

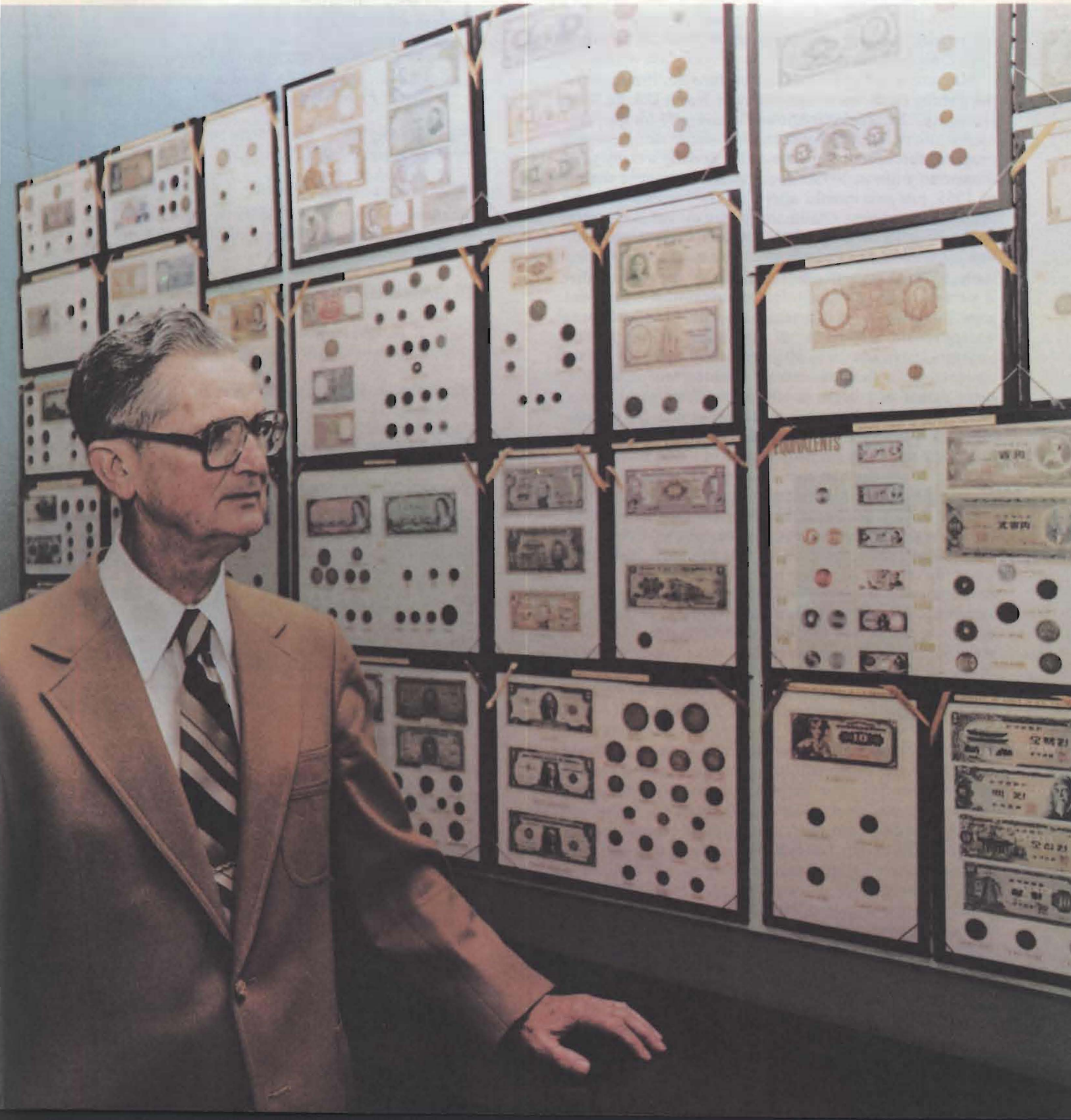


NORTH DAKOTA Farm Research

Bimonthly
Bulletin

Vol. 38, No. 1

July-August, 1980



Guest Column

Donald E. Anderson
Associate Director



The retirement of Fred Taylor on June 30, 1980 marked the passing of an era in agriculture at North Dakota State University. Dr. Taylor is known far and wide for his many contributions to the agricultural research and teaching programs throughout the state and region. It was my good fortune to arrive at NDSU as a graduate student in the fall of 1955, just two months after Fred Taylor took over the helm as Department Chairman of Agricultural Economics. In the 25 years he served the institution, he gave leadership and inspiration to hundreds of students and worked tirelessly to build an agricultural economics department that is a credit to the state. His leadership saw this department grow from two or three graduate students and a half dozen undergraduate majors to an enrollment of nearly 400 undergraduates and 25 to 30 graduate students. His former students and colleagues recently honored him at a retirement dinner and began a scholarship fund in his name, which is a highly fitting tribute to a man who has given so much so willingly to the welfare of "his" students. I am sure there are many former students of "Fred's" who join with me in wishing him and Mrs. Taylor ("Hildy") the best of everything in their retirement years.

