

1956
**Crop Variety
Recommendations**
for
North Dakota

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NORTH DAKOTA AGRICULTURAL COLLEGE

1956 CROP VARIETY RECOMMENDATIONS FOR NORTH DAKOTA

The relative performance of crop varieties in any one year is influenced by various factors such as inherent capacity of the variety to yield and environmental conditions such as temperatures, rainfall, rust and other diseases. No one can predict, with any degree of accuracy, what the crop conditions will be in the next season. Based on past performance and variety characteristics the variety recommendations for 1956 in North Dakota are as follows:

WHEAT

Hard Red Spring

In the areas where most rust protection is needed Selkirk should be the first choice. Selkirk is beardless, fairly early, has fairly strong and moderately short straw, has moderate resistance to stem rust, including resistance to 15B and to leaf rust, and also has satisfactory resistance to covered and loose smut. Although there is some indication that Selkirk may suffer from late summer drouth or high temperatures, its greater 15B stem rust resistance would make it the first choice where most rust protection is desired. Selkirk seed supplies should be adequate for 1956 planting.

Lee would be the second choice in areas where the rust hazards are the greatest. Lee has good leaf rust resistance, some tolerance to 15B stem rust, and its earliness offers some protection from the standpoint of ripening ahead of serious injury in a rust season.

In western areas where the rust hazard is usually not as great the variety differences would not be as great. However, the widespread occurrence of rust in recent years would appear to make it advisable to grow the most resistant varieties available on at least a part of the acreage in all parts of North Dakota.

Durum

Sentry should be the first choice of available durum varieties. Sentry has some tolerance to 15B stem rust, is about six days earlier than Stewart in ripening, 5 to 9 inches shorter straw height and has considerable more resistance to lodging. It yields well for an early variety and has good test weight and quality. Although Sentry does not provide a high degree of resistance against 15B, its tolerance and earliness assures a better yield under rust conditions than might be expected from the more susceptible varieties.

The second choice from the standpoint of rust tolerance and available seed is Venum. It is earlier in maturity and has some tolerance to 15B rust as compared with Mindum, which should be considered the third choice. The new rust resistant varieties, Langdon, Ramsey, Towner and Yuma, offer considerable rust protection. However, there will not be adequate seed of these for general use until 1957.

CATS

A rather heavy infection of oat stem rust has occurred in each of the past three seasons in eastern North Dakota. Both Races 7 and 8 of stem rust have been present in recent years but prior to 1955 Race 7 predominated and was the race causing the greatest injury to susceptible varieties of oats. In 1955 both Race 7 and Race 8 of stem rust built up to serious proportions in much of the eastern one-third of the state.

What will the rust situation be in 1956? Which variety is likely to be best? It is not possible to foresee if rust will be a factor in 1956 or if Race 8, as well as Race 7, will be prevalent in epidemic proportions again. However, if environmental conditions favor rust development, Race 7 is likely to again be more prevalent than Race 8. Variety recommendations therefore are made first on the basis of most resistance to both races, insofar as the seed supply permits, and second in regard to varieties of early maturity and resistance to Race 7.

For eastern sections of the state where rust hazards usually are the greatest, Garry deserves increasing consideration. Garry, while slightly late for the southern sections of the state, has good resistance to Races 7, 7A and 8 and should be a good choice for the more northern sections of the state, insofar as the seed supply permits. Another choice for the northern counties is Rodney, still later than Garry to head and ripen, but resistant to both Races 8 and 7 (not to 7A), and with a very good capacity for yield. These varieties are moderately resistant to crown (leaf) rust. There should be a good supply of Rodney seed. Earlier maturing varieties with generally good resistance have been developed. These are under early increase, but not yet available for general distribution.

Varieties resistant to Race 7 of stem rust, although lacking in resistance to Race 8, are the next choice for eastern North Dakota. These include early ripening varieties for the southern area, such as Andrew, Ajax, Marion and Mo. 0-205. Branch and Sauk are slightly later, yield satisfactorily and are resistant to Race 7, and along with Ajax are more suitable for the northern area.

These varieties usually are among the preferred ones for the more western sections of the state where earliness is desired and where serious injury from stem and crown rust is less common.

BARLEY

For malting purposes Kindred (L) should continue to be the preferred variety, although it does have a weak straw. Montcalm a blue aleurone barley, has a limited demand for malting. It is a good yielding variety under favorable growing conditions but has the disadvantages of later maturity and of being susceptible to rust. Other acceptable malting varieties include O.A.C. 21 and Manchuria.

For a feed barley Tregal, Husky and Vantage are recommended. Husky yields have been about equal to Tregal and Vantage. It has moderate straw strength, matures slightly earlier than Vantage, is resistant to rust but susceptible to loose smut. As Vantage is late in maturity and is susceptible to spot blotch it is recommended only for the northwestern area of North Dakota, where the hazards of this disease are less and high temperatures are less frequent. Because of late maturity Husky, too, will be best adapted in the more northern areas of the state. Based on the 1955 observations all commonly grown varieties of barley, with the possible exception of Feebar, are lacking in resistance to Septoria, a leaf disease very prevalent in Eastern North Dakota in 1955.

FLAX

For early seeding B 5128, Redwood, Norland and Victory are recommended. These late maturing varieties will produce the higher yields when planted early and when growing conditions are favorable for late maturing varieties. Norland is a selection out of Victory, selected for more uniform planted characteristics and for greater rust resistance. In other characteristics it is quite similar to Victory.

For late seeding or in seasons when drouth or high temperatures may reduce yields of late varieties, Sheyenne or Marine are recommended. Raja is a good new rust resistant Canadian variety. Raja is mid-early and yields satisfactorily, although it is not particularly outstanding in yield.

Linda is a mid-early variety which has large seed. It is not as resistant to rust as the other varieties. However in tests to date it has been a very good yielding variety.

C.I. 977 (De Oro) is a late maturing, yellow-seeded variety which is an excellent yielder when sown early and when growing conditions are favorable for a late variety. It is resistant to rust but susceptible to to pasmo.