

*Varieties of
Grain Crops for
Saskatchewan
1965*

DESCRIPTIONS AS PREPARED BY

The Saskatchewan Advisory Council on Grain Crops

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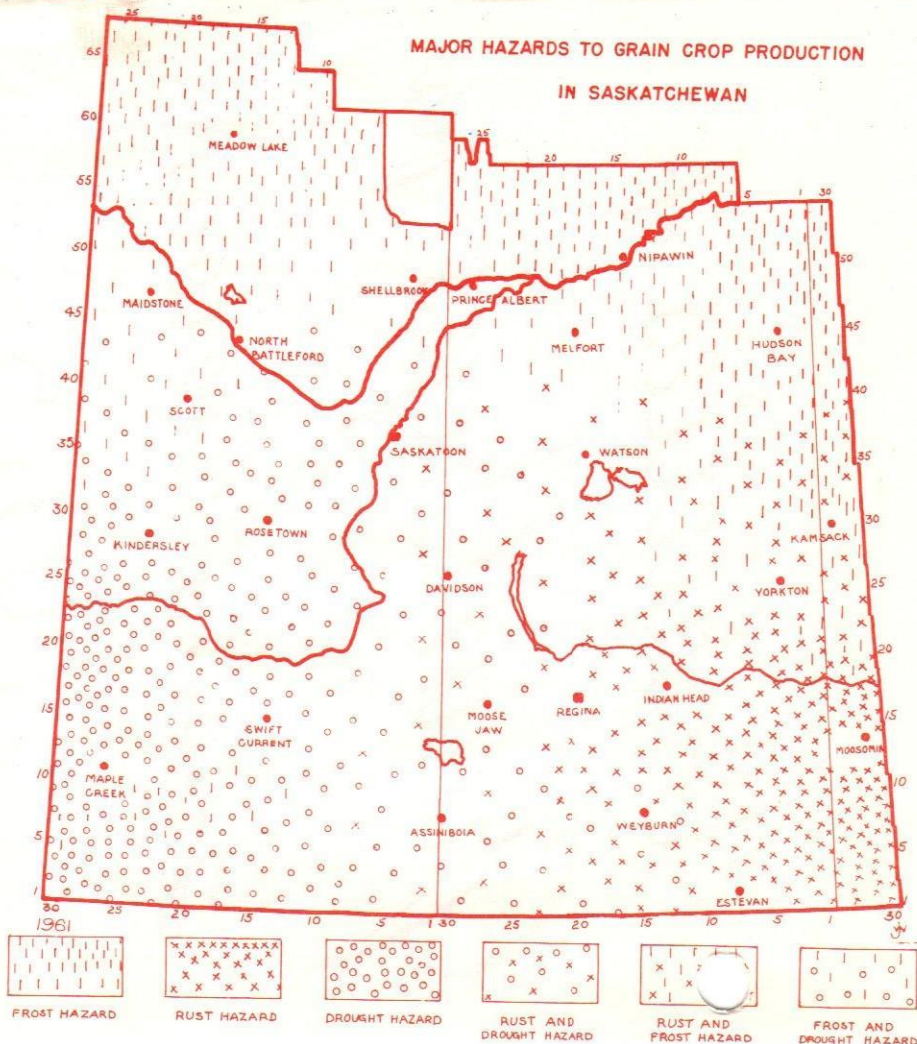


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The following tables contain the main characteristics of commonly grown varieties of cereal crops, and of varieties that are new to most farmers. The comments are based on the collective experience of agronomists who have tested varieties under a wide range of conditions.

Growers should choose varieties with characteristics best able to meet the crop hazards which experience has shown are most likely to occur under their conditions. The relative yields of varieties depend on the conditions under which they are grown.

Additional information concerning these varieties, or varieties not mentioned in this pamphlet, can be obtained from Agricultural Representatives, Experimental Farms and the University.



