MLW



NORTH DAKOTA Farm Research

Bimonthly Bulletin

Volume 31, Number 5

May-June, 1974



From the Director

A. G. HAZEN



This issue of North Dakota Farm Research pays special tribute to Dr. Glenn A. Peterson. Dr. Peterson died on March 26, 1974, ending a gallant battle with cancer. He was 46 years of age.

Dr. Peterson was an ideal member of the agricultural community of scientific researchers and teachers. His work as a barley breeder was truly outstanding.

Many times he was questioned closely on whether his efforts were disproportionally devoted to developing better malting-type barleys to the exclusion of feed-type barleys. He seemed to enjoy scrutiny, and a twinkle would come to his eyes as he responded with his answers. He was profound in his belief that any malting barley variety could be used for feed barley, but that the reverse was not true. Therefore, his dedication was to create malting barley varieties with the highest attainable yielding ability when compared with all other varieties, whether feed or malting.

Glenn was a devoted North Dakotan. He believed in his native state, its people, and its agriculture. He enjoyed the youth of the state and the seemingly endless opportunities to make it a better place in which to live and to work. His accomplishments and his temperament were of the highest order of excellence.

His untimely death at the prime of his career is a distinct loss to the agriculture of this area. He left a legacy of notable and valuable contributions as well as a host of friends. Glenn A. Peterson typified the kind of citizen so essential to the well-being of the future food and fiber needs of mankind.

In This Issue

Special Tribute to Glenn A. Peterson	3
ELLAR A New Conventional Height Hard Red Spring Wheat	4
The Role of Alfalfa in Saline	
Seep Prevention	9
Parental Lines for Production of	
Confectionery Sunflower Hybrids	15
Plant Height and Yield of Sunflowers at	
Different Landscape Positions	17
The Relationship of Leaf Rust Infections	
and Wheat Yields	24
Tree Improvement in the Northern Plains	27
Lysimeters Aid Sugarbeet Root Maggot	
and European Corn Borer Research	35
Treating Farm Water with Reverse Osmosis	39
Influence of Soil Organic Matter on Bulk	
Density and Available Water Capacity	
of Soils	44

On the Cover: Dr. Alan Dexter, Extension sugarbeet weed specialist, and Gary Bordson, NDSU technician, unload equipment furnished by the Red River Valley Sugarbeet Growers Association on the Gilman and Donald Wastvedt farm near Hatton. The special demonstration weed control treatment plot on the Wastvedt farm is one of nine similar sites to be planted this summer in the sugarbeet growing area from Bathgate, ND, to Renville, MN. (Photo by Jim Berg).

Farm Research

Bimonthly

Vol. 31, No. 5

May-June, 1974

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