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GRAIN VARIETY RECOMMENDATIONS and CHARACTERISTICS 1968



CASE

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 544.3
 N9
 A8X
 no. 170

L. A. Jensen
 Extension Service Agronomist
 with
 assistance from several
 Experiment Station agronomists

COOPERATIVE EXTENSION SERVICE
 NORTH DAKOTA STATE UNIVERSITY
 FARGO, NORTH DAKOTA 58102

THE RELATIVE PERFORMANCE of crop varieties in any year is influenced by the season's growing conditions. Growing seasons vary in temperature and rainfall as well as in the prevalence of rust and other diseases. Crop varieties vary in yield resistance to high temperatures and drouth, resistance to diseases and insects, and in several other characteristics.

Early maturity is an advantage some years but a disadvantage in others. In general, the later maturing varieties do best in the northern part of the state where ripening temperatures usually are more moderate.

Rust on all crops and pasmo on flax are expected most often in eastern North Dakota where rainfall and humidity generally are higher. It is also a greater threat in western North Dakota as winter wheat acreage moves North. Leaf diseases, head blights, and root rots are more prevalent in southeastern and eastern North Dakota, while smut can be statewide.

Statements about rust and other diseases in this circular are based on variety reaction to races known to be present and to which the variety has been tested. Each crop year brings the possibility of new races of rust and other disease outbreaks to which varieties may not be resistant.

No one can predict with accuracy the kind of growing season to expect next year. Therefore, choose varieties with characteristics best able to meet the crop hazards most likely to occur in your area.

In this circular variety recommendations are made for each crop based on yield performance, disease resistance, agronomic characteristics and adaptability shown by Experiment Station results. The tables describe all recommended varieties, plus others on which information may be desired.

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HARD RED SPRING WHEAT

RECOMMENDATIONS FOR 1968: Chris, Manitou, Justin, Pembina, Selkirk and Valley plus Canthatch, Crim and Fortuna in western areas. Chris and Manitou give both stem and leaf rust protection. They tend to be weak strawed. Justin, Pembina, Selkirk, Valley, Canthatch and Crim are susceptible to leaf rust. Crim is also susceptible to black chaff. Yields well in western N. Dak.

FOR SAWFLY AREAS: Fortuna seed supplies may be limited in some areas.
Fortuna has both stem and leaf rust resistance but is susceptible to black chaff.

NOT RECOMMENDED - Numbered varieties, Red River 68 and other semidwarf varieties or seed sold without a variety name.

Variety Descriptions

Variety	Origin ^{1/}	When released	Beards	Height	Strength of Straw	Maturity	Resistance to:					Rel. Yld. ^{2/}	Remarks
							Stem rust	Leaf rust	Loose smut	Bunt			
Thatcher	Minn.	1934	no	short	med.	med. early	poor	v. poor	good	poor	good	Lacks resistance to 15B	
Chinook	Canada	1952	no	med.	weak	med. early	poor	poor	poor	poor	low	Sawfly resistant	
Lee	Minn-N.D.	1951	yes	med.	med.	med. early	poor	fair	poor	fair	good	Some tolerance to 15B	
Selkirk	Canada	1954	no	med.	med.	med. early	good	fair	good	good	good	Not immune from rust	
Canthatch	Canada	1960	no	med.	med.	med. early	good	poor	mod.	good	good	Very susceptible to leaf rust	
Pembina	Canada	1960	no	med.	med.	med. early	good	fair	good	good	good	Flour quality above Selkirk	
Justin	N. Dak.	1962	no	med.	strong	med. late	good	fair	mod.	fair	good	Excellent flour quality	
Crim	Minn.	1963	yes	med.	weak	med.	good	poor	mod.	good	good	Suscept to a black chaff disease	
Chris	Minn.	1965	no	med.	weak	med.	good	v. good	good	mod.	good	Resist to leaf rust and weak straw	
Manitou	Canada	1965	no	med.	weak	med.	good	good	good	poor	good	Resist to leaf rust and weak straw	
Fortuna	N. Dak.	1966	no	med.	weak	med. early	good	good	good	-	good	Suscept to black chaff. Sawfly rest.	
Sheridan	Mont.	1966	yes	tall	weak	med.	good	good	-	-	good	Questionable milling quality	
Valley	P.R.N.Dak.	1965	yes	med.	med.	early	good	fair	-	-	-	New sel. more stem rust resist.	
Red River 68	P.R.N.Dak.	1967	yes	semidwarf	v. strong	early	good	good	-	-	good	Unsatisfactory flour quality	

^{1/} P.R. refers to private release.

