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VARIETIES OF CEREAL AND OILSEED CROPS FOR ALBERTA — 1983

Prepared by the Cereal and Oilseed Advisory Committee
of the Alberta Agricultural 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.

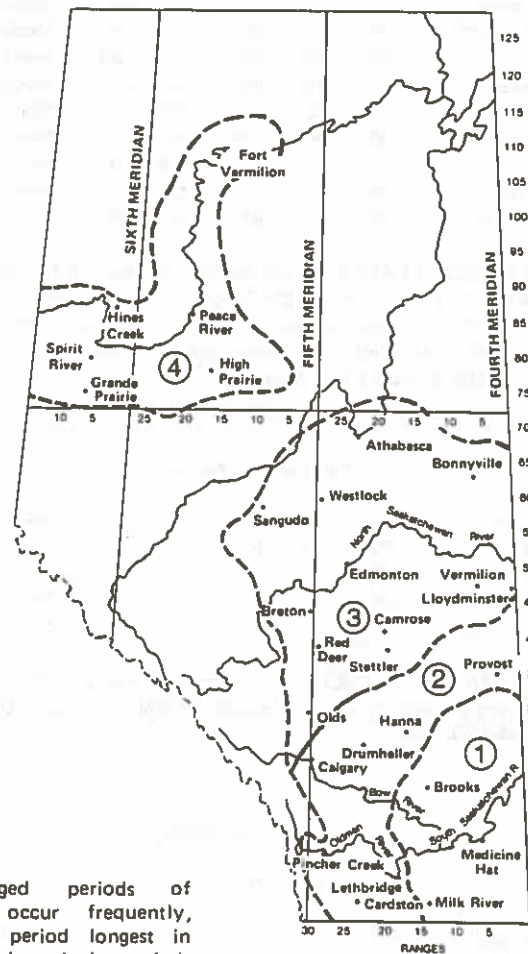
MATURITY

The tables show relative yields for four production areas. Relative maturity is shown as early, medium-early, medium, medium-late and late. The 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 central and northern 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, Olli — 92, Redwood 65 Flax — 130, Noralta — 117, Regent canola — 115, and Candle — 95 days. 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, GOOD SEED

- Seed of rye and flax should be treated to control seedling blight and seed of canola to control flea beetles, seedling blight and the seedborne phase of black leg.
- Cereal smuts can be controlled with seed treatment fungicides. See Alberta Agriculture publication *Seed Treatment of Cereal and Oilseed Crops* (FS 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 period 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!
- Costs of crop production are becoming extremely high — land use, machinery, fertilizers, chemicals, labor, etc. In relation to this total 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 PEDIGREE SEED.
- Certified seed may be purchased in bulk from authorized suppliers.



AREAS

- ① Prolonged periods of drought occur frequently, frost-free period longest in Alta., high velocity winds common, sawfly outbreaks occur.
- ② Drought periods occur frequently generally not as prolonged as in ①, frost-free period relatively long, high velocity winds common in southern half, stem rust may occur, sawfly infestations may occur in southern half.
- ③ Rainfall usually adequate for cereal & oilseed crops, frost hazard in western & northern portions, stem rust may occur in eastern portion.
- ④ Rainfall generally adequate for cereal & oilseed crops, frost-free period may be shorter than in ③ but longer days may compensate

Tear out and retain for future reference.

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, and Alberta Agriculture.

For more detailed information consult your district agriculturist.

COMPARISON OF VARIETIES

Symbols used in Tables: * Variety may not be described in 1984
 --- Denotes variety not generally suited to area

