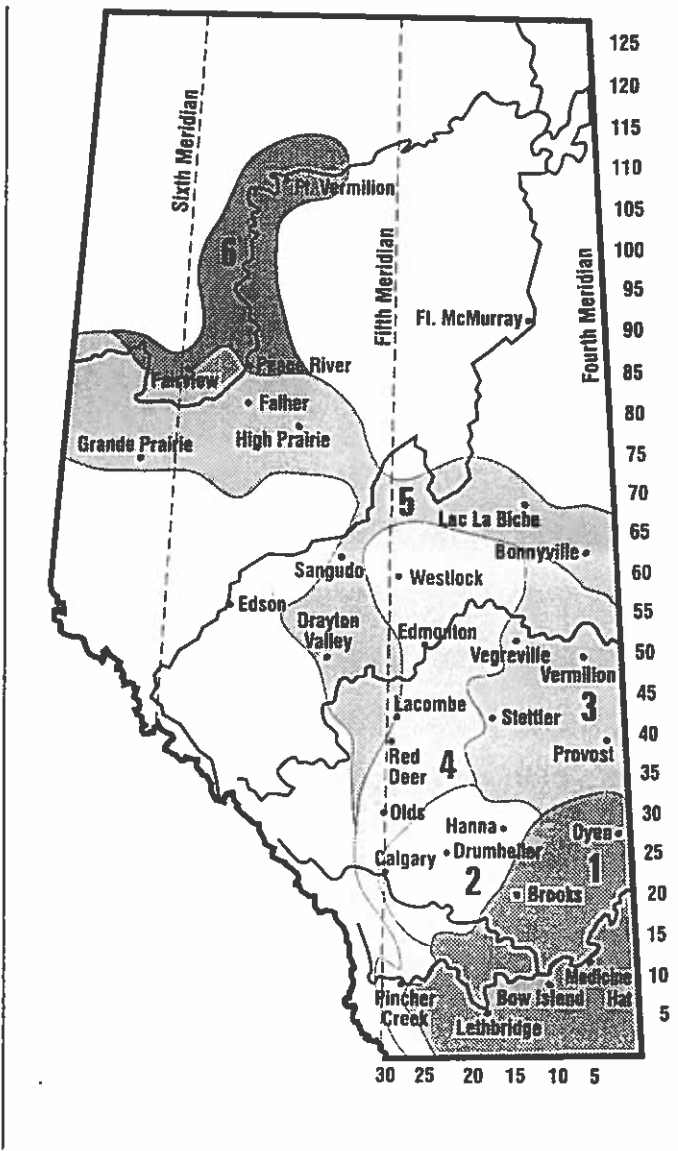
This publication provides information on cereal and oilseed variety performance within Alberta. Important agronomic characteristics are given in tabular form for varieties of wheat, oats, barley, flax, canola, triticale and rye. The agro-climatic areas, based primarily upon precipitation and length of growing season, are indicated on the map. This information can help farmers choose varieties that are best suited to their own particular farming situation.

Plant Breeder's Rights

The use of the logo indicates a variety protected by law, and seed of this variety cannot be sold without permission and royalty payment.

New summary methods

Past versions of this publication summarized multi-year and multi-location yield data on a geographical basis (agro-climatic areas). The combined data averaged the effects of drought, heavy rainfall, high/low fertility, etc. that is often experienced at different sites or years in each agro-climatic area. This method of analysis has not reliably identified varieties more adapted to low or high yield conditions, and farmers are given the impression that varieties will respond closely to the long-term averages reported in each area.



This year, another approach is included for several crops that summarizes yield data based on the yield category (low, medium, high) of the test sites, regardless of their geographical location. This new summary method will allow producers to select the best performing varieties under high yielding conditions. Also, varieties that have consistent performance in both low and high yielding conditions indicate yield stability and thus reduced risk.

Yields tables show relative yields compared to a check variety. Although variety test plots are carefully conducted with statistical designs, small percentage differences in yield are usually statistically insignificant or meaningless. In Area 1, irrigated yields expressed as per cent of dryland yields are C.W. wheat 185, barley 160, oats 180, flax 210, and canola 125%. In Area 2, irrigated yields expressed as per cent of dryland yields are: C.W. wheat 130, barley 125, oats 120, flax 145, and canola 120%. For further information on irrigated on variety response, see *Irrigated Crop Recommendations for Alberta*, Agdex 100/32-1.

Canola

This year, canola variety performance data was generated by the Prairie Canola Variety Trials (PCVT) and is appended to this factsheet.

Maturity

Maturity is indicated as +/- days relative to the check variety for each crop and cannot be used to compare different crops. In Areas 2, 3, and 5 of Alberta, the following can be used as a guide for estimating maturity in actual days from seeding to harvest when the crops are seeded on fallow land:

- AC Barrie wheat – 113 days
- AC Splendor wheat – 108
- Grizzly oat – 108
- Jasper oat – 105
- Harrington barley – 98
- Kasota barley – 93
- McGregor flax – 130
- Flanders flax – 120
- 46A65 canola – 109
- Reward canola – 92 days

Note: These days to maturity do not match the days to maturity shown in the charts because they are the average of only 3 of the 6 agro-climatic areas.

In Area 6, the longer daylight hours usually reduce the number of days to maturity required. Area 4 experiences the longest maturity in the province with Harrington 101,

AC Barrie 115 and 46A65 at 111. In southern Alberta, AC Barrie can be expected to mature in 103 to 108 days, and other crops are similarly earlier maturing. Maturity rankings of varieties within crops tend to be consistent regardless of where the crops are grown.

Diseases, seed treatment and seed testing

Disease ratings are compiled from various data sources in Alberta and other prairie provinces.

- Treat rye and flax seed to control seedling blight, cereal seed for smuts and fusarium, canola seed to control flea beetles, seedling blight and the seed borne phase of virulent blackleg.
- Treated seed must not be fed to livestock, poultry or wildlife or sold for feed. Refer to labels for maximum periods for storing treated seed.
- The Leaf Spot rating in the wheat charts is a combination of resistance to tan spot and septoria leaf disease complex.
- Currently, Fusarium Head Blight (FHB), caused by *Fusarium graminearum*, is a minor problem in Alberta. However, this pathogen has been appearing with greater frequency and intensity in Manitoba and eastern Saskatchewan. It has also appeared in trace levels in Alberta. The relative rating of crops from most susceptible to least is: durum, CPS wheat, HRS wheat, triticale, barley and oats. Corn is a host of *F. graminearum* and can serve as a source of infection when residue is left on the ground. Under severe epidemics, all cereal varieties will suffer damage. All seed, especially seed brought in from infected areas of the eastern prairies, should be tested for FHB and treated with the appropriate seed treatment.

Laboratories participating in the FHB testing program:

- 20/20 Seed Labs Ltd., Nisku, AB, 1-877-420-2099
- Brett Young Seeds (Rycroft Inc.), Rycroft, AB, 1-780-765-3069
- BioVision Seed Research Ltd., Edmonton, AB, 1-800-952-5407
- BioVision Seed Research Ltd., Grande Prairie, AB, 1-877-532-8889
- Parkland Laboratories, Red Deer, AB, 1-403-342-0404
- Precision Seed Testing, Beaverlodge, AB, 1-780-354-2259
- Seed Check Technologies Inc., Leduc, AB, 1-780-980-8324

Other variety information

For additional variety information, including varieties not listed in this factsheet, check Alberta Agriculture's website at www.agric.gov.ab.ca, or call the Alberta Ag-Info Centre at 1-866-882-7677.

