## From the DIRECTOR

A. G. HAZEN

Very few research projects affect the North Dakota grain farmer more directly than that reported in this issue by the Busch and Salveson article starting on the next page.

Beginning with this year, simulated hail damage studies will switch emphasis somewhat from spring wheat to barley. This follows a long-standing principle of the grant donor, the Hail Insurance Adjustment and Research Association (HIARA), which believes in conducting research where it is needed most urgently. And a need exists in North Dakota, since our state rated first in hail premiums among the states whose companies are members of the Crop-Hail Association.

In addition to providing grants for research, HIARA and its sister organization, Crop Insurance Research Bureau (CIRB), cooperate with universities in organizing all-industry workshops where the latest information is reviewed. North Dakota State University will host the largest such group when 360 adjustors meet on the campus June 11 to 13. A barley workshop is also scheduled for July 18.

Hail adjustors workshops are a relatively recent innovation at NDSU and contribute significantly to the development of the total land-grant concept of a university relating to the people and their needs. The workshop format and workbooks developed by NDSU staff have been copied at other institutions.

The hail research project is but one example in which the College of Agriculture and the Agricultural Experiment Station, with industry cooperation, are fulfilling the role of the land-grant university. At the present time, only about five per cent of the North Dakota State University Agricultural Experiment Station budget comes from gifts and grants.

### In This Issue

Stem Breakage Simulating Hail Damage to Spring Wheat	3
Applying Fungicides for Greater Profits	8
Ergot: A Recurring Problem of Grasses and Small Grains	12
Perspectives in Hard Red Spring Wheat Breeding and Marketing	15
A Preliminary Report on Serum Recovery From the Packing Industry	19
Some Farmland Value Increase Apparent in 1971	23
Using High Energy Rations for Calves at Weaning	27

On The Cover: Dr. Glen Statler, left, assistant professor, Department of Plant Pathology, and Dr. Edward H. Lloyd, Jr., extension plant pathologist, examine some of the wheat plants they have inoculated with leaf rust in their search for more effective control measures.

# Farm Research

Bimonthly

Vol. 29, No. 5

May - June, 1972

A BIMONTHLY progress report published by the

Agricultural Experiment Station,

North Dakota State University of Agriculture and Applied Science Fargo, North Dakota 58102

Arlon G. Hazen

Dean of Agriculture, and Director of Agricultural Experiment Station

#### **EDITORIAL ADVISOR**

H. Roald Lund

### **EDITORS**

Robert A. Jarnagin

J. J. Feight Gary Moran

Dorothea McCullough

Farm Research