BREAD AND DURUM WHEAT—Main Characteristics of Varieties

Type and Variety	Maturity	Lodging	Stem Rust	Leaf Rust	Resistance to				
					Loose Smut	Bunt	Root Rot	Spring Frost	Shattering
Bread									
Canthatch	Early	Good	Fair	Poor	Good	Poor	Fair	Good	Good
Chinook	Early	Fair	Poor	Poor	Fair	Poor	Poor	Poor	Fair
Cypress	Early	Fair	Poor	Poor	Poor	Poor	Poor	Poor	Fair
Lake	Medium	Good	Poor	Poor	Fair	Fair	Poor	Good	Fair
Park	Early	Good	Poor	Poor	Good	Poor	Fair	Good	Good
Pembina	Early	Good	Good	Fair	Good	Poor	Fair	Good	Fair
Rescue	Early	Fair	Poor	Poor	Poor	Poor	Poor	Poor	Fair
Selkirk	Early	Good	Good	Fair	Good	Fair	Poor	Good	Fair
Thatcher	Early	Good	Poor	Poor	Good	Poor	Fair	Good	Good
Durum									
Pelissier	Late	Fair	Poor	Good	Fair	Poor	Poor	Good	Good
Ramsey	Late	Fair	Good	Good	Poor	Fair	Poor	Good	Good
Stewart	Late	Fair	Poor	Good	Fair	Poor	Poor	Good	Good
Stewart 63	Late	Fair	Good	Good	Fair	Poor	Poor	Good	Good

COMMENTS:

Where rust is likely to be a hazard, grow only those varieties that have resistance to both stem and leaf rust.

Canthatch and **Thatcher** are identical in most characters. Canthatch is more resistant to stem rust but is just as susceptible to leaf rust as Thatcher.

Park is a relatively new, early maturing variety that may have a place in northern areas.

Cypress is a relatively new, sawfly resistant variety. It is more resistant to sawflies than **Chinook** and has better bread making quality than **Rescue**.

Winter wheat is rarely successful in Saskatchewan because of winter damage and the difficulty of marketing.

BARLEY—Main Characteristics of Varieties

Type and Variety	Six or Two Rowed	Maturity	Lodging	Stem Rust	Resistance to					
					Leaf Rust	Loose Smut	Covered Smut	Shattering	Head Breakage	
Feed										
Husky	Six	Late	Fair	Good	Good	Poor	Fair	Fair	Fair	
Jubilee	Six	Late	Fair	Good	Good	Poor	Fair	Fair	Fair	
Keystone	Six	Medium	Good	Good	Poor	Good	Good	Fair	Fair	
Vantage	Six	Medium	Good	Good	Poor	Poor	Poor	Good	Good	
Eligible for C.W. Grades										
Betzes	Two	Medium	Fair	Poor	Poor	Poor	Poor	Good	Good	
Compana	Two	Medium	Poor	Poor	Poor	Poor	Poor	Good	Good	
Hannchen	Two	Medium	Poor	Poor	Poor	Poor	Poor	Good	Good	
Montcalm	Six	Medium	Fair	Poor	Poor	Poor	Fair	Fair	Fair	
Olli	Six	Early	Poor	Poor	Poor	Poor	Poor	Fair	Poor	
Palliser	Two	Medium	Fair	Poor	Poor	Poor	Poor	Good	Good	
Parkland	Six	Medium	Fair	Good	Poor	Poor	Poor	Fair	Fair	

COMMENTS:

Husky and **Jubilee** are the only two varieties which are resistant to both stem and leaf rust.

Parkland is resistant to stem rust but susceptible to leaf rust. The kernels of **Parkland** are peeled easily and extreme caution should be used in threshing and handling. Both **Parkland** and **Montcalm** are eligible for the highest C.W. Six-Row (malting) grades. In general the six-rowed malting varieties are slightly lower yielding than the six-rowed feed barleys.

Palliser and **Compana** are not eligible for grades above 3 C.W. Two-Row. Compared with **Compana**, **Palliser** is taller and later, and is adapted over a wider area. Where drought is a hazard both are satisfactory.

Betzes and **Hannchen** are eligible for the highest C.W. Two-Row grades. They are rough-awned.

Gateway 63 is very similar to **Gateway** in all characteristics.