W H E A T

Variety	Area (See Map)						Comp.			Te. Wt.	Kn. Wt.	Ht. cm	Resistance to:				Tolerance to:		
	1	2	3	4	5&6	Irr.	Mat.	Prot.	days				Loose	Com.	Rt. Rot	Leaf	Spot	Sprout	FHB
	Yield as % of AC BARRIE						days	%	lb/bu	g/1000									
C.W. RED SPRING WHEAT																			
AC Barrie ◊	100	100	100	100	100	100	109	14.8	62	37	89	G	G	R	R	I	P	G	F
5500HR ◊	100	102	97	104	104	95	2	-0.6	63	39	89	F	G	I	I	I	P	G	F
5600HR ◊	97	100	98	107	111	86	3	-0.6	63	36	97	G	G	R	R	I	P	G	P
5601HR ▲	79	96	98	92	97	71	XX	0.0	61	37	90	G	G	I	I	I	P	F	F
AC Abbey ◊	103	100	92	105	103	96	XX	-1.4	62	35	85	F	G	I	R	I	P	P	F
AC Cadillac ◊	100	98	96	97	95	87	0	0.0	64	39	98	F	G	R	R	I	F	F	F
AC Cora †	100	102	98	103	106	97	-1	-0.5	62	35	96	F	G	R	R	I	G	F	F
AC Eatonia	91	93	91	93	97	89	1	-0.3	62	35	92	P	G	I	R	I	P	G	XX
AC Elsa ◊	101	109	100	104	107	90	0	-0.5	62	35	89	F	G	R	I	I	G	F	P
AC Intrepid ◊	100	103	96	107	104	93	-2	-0.7	62	39	91	G	G	I	R	I	F	P	P
AC Majestic †	95	99	95	100	106	85	1	-0.5	62	36	93	G	F	I	R	I	P	EX	F
AC Michael †	99	98	96	102	103	102	-2	-0.7	62	33	95	F	G	R	I	I	XX	F	P
AC Splendor	92	94	93	98	95	90	-3	0.3	61	37	90	F	G	I	I	I	F	F	P
Alikat	94	94	93	97	99	82	0	-0.6	63	36	88	F	G	R	R	I	P	F	F
CDC Bounty	106	104	100	109	103	102	2	-0.4	64	37	94	F	G	R	I	I	P	F	F
CDC Imagine ▲	90	103	103	106	106	102	-2	-0.2	60	38	84	G	G	R	R	I	P	XX	P
CDC Teal	100	99	91	104	102	100	0	-0.3	62	36	90	G	G	I	I	I	P	P	VP
Harvest ▲	104	100	107	100	97	99	-3	0.1	62	37	84	VG	G	R	S	I	P	EX	VP
Journey ◊	104	106	97	90	99	108	0	0.6	61	35	83	VG	G	I	R	I	F	G	F
Katepwa	99	98	96	100	101	96	-1	-0.8	62	35	93	F	G	R	R	I	P	F	F
Laura	101	105	101	103	109	95	1	-0.8	62	35	93	G	G	I	S	I	P	F	P
Lillian ▲	XX	99	108	89	104	114	XX	0.7	58	36	81	G	G	R	I	I	P	G	VP
Lovitt ▲	87*	95*	XX	108*	107	86*	XX	XX	63	36	75	G	G	G	I	I	XX	VG	P
McKenzie	106	103	100	104	101	107	-2	-1.2	63	34	91	F	G	S	R	I	F	EX	F
Park †	97	99	95	99	95	97	-3	XX	61	32	90	F	G	R	I	I	XX	G	XX
Prodigy	105	103	109	106	106	103	-1	0.2	62	35	96	G	F	I	R	I	P	F	VP
Roblin	92	89	91	95	98	104	-3	-0.1	62	36	88	G	G	R	S	I	VP	F	VP
Superb ▲	109	108	104	115	110	107	3	-0.57	62	42	84	G	G	I	R	I	P	G	P
C.W. HARD WHITE SPRING WHEAT																			
Kanata ▲	XX	90	92	80	81	91	XX	-0.1	58	34	81	G	G	I	S	I	P	G	F
Snowbird ▲	90	100	109	101	105	105	XX	-0.9	59	35	83	G	G	R	S	I	P	G	P

REMARKS: Park data is based on historic data. AC ABBEY, AC EATONIA and LILLIAN – adapted to sawfly areas. AC ABBEY has semi-dwarf stature. Varieties having a rating of Susceptible (S) or Intermediate (I) to loose smut or bunt require a systemic fungicide seed treatment. C.W. Red Spring Wheat grown under irrigation tends to have lower grades. ALIKAT – special adaptation to acid soils. CDC IMAGINE is tolerant to the Clearfield herbicide Adrenalin. MCKENZIE may be identified by a purplish stem. ALIKAT, LILLIAN, HARVEST, CDC IMAGINE, JOURNEY AND 5601HR – limited seed supply in 2004. BW781, PT 555 – insufficient data to describe and no seed available in 2004.

Variety	Yield as % of AC TABER						CANADA PRAIRIE SPRING WHEAT														
	1	2	3	4	5&6	Irr.	Mat.	Prot.	days	RED SEEDED											
AC Taber	100	100	100	100	100	100	110	0.0	62	42	79	G	G	S	R	I	F	P	VP		
5700PR ◊	91	99	99	101	99	99	-1	XX	62	41	75	EX	G	S	R	I	P	P	VP		
5701PR ▲	83	98	98	97	96	93	-1	0.0	60	42	76	G	G	I	S	XX	P	P	VP		
AC Crystal ◊	95	101	101	102	98	97	-2	0.0	62	42	79	G	G	I	R	S	F	P	VP		
AC Foremost	98	96	94	96	103	98	XX	XX	61	42	74	EX	G	R	R	I	P	F	VP		
Cutler †	83	90	88	82	86	86	-7	XX	61	40	78	G	G	S	S	I	P	F	VP		
WHITE SEEDED																					
AC2000	92	107	107	94	101	100	0	XX	61	40	76	EX	G	I	R	I	P	P	P		
AC Karma †	97	100	100	99	98	99	-1	XX	62	39	82	G	G	I	R	I	P	P	VP		
AC Vista ◊ †	93	97	102	96	98	94	-3	XX	61	43	84	G	G	I	R	I	P	P	P		

REMARKS: Varieties with susceptible (S) or intermediate (I) ratings to loose smut or bunt require a systemic fungicide seed treatment. CUTLER – less drought tolerant than other CPS wheats. CPS wheat is more susceptible to take-all root rot than other wheat classes. AC2000 and AC VISTA have better sprouting resistance than other white seeded CPS varieties. AC TABER yields about 20 % higher than AC BARRIE. AC VISTA AND AC2000 have higher protein content and stronger gluten than AC KARMA. AC CRYSTAL, 5700PR AND 5701PR have improved quality compared to AC FOREMOST and TABER. AC2000, AC VISTA and 5700PR are grown under contract with the CWB market development program.

See page 15 for symbols used.

WHEAT (new yield class table)

Variety	Test Yield Category			Comp.		Te. Wt.	Kn. Wt.	Ht. cm	Resistance to:					Tolerance to:		
				Mat.	Prot.				Loose		Com.		Leaf			
	Low	Med	High			days	%	lb/bu	g/1000	Ldg.	Shat.	Smut	Bunt	Rt. Rot	Spot	Sprout
C.W. RED SPRING WHEAT																
AC Barrie ◊	100	100	100	109	14.8	62	37	89	G	G	R	R	I	P	G	F
5500HR ◊	102	102	99	2	-0.6	63	39	89	F	G	I	I	I	P	G	F
5600HR ◊	103	105	101	3	-0.6	63	36	97	G	G	R	R	I	P	G	P
5601HR ▲	95	91	91	XX	0.0	61	37	90	G	G	I	I	I	P	F	F
AC Abbey ◊	93	102	105	XX	-1.4	62	35	85	F	G	I	R	I	P	P	F
AC Cadillac ◊	96	96	96	0	0.0	64	39	98	F	G	R	R	I	F	F	F
AC Cora †	102	104	101	-1	-0.5	62	35	96	F	G	R	R	I	G	F	F
AC Eatonia	87	97	92	1	-0.3	62	35	92	P	G	I	R	I	P	G	XX
AC Elsa ◊	99	105	104	0	-0.5	62	35	89	F	G	R	I	I	G	F	P
AC Intrepid ◊	99	102	104	-2	-0.7	62	39	91	G	G	I	R	I	F	P	P
AC Majestic †	94	101	100	1	-0.5	62	36	93	G	F	I	R	I	P	EX	F
AC Michael †	98	102	99	-2	-0.7	62	33	95	F	G	R	I	I	XX	F	P
AC Splendor	91	95	97	-3	0.3	61	37	90	F	G	I	I	I	F	F	P
Alikat	96	95	96	0	-0.6	63	36	88	F	G	R	R	I	P	F	F
CDC Bounty	101	106	103	2	-0.4	64	37	94	F	G	R	I	I	P	F	F
CDC Imagine ▲	104	104	104	-2	-0.2	60	38	84	G	G	R	R	I	P	XX	P
CDC Teal	94	102	101	0	-0.3	62	36	90	G	G	I	I	I	P	P	VP
Harvest ▲	101	101	96	-3	0.1	62	37	84	VG	G	R	S	I	P	EX	VP
Journey ◊	95	103	95	0	0.6	61	35	83	VG	G	I	R	I	F	G	F
Katepwa	99	100	98	-1	-0.8	62	35	93	F	G	R	R	I	P	F	F
Laura	99	109	100	1	-0.8	62	35	93	G	G	I	S	I	P	F	P
Lillian ▲	104	100	97*	XX	0.7	58	36	81	G	G	R	I	I	P	G	VP
McKenzie	101	103	104	-2	-1.2	63	34	91	F	G	S	R	I	F	EX	F
Prodigy	103	104	104	-1	0.2	62	35	96	G	F	I	R	I	P	F	VP
Roblin	91	96	95	-3	-0.1	62	36	88	G	G	R	S	I	VP	F	VP
Superb ▲	107	112	110	3	-0.57	62	42	84	G	G	I	R	I	P	G	P
C.W. HARD WHITE SPRING WHEAT																
Kanata ▲	91	83	81*	XX	-0.1	58	34	81	G	G	I	S	I	P	G	F
Snowbird ▲	105	102	98*	XX	-0.9	59	35	83	G	G	R	S	I	P	G	P

REMARKS: AC ABBEY, AC EATONIA and LILLIAN – adapted to sawfly areas. AC ABBEY has semi-dwarf stature. Varieties having a rating of Susceptible (S) or Intermediate (I) to loose smut or bunt require a systemic fungicide seed treatment. C.W. Red Spring Wheat grown under irrigation tends to have lower grades. ALIKAT – special adaptation to acid soils. CDC IMAGINE is tolerant to the Clearfield herbicide Adrenalin. MCKENZIE may be identified by a purplish stem. ALIKAT, LILLIAN, HARVEST, CDC IMAGINE, JOURNEY AND 5601HR – limited seed supply in 2004. BW781, PT 555 – insufficient data to describe and no seed available in 2004. Test yield categories based on small plot yields were Low <45 bu/ac; Medium 45 to 75 bu/ac; and High >75 bu/ac.

