



## Varieties of Cereal and Oilseed Crops for Alberta - 1987

Prepared by the Cereal and Oilseed Advisory Committee  
 of the Alberta Agriculture Co-ordinating Committee

### Explanatory

This publication provides information on individual varieties and indicates cereal and oilseed production areas within the province. Important agronomic characteristics are given in tabular form for varieties of wheat, oats, barley, flax, canola, and rye. The production areas, based primarily upon precipitation and length of growing season, are indicated on the map. With this information farmers can choose varieties that may be best suited to their own particular farming programs. The varieties are tested under medium management conditions and may change their response if tested under very high or very low management.

### Yields

The tables show relative yields for six production areas. In area 1, irrigated yields expressed as a per cent of dryland yields are: C.W. Wheat 185, barley 160, oats 180, flax 210, canola 125. In area 2, irrigated yields expressed as a per cent of dryland yields are; C.W. wheat 130, barley 125, oats 120, flax 145, canola 120.

### Maturity

The relative classifications refer specifically to the crop being considered. For example, an early-maturing wheat variety could require more days to reach maturity than a late-maturing variety of barley.

In areas 2, 3, and 5 of Alberta the following may be used as a guide for estimating maturity in actual days from seeding to harvest when the crops are seeded on fallow land: Neepawa wheat - 120 days, Park - 116, Grizzly oats - 114, Random - 107, Galt barley - 105, Otal - 94, McGregor flax - 130, Noralta - 117, Westar canola - 112, and Tobin - 95 days. In area 6 the longer daylight hours usually reduce the number of days to maturity required. Area 4 has the longest requirement in the province for days to maturity. In southern Alberta, Neepawa can be expected to mature in 100 to 105 days and other crops are similarly earlier maturing. The comparisons among varieties within crops, however, tend to remain fairly uniform regardless of where the crops are grown.

### Disease, seed treatment

- Seed of rye and flax should be treated to control seedling blight and seed of canola to control flea beetles, seedling blight and the seed-borne phase of black leg.
- Cereal smuts can be controlled with systemic seed treatment fungicides. See Alberta Agriculture publication *Seed Treatment of Cereal and Oilseed Crops* Agdex 100/632.
- Treated seed must not be fed to livestock or poultry or sold for feed. Refer to label for maximum period for storing treated seed. Storage



periods for fungicide-insecticide combination products are fairly short. Small quantities of excess seed can be buried or burned. Do not expose treated seed to wildlife!

### Good seed

- In relation to total farm input expenses, the cost of GOOD SEED, a most important production factor, is very small.
- The only way to be absolutely sure of obtaining a particular variety is by the use of PEDIGREED SEED.
- Pedigreed seed may be purchased in bulk from authorized suppliers.

The Alberta Cereal and Oilseed Advisory Committee coordinates the findings of the various research institutions in Alberta and in this publication describes those varieties that are suited for production in Alberta. The committee is comprised of representatives from the University of Alberta, Agriculture Canada, Canadian Seed Growers Association, Canadian Seed Trade Association and Alberta Agriculture.

For more detailed information consult your district agriculturist.