^{2/} In non-rust year.

DURUM

RECOMMENDATIONS FOR 1968: - LEEDS, WELLS AND LAKOTA

Leeds is similar to Wells but has larger kernel size, higher test weight and more stem rust resistance. Wells and Lakota offer good protection against stem rust, are early ripening, and have short, strong straw. They have smaller kernels and require less seed per acre for planting and usually have a few more starchy kernels. Lakota tends to have a lower test weight. Stewart 63 has good kernel size and excellent stem rust resistance but is tall, weak strawed, matures about one week later than Wells and has undesirable semolina color.

1/ Variety Descriptions

Variety	Origin	When re- leased	Beards	Height	Strength of Straw	Maturity	Resistance to:				Rel. Yld. <u>3/</u>	Remarks
							Stem rust	Leaf rust <u>2/</u>	Loose smut	Bunt		
Wells	N.Dak.	1960	yes	short	strong	early	good	good	good	good	v.good	A few rust suscept. plants.
Lakota	N.Dak.	1960	yes	short	strong	early	good	good	good	good	v.good	Like Wells, but lower test wt.
Stewart63	Canada	1963	yes	tall	m.weak	late	v.good	good	good	good	v.good	Large kernel size.
Leeds	N.Dak.	1966	yes	short	strong	early	v.good	good	good	good	v.good	Good kernel size-high test wt.

1/ Durum breeding cooperative with USDA.

2/ Durums usually have adequate resistance to leaf rust.

3/ In non-rust years.

BARLEY

RECOMMENDATIONS FOR 1968:

FOR MALTING - Dickson, Trophy, Larker, and Parkland. Dickson has considerable resistance to septoria and other leaf spotting diseases. Parkland is a blue malting barley. Market malting varieties as pure one-variety carlots. Varieties grading blue malting barley or 2-row varieties of malting quality have a limited market outlet as a premium crop.

FOR FEED - Keystone, Yukon, Trophy, Larker, Dickson and Conquest.

NOT CLASSIFIED - Primus and Conquest have not been accepted nor rejected by the maltsters.

NOTE: All barley varieties except Dickson are susceptible to leaf diseases which cause yield losses in some years. Conquest, Keystone and Tregal are resistant to loose smut.

Variety Descriptions

Variety	Origin	When re-leased	Awn S or R	Aleurone Color	Height	Straw Strength	Rel. maturity	Disease reaction 1/				Rel. Yld.
								Stem rust	Loose smut	Spot blotch	Septoria	
<u>Malting class:</u>												
Dickson	N.Dak.	1964	R	white	med.	mod.	med.	R	MS	R	MR	Excellent
Trophy	N.Dak.	1961	R	white	med.	mod.	med.	R	MS	MS	S	v.good
Larker	N.Dak.	1961	S	white	med.	mod.	med.early	R	MS	MS	S	v.good
Traill	N.Dak.	1956	R	white	med.	mod.	med.	R	MS	MS	S	v.good
Kindred	N.Dak.	1942	R	white	med.	weak	med.early	R	MS	MS	S	good
Parkland	Canada	1956	S	blue	m.tall	mod.	med.late	R	MS	MS	S	v.good
<u>Feed class:</u>												
Tregal	N.Dak.	1942	S	white	m.short	mod.	med.	MS	R	MS	MS	v.good
Keystone	Canada	1960	S	white	med.	strong	late	R	R	S	S	v.good
Jubilee	Canada	1960	S	white	med.	mod.	late	R	MS	S	S	v.good
Unitan	Mont.	1961	S	white	m.short	mod.	med.early	S	MS	S	S	v.good
Yukon 2/	PR.N.Dak.	1963	S	white	m.tall	mod.	med.	R	-	S	S	v.good
Galt	Canada	1966	S	white	m.short	mod.	med.	R	S	S	S	v.good
Palliser 3/	Canada	1960	S	white	m.tall	weak	late	S	-	S	S	good
Hypana 3/	Mont.	1964	S	white	m.short	mod.	med.early	S	S	S	S	good
Betzes 3/	Mont.	1957	R	white	med.	weak	med.late	S	S	MS	S	v.good
<u>Not classified:</u>												
Conquest	Canada	1965	S	blue	m.tall	strong	m.early	R	R	MS	S	v.good
Primus	S.Dak.	1966	S	white	med.	mod.	early	R	MS	MS	S	good

1/ R-resistant; S-susceptible; M-moderate.

2/ P.R. refers to private release.

3/ 2-rowed.