WHEAT												
Variety	Areas (See Map)					Relative Maturity	Resistance to:			Loose Smut	Bunt	Common Root Rot
	Irr. 1&2	1	2	3	4		Lodging	Shattering				
Yield as % of Neepawa						ELIGIBLE FOR C.W. RED SPRING WHEAT GRADES						
Benito	93	91	98	96	96	Medium	Good	Good	Good	Fair	Fair	
Canuck	85	92	91	---	---	Med-late	Fair	Fair	Good	Fair	Fair	
Chester*	87	91	96	---	---	Med-late	Good	Good	Fair	Good	Fair	
Chinook*	79	82	80	---	---	Medium	Fair	Poor	Poor	Fair	Poor	
Columbus	95	88	100	100	99	Med-late	Good	Good	Fair	Fair	Fair	
Leader	86	98	96	---	---	Med-late	Good	Good	Good	Fair	Poor	
Manitou*	95	83	90	90	89	Med-late	Good	Good	Good	Fair	Fair	
Neepawa	100	100	100	100	100	Medium	Good	Good	Good	Fair	Fair	
Park	---	---	89	90	91	Med-early	Good	Good	Good	Fair	Fair	
Sinton*	95	92	91	97	97	Med-late	Good	Poor	Fair	Fair	Fair	
Thatcher	92	94	94	93	97	Medium	Good	Good	Good	Fair	Fair	
<p>REMARKS: LEADER — seed supplies limited. LEADER, CANUCK and CHESTER — better resistance to sawflies than Chinook. LEADER, CANUCK, CHESTER and CHINOOK — recommended for sawfly areas only. COLUMBUS and MANITOU — late maturing in Areas 3 and 4. NEEPAWA — widely adapted. PARK — easier to thresh, bleaches less than Thatcher, subject to head discoloration with yield loss. SINTON — bearded. THATCHER — widely-adapted, kernels bleach. C.W. Red Spring Wheat grown under irrigation tends to have lower grades. COLUMBUS and LEADER have sprouting resistance.</p>												
Yield as % of Wakooma						ELIGIBLE FOR C.W. AMBER DURUM WHEAT GRADES						
Coulter	100	89	97	---	---	Medium	Good	Good	Fair	Good	Fair	
Hercules*	98	80	85	---	---	Medium	Good	Good	Good	Fair	Poor	
Macoun	97	94	87	---	---	Med-late	Good	Good	Good	Good	Poor	
Wakooma	100	100	100	---	---	Med-late	Good	Good	Fair	Good	Fair	
Wascana	94	93	91	---	---	Med-late	Good	Good	Good	Good	Poor	
<p>REMARKS: HERCULES — suitable for Areas 1 and 2. MACOUN, WAKOOMA, WASCANA — should be grown only in Area 1 and the south-eastern portion of Area 2 because of late maturity. COULTER and WAKOOMA have superior quality for export. MADORA — seed not available in 1983.</p>												
Yield as % of Norstar						ELIGIBLE FOR ALBERTA RED WINTER WHEAT GRADES						
Norstar	---	100	100	---	---	Early	Good	Good	Poor	Poor	Fair	
Sundance	---	98	98	---	---	Early	Fair	Good	Poor	Fair	Fair	
Winalta	---	91	91	---	---	Early	Good	Good	Poor	Poor	Fair	
<p>REMARKS: Varieties listed in descending order of winter hardiness. Winter survival is best in southwestern Alberta.</p>												

BARLEY

Variety	Irr 1&2	Area (See Map) Yield as % of Galt				Relative Maturity	No. of Rows	Awn Type	Resistance to:				
		1	2	3	4				Lodging	Shattering	Loose Smut	False Loose & Covered Smut	Common Root Rot
ELIGIBLE FOR FEED GRADES ONLY													
Galt	100	100	100	100	100	Medium	6	Semi-smooth	Good	Good	Poor	Good	Poor
Harrington	91	97	93	105	97	Med-late	2	Rough	Good	Good	Poor	Poor	Fair
Johnston	95	110	110	119	115	Late	6	Smooth	Poor	Fair	Fair	Poor	Fair
Klondike	96	96	95	106	100	Medium	6	Smooth	Good	Good	Fair	Fair	Fair
Otal	---	---	---	99	89	Early	6	Rough	Poor	No data	Poor	Fair	Poor

ELIGIBLE FOR C.W. GRADES

Betzes	81	88	87	90	88	Medium	2	Rough	Fair	Good	Poor	Poor	Fair
Bonanza	93	86	92	102	94	Medium	6	Smooth	Good	Fair	Fair	Poor	Fair
Conquest	89	83	82	96	83	Medium	6	Smooth	Good	Fair	Fair	Fair	Fair
Elrose	88	90	89	101	95	Medium	2	Rough	Good	Good	Poor	Poor	Fair
Fairfield	93	100	93	98	95	Medium	2	Rough	Good	Good	Poor	Fair	Fair
Gateway 63	---	---	---	85	83	Med-early	6	Smooth	Fair	Fair	Poor	Fair	Poor
Hector*	90	96	95	99	96	Med-late	2	Rough	Fair	Good	Fair	Good	Fair
Klages	86	88	90	98	98	Late	2	Rough	Good	Good	Poor	Good	Fair
Olli*	---	---	---	78	77	Early	6	Rough	Poor	Poor	Fair	Fair	Poor

REMARKS: GALT— performance variable in Areas 3 and 4. KLAGES — preferred by maltsters to older 2-row varieties. Smuts can be controlled with seed treatment fungicides. ARGYLE, ELROSE and HARRINGTON being evaluated by maltsters and brewers. DIAMOND, ABBE, LEDUC and EMPRESS — seed not available in 1983.