## COMPARISON OF VARIETIES

WHEAT														
Variety	Irr. 1&2	Area (See Map)						Relative Maturity	Resistance to:					
		1	2	3	4	5	6		Lodging	Shattering	Loose Smut	Bunt	Common Root Rot	
		Yield as % of Neepawa						ELIGIBLE FOR C.W. RED SPRING WHEAT GRADES						
Columbus	93	94	100	93	95	103	98	Med-late	Good	Good	Fair	Fair	Fair	
Katepwa	102	102	103	98	99	103	95	Medium	Good	Good	Good	Fair	Fair	
Kenyon	101	95	105	98	97	104	97	Medium	Good	Good	Fair	Fair	Fair	
Lancer	94	92	99	76	—	—	—	Med-late	Poor	Good	Good	Fair	Fair	
Leader	90	94	95	95	—	—	—	Med-late	Good	Good	Fair	Fair	Poor	
Neepawa	100	100	100	100	100	100	100	Medium	Good	Good	Good	Fair	Fair	
Park	—	—	89	86	86	97	89	Med-early	Good	Good	Good	Fair	Fair	
REMARKS: LEADER and LANCER - recommended for sawfly areas only. COLUMBUS - late maturing in Areas 3, 4, 5 and 6. NEEPAWA and KATEPWA - widely adapted. PARK - easier to thresh than Neepawa, subject to head discoloration with yield loss. C.W. Red Spring Wheat grown under irrigation tends to have lower grades. COLUMBUS and LEADER have sprouting resistance. KATEPWA - easier to thresh than Neepawa. KENYON and LANCER - limited seed supply in 1987. CONWAY and ROBLIN - no seed available in 1987.														
		Yield as % of Neepawa						ELIGIBLE FOR CANADA PRAIRIE SPRING WHEAT GRADES						
HY320	138	126	135	141	129	—	—	V. Late	Excel.	Good	Poor	Poor	Poor	
REMARKS: HY320 is a semi-dwarf variety, requiring a systemic fungicide seed treatment.														
		Yield as % of Fielder						ELIGIBLE FOR C.W. SOFT WHITE SPRING WHEAT GRADES						
Fielder	100	—	—	—	—	—	—	V. Late	Good	Fair	Poor	Poor	Poor	
Owens	107	—	—	—	—	—	—	V. Late	Fair	Good	Poor	Poor	Good	
REMARKS: OWENS is the only variety resistant to stripe rust.														
		Yield as % of Wakooma						ELIGIBLE FOR C.W. AMBER DURUM WHEAT GRADES						
Arcola	101	95	96	98	—	—	—	Medium	Good	Good	Fair	Good	Poor	
Coulter	104	94	97	99	—	—	—	Medium	Good	Good	Fair	Good	Fair	
Kyle	98	101	90	XX	—	—	—	Late	Fair	Good	Fair	Good	Fair	
Medora	104	97	97	99	—	—	—	Med-late	V. Good	Good	Poor	Good	Fair	
Sceptre	104	91	106	XX	—	—	—	Medium	V. Good	Good	Poor	Good	Fair	
Wakooma	100	100	100	100	—	—	—	Med-late	Fair	Good	Fair	Good	Fair	
REMARKS: KYLE, MEDORA, WAKOOMA - should be grown only in Area 1 and 2 and the southeastern portion of Area 3 because of late maturity. WAKOOMA yields about 9% more than Neepawa in areas of adaptation. KYLE and SCEPTRE - seed supplies limited in 1987.														
		Yield as % of Norstar						ELIGIBLE FOR ALBERTA RED WINTER WHEAT GRADES						
Norstar	—	100	xx	xx	—	—	—	Early	Fair	Good	Poor	Poor	Fair	
Sundance*	—	98	—	—	—	—	—	Early	Poor	Good	Poor	Fair	Fair	
Norwin	XX	102	—	—	—	—	—	Early	Fair	Fair	XX	V. Poor	XX	
REMARKS: Varieties listed with winter hardiest at the top. Winter survival is best in southwestern Alberta. Norwin - seed supplies may be limited in 1987 - has very short straw, hardiness about equal to Winalta, erratic yields.														