Yield as % of AC TABER

CANADA PRAIRIE SPRING WHEAT

RED SEEDED																
AC Taber	100	100	100	110	0.0	62	42	79	G	G	S	R	I	F	P	VP
5700PR ◊	100	97	102	-1	XX	62	41	75	EX	G	S	R	I	P	P	VP
5701PR ▲	94	95	97	-1	0.0	60	42	76	G	G	I	S	XX	P	P	VP
AC Crystal ◊	97	99	104	-2	0.0	62	42	79	G	G	I	R	S	F	P	VP
AC Foremost	101	93	98	XX	XX	61	42	74	EX	G	R	R	I	P	F	VP
Cutler †	84	85	89	-7	XX	61	40	78	G	G	S	S	I	P	F	VP
WHITE SEEDED																
AC2000	109	97	90	0	XX	61	40	76	EX	G	I	R	I	P	P	P
AC Karma †	100	97	100	-1	XX	62	39	82	G	G	I	R	I	P	P	VP
AC Vista ◊ †	98	96	97	-3	XX	61	43	84	G	G	I	R	I	P	P	P

REMARKS: Varieties with susceptible (S) or intermediate (I) ratings to loose smut or bunt require a systemic fungicide seed treatment. CUTLER – less drought tolerant than other CPS wheats. CPS wheat is more susceptible to take-all root rot than other wheat classes. AC2000 and AC VISTA have better sprouting resistance than other white seeded CPS varieties. AC TABER yields about 20% higher than AC BARRIE. AC VISTA AND AC2000 have higher protein content and stronger gluten than AC KARMA. AC CRYSTAL, 5700PR AND 5701PR have improved quality compared to AC FOREMOST and TABER. AC2000, AC VISTA and 5700PR are grown under contract with the CWB market development program. Test yield categories based on small plot yields were Low <50 bu/ac; Medium 50 to 90 bu/ac; and High >90 bu/ac.

See page 15 for symbols used.

W H E A T (continued)

Variety	Area (See Map)						Comp. Irr.	Te. Wt.	Kn. Wt.	Ht. cm	Resistance to:				Tolerance to:				
	1	2	3	4	5&6	Loose Smut					Com. Rt. Rot	Leaf							
	1	2	3	4	5&6							Spot	Sprout	FHB					
	Yield as % of AMAZON						days	lb/bu	g/1000	cm	C.W. EXTRA STRONG WHEAT								
Amazon ▲	100	100	100	100	100	100	110	61	44	97	G	G	R	I	I	F	P	P	
AC Corinne	99	102	99	100	105	92	1	61	44	97	G	G	R	I	I	P	G	P	
Bluesky	97	101	96	101	102	94	-2	61	44	95	F	G	R	I	R	P	P	P	
Glenavon ◊	99	108	104	101	106	105	0	62	46	97	G	G	R	I	I	P	P	P	
Glenlea	98	105	95	103	103	95	0	61	43	97	G	G	R	I	R	P	G	P	
Laser	95	99	92	98	96	101	-2	60	39	87	EX	G	R	I	I	P	F	P	

W H E A T (new yield class table)

Variety	Test Yield Category			Comp. Mat.	Te. Wt.	Kn. Wt.	Ht. cm	Resistance to:				Tolerance to:				
	Low	Med	High					Loose Smut	Com. Rt. Rot	Leaf						
	Low	Med	High							Spot	Sprout	FHB				
	Yield as % of AMAZON			days	lb/bu	g/1000	cm	C.W. EXTRA STRONG WHEAT								
Amazon ▲	100	100	100	110	61	44	97	G	G	R	I	I	F	P	P	
AC Corinne	101	100	102	1	61	44	97	G	G	R	I	I	P	G	P	
Bluesky	97	98	105	-2	61	44	95	F	G	R	I	R	P	P	P	
Glenavon ◊	102	104	108	0	62	46	97	G	G	R	I	I	P	P	P	
Glenlea	99	99	105	0	61	43	97	G	G	R	I	R	P	G	P	
Laser	90	97	105	-2	60	39	87	EX	G	R	I	I	P	F	P	

REMARKS: BLUESKY and LASER are comparable in maturity to KATEPWA. AC CORINNE, GLENAVON, AMAZON and GLENLEA – should only be grown in Areas 1, 2 and 3 due to late maturity. AMAZON yields approximately 10% more than KATEPWA. Test yield categories based on small plot yields were Low <50 bu/ac; Medium 50 to 90 bu/ac; and High >90 bu/ac.

W H E A T (continued)

Variety	Area (See Map)						Comp. Irr.	Te. Wt.	Kn. Wt.	Ht. cm	Resistance to:				Tolerance to:				
	1	2	3	4	5&6	Loose Smut					Com. Rt. Rot	Leaf							
	1	2	3	4	5&6							Spot	Sprout	FHB					
	Yield as % of KYLE						days	lb/bu	g/1000	cm	C.W. AMBER DURUM WHEAT								
Kyle	100	100	100	NS	NS	100	107	62	44	98	P	G	S	R	I	P	F	VP	
AC Avonlea ◊	101	100	102	NS	NS	110	0	62	45	89	F	G	S	R	I	P	F	VP	
AC Melita	94	90	99*	NS	NS	104	0	62	45	94	F	G	S	R	I	VP	F	VP	
AC Morse ◊	100	98	99	NS	NS	111	-2	61	44	84	G	G	S	R	I	VP	F	VP	
AC Navigator ◊	105	100	108	NS	NS	111	0	63	46	76	G	G	S	R	I	VP	F	VP	
Napoleon ◊	98	97*	108*	NS	NS	110	1	62	47	88	F	G	S	R	I	P	F	VP	
Plenty	100	98	104*	NS	NS	109	-1	62	43	98	F	G	S	R	I	F	F	VP	
Sceptre	97	93	90*	NS	NS	108	-1	62	42	85	G	G	S	R	I	P	P	VP	

REMARKS: Durum wheat should only be grown in areas 1 and 2 and the southeastern portion of area 3 due to late maturity. Outside these areas, durum is extremely late maturing and subject to quality loss. All durum varieties are susceptible to two new races of loose smut. Seed can be treated to provide control. KYLE – yields about 10 % higher than AC BARRIE in areas of best adaptation, and receives better grades than other varieties even under adverse harvesting conditions. SCEPTRE – lowest incidence of kernel smudge. AC NAVIGATOR – grown under contract with CWB, stronger gluten and semi-dwarf stature. AC AVONLEA – shorter stronger straw than KYLE, higher pigment content in grain than other varieties.

Yield as % of AC REED										C.W. SOFT WHITE SPRING WHEAT								
AC Reed	100	NS	NS	NS	NS	100	105	62	37	75	EX	G	S	S	S	XX	F	XX
AC Andrew	116	NS	NS	NS	NS	122	4	63	39	74	XX	XX	S	I	XX	XX	XX	XX
AC Meena	117	NS	NS	NS	NS	110	5	63	38	74	XX	XX	S	S	XX	XX	XX	XX
AC Nanda	100*	NS	NS	NS	NS	101	0	63	35	83	EX	G	S	I	S	XX	F	XX
AC Phil	104*	NS	NS	NS	NS	102	XX	62	36	75	EX	G	S	S	S	XX	F	XX

REMARKS: Current S.W.S.W. varieties are semi-dwarf and require a systemic fungicide seed treatment. AC NANDA, AC PHIL and AC REED – are resistant to stripe rust. AC NANDA and AC PHIL – have improved resistance to black point. AC REED – yields about 20 % higher than AC BARRIE under irrigation. Limited quantities of seed of AC NANDA available in 2004. Bhisaj – insufficient data to describe and limited seed available in 2004. Soft-white spring wheats are susceptible to pre-harvest sprouting.

See page 15 for symbols used.