OATS—Main Characteristics of Varieties

Variety	Maturity	Resistance to				Percent Hull
		Lodging	Stem Rust	Leaf (Crown) Rust	Smut	
Ajax	Early	Fair	Fair	Poor	Poor	High
Eagle	Late	Fair	Poor	Poor	Poor	Medium
Exeter	Late	Fair	Fair	Poor	Poor	High
Fortune	Late	Fair	Fair	Poor	Good	Low
Garry	Medium	Good	Good	Fair	Good	High
Glen	Medium	Fair	Fair	Poor	Fair	Medium
Pendek	Medium	Good	Poor	Poor	Poor	Medium
Rodney	Late	Good	Fair	Fair	Good	Low
Russell	Medium	Fair	Good	Fair	Good	Low
Victory	Late	Poor	Poor	Poor	Poor	High

COMMENTS:

All oat varieties are susceptible to one or more races of rust. However, for best protection **Garry** and **Russell** are recommended with **Rodney** the next best choice.

Pendek matures two to three days earlier than **Garry**. It has strong straw and is two to four inches shorter than other oat varieties. Although **Pendek** is susceptible to rusts and smuts it has produced satisfactory yields in trials.

FLAX—Main Characteristics of Varieties

Variety	Maturity	Resistance to		Oil Quality	Seed Size	Flower Color
		Rust	Wilt			
Arny	Medium	Poor	Good	Good	Medium	Blue
Bolley	Medium	Good	Good	Good	Medium	Blue
Cree	Medium	Poor	Good	Good	Medium	Blue
Marine	Early	Poor	Good	Good	Small	Blue
Norland	Late	Good	Fair	Good	Large	White
Raja	Early	Good	Fair	Medium	Large	Blue
Redwing	Early	Poor	Fair	Good	Small	Blue
Redwood	Late	Good	Good	Good	Medium	Blue
Rocket	Late	Good	Fair	Good	Medium	Blue

COMMENTS:

A new race of flax rust has appeared which can attack some varieties previously considered resistant.

Redwood, **Rocket**, **Norland** and **Bolley** are resistant and should be used for the main crop in central and southern areas.

Raja should be used for delayed seeding or in the north.

Wherever flax is grown rust is a hazard and it is unwise to grow **Arny**, **Cree**, **Marine** and **Redwing**.

RYE—Main Characteristics of Varieties

Type and Variety	Resistance to			Kernel		Head	
	Winter Killing	Shattering	Lodging	Color	Size	Length	Density
Winter Type							
Antelope	Good	Poor	Poor	Variable	Small	Medium	Lax
Dakold 23	Good	Poor	Poor	Variable	Small	Medium	Lax
Dominant	Poor	Good	Good	Blue	Large	Short	Dense
Frontier	Good	Fair	Poor	Blue	Medium	Medium	Lax
Petkus	Poor	Good	Good	Blue	Large	Medium	Dense
Sangaste	Poor	Fair	Good	Tan	Large	Long	Medium
Tetra-Petkus	Poor	Good	Good	Blue	Large	Long	Dense
Spring Type							
Prolific		Fair	Fair	Green	Medium	Medium	Lax

COMMENTS:

Antelope, Dakold 23 and **Frontier** are the only varieties that are sufficiently winter-hardy to be generally grown in Saskatchewan.

Applications for seed of **Frontier** will not be accepted before the announcement of the plan of distribution in July, 1965.

Where **Sangaste, Petkus** and **Dominant** will survive the winter they produce excellent yields of a more desirable type of grain.

Tetra-Petkus rarely survives our winters.

RAPE

Rape is adapted particularly to the Park belt area of the province. Where drought is a hazard rape frequently gives disappointing yields. Because of disease problems rape should never be sown on rape stubble. Growers should check fields frequently and be prepared to apply insect control measures promptly.

COMMENTS:

Argentine Type: Varieties **Golden, Nugget** and **Tanka** are fairly tall growing and mature about the same time as wheat. Seedlings are susceptible to spring frost. **Tanka** has larger seed than **Golden** or **Nugget**, while **Nugget** is one to two days earlier and slightly shorter than the other two varieties. **Nugget** and **Golden** are similar in seed yield and **Tanka** is slightly higher.