Symbols used in Tables: \* Variety may not be described in 1988  
 — Denotes variety not generally suited to area  
 XX Denotes no data available

**BARLEY**

Variety	Area (See Map) Yield % as of Galt							Relative Maturity	No. of Rows	Awn Type	Resistance to:				
	Irr. 1&2	1	2	3	4	5	6				Lodging	Shattering and Neck Break	Loose Smut	False Loose & Covered Smut	Common Root Rot
<b>ELIGIBLE FOR GENERAL PURPOSE GRADES ONLY</b>															
Abee	88	100	97	97	102	102	102	late	2	Rough	Good	Good	Poor	Fair	Fair
Diamond	98	98	104	106	105	104	95	Medium	6	Semi-smooth	Good	Fair	Poor	Good	Poor
Empress	92	85	97	101	106	104	97	Medium	6	Rough	Good	Good	Poor	Poor	Fair
Galt	100	100	100	100	100	100	100	Medium	6	Semi-smooth	Good	Fair	Poor	Good	Poor
Heartland	102	99	109	108	111	104	102	Medium	6	Smooth	Good	Fair	Poor	Fair	Fair
Jackson	—	—	—	—	95	93	94	Early	6	Rough	Good	Fair	Poor	Poor	Poor
Johnston	91	102	117	112	111	117	111	Late	6	Smooth	Poor	Good	Poor	Poor	Fair
Klondike*	96	93	98	103	103	102	93	Medium	6	Smooth	Good	Fair	Poor	Fair	Fair
Leduc	98	101	104	106	109	105	93	Medium	6	Rough	Fair	Good	Fair	Good	Fair
Otal	—	—	—	—	91	92	87	Early	6	Rough	Poor	Fair	Poor	Fair	Poor
Samson	98	82	92	99	101	92	93	Late	6	Rough	Excel.	Fair	Poor	Fair	Fair

**HULLESS**

Scout	76	77	84	78	85	83	84	Medium	2	Rough	Fair	Fair	Poor	Poor	Fair
Tupper	79	75	91	85	84	89	87	Medium	6	Rough	Good	Fair	Fair	Poor	Fair

**ELIGIBLE FOR MALTING GRADES**

Argyle	92	92	100	100	103	101	96	Medium	6	Smooth	Good	Poor	Good	Poor	Fair
Betzes*	81	88	91	91	88	95	93	Medium	2	Rough	Fair	Good	Poor	Poor	Fair
Bonanza	92	86	98	99	101	94	91	Medium	6	Smooth	Good	Fair	Fair	Poor	Fair
Conquest	86	80	86	91	91	89	80	Medium	6	Smooth	Good	Fair	Fair	Fair	Fair
Ellice	93	94	98	94	95	102	101	Med-late	2	Rough	Good	Good	Fair	Poor	Fair
Harrington	93	95	96	91	102	100	97	Medium	2	Rough	Good	Good	Poor	Poor	Fair
Klages	83	85	94	92	90	98	102	Late	2	Rough	Good	Fair	Poor	Good	Fair

REMARKS: Smuts can be controlled with systemic seed treatment fungicides. SCOUT and TUPPER - hullless, low in fibre. DIAMOND, EMPRESS, JOHNSTON and LEDUC have superior scald resistance. SAMSON - a semi-dwarf, requires a high level of management. Under optimum fertility, weed control, and moisture, Samson can yield up to 50 per cent more than Galt. DEUCE, DUKE, WINCHESTER - no seed available in 1987. ELLICE - temporary registration subject to malting acceptability.

**OATS**

Variety	Area (See Map) Yield % as of Cascade							Relative Maturity	Lodging	Shattering	Smuts	Remarks
	Irr. 1&2	1	2	3	4	5	6					
Athabasca	88	79	83	89	85	85	80	Early	Good	Fair	Poor	Plump kernels
Calibre	104	104	105	99	99	95	95	Late	Good	Good	Poor	Thin hull, plump kernels
Cascade	100	100	100	100	100	100	100	Med-late	Good	Good	Poor	Kernels similar to Random
Dumont	99	102	106	99	94	98	93	V. Late	Fair	Good	Good	Excellent disease resistance
Foothill	92	89	89	90	82	89	85	Late	Good	Good	Poor	Forage variety
Grizzly	96	85	99	91	93	92	89	Late	Fair	Good	Poor	Plump kernels
Harmon	96	89	96	90	86	86	85	Med-late	Good	Good	Fair	Plump kernels, dehulls readily
Jasper	91	86	95	93	88	90	87	Early	Fair	Good	Poor	Thin hull, higher protein
Random	95	93	99	85	85	89	86	Med-early	Good	Good	Poor	Short straw, long large kernels

NOTE: JASPER - limited seed available in 1987.

