

*Varieties of
Grain Crops for
Saskatchewan 1964*

DESCRIPTIONS AND RECOMMENDATIONS AS PREPARED BY
The Saskatchewan Advisory Council on Grain Crops

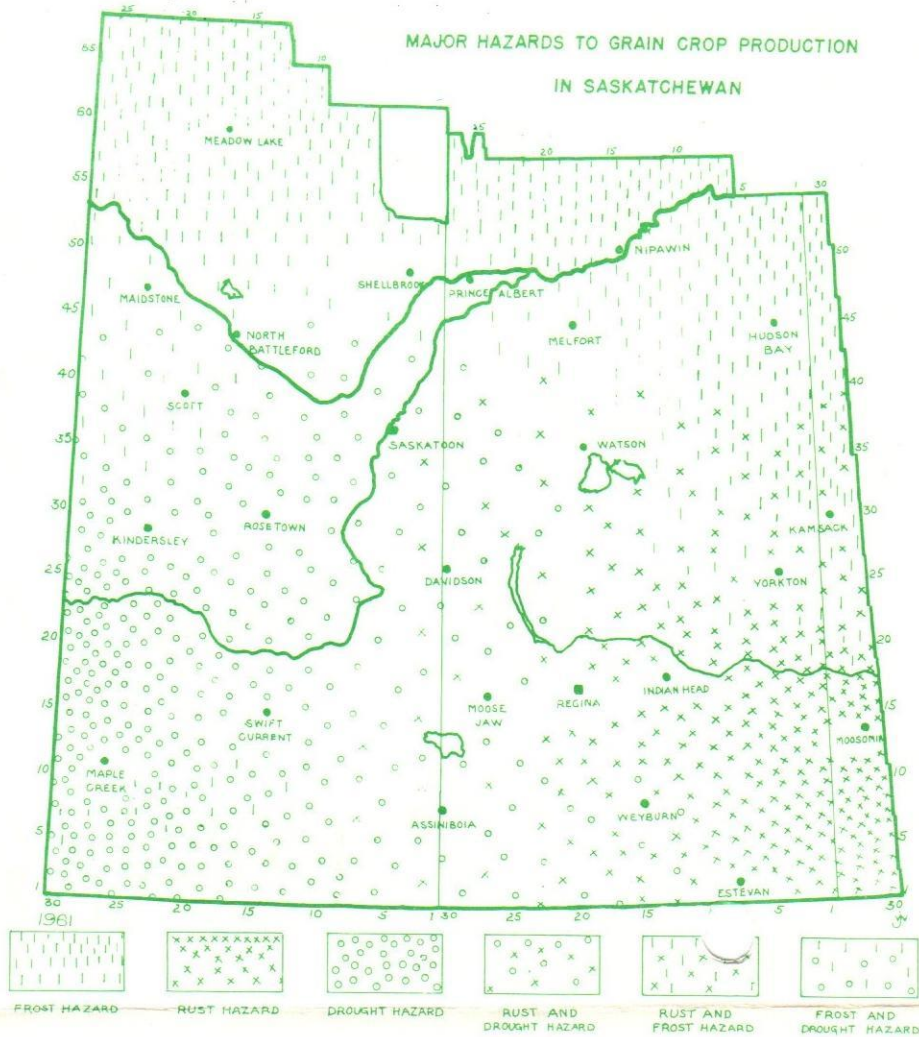
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The following tables contain the main characteristics of commonly grown varieties of cereal crops, and of varieties that are new to most farmers. The recommendations and comments are based on the collective experience of agrologists who have tested 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	Resistance to							Kernel Size
		Lodging	Stem Rust	Leaf Rust	Loose Smut	Bunt	Spring Frost	Shattering	
Bread									
Canthatch	Early	Good	Fair	Poor	Good	Poor	Good	Good	Small
Chinook	Early	Fair	Poor	Poor	Fair	Poor	Poor	Fair	Medium
Cypress	Early	Fair	Poor	Poor	Poor	Poor	Poor	Fair	Medium
Lake	Medium	Good	Poor	Poor	Fair	Fair	Good	Fair	Medium
Park	Early	Good	Poor	Poor	Good	Poor	Good?	Good	Medium
Pembina	Early	Good	Good	Fair	Good	Poor	Good	Fair	Medium
Rescue	Early	Fair	Poor	Poor	Poor	Poor	Poor	Fair	Medium
Selkirk	Early	Good	Good	Fair	Good	Fair	Good	Fair	Large
Thatcher	Early	Good	Poor	Poor	Good	Poor	Good	Good	Small
Durum*									
Pelissier	Late	Fair	Poor	Good	Fair	Poor	Good	Good	Large
Ramsey	Late	Fair	Good	Good	Poor	Fair	Good	Good	Medium
Stewart	Late	Fair	Poor	Good	Fair	Poor	Good	Good	Medium
Stewart 63	Late	Fair	Good	Good	Fair	Poor	Good	Good	Medium

*Durums tend to be susceptible to root rots. They are moderately resistant to sawfly.

RECOMMENDATIONS AND COMMENTS:

Where rust is a hazard, **Pembina** and **Selkirk** bread wheats and **Ramsey** and **Stewart 63** durum wheats should be grown.

Canthatch and **Thatcher** are almost identical. Both are drought resistant, but **Canthatch** is preferred because of its stem rust resistance. Where sawfly is a problem **Cypress** is recommended. It has better bread making quality than **Rescue** and is more sawfly resistant than **Chinook**.

Park is an early variety but is susceptible to both leaf and stem rust.

All durum varieties are late and should not be grown where early fall frosts are a hazard.

Winter Wheat (including **Winalta**) is not recommended in Saskatchewan because it lacks winter hardiness and it is difficult to market since it cannot be mixed with spring wheat.

BARLEY—Main Characteristics of Varieties

Type and Variety	Six or Two Rowed	Maturity	Resistance to						Head Breakage
			Lodging	Stem Rust	Leaf Rust	Loose Smut	Covered Smut	Shattering	
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

RECOMMENDATIONS AND COMMENTS:

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

Parkland is resistant to stemrust 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, but are rough-awned. Where an early maturing variety is needed for wild oat control **Olli** is recommended.

OATS—Main Characteristics of Varieties

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

RECOMMENDATIONS AND 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 is a variety that 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
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

RECOMMENDATIONS AND COMMENTS:

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

Redwood, **Rocket** and **Norland** 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
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

RECOMMENDATIONS AND COMMENTS:

Antelope and **Dakold 23** are the only two winter ryes that are hardy enough to be generally grown in Saskatchewan.

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.

RECOMMENDATIONS AND COMMENTS:

Argentine Type: Varieties **Gold 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: Varieties **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. **Arlo** is quite similar to **Polish** but the seed has a higher oil content.

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

Pedigreed seed grain performs a function somewhat similar to that of a purebred sire on a livestock farm. It results in a general upgrading in quality of the output of the farm. In this sense it is good farm practice to purchase moderate quantities of pedigreed seed frequently. This seed should be increased on clean land, separated from other fields of the same crop, to supply adequate stock for the entire farm. For this purpose it is recommended that certified quality be purchased, rather than registered seed which is intended for use by seed growers.

Grain which bears a pedigree tag must meet the standards of the Canada Seeds Act with regard to purity of variety, germination, freedom from weed seeds and other impurities. Unlike commercial grain, seed grades are not effected by appearance, bushel weight and similar factors.

SEED CLEANING

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

CONTROL OF SEED DISEASES AND WIREWORMS

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 infection, 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. Sound, disease-free seed may be sown without treatment.

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 1½ oz. per bushel of seed. 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.