Polish Type: Echo, Arlo and **Polish** are shorter growing, have smaller seeds, mature about three weeks earlier and have seedlings more resistant to frost than those of the Argentine type. Varieties of the Polish type are recommended in areas where the frost-free season is short or if seeding is delayed until late May or early June. The Polish type, because of its earliness, is more likely to escape disease and drought than the Argentine type varieties. **Echo** is higher yielding than **Arlo** and **Polish**.

TAME MUSTARD

For information on types of tame mustard and their production see the Guide to Farm Practice in Saskatchewan, 1963, page 60.

SUNFLOWERS

This crop can be grown in Central and Southern Saskatchewan but requires 130 to 140 days to mature and is highly sensitive to 2,4-D. Contract production facilitates marketing.

SEED FACTS

Product quality in grain production, like livestock production, depends on hereditary factors as well as good farming practices. To supply adequate seed for the entire farm, it is advisable to purchase some pedigreed seed frequently and to increase this seed on clean land which should be separated from other fields of the same crop. For this purpose it is recommended that certified seed be purchased rather than registered seed which is intended for use by pedigreed seed growers.

Grain which bears a pedigreed tag must meet the standards of the Canada Seeds Act with regard to purity of variety, germination, freedom from weed seeds and other impurities. Seed grades are not influenced in the same way by appearance, bushel weight and such factors, as commercial grades of the same grain.

SEED CLEANING

Commercial grain used for seed should be cleaned carefully to remove weed seeds, imperfect and small kernels and other impurities. Care should be taken to avoid contamination with other grain or seed-borne diseases. The use of specially designed cleaning plants is recommended in place of cleaning in country elevators which are not equipped to prevent mixing or contamination during handling.

Varieties of cereals listed above as having poor or only fair resistance to bunt of wheat, covered smut of barley or the smuts of oats can be protected by the use of seed fungicides. Where good resistance is indicated little advantage can be expected from treatment of the seed, if it is sound. Seed examination may indicate that certain seed lots of smut-susceptible varieties are free from smut spores, hence treatment may be unnecessary.

Mercury fungicides will give adequate control of the surface-borne smuts, seed rots and seedling blights of cereals. Some non-mercury compounds are satisfactory **for the control of bunt of wheat only**. Wheat should be treated at least one day, and barley and oats at least one week, before seeding, except when otherwise specified by the manufacturer. Good seed can be treated well in advance of seeding. If treated seed is kept for over six months, it is advisable to check the germination before seeding. As a general rule tough or damp grain should not be treated with fungicides.

Loose smut of wheat can be controlled by the use of the resistant varieties shown above. This disease in susceptible varieties and true loose smut of barley can best be controlled by using smut-free seed. Seed from a smutty barley crop may be effectively treated by the salt water soak method. Soak the seed in 1% salt water (1 pound common salt in 10 gal.) for 85 hours at 66° F., or for 60 hours at 76° F., drain and spread to dry. A few bushels of such seed will serve to plant a seed plot.

All flax seed should be treated with a mercury fungicide or a captan compound at the rate of 1¼ to 1½ oz. per bushel of seed depending upon the manufacturer's recommendation. Rape seed of low germination may be improved by the use of a captan or mercury compound at 1 oz. per 50 lb. of seed.

For wireworm control seed dressings containing gamma BHC (lindane), aldrin, or heptachlor, with or without a mercuric fungicide, will protect the crop from wireworm damage and will reduce the wireworm population when used **according to recommendations**. Seed dressings should be used **only on sound, dry seed**. Dusts may be applied anytime during the winter or spring prior to seeding. However, with liquid treatments follow instructions on the label especially in regard to storage.

OTHER INFORMATION RELATING TO GRAIN CROP PRODUCTION

Bulletins on fertilizers and weed control generally revised annually, are available from sources given below. Information on plant diseases, insect pests and other aspects of production can be found in the Guide to Farm Practice in Saskatchewan, 1963. These publications may be obtained from Agricultural Representatives, Experimental farms, and the University of Saskatchewan.