**OTHER CEREAL CROPS**

SPRING RYE - GAZELLE - only available spring variety and has maturity similar to Neepawa wheat.  
 OTHER WHEATS - GLENLEA\* - is a late maturing variety eligible for Utility Wheat Grades only and yields about 5% above Neepawa.  
 PITIC 62\* - is a very late maturing variety with yields variable depending on the season. It is eligible for Canada Feed Grade only. Pitic 62 yields well under irrigation.  
 TRITICALE - CARMAN, TRIWELL\* and WELSH\* - spring varieties - yield 5 to 10% higher than Neepawa and are later in maturity.  
 - DECADE and WINTRI - winter varieties - yield similar to Norstar winter wheat, with 5-10% lower winter survival and later maturity.

Symbols used in tables: \* Variety may not be described in 1988. — Denotes variety not well suited to the area.

### FALL RYE

Variety	Irr. 1&2	Area (See Map) Yield as % of Kodiak in areas						Relative Maturity	Test Weight	Straw Strength	Stem Smut
		1	2	3	4	5	6				
Musketeer	—	122	XX	XX	106	103	XX	Early	Good	Good	Good
Cougar	—	98	XX	XX	90	98	99	Late	Good	Good	Poor
Prima	—	125	XX	XX	103	107	XX	Late	Good	Fair	XX
Kodiak	—	100	XX	XX	100	100	100	Late	Poor	Fair	Good

REMARKS: COUGAR - has shortest straw, susceptible to seedling blight - use of treated seed can improve yields. Stem smut - use systemic fungicides in high risk areas on all varieties. Varieties listed with winter hardiest at the top.

### FLAX

Variety	Irr. 1&2	Area (See Map) Yield as % of Noralta in areas						Relative Maturity	Seed Size	Rust Resistance
		1	2	3	4	5	6			
Dufferin	101	105	101	89	92	—	—	Late	Medium	Good
McGregor	111	107	115	99	100	—	—	Late	Medium	Good
Noralta	100	100	100	100	100	100	100	Early	Small	Poor
NorLin	116	99	120	101	106	91	100	Medium	Medium	Good
NorMan	104	103	91	83	110	—	—	Med-late	Medium	Good

REMARKS: VIMY - seed supplies limited in 1987, no data available.

### CANOLA

Variety	Irr. 1&2	Area (See Map) Yield as % of Tobin in areas						Relative Maturity	Straw Length	Remarks
		1	2	3	4	5	6			
<b>POLISH TYPE (<i>B. campestris</i>)</b>										
Tobin	100	100	100	100	100	100	100	Early	Medium	Mixed yellow and brown seed
<b>ARGENTINE TYPE (<i>B. napus</i>)</b>										
Pivot	135	—	—	—	—	—	—	Late	V. Long	Strong staw,
Triton*	96	XX	74	91	76	99	77	Med-late	Long	Triazine resistant
Westar	128	86	106	114	105	155	114	Med-late	Long	

REMARKS: Polish type 2-3 weeks earlier than Argentine type. Argentine type shatter more readily than Polish when ripe, require early seeding in Areas 4, 5 and 6. Argentine canola is very risky in Areas 5 and 6 because of late maturity and is frequently downgraded. Mixtures of canola and mustard are inseparable and unacceptable. All canola cultivars are low in erucic acid and glucosinolates. TRIBUTE is an alternative triazine resistant variety, no yield data available. TRIBUTE and TRITON may not reach top grades because of higher chlorophyll content, and these varieties may not be acceptable to crushers.

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