

RHW



NORTH DAKOTA Farm Research

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Barley Stripe Mosaic . . . Page 3

From the DIRECTOR



A. G. HAZEN

Several phases of the barley research being conducted by the North Dakota Agricultural Experiment Station are directed toward barley improvement regardless of classification, whether malting or feed varieties. Research emphasizes the characteristics desired in feed and malting varieties such as high grain yield, strong straw, adaptation to our diverse environment but able to respond to optimum conditions, plump kernels, ease of handling, and disease resistance (see article by Dr. Timian in this issue).

Such dual purpose barleys as Dickson and Larker yield as well as any present variety available. These barleys can always be used for feed, and for malting only if certain physical and chemical standards of the grain are met.

Dr. Arnold Schooler has crossed wild barleys with our cultivated types to introduce better disease resistance and other favorable traits into germ plasm which is directly usable as parents in the conventional barley breeding program. Short, stiff straw and leaf spot resistant lines have resulted from Dr. Schooler's program. These lines have been crossed with many other barleys in the regular barley breeding program. Researchers are now evaluating progenies for semi-dwarf, stiff straw and high yield characteristics.

The ultimate goal of Dr. Earl Foster's research is to develop hybrids which will out-perform self-fertilized barley varieties. The first hybrids grown commercially will probably be feed barleys, since they have fewer standards of performance to meet than malting hybrids.

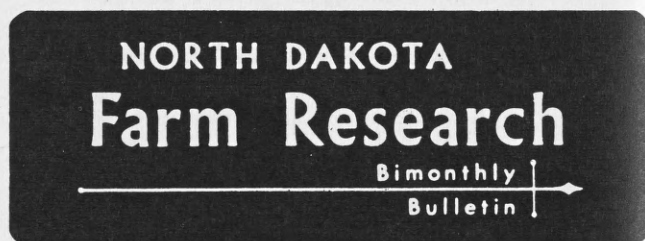
Research on feed barleys and malting barleys has been carried on concurrently in the regular barley breeding program. Breeding materials that have agronomic potential for our area have not been discarded for lack of malting quality characteristics. If the opportunity exists, lines that combine feed and malting characteristics are selected, but potential feed barleys are not discarded at the expense of this dual type.

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ON THE COVER: Dr. Roland G. Timian, plant pathologist, United States Department of Agriculture, cooperative with the North Dakota Agricultural Experiment Station, inoculates barley seedlings with barley stripe mosaic virus. He reports results of some of his research in this issue.



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