WINTER WHEAT

Variety	Irr.						Prov. Mean	Comp.		Te. Wt.	Kn. Wt.	Ht. cm	Resistance to:						
	Area (See Map)							Mat.	Prot.				Winter						
	1	1	2	3	4	5&6							days	%	lb/bu	g/1000	Hardiness	Ldg.	Shat.
Yield as % of CDC KESTREL													CWRW SELECT VARIETIES						
AC Bellatrix	86*	103	104	111*	99	XX	101	+1	+1.4	64	37	87	G	G	G	VG	R	P	
AC Readymade	88	97	88	NS	NS	NS	XX	+4	+2.8	63	36	90	P	VG	F	VG	I	XX	
AC Tempest	95	95	94	NS	NS	NS	XX	+4	+2.9	63	38	88	P	VG	G	VG	I	XX	
CDC Buteo	XX	93	101*	XX	99	XX	97	0	+1.2	65	35	89	G	F	G	XX	S	P	
CDC Osprey	92	99	92	113*	97	XX	97	-1	+1.1	63	32	90	VG	G	G	F	S	P	
McClintock ▲	XX	94	92*	XX	96	XX	95	+1	+1.0	65	33	92	P	G	G	XX	S	P	
Norstar	82	91	91	112*	87	XX	89	+1	+0.8	64	33	106	VG	P	G	G	S	F	
OTHER CWRW VARIETIES																			
CDC Kestrel	100	100	100	100	100	XX	100	218	11.2	62	32	93	VG	G	G	P	S	P	
CDC Clair	93	99	102	98*	102	XX	99	0	+0.7	63	34	88	VG	F	G	F	S	P	
CDC Falcon	98*	97	99	81*	100	XX	97	-3	+1.2	62	31	75	F-G	VG	G	F	S	VP	
CDC Harrier	109*	102	103	111*	101	XX	103	0	-0.1	62	32	93	G	G	G	F	S	P	
CDC Raptor	XX	99	102	XX	98	XX	99	0	+0.9	63	30	82	VG	VG	G	XX	S	P	

REMARKS: Winter wheat can be grown successfully in all areas of Alberta if seeded into standing stubble within the optimal seeding date period (generally before September 15) and if there is adequate snowfall. Yield figures are from small plot trials with good winter survival. The average maturity date for CDC KESTREL is August 6 (218 days after January 1). Winter wheat varieties that are not resistant to common bunt should be treated with a systemic seed treatment. RADIANT (registration pending) has resistance to the wheat curl mite which carries Wheat Streak Mosaic Virus. Winter wheat grown in areas 1 & 2 should be inspected for infestation by Russian wheat aphid, as it may reduce winter survival. Winter wheat will normally escape Fusarium head blight infection if seeded before September 15. Limited quantities of CDC BUTEO, McCLINTOCK and RADIANT will be available in fall 2004. CWRW Select varieties receive price and protein premiums under a CWB Market Development Contract Program. For details see http://www.cwb.ca/en/growing/market_testing/.

WINTER WHEAT (new yield class table)

Variety	Test Yield Category					Prov. Mean	Comp.		Te. Wt.	Kn. Wt.	Ht. cm	Resistance to:						
	Low	Med	High	V. High	Mat.		Prot.	Winter										
								days				%	lb/bu	g/1000	Hardiness	Ldg.	Shat.	Piebald
Yield as % of CDC KESTREL												CWRW SELECT VARIETIES						
AC Bellatrix	107	102	93	100	101	+1	+1.4	64	37	87	G	G	G	VG	R	P		
AC Readymade	98	90	86	-	-	+4	+2.8	63	36	90	P	VG	F	VG	I	XX		
AC Tempest	100	94	92	-	-	+4	+2.9	63	38	88	P	VG	G	VG	I	XX		
CDC Buteo	103*	89	101*	XX	97	0	+1.2	65	35	89	G	F	G	XX	S	P		
CDC Osprey	97	97	98	97	97	-1	+1.1	63	32	90	VG	G	G	F	S	P		
McClintock ▲	90*	96	95*	99*	95	+1	+1.0	65	33	92	P	G	G	XX	S	P		
Norstar	94	89	89	85	89	+1	+0.8	64	33	106	VG	P	G	G	S	F		
OTHER CWRW VARIETIES																		
CDC Kestrel	100	100	100	100	100	218	11.2	62	32	93	VG	G	G	P	S	P		
CDC Clair	98	98	97	105	99	0	+0.7	63	34	88	VG	F	G	F	S	P		
CDC Falcon	88	96	102	106	97	-3	+1.2	62	31	75	F-G	VG	G	F	S	VP		
CDC Harrier	107	101	103	105	103	0	-0.1	62	32	93	G	G	G	F	S	P		
CDC Raptor	97	98	99	101*	99	0	+0.9	63	30	82	VG	VG	G	XX	S	P		

REMARKS: Winter wheat can be grown successfully in all areas of Alberta if seeded into standing stubble within the optimal seeding date period (generally before September 15) and if there is adequate snowfall. Yield figures are from trials with good winter survival. The average maturity date for CDC KESTREL is August 6 (218 days after January 1). Winter wheat varieties that are not resistant to common bunt should be treated with a systemic seed treatment. RADIANT (registration pending) has resistance to the wheat curl mite which carries Wheat Streak Mosaic Virus. Winter wheat grown in southern Alberta should be inspected for infestation by Russian wheat aphid, as it may reduce winter survival. Winter wheat will normally escape Fusarium head blight infection if seeded before September 15. Limited quantities of CDC BUTEO, McCLINTOCK and RADIANT will be available in fall 2004. CWRW Select varieties receive price and protein premiums under a CWB Market Development Contract Program. For details see http://www.cwb.ca/en/growing/market_testing/.

Test yield categories are based on small plot trial yields: Low = under 45 bu/A; Medium = 45 to 75 bu/A; High = 75 to 105 bu/A; V. High = over 105 bu/A.

See page 15 for symbols used.

FALL RYE

Variety	Area (See Map)					Prov. Mean	Comp. Mat.	Te. Wt.	Kn. Wt.	Ht. cm	Winter Hardiness	Resistance to:		
	1	2	3	4	5&6							Ldg.	Shat.	Stem Smut
	Yield as % of PRIMA											days	lb/bu	g/1000
AC Prima	100	100	100	100	100	100	214	58	33	119	VG	F	F	G
AC Remington	123*	105	XX	92*	XX	105	0	57	30	93	VG	EX	VG	-
AC Rifle	119	100	XX	93	96	101	0	57	30	87	VG	EX	VG	G
Musketeer	87	89	XX	96	95	91	+2	56	33	120	VG	G	F	G

REMARKS: AC RIFLE and AC REMINGTON are semi-dwarf varieties. The average maturity date for PRIMA is August 2 (214 days after January 1).

FALL RYE (new yield class table)

Variety	Test Yield Category				Prov. Mean	Comp. Mat.	Te. Wt.	Kn. Wt.	Ht. cm	Winter Hardiness	Resistance to:		
	Low	Med	High	V. High							Ldg.	Shat.	Stem Smut
	Yield as % of PRIMA										days	lb/bu	g/1000
AC Prima	100	100	100	100	100	214	58	33	119	VG	F	F	G
AC Remington	120	100*	99*	XX	105	0	57	30	93	VG	EX	VG	-
AC Rifle	115	102	94	89	101	0	57	30	87	VG	EX	VG	G
Musketeer	88	92	93	93*	91	+2	56	33	120	VG	G	F	G

REMARKS: Test yield categories are based on small plot trial yields: Low = under 48 bu/ac; Medium = 48 to 80 bu/ac; High = 80 to 112 bu/ac; V. High = over 112 bu/ac. AC RIFLE and AC REMINGTON are semi-dwarf varieties. The average maturity date for PRIMA is August 2 (214 days after January 1).

FLAX

Variety	Irr.	Area (See Map)				Prov. Average	Comp. Mat.	Ht. cm	Seed Size	Resistance to:		
		1	2	3	4					5&6	Ldg.	Rust
		Yield as % of NORLIN								days	cm	
NorLin	100	100	100	100	100	100	114	58	M	G	R	
AC Carnduff ◊ †	118	105	106	XX	102*	115	111	1	62	M	G	R
CDC Arras †	109*	110	104	XX	103	95	103	0	61	L	F	R
CDC Bethune ◊	111	110	105	XX	114	108	109	0	59	M	G	R
CDC Normandy	109	101	100	XX	102	108	104	0	59	M	F	R
CDC Valour ◊	103*	102	94	XX	106*	91	97	-1	59	M	F	R
Flanders	112	113	115	XX	98	108	109	0	58	S	G	R
MacGregor	104	121	108	118	100	106	109	3	53	S	G	R
Taurus ◊	103*	104*	102	XX	105*	107	104	0	53	M	G	R
SOLIN												
1084 ◊	98*	105*	102	XX	99*	109	104	1	58	S	G	R
2047 ◊	XX	XX	XX	XX	70*	92*	88	1	49	M	EX	R
2090 ▲	XX	XX	XX	XX	XX	103*	94	1	49	L	G	R

REMARKS: Linola 1084, 2047 and 2090 are edible oil varieties classed as Solin varieties. Solin varieties are available only through identity preserved contracts. Lightning - insufficient data to describe. Flax is daylight sensitive and maturity will vary by the zone it is grown in.

