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MANY CHANGES AT THE NORTHWEST EXPERIMENT STATION

Changes are rapid at the Northwest Agricultural Experiment Station, Crookston.

The aerial view featuring the farmstead of the Experiment Station was taken during the fall of 1966. It is already out-of-date because the old sheep barn has been removed, two additional silos have been built for the sheep project, and an addition is now being built on the dairy pole barn.

The area around the elevator has been provided with a new crop dryer to dry plot samples and field grains. The old wing, south of the elevator, has been rehabilitated and completely rebuilt into a field laboratory to service the major research mission in crops and soils. A 220 ft. pole barn and yards service the beef nutrition facility. A similar-sized pole barn, which does not show on the picture, provides the facility for sheep breeding and management research. Just added to the sheep facility are two new silos. The Hi¹ Foundation of St. Paul recently provided \$50,000 for sheep research at the Northwest Agricultural Experiment Station.

The old dairy barn has a new wing on the east side which houses the sixty-cow herd of dairy cattle. The old barn has been completely remodeled to maternity pens, calf pens, growing pens, and an animal-handling facility. The most striking change is the number of concrete stave and Harvestore silos which are used to store the hundreds of tons of low-moisture silage (haylage) for use in research with dry lot handling of ruminant beef cattle, dairy cattle of all ages, and sheep. The Northwest Station is engaged in a major effort studying the utilization and management of ^lowmoisture silage (haylage) as the forage for ruminant animals.

Another change is worthy of note which indicates the intent of the University of Minnesota to keep the Northwest Experiment Station moving strongly to meet the challenges of a fast-moving agriculture in the Red River Basin. The administration of the Institute of Agriculture, headed by Dr. Sherwood O. Berg, dean, moved to strengthen the leadership of the Northwest Agricultural Experiment Station July 1, 1967. To that date the Superintendent, B. E. Youngquist, gave local leadership to early develop-(Continued on Pg. 4, Col. 2)



Northwest School News

Issued Quarterly by THE UNIVERSITY OF MINNESOTA NORTHWEST SCHOOL OF AGRICULTURE B. E. Youngquist, Superintendent Office Northwest School and Exp't. Station Crookston, Minnesota

Marlyn Jacobson, Assistant

Scientist, Dairy Research

Marlyn Jacobson is directly in charge of the routine operations of the sixty-cow dairy herd and for collecting data on the various scientific projects which are being conducted at the Northwest Experiment Station.

He is a graduate of the College of Agriculture, University of Minnesota, St. Paul campus, and has had experience in managing herds and in artificial insemination work with the Minnesota Valley Breeders Association. He is an assistant scientist to Dr. George Marx who is in charge of the Dairy Research Operations at the Northwest Experiment Station. Marlyn Jacobson will relieve Dr. Marx with much of the day-to-day execution of routine research operations with the entire dairy complex. This all means a better job done and more research being accomplished.

New Wing on Dairy Barn

The new wing on the dairy barn houses the sixty-cow experimental dairy herd of purebred Holstein cattle at the Northwest Experiment Station.

The building is a fully-insulated, one-story comfort stall building and it is built particularly as a research laboratory. The space is somewhat greater than one would find in a commercial dairy barn in order to provide necessary working space to accomplish the mission of research.

> YOU ARE INVITED TO ATTEND Beef Cattlemen's Institute Thursday, October 5 at the

Red River Valley Winter Shows Building

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* * * SPONSORED BY: Northwest Experiment Station, Agri. Extension Service, and Animal Science Dept. - of the University of Minnesota; Central Livestock Assn., Inc., Fargo; and RRV Winter Shows Board of Mgrs., Inc.







Facility for Beef

Nutrition Research

Efficiency of operations to conduct beef feeding research was a major objective as the new beef nutrition facility at the Northwest Experiment Station, Crookston, was designed.

The facility includes a 220 ft. x 45 ft. pole barn which is open on one side and divided into eight equal-sized lots. These lots will handle from ten to fifteen beef animals and are equipped with feed bunks and water. Half of the lots are concrete surfaced and half of the lots are bituminous. Additionally, the old beef feeding building (built in 1918), hung up on poles off the end of the main building, provides the animal-handling facility where the animals can be weighed and examined in the squeeze chute for the collecting of the scientific data.

The beef feeding work at the Northwest Experiment Station is built around the problems of a commercial feeder who buys calves, feeds them, and puts them on the market as finished cattle. The process at the Northwest Experiment Station has been to purchase calves and feed them a growing ration using a maximum amount of high quality haylage to bring them up to fattening rations containing high quality haylage supplemented with local grains to put them on the market at the normal finished weights.