Fred Taylor left us an excellent heritage to build on. As we begin to plan for the development of this institution in the 1980's, we need to take the solid base established by Fred Taylor and his colleagues and nurture its development. If we reflect on where we have been, we sometimes are led to refer to the "miracle of American agriculture," but let's not lose sight of the fact that it is really not miraculous at all. It is no more than a reflection of sound investment in agricultural research and education from dedicated scientists like Fred Taylor that brought about the productivity increases in American agriculture. As we plan for the future of agriculture at NDSU we must be mindful of the fact that the past actions of North Dakotans have supported strong research and education programs for the most important industry of the state.

We have seen great advances in the past due to technological advance. Corn yields went from 22 bushels per acre in the 1930's to over 100 bushels per acre today. Milk production increased from just over 5000 pounds in 1950 to over 11,000 pounds per cow today. Sunflower yields doubled in the decade of the 1970's, and the list goes on like a who's who in agricultural technology.

Farmers aren't the only beneficiaries of the incredible growth in agricultural productivity. Every consumer in

Continued on Page 28

In This Issue

1979 Farmland Leasing Arrangements and Rentals <i>Jerome E. Johnson</i>	3
New Sheep Barn Plans	5
"Dopta-Lamb" Crate <i>Wesley Limesand, John Zidon and Merle R. Light</i>	6
Effects of Seeding Rate and Row Spacing on Dry Bean Production <i>A. A. Schneiter and B. J. Nagle</i>	8
Chemical Fallow in a Spring Wheat-Fallow Rotation <i>Ernest W. French and Neil Riveland</i>	12
Sugar Feeding Preference of Male Face Flies <i>R. D. Peterson, H. J. Meyer and R. B. Carlson</i>	16
Intergeneric and Interspecific Barley Hybrids Show Tolerance to Barley Yellow Dwarf Virus <i>A. B. Schooler</i>	19
Environmental Implications of Coal Development: An Interdisciplinary Research Team Approach <i>W. T. Barker, L. Brun, J. Enz, D. S. Galitz, K. Li, and W. C. Whitman</i>	22
North Dakota Farm Research Index to Volume 37	27
On the Cover: Dr. Fred Taylor retired June 30, 1980, after 25 years as Chairman of the Department of Agricultural Economics. Photo by James Berg.	

NORTH DAKOTA
Farm Research
Bimonthly
Bulletin

Vol. 38, No. 1

July-August, 1980

A BIMONTHLY progress report published
by the

**Agricultural Experiment Station,
North Dakota State University of
Agriculture and Applied Science
Fargo, North Dakota 58105
H. R. Lund**

*Dean of Agriculture, and Director
of Agricultural Experiment Station*

EDITORS

Gary Moran

Dorothea McCullough

Agricultural Experiment Station
NORTH DAKOTA STATE UNIVERSITY
of Agriculture and Applied Science
University Station
Fargo, North Dakota 58105
Publication

H. R. Lund

DIRECTOR

to

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF
AGRICULTURE
AGR 101



BULK THIRD-CLASS

Wehner, G. R., R. L. Harrold and M. Wanapat. *True Metabolizable Energy of Sprouted Wheat*. No. 5, page 19

Witz, Richard L. *Confinement Sheep Barn at Hettinger Station*. No. 4, page 3

Worcester, B. K., K. J. Dalsted and L. J. Brun. *Detection of Saline Seeps in North Dakota by Remote Sensing*. No. 2, page 3

Zubriski, J. C., E. J. Deibert and R. P. Schneider. *Nitrogen: A Limiting Factor in Sunflower Production on Non-fallow Soils*. No. 3, page 19

Continued from Page 2

America and many hungry people have benefitted from the low-cost, abundant food supply generated by American farmers. The research that has generated the technology base for U. S. food production has benefitted every man, woman and child in this country. The American public must realize the importance of continued support of agricultural research, because the years ahead are filled with new challenges that will take the best trained men and women that this country has to offer. We can't rest on our past achievements and hope the future will care for itself. care for itself.

By the year 2000 the present world population of four billion will have grown to nearly seven billion. Before 2050 it will double to 14 billion. Will we be able to feed and clothe the increased billions? Of course we can, if we have the courage and foresight to produce the technology base to get the job done. This represents an enormous challenge to train enough young scientists, provide them with the

necessary resources to do the basic research, build the applied links to agricultural production, and provide the education to insure timely adoption of the evolving technologies.

We know the land-grant university system of teaching, research and extension has brought American agriculture far beyond many production systems throughout the world. It is our challenge to continue to build on the institutions that men like Fred Taylor have developed to help insure the future growth of U. S. agriculture. The job of generating the support needed to provide growth in agriculture becomes harder and harder as farm numbers decline, causing a smaller portion of the electorate to be informed of the needs of agricultural research institutions. It is therefore vitally important that the "agriculture story" be told well and often if we are to continue the needed flow of new technology into the U. S. agricultural production plant. It is men like Fred Taylor who have led the way. We must work long and hard to fill his shoes.