See page 15 for symbols used

SPRING TRITICALE

Variety	Area (See Map)						Comp. Mat.	Te. Wt.	Kn. Wt.	Ht. cm	Resistance to:						
	Irr.	1	2	3	4	5&6					Loose			Com.		Sprout	
											Ldg.	Shat.	Smut	Bunt	Rt. Rot	Toler.	FHB
Yield as % of PRONGHORN							days	lb/bu	g/1000	cm							
Pronghorn	100	100	100	100	100	100	113	55	43	101	G	G	R	R	I	F	F
AC Alta	106	103	101	94	101	101	2	54	49	92	G	G	R	R	I	F	XX
AC Certa	95	99	93	91	92	92	1	59	43	105	G	G	R	R	R	F	P
AC Copia	105	100	94	96	84	94	1	57	46	102	G	G	R	R	I	F	XX
AC Ultima	107	103	95	109	105	97	0	56	45	98	G	G	R	R	I	F	P

SPRING TRITICALE (new yield class table)

Variety	Test Yield Category				Comp. Mat.	Te. Wt.	Kn. Wt.	Ht. cm	Resistance to:							
	Low	Med	High	V. High					Loose			Com.		Sprout		
									Ldg.	Shat.	Smut	Bunt	Rt. Rot	Toler.	FHB	
Yield as % of Test Mean					days	lb/bu	g/1000	cm								
Pronghorn	109	113	114	116	113	55	43	101	G	G	R	R	I	F	F	F
AC Alta	112	118	114	114	2	54	49	92	G	G	R	R	I	F	XX	XX
AC Certa	107	105	109	112	1	59	43	105	G	G	R	R	R	F	P	P
AC Copia	103	116	108	99	1	57	46	102	G	G	R	R	I	F	XX	XX
AC Ultima	108	109	114	120	0	56	45	98	G	G	R	R	I	F	P	P

REMARKS: All varieties are late maturing compared to CWRS wheats (approximately 10 days later) and should not be grown for grain production in areas 5 and 6. PRONGHORN and AC ULTIMA are earlier maturing than other spring triticale varieties. Pronghorn yields about 30% greater than AC BARRIE CWRS wheat in areas of adaptation. Large seeded varieties should have an increased seeding rate. Triticale susceptibility to FHB is similar to CWRS.

Where test yield categories based on small plot data are as follows: Low is <50 bu/acre; Medium is >50 but <80 bu/acre; High >80 but <100 bu/acre; and Very High >100 bu/acre.

OTHER CEREAL CROPS

SPRING RYE: GAZELLE – only available spring rye variety and has similar maturity to KATEPWA spring wheat

WINTER TRITICALE: PIKA – a tall winter triticale variety with winter hardiness similar to the most hardy winter wheat. BOBCAT ▲ – is best adapted to higher snowfall areas and is shorter statured than PIKA. BOBCAT ~ is the only beardless triticale available and is easy threshing. Winter triticale matures approximately three weeks earlier than spring triticale.

SPRING SPELTS: CDC NEXON – is the only registered variety developed for production in Western Canada.

See page 15 for symbols used.

BARLEY (continued)

Variety	Area (See Map)				No. of Row	Awn Type	Comp. Mat.	Tb. Wt. lb/bu	Kn. Wt. g/1000	Ht. cm	Ldg.	Resistance to:			Net Bit.	Toler. FHB
	1	2	3	4								Loose Smut	FL & Cov. Smut	Rot		
	Irr.	1	2	3	4	5&6										
		Yield as % of HARRINGTON														
		100	100	100	100	100	100	51	44	78	F	S	S	I	S	S
Harrington	100	100	100	100	100	100	98	51	44	78	F	S	S	I	S	F+
AC Bountiful	101	103	104	119	113	114	1	52	47	86	G	R	R	I	S	F
AC Metcalfe ◊	100	99	102	112	108	109	1	53	45	82	F	R	I	S	I	F
CDC Copeland ◊	113	99	104	117	108	116	1	52	47	83	F	S	I	S	I	F+
CDC Kendall ◊	100	96	99	108	104	104	-1	53	44	79	F	S	I	S	I	F
CDC Select ◊	98	101	101	111	108	115	1	51	43	75	F	R	I	S	I	P
CDC Stratus	104	99	101	111	109	105	0	52	46	78	G	I	I	S	I	F
Merit ◊	111	105	108	113	109	122	4	51	44	78	F	S	R	I	S	F
Newdale ▲	104	101	105	117	107	115	0	52	45	72	F	S	R	R	S	F
Stein †	102	102	101	105	107	102	1	52	44	73	F	S	I	S	S	F
B1602 †	104	103	99	99	115	98	-2	51	38	89	G	S	I	R	S	VP
CDC Battleford ◊	110*	XX	101*	108*	108*	112*	0	49	39	76	G	S	R	R	S	P
CDC Sister ◊	104	103	102	108	110	107	-1	49	36	94	P	S	I	S	S	F
CDC Springside ▲	113*	XX	100*	112*	105*	108*	0	49	39	89	G	R	R	I	S	VP
CDC Tisdale ▲	113*	XX	100*	110*	107*	108*	0	47	42	82	G	S	R	I	S	P
CDC Yorkton ◊	111	104	109	122	117	115	1	49	38	87	G	S	R	R	S	P
Excel	105	96	108	127	112	112	0	50	41	76	G	S	I	R	S	VP
Legacy ◊	101	101*	100	117	106	107	-2	50	39	77	G	I	R	R	S	P
Robust †	94	97*	97	112	98	97	-1	51	40	81	G	S	I	I	S	VP
Tradition ▲	101*	XX	97*	111*	110*	100*	-2	50	40	78	G	S	R	R	S	XX

REMARKS: Bridge and Brier data is based on historic data. Only systemic seed treatments will control loose smut. Alberta now has races of the scald pathogen that are capable of attacking several of the varieties previously rated as resistant. Varieties with excellent straw strength respond to high levels of fertilizer with less lodging than other varieties. Numerical values for yield, maturity, test weight, kernel weight and height are strongly influenced by environmental conditions such as rainfall, soil fertility and temperature. The maturities are stated in days plus or minus the difference from HARRINGTON. Shattering is also strongly influenced by environmental conditions, but generally two rowed cultivars have good resistance, six rowed cultivars have fair resistance. AC RANGER, DILLON, and WESTFORD are forage varieties. AC BOUNTIFUL, CALDER, CDC BATTLEFORD, CDC SELECT, CDC SPRINGSIDE, CDC TISDALE, CDC YORKTON, LACEY, NEWDALE, and TRADITION - limited quantities being grown for market development and testing. CALDER insufficient data to describe. CDC TREY (TR 359), PONOKA and TR 710 - insufficient data to describe, no seed available in 2004. CDC SPEEDY, CONLON, DILLON, and WESTFORD - not being tested. For recommendations from the Canadian Maltng Barley Technical Centre, see appended table.

See page 15 for symbols used.

BARLEY (new yield class table)