OATS

RECOMMENDATIONS FOR 1968: Races 6 and 7 of stem rust are the most prevalent in North Dakota. Race 6 is often more prevalent than Race 7. Most varieties available are not resistant to all races. Variety preference for rust areas is given to varieties with resistance to Race 6, if maturity and yields are favorable.

FOR SOUTHEAST AND EAST CENTRAL - Early: Dawn, Wyndmere, and Brave. **Medium:** Russell and Burnett. **Late:** Lodi, Garry, Harmon and Ortley.

FOR SOUTH CENTRAL AND WEST - Early: Brave. **Medium:** Russell and Burnett. **Late:** Lodi, Garry, Harmon, Rodney and Ortley.

FOR NORTHEAST AND NORTH CENTRAL, LATER RIPENING VARIETIES CAN YIELD BETTER - Late: Lodi, Garry, Harmon, Rodney and Ortley. **Medium:** Russell and Burnett. **Early:** (for late planting) Brave.

Variety Descriptions

Maturity	Origin	When released	Color Grain	Height	Straw Strength	Resistance to:				Rust	Smut	Yield	Bu. Wt.
						Stem rust 1/							
						6AF	6F	6A	7A				
Dawn	N.Dak.	1966	yellow	tall	good	S	R	S	R	good	good	fair _{2/}	v. good
Wyndmere	N.Dak.	1966	white	m. tall	good	S	R	S	R	mod.	good	fair _{2/}	good
Brave	Ill.	1965	yellow	short	weak	S	R	S	S	v.susc.	v. good	good	good
Tyler	Ind.	1966	brownish white	short	v. strong	S	R	S	R	mod.	susc.	fair _{2/}	good
Burnett	Iowa	1956	yellow white	short	strong	S	R	S	S	mod.	good	good	good
Russell	Canada	1960	white	m. short	m. strong	S	R	S	R	mod.	good	v. good	good
Minton	Minn.	1959	yellow	med.	mod.	S	R	S	S	good	good	good	good
Glenn	Canada	1958	yellow white	tall	weak	S	R	S	R	mod.	good	good	good
Garry	Canada	1952	white	tall	m. strong	S	R	S	R	mod.	good	v. good	good
Lodi	Wisc.	1963	yellow	tall	m. strong	S	R	S	R	good	good	good	good
Ortley	S.Dak.	1963	white	tall	weak	S	R	S	R	good	mod.	good	v. good
Rodney	Canada	1953	white	tall	mod.	S	R	S	S	mod.	good	v. good	good
Harmon	Canada	1965	white	tall	mod.	S	R	S	R	mod.	good	good	good
Basin	Mont.	1961	white	short	strong	S	S	S	S	mod.	good	good	good

1/ Stem rust races most prevalent now. 2/ Good in S.E. and E. Central North Dakota.

FLAX

RECOMMENDATIONS FOR 1968:

EARLY SOWING - Under favorable seedbed conditions, B5128, Redwood must be sown early but all varieties yield higher when sown early.

LATE SOWING - Early maturing varieties will yield better when sowing must be late, or in a season when late summer drouth or high ripening temperatures may cause more injury to later maturing varieties. Varieties which should have preference are Bolley, Windom, Summit and Noralta.

NOTE: All other varieties are susceptible to races of rust now present in North Dakota and should not be grown. Be sure the variety you sow is pure.

Variety Descriptions

Variety	Origin	When released	Relative maturity	Color		Seed size	Plant height	Resistance to disease			Rel. yield	Oil yield	Oil quality
				flower	seed			Wilt	Rust 2/	Pasmo 3/			
Linott	Can.	1966	early	bl.	br.	med.	med.	R	R	S	good	good	good
Noralta	Can.	1965	early	bl.	br.	Small	med.	MR	I	S	good	fair	fair
Bolley	N.D. 1/	1957	early	bl.	br.	med.	med.	R	I	S	v. good	v. good	v. good
Windom	Minn.	1962	early	bl.	br.	med.sm.	med.	R	I	S	v. good	fair	v. good
Summit	S.D.	1964	early	bl.	br.	med.	med.	R	I	S	v. good	fair	good
Norland	N.D.	1955	m.late	wh.	br.	large	med.	MR	R	S	good	good	good
Redwood	Minn.	1951	m.late	bl.	br.	med.	med.	R	I	S	v. good	good	good
B5128	N.D.	1943	late	bl.	br.	large	med.	MR	R	S	v. good	good	fair

1./ cooperative with USDA

3./ All varieties susceptible to pasmo and Aster yellows.

2./ (I) means immune to all races of rust known to exist in this area.