



# NORTH DAKOTA Farm Research

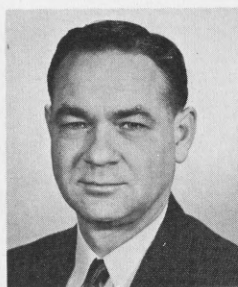
Bimonthly  
Bulletin

Volume 26, Number 5

May - June, 1969



# From the DIRECTOR



**A. G. HAZEN**

Recently, it was my privilege to represent the Agricultural Experiment Stations of the 12 states in the North Central Region at the dedication ceremonies of the United States Department of Agriculture Meat Animal Research Center at Clay Center, Nebraska. This responsibility was a part of my duties this year as chairman of the North Central Regional Association of Agricultural Experiment Station Directors.

This new research center is being developed on a part of the U.S. Navy Hastings Ammunition Depot to develop, through research, new technology for meat animal production. The goals are to improve carcass merit and reduce costs of cattle, sheep and hogs.

It was with tremendous pride of accomplishment on the part of those I represented that I took part in this dedication. My message was simple, gained from several years of experience with and observation of the agricultural research that is conducted in these great United States of America by both public and private institutions, organizations and individuals. We are just naturally going to accomplish more in the way of useful results from agricultural research by cooperating and working together than we will ever be able to accomplish working separately. This is true between and among the several state experiment stations as well as between them and the Agricultural Research Service and other similar units of our federal government and private industry as well.

As one of the directors of the North Central Region, I have been aware of the development of this new research facility. I have every faith that the cooperative relations between this unit and the Agricultural Experiment Station of the University of Nebraska will be close and fruitful for all of us. We all look forward to many years of success, not only from the standpoint of cooperative relations, but also, and more importantly, from the standpoint of useful research results which may come from this physical facility and its complement of capable personnel.

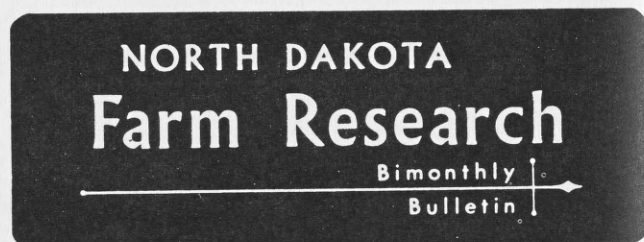
A dedication such as this culminates a tremendous amount of thought, discussion, planning, cooperation, legislation and construction. These things have been accomplished by many people

(Continued on Back Cover)

# In This Issue

Influence of Tillage Method on Incorporation of Fertilizer Phosphorus .....	3
The Sulfur - Supplying Power of Certain Red River Valley Soils .....	7
Grass Species Studies in Northwestern North Dakota .....	10
Costs and Returns of North Dakota Agriculture ..	13

**On The Cover:** Forage harvest in the research plots of the Experiment Station is a small-scale operation. Terry Schwartzenberger and Lawrence Perry serve as scale supports, while Wayne Nerby, agronomy research technician, checks the weighing operation. Weighing is part of an experiment with five alfalfa varieties to check yield and quality of forage harvested on specific dates as compared to yield and quality when alfalfa is cut at specific stages of plant growth.



Vol. 26, No. 5

May - June, 1969

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**

*John A. Callenbach*

**EDITORS**

*Robert A. Jarnagin*

*Dorothea McCullough*

*James A. Berg*