Variety	Test Yield Category			No. of Row	Awn Type	Comp. Mat.	Te. Wt. lb/bu	Kn. Wt. g/1000	Ht. cm	Ldg. Smut	Resistance to:			Net Toler. FHB		
	Low	Med	High								Loose Smut	FL & Com.			Scald	
	High	V. High	Rot									Cov. Smut	Rot			
	Yield as % of test mean															
	NA	NA	NA	2	R	NA	53	47	75	G	S	I	I	S	S	F
Bridge †	100	105	105	2	R	0	53	48	75	F	S	R	I	I	S	F
CDC Dolly	82	94	97	2	R	-3	53	46	84	G	S	S	S	S	I	F+
CDC Fleet †	99	98	100	2	R	-1	53	45	77	G	R	R	I	S	I	P
CDC Helgason ◊	101	100	103	2	R	-2	52	44	71	G	I	R	I	I	I	P
Niobe ▲	101	103	98	2	R	-1	51	47	72	G	R	R	R	S	R	F
Rivers ▲	101	104	102	2	R	4	53	49	87	G	S	R	S	R	S	F+
Seebe	107	111	110	2	R	1	53	48	78	G	S	I	R	S	S	F
Xena	99	100	105	6	S	2	48	40	81	G	S	I	I	I	I	VP
AC Harper ◊	106	105	106	6	S	0	48	42	86	G	S	R	S	I	I	VP
AC Lacombe ◊	108	111	106	6	S	2	49	43	75	G	XX	XX	XX	S	I	VP
AC Ranger	109	108	105	6	S	2	49	41	83	F	S	R	I	S	I	VP
AC Rosser ◊	NA	NA	NA	6	S	NA	48	39	83	F	S	R	S	I	I	VP
Brier †	101	100	104	6	S	2	51	41	85	G	S	S	I	S	S	VP
Stander ◊ †	106	108	103	6	S	0	49	40	77	G	S	R	R	I	I	P
Trochu ◊																
	SEMI-DWARF															
CDC Bold	109	105	105	2	R	-1	53	48	68	G	S	R	I	I	S	VP
CDC Thompson	83	91	96	2	R	-2	53	47	63	G	S	R	I	I	I	F
CDC Earl †	99	100	103	6	R	1	47	37	73	EX	S	R	I	S	I	VP
Kasola ◊	94	98	101	6	R	-3	49	35	72	EX	S	R	I	R	I	VP
Mahigan	93	99	102	6	S	-2	50	35	73	EX	S	R	I	R	I	VP
Niska ◊	100	102	104	6	S	2	50	40	72	VG	S	R	S	R	I	VP
Vivar ◊	108	111	108	6	R	0	49	43	74	VG	I	R	R	I	I	VP
	HULLLESS															
CDC Dawn	105	96	92	2	R	2	57	38	85	P	S	S	I	S	I	F+
CDC Freedom	98	94	96	2	R	-1	60	41	87	F	S	R	I	S	I	F+
CDC Gainer †	95	95	97	2	R	0	60	39	88	F	S	I	I	S	I	F
CDC McGwire ◊	112	110	105	2	R	2	62	38	81	F	S	R	R	I	I	F
Phoenix †	86	84	84	2	R	-1	58	37	88	F	S	I	I	S	S	F+
Tercel †	94	97	95	2	R	-1	59	41	87	P	S	I	I	S	S	F
AC Bacon	106	103	108	6	S	0	58	37	85	F	S	I	I	I	S	F+
Falcon ◊	85	90	92	6	S	-1	58	34	68	EX	S	R	I	I	I	VP
Jaeger	94	92	100	6	R	2	57	33	75	EX	S	S	I	I	S	VP
Peregrine ◊	79	85	95	6	R	-3	60	32	64	EX	S	I	I	I	I	VP
Tyto ▲	87	86	80	6	S	0	57	38	69	EX	S	R	I	I	I	P

See page 15 for symbols used.

BARLEY (new yield class table) (continued)

Variety	Test Yield Category			No. of Row	Awn Type	Comp. Mat.	Te. Wt. lb/bu	Kn. Wt. g/1000	Ht. cm	Ldg. Smut	Resistance to:			Net Bl.	Toler. FHB	
	Low	Med	High								Loose Smut	FL & Cov. Smut	Com. Rot			Scald
	High	V. High	Yield as % of Test Mean													
MALTING																
Harrington	99	99	96	95	R	-1	51	44	78	F	S	S	I	S	F+	
AC Bountiful	106	103	105	113*	R	0	52	47	86	G	R	R	I	S	F	
AC Metcalfe Δ	102	103	103	103	R	0	53	45	82	F	R	I	I	S	F	
CDC Copeland Δ	101	104	104	104	R	1	52	47	83	F	S	I	I	S	F+	
CDC Kendall Δ	99	101	99	96	R	-2	53	44	79	F	S	I	I	S	F	
CDC Select Δ	98	99	99	99	R	0	51	43	75	F	R	I	I	S	F	
CDC Stratus	101	104	102	95	R	-1	52	46	78	G	I	I	I	S	F	
Merit Δ	107	108	107	104	R	4	51	44	78	F	S	R	I	S	F	
Newdale	106	103	104	103*	R	-1	52	45	72	F	S	R	R	S	F	
Stein †	NA	NA	NA	NA	R	NA	52	44	73	F	S	I	S	S	F	
B1602 †	95	95	98	94	R	-1	51	38	89	G	S	I	R	S	VP	
CDC Battleford Δ	102	105	105	101*	S	1	49	39	76	G	S	R	R	S	P	
CDC Sister Δ	102	97	98	98	S	1	49	36	94	P	S	I	S	S	F	
CDC Springside Δ	102	103	100	100*	S	1	49	39	89	G	R	R	I	S	VP	
CDC Tisdale Δ	101	103	99	99*	S	1	47	42	82	G	S	R	I	S	P	
CDC Yorkton Δ	103	102	103	97	S	1	49	38	87	G	S	R	R	S	P	
Excel	102	100	99	99*	S	0	50	41	76	G	S	I	R	S	VP	
Legacy Δ	98	100	96	95	S	-1	50	39	77	G	I	R	R	S	P	
Robust †	95	92	87	87	S	2	51	40	81	G	S	I	I	S	VP	
Tradition Δ	98	96	104	93*	S	-2	50	40	78	G	S	R	R	S	XX	

REMARKS: Only systemic seed treatments will control loose smut. Alberta now has races of the scald pathogen that are capable of attacking several of the varieties previously rated as resistant. Varieties with excellent straw strength respond to high levels of fertilizer with less lodging than other varieties. Numerical values for yield, maturity, test weight, kernel weight and height are strongly influenced by environmental conditions such as rainfall, soil fertility and temperature. The maturities are stated in days plus or minus the difference from HARRINGTON. Shattering is also strongly influenced by environmental conditions, but generally two rowed cultivars have good resistance. Six rowed cultivars have fair resistance. AC RANGER, DILLON, and WESTFORD are forage varieties. AC BOUNTIFUL, CALDER, CDC BATTLEFORD, CDC SELECT, CDC SPRINGSIDE, CDC TISDALE, CDC YORKTON, LACEY, NEWDALE, and TRADITION - limited quantities being grown for market development and testing. CALDER insufficient data to describe. CDC TREY (TR 359), PONOKA and TR 710 - insufficient data to describe, no seed available in 2004. CDC SPEEDY, CONLON, DILLON, and WESTFORD - not being tested. For recommendations from the Canadian Malting Barley Technical Centre, see appended table.

Where test yield categories based on small plot data for hulled barley would be as follows: Low <60 bu/ac; Medium = 60 to 85 bu/ac; High = 85 to 130 bu/ac; and Very High >130 bu/ac. Where "Maturity" is + or - the mean maturity of the test, with average maturity being 97 days.

See page 15 for symbols used.

OATS

Variety	Area (See Map)					Comp. Mat.	Te. Wt.	Kn. Wt.	Resistance to:	
	1	2	3	4	5&6				Ldg.	Smuts
	Yield as % of CASCADE									
									MILLING	
AC Antoine †	95	113	97	88	95	-1	40	35	G	I
AC Assiniboia ◊	98	95	94	92	92	1	38	41	G	R
AC Juniper	98	114	101	101	100	-2	41	39	VG	I
AC Medallion	103	103	96	97	96	3	39	39	F	R
AC Morgan	107	119	113	104	107	2	40	41	VG	I
AC Preakness	104	105	94	96	99	3	39	38	F	R
AC Rebel	102	102	99	96	99	3	40	35	G	R
Calibre	108	109	88	100	100	1	42	40	F	S
CDC Boyer	97	111	98	97	97	1	39	42	G	S
CDC Dancer ◊	83*	106*	105	93	97	-2	42	37	G	R
CDC Orrin ▲	XX	XX	114*	103*	108	2	42	41	XX	R
CDC Pacer	103	107	104	101	103	2	40	39	F	I
Derby	102	100	94	96	97	2	41	39	G	S
Jasper †	96	98	91	96	93	-2	41	37	F	S
Kaufmann ◊	79	93	85	85	92	4	40	43	G	R
Pinnacle ◊	106	117*	106	89	101	5	40	38	F	R
Ronald ◊	89*	96*	95	88	94	2	41	37	VG	R
Triple Crown ◊	105	107*	96	103	101	3	39	36	G	I
FEED										
Cascade	100	100	100	100	100	0	40	47	G	S
AC Mustang	109	111	109	112	109	1	41	38	G	I
SW Exactor ◊	101	121	102	93	103	2	39	37	VG	I
Waldern	105*	105*	119*	109*	109	1	40	49	G	S
HULLESS										
AC Belmont	81	77	72	71	80	4	42	30	G	R
AC Gwen	55*	78*	73	66	78	5	44	38	VG	R
Boudrias ◊	78*	XX	90*	75*	90	3	41	33	VG	R
Bullion ▲	64	75*	67	68	71	0	50	31	VG	S

REMARKS: AC JUNIPER and JASPER – high protein. AC MUSTANG – dual purpose (forage/feed), high hull content. Murphy, CDC BALER, CDC BELL and FOOTHILL – forage oat, insufficient data to describe. OT 7001 and OT 7008 insufficient data and not registered at time of publication. Yield for hullless varieties are expressed on "as harvested" basis. Hull removal reduces weight of hullless oats by 5-10% and of completely hulled oats by 20-25%. Use higher seeding rate for large seeded varieties.