OATS

Variety	Irr 1&2	Yield as % of Harmon				Relative Maturity	Resistance to:			Remarks
		1	2	3	4		Lodging	Shattering	Smuts	
Athabasca	87	93	91	99	99	Early	Good	Fair	Poor	Plump kernels
Cascade	99	112	110	119	120	Med-late	Good	Good	Poor	Kernels similar to Random
Cavell*	103	97	100	100	104	Early	Good	Good	Poor	
Foothill	94	100	105	102	105	Med-late	Good	Good	Poor	Forage variety
Fraser*	99	102	105	104	105	Late	Good	Fair	Fair	Plump kernels
Grizzly	98	91	103	111	108	Late	Fair	Good	Poor	Plump kernels
Harmon	100	100	100	100	100	Med-late	Good	Good	Fair	
Random	104	100	106	100	108	Med-early	Good	Good	Poor	Short straw, long large kernels
Victory*	87	96	100	101	105	Late	Poor	Good	Poor	

OTHER CEREAL CROPS

SPRING RYE — GAZELLE — only recommended variety and has maturity similar to Neepawa wheat.

SOFT WHITE SPRING WHEAT — FIELDER — only recommended variety.

OTHER WHEATS — GLENLEA — is a late maturing variety eligible for utility wheat grades only.

PITIC 62 — is a 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 — WELSH, CARMAN and TRIWELL — spring varieties — yields equal to or higher than Glenlea utility wheat and equal or later in maturity. Triticale is grown under contract or for feed where ergot is not a problem. Due to feed quality problems, the present triticales should not be used as a total ration for poultry or hogs.

FALL RYE

Variety	Yield as % of Kodiak in areas			Relative Maturity	Winter Hardiness	Seed Size	Straw Strength	Stem Smut
	1&2	3	4					
Cougar	101	87	98	Late	Fair	Small	Good	Poor
Frontier*	96	86	86	Early	Good	Small	Fair	Fair
Kodiak	100	100	100	Late	Good	Large	Good	Good
Musketeer	112	112	105	Early	Good	Large	Good	Fair
Puma*	104	92	100	Medium	Good	Small	Good	Fair

REMARKS: COUGAR — Shortest straw. Rye should be treated with a systemic fungicide in areas where stem smut is a problem.
MUSKETEER — no seed available in 1983.

FLAX

Variety	Irr.	Yield as % of Noralta in areas				Relative Maturity	Seed Size	Rust Resistance	Remarks
		1	2	3	4				
Culbert*	88	96	88	85	81	Medium	Large	Good	
Dufferin	108	101	106	94	---	Late	Medium	Good	
Linott*	90	85	92	80	86	Early	Medium	Good	Good for delayed seeding
McGregor	107	109	111	101	---	Late	Medium	Good	Good for delayed seeding
Noralta	100	100	100	100	100	Early	Small	Poor	
Redwood 65*	105	xx	106	100	---	Late	Medium	Poor	

REMARKS: xx — no data available. MCGREGOR seed supply very limited. NORLIN — no seed available in 1983.

CANOLA

Variety	Yield as % of Candle in areas			Relative Maturity	Straw Length	Erucic Acid	Gluco-sinolate	Remarks
	1&2	3	4					
POLISH TYPE (<i>B. campestris</i>)								
Candle	100	100	100	Early	Medium	Low	Low	Mixed yellow and brown seed
Tobin	110	105	100	Early	Medium	Low	Low	Mixed yellow and brown seed
ARGENTINE TYPE (<i>B. napus</i>)								
Altex	130	115	125	Med-late	Long	Low	Low	Earliest and shortest strawed type
Andor	130	115	125	Med-late	Long	Low	Low	
Regent	125	100	125	Med-late	Long	Low	Low	

REMARKS: Polish type 2-3 weeks earlier than Argentine type. Argentine types shatter more readily than Polish when ripe, require early seeding in Area 3, are resistant to white rust (staghead). Argentine type canola is very risky in Area 4 because of late maturity. Mixtures of canola and mustard are inseparable and unacceptable. WESTAR seed not available until 1984.

Additional copies of this publication are available from district offices and the Print Media Branch, Alberta Agriculture, 9718 — 107 Street, Edmonton, T5K 2C8.