See page 15 for symbols used.

OATS (new yield class table)

Variety	Test Yield Category				Comp. Mat.	Te. Wt.	Kn. Wt.	Resistance to:	
	Low	Med	High	V. High				Ldg.	Smuts
	Yield as % of CASCADE				days	lb/bu	g/1000	MILLING	
AC Antoine †	93	98	97	87	-1	40	35	G	I
AC Assiniboia ◊	97	92	92	89	1	38	41	G	R
AC Juniper	98	101	106	99	-2	41	39	VG	I
AC Medallion	99	97	97	97	3	39	39	F	R
AC Morgan	103	111	111	105	2	40	41	VG	I
AC Preakness	98	98	101	98	3	39	38	F	R
AC Rebel	101	97	101	90	3	40	35	G	R
Calibre	88*	100	105*	110*	1	42	40	F	S
CDC Boyer	98	99	97	98	1	39	42	G	S
CDC Dancer ◊	94	96	101	85*	-2	42	37	G	R
CDC Orrin ▲	107	105	112	XX	2	42	41	XX	R
CDC Pacer	105	101	105	101	2	40	39	F	I
Derby	100	96	97	95	2	41	39	G	S
Jasper †	95	93	95	93	-2	41	37	F	S
Kaufmann ◊	84	92	91	72*	4	40	43	G	R
Pinnacle ◊	96	104	100	103	5	40	38	F	R
Ronald ◊	92	91	98	75*	2	41	37	VG	R
Triple Crown ◊	99	101	106	99	3	39	36	G	I
FEED									
Cascade	100	100	100	100	0	40	48	G	S
AC Mustang	113	109	109	109	1	41	38	G	I
SW Exactor ◊	92	106	106	99	2	39	37	VG	I
Waldern	119*	105	110*	121*	1	40	49	G	S
HULLESS									
AC Belmont	81	75	77	74	4	42	30	G	R
AC Gwen	60	80*	78	64	5	44	38	VG	R
Boudrias ◊	79	98	81	XX	3	41	33	VG	R
Bullion ▲	66	69*	71	79	0	50	31	VG	S

REMARKS: AC JUNIPER and JASPER – high protein. AC MUSTANG – dual purpose (forage/feed), high hull content. Murphy, CDC BALER, CDC BELL and FOOTHILL – forage oat, insufficient data to describe. OT 7001 and OT 7008 insufficient data and not registered at time of publication. Yield for hulless varieties are expressed on "as harvested" basis. Hull removal reduces weight of hulless oats by 5-10% and of completely hulled oats by 20-25%. Use higher seeding rate for large seeded varieties.

Where test yield categories based on small plot data for hulled oats would be as follows:
 Low <90 bu/ac; Medium = 90 to 135 bu/ac; High = 135 to 180 bu/ac; and Very High > 180 bu/ac.

See page 15 for symbols used.

Symbols used:

- † Denotes variety may not be described in 2005.
 - NS Denotes variety generally not suited for area.
 - XX Denotes insufficient test data to describe.
 - ♠ Denotes variety protected by Plant Breeder's Rights.
 - ▲ Denotes protection under Plant Breeder's Rights has been applied for.
- Numerical yield data followed by a star (e.g. 101*) denotes limited data.

Abbreviations used:

- Comp. Mat. = Comparative maturity in (+ or -) days from the check variety.
- Comp Prot. = Comparative protein in (+ or -) percent from the check variety.
- Te. Wt. = Test Weight (lb/bu) pounds per bushel. Multiply lb/bu by 1.25 to get kilograms per hectoliter.
- Kn. Wt. = Kernel weight (grams/1,000 kernels).
- Seed size; S = Small, M = Medium, M-L = Medium Large, L = Large.
- Ldg. = Lodging; Shat. = Shattering; EX = Excellent, VG = Very Good, G = Good, F = Fair, P = Poor, VP = Very Poor.
- Com. Rt. Rot = Common root rot; FL & Cov. Smut = False loose & covered smuts; Net Blt. = Net blotch.
- R = Resistant, I = Intermediate, S = Susceptible.
- Ht. cm = Height in centimeters.
- Sprout Toler. = Sprouting Tolerance; P = Poor, F = Fair, G = Good, Ex = Excellent.
- Leaf Spot; VG = Very Good, G = Good, F = Fair, P = Poor, VP = Very Poor.
- Toler. FHB = Fusarium Head Blight Tolerance; G = Good, F = Fair, P = Poor, VP = Very Poor, F+ = somewhat better than fair.

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- Chinook Applied Research Association
- Lakeland Agricultural Research Association
- North Peace Applied Research Association
- Smoky Applied Research and Demonstration Association
- University of Alberta

Prairie Canola variety trial (PCVT)

This year marks the launch of a brand new canola variety testing program called the Prairie Canola Variety Trials (PCVT). The new testing system replaces provincial canola variety testing programs and will help standardize protocols and improve trial consistency and quality.

The canola seed industry, Alberta Agriculture Food and Rural Development, Saskatchewan Agriculture Food and Rural Revitalization, Manitoba Agriculture and Food (in-kind contribution), provincial canola commissions and the Canola Council of Canada each contributed to PCVT in 2003.

Trials were conducted by seed companies, government researchers and independent contractors in three growing zones across the prairies: short season, mid-season and long season. Two replicated-tests were conducted at each site to group together varieties with similar maturity and to ensure that valid statistical comparisons could be made between varieties.

The yield and maturity results are summarized by three major maturity zones – **short** (roughly corresponds to Alberta agro-climatic Areas 4,5 and 6), **mid** (Areas 2 and 3) and **long** (Area 1). The *Canola Digest* will print location specific results in December and the data will be posted on the Canola Council website. The Alberta Agriculture website will also maintain an archive copy of the 2003 variety factsheet for reference to the previous regional data summaries.

Yield columns show variety yields relative to the yield of the check (46A65). **The yield, maturity, height and lodging data are one-year data (2003) only!** The average bu/acre yield of 46A65 for each zone is also shown in parentheses. The Polish canola check was AC Sunbeam.

Variety trials are carefully conducted in a replicated design, so small percentage differences in yield are usually meaningless. **Check the LSD (Least Significant Difference) of the test. If the yield difference between two varieties is less than the LSD, the yields are not considered different.** The table includes information on height, resistance to lodging, blackleg resistance, varietal type (open-pollinated, hybrid, synthetic) and herbicide tolerance.

2003 PRAIRIE CANOLA VARIETY TRIAL

Variety	Specialty Type	Organization	Maturity			Yield			Overall Average	Height Compared to 46A65	Lodging Resistance Rating + = "Better"	Blackleg Resistance Rating from WCC/RRC Data
			Short	Mid	Long	Short	Mid	Long				
CONVENTIONAL												
46A65 (bu/ac)	OP	Pioneer Hi-Bred	0	0	0	100 (50)	100 (45)	100 (48)	100	0	0	R
46H02	Hyb	Pioneer Hi-Bred	1	0	1	108	119	117	116	2	0	R
99CH01	OP	Seed Direct Inc.	2				94		94	4	1	MR
PR6450*	OP	Monsanto Canada Seeds	1	0	0		89	97	93	1	0	R
SW Wizard	OP	Svalof Weibull	1	0	0		104	109	106	3	1	R
Y0276	Hyb	Advanta Seeds	2	0	0	104	108	104	106	4	0	R
CLEARFIELD												
1604	OP	Canterra Seeds	2	3			96	94	95	2	1	MR
46A76	OP	Pioneer Hi-Bred	5	2	2	97	102	95	98	4	1	R
6045CL	OP	Brett-Young Seeds	1	-1	1	89	84	91	88	1	0	MR
Cougar CL	OP	Sask. Wheat Pool	2	1		94	96		95	-1	0	R
LIBERTY LINK												
5003	Hyb	Bayer CropScience	-7			103			103	-2	0	R
5020	Hyb	Bayer CropScience	-2	-1	-1	123	122	130	125	1	0	R
5030	Hyb	Bayer CropScience	2	1	1	118	131	126	126	7	1	R
ROUNDUP READY												
1812	Syn	Canterra Seeds	2	2			101	97	99	4	0	MR
1841	Hyb	Canterra Seeds	3	1	2	104	119	112	113	3	1	R
1849	OP	Canterra Seeds	1	0			101	99	100	0	0	R
1862	OP	Canterra Seeds	1	0		101	99		100	-4	0	MR
3235	OP	Monsanto Canada Seeds	1			96			96	0	0	MR
34-55	OP	Monsanto Canada Seeds	4	1	1	96	97	98	97	2	0	MR
35-85	OP	Monsanto Canada Seeds	2		2		98	98	98	3	0	R
43A56	OP	Pioneer Hi-Bred	-7	-4		96	97		96	-1	0	MR
45H21	Hyb	Pioneer Hi-Bred	-1	0	0	111	120	123	119	2	0	R
46H23	Hyb	Pioneer Hi-Bred	2	0	0	103	116	110	111	3	0	R
512RR	Hyb	Advanta Seeds	2	1	1	101	103	104	103	5	0	R
7979-00*	Hyb	Canterra Seeds	4	1	2	92	100	104	100	4	1	R
9550	OP	Proven Seeds	3	2	2	100	104	102	102	2	0	R
99RZ604*	OP	Cargill Specialty Oils	6	3	4	81	88	96	85	6	1	R
Fortune RR	OP	Secan	1	0	0	95	94	98	96	2	0	R
IMC109RR	OP	Cargill Specialty Oils	2	1	0	90	88	96	91	0	0	MR
IMC208RR	OP	Cargill Specialty Oils	2	1	0	74	74	71	73	-2	0	R
LBD422RR	OP	Brett-Young Seeds	1	0	-1	102	98	101	100	-1	0	R
LBD588RR	OP	Brett-Young Seeds	3	1	1	89	95	99	95	3	1	R
LBD644RR	OP	Brett-Young Seeds	-1	-1	-1	107	103	104	104	-1	0	R

+/- days from 46A65 % yield of 46A65 in 2003 +/- inches

2003 PRAIRIE CANOLA VARIETY TRIAL (continued)

Variety	Type	Specialty Oil	Organization	Maturity			Yield			Height Compared to 46A65 +/- Inches	Lodging Resistance Rating + = "Better"	Blackleg Resistance Rating from WCC/RRC Data
				Short	Mid	Long	Short	Mid	Long			
ROUNDUP READY												
Prairie 719RR	OP		Prairie Seeds	-1	0	-1	103	102	107	104	0	R
SP Admirable RR	Syn		Sask. Wheat Pool	1	1	1	106	107	106	106	2	MR
SP Banner	OP		Sask. Wheat Pool	0	0	-1	101	103	101	102	1	R
SP Canwood	OP		Sask. Wheat Pool	0			97			97	-2	MR
SP Craven	OP	✓	Sask. Wheat Pool	1			86			86	-2	R
SW GladiatorRR	Syn		Quality Assured Seeds	0	0	0	110	108	108	109	2	MR
SW Hymark 3944	Hyb		ProMark Seed	2			103			103	2	MR
SW RazorR	Syn		ProMark Seed	0	1	1	102	108	108	105	1	MR
SW Rider	Syn		Proven Seeds / SWP	2	0	0	97	98		98	1	MS
v1010	Hyb	✓	Cargill Specialty Oils	4	1	1	93	101	98	98	3	MS
LSD .05 (Site Average Expressed As % of 46A65)							9	12	11	12		

46A65 Actual yield (bu/ac) shown is the average of each zone in 2003.

2003 PRAIRIE CANOLA VARIETY TRIAL (continued)

Variety	Type	Organization	Maturity			Yield			Overall Average
			Short	Midium	Station	Years	Station	Years	
POLISH CANOLA									
AC Sunbeam	OP	Agric & Agri-Food Canada	0	0	100	100	100	100	100
ACS-C7	Syn	Agric & Agri-Food Canada	2	2	98	102	102	102	102
SW Spirit River	OP	Peace Pedigreed Seed	3	5	102	101	101	101	101
SW E3255*	Syn	Svalof Weibull	3	4	107	109	109	109	109

* NOT REGISTERED YET

REMARKS: Canola Variety Type; SYN = Synthetic, OP = Open Pollinated, HYB = Hybrid. Polish varieties average 20% less yield than Argentine types and are more susceptible to root maggot and root rot, but mature 2 - 3 weeks earlier. Argentine types shatter more readily than Polish when ripe and require early seeding. Argentine canola is risky in all zones if seeded late, especially in short season zone due to late maturity. Mixtures of canola and mustard seed are inseparable and unacceptable. Do not grow varieties that are susceptible to blackleg. Help prevent the spread of virulent blackleg to your farm, use only certified blackleg free and treated seed in a minimum 4 - year rotation. Maturity information is based on 2003 data and may vary considerably from year to year. Only use the herbicide that is registered for the herbicide tolerant canola variety in the proper soil zone and applied at the recommended rate. Liberty and Roundup herbicide tolerant varieties are transgenic. Millennium lines are high erucic acid types with limited data and are only grown under contract. Nexera, IMC and LoLinda are low linolenic acid types grown under contract. For more information on varieties not listed visit Ropin' the Web at www.agric.gov.ab.ca, or contact the respective companies.

Canadian Malting Barley Technical Centre recommended malting barley varieties 2004-2005

These recommendations are based on the varieties expected to be selected by grain and malting companies for both domestic and export markets from the 2004 harvest. Seeding decisions should be based on agronomic considerations and feedback from your grain company representative, local elevator operators and malting

companies. This list is published on behalf of the members of the CMBTC, and other companies that have provided their input. Varieties not listed are not recommended. The varieties are listed in descending order to the amount selected in 2003/2004.

RECOMMENDED TWO-ROW BARLEY VARIETIES

Variety	Domestic	Export	Market Outlook
AC Metcalfe ⁴	Established	Established	Stable, high demand
Harrington ⁴	Established	Established	Stable, moderate demand
CDC Kendall ^{1,5}	Established	Limited	Stable, moderate demand
Stein ¹	Limited	Limited	Stable, low demand
CDC Stratus ³	Established	No market	Stable, low demand
Merit ^{1,2,3,5}	Limited	Limited	Low, increasing US demand
CDC Copeland ⁴	Growing	Growing	Increasing demand

B1202 is being selected for limited domestic markets. CDC Select (TR153), Newdale (TR258), Calder (TR262), and AC Bountiful (TR243) are not yet being grown for the commercial market. Production is limited to quantities required for testing and market development.

RECOMMENDED SIX-ROW BARLEY VARIETIES

Variety	Domestic	Export	Market Outlook
Excel	Established	Established	Stable demand
Robust	Limited	Established	Declining demand
B1602 ^{1,2,5}	Limited	Limited	Stable, low demand
Legacy ^{1,2,3,5}	Growing	Growing	Increasing, moderate demand
CDC Sisler ¹	Established	No market	Stable demand

CDC Battleford (BT456), CDC Yorkton (BT459), CDC Tisdale (BT462), CDC Springside (BT478), and Lacey (BT965) are not yet being selected for the commercial market. Production is limited to quantities required for testing and market development. Tradition (BT954) is being selected in limited commercial quantities for the US export market.

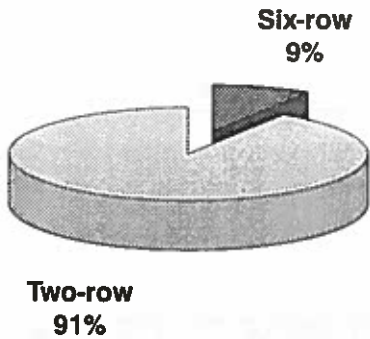
"Domestic" as used in this publication, means barley selected for domestic processing into malt to supply domestic brewers as well as for malt destined for export. "Export" is that malting barley designated for markets outside of Canada including the US, shipped as unmalted grain.

The CMBTC recommends the use of Certified seed to ensure varietal purity and to increase opportunity for selection. The following companies have Pedigreed seed distribution rights for those varieties that are footnoted:

- 1 – (Agricore United)
- 2 – (BARI-Canada)
- 3 – (QAS)
- 4 – (SeCan)
- 5 – (SWP)

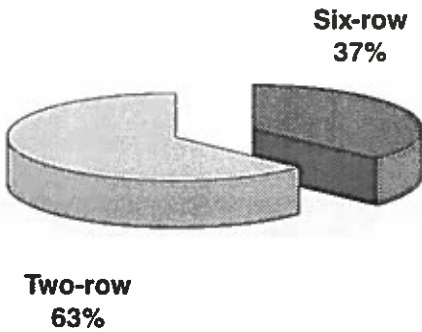
Varieties selected for Domestic use (five year average)

993,000 total tonnes delivered
(350,000 to domestic brewers)



Varieties selected for export (five year average)

990,000 tonnes delivered



CMBTC members

- Agricore United
- Busch Agricultural Resources-Canada
- Canadian Wheat Board
- Canadian Grain Commission
- Canadian International Grains Institute
- Dominion Malting
- James Richardson International
- Quality Assured Seeds
- Public Plant Breeders
- Saskatchewan Wheat Pool
- SeCan

Other organizations providing input to this list:

- Cargill
- ConAgra Grain
- Toepfer Canada
- Parrish and Heimbecker
- LouisDreyfus Canada

Questions?

Call your selector, seed company, grain handling company or the Canadian Wheat Board, or contact the CMBTC at (204) 984-4399 (cmbtc@cmbtc.com).