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To date, the work has involved using sugarbeet pulp, low-moisture silage made with alfalfa and beet tops, and high-moisture barley. The results of these experiments are published in animal science journals; also, they are published for the Beef Feeder Days

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Silos for Research at Northwest Experiment Station

These silos are medium to small silos and they are a portion of the nine new silo structures on the Northwest Agricultural Experiment Station. Five silos in this group are used for experimental work on silage materials for all classes of livestock and provides all of the haylage and lowmoisture silage materials for the beef nutrition work. The Northwest Station has four other silos: two 20 x 60 Harvestores provide the routine haylage materials for the entire dairy herd of milk cows and replace-ment stock. These are filled two-tothree times each season. Additionally, the two concrete stave silos have just been added to the sheep facilities. These two will be filled more than once per season to provide needed forage for sheep flocks.

To date, the forage work has emphasized the utilization of alfalfa as low-moisture silage, beet tops in various combinations with other materials as low-moisture silage, harvesting oats as low-moisture forage, and corn silage. Experiments have been going on cutting corn for silage commencing early in September up through December. Some interesting findings indicate that we can put corn in the silo at a later date than is common practice at the present time. Dr. George D. Marx and Dr. Harvey

Dr. George D. Marx and Dr. Harvey F. Windels, animal scientists, and As-(Continued on Pg. 4, Col. 1)



NW SCHOOL ALUMNI REUNION HAS GOOD ATTENDANCE

On Sunday, June 25, over three hundred Northwest School alumni, former students, and faculty returned to the Northwest School campus for the annual summer alumni reunion.

Celebrating its 50th anniversary was the class of 1917. Other classes which held special reunions, and had the highest class attendance, were the class of 1942 (their 25th) with fortythree registered; the class of 1957 (their 10th) with forty-one registered. A number of other classes also had special reunions.

Mrs. Oline Olson (nee Lena Opdahl), class of 1909, received the award for being the oldest alumnus present; her home is in Seattle, Washington. Mrs. Olson also gave a greeting at the reunion program. The award for coming the greatest distance was presented to LeRoy Grove, '57, of Northridge, California. The most recently married couple award was presented to Eugene Pietruszewski, '57, of Argyle. Mr. and Mrs. Pietruszewski were married on June 25, 1966, so they were celebrating their first wedding anniversary. Delmer H. LaVoi of Rt. 2, Brooklyn, Michigan, a Northwest School faculty member 1923-24 through 1928-29, mailed to the school a number of large pictures of former Northwest School football and basketball teams which he coached while a staff member. The pictures were on display at the Dining Hall.

In the absence of Donald Diedrich, '56, Alumni Association president, E. N. Reiersgord, principal, presided at the Association's business meeting.

Members speaking for their classes and bringing greetings to the group were Keith Bjerke, '57, of Northwood, N. Dak.; Alfred Hebert, '42, of Argyle; Mrs. Oline Olson, '09 of Seattle; and Oscar M. Lee, '13, of Cambridge. A "smorgasbord" supper was served to m in the orbool's diping hell

A "smorgasbord" supper was served at 6 p.m. in the school's dining hall to an estimated three hundred a¹umni and faculty.

Following the "smorgasbord" supper and business meeting, there was a social hour.

SILOS FOR RESEARCH

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sistant Scientist Marlyn Jacobson, work closely with the farm foreman to harvest forage materials for storage in these silos in such a way as to provide the highest quality forage for ruminant animals.

* * * CALENDAR * * *

Northwest School and Experiment Station

Sun., June 25 Northwest School Alumni Reunion

- Wed., July 19 Crops and Soils Field Day
- Wed. and Thurs., July 19-20 Soils Conference
- Tues., August 8 Hail Research Association Workshop and Fie¹d Tour
- Mon., September 25 Registration — Northwest School Students (Seniors)
- Thurs., October 5 Beef Cattlemen's Institute
- Wed., October 25 Dairy Day
- Tues.-Wed., Oct. 24-25 Red River Valley Dairymen's Association Convention
- Feb. 17 25 (1968) R. R. Valley Winter Shows and N. W. School Farmers' Week

MANY CHANGES AT NW EXPERIMENT STATION

(Continued from Pg. 1) ment of the U of M Technical Institute idea and more recently headed the launching of the Division of Agriculture for the new College. Dr. Youngquist has now been relieved of duties in the College effective July 1 and has been directed to give his full leadership to the Agricultural Experiment Station and, of course, to the final phase-out year of the School of Agriculture. "This is a very welcome development. The challenges for agricultural research here in the Red River Basin needs full-time leadership," comments Superintendent B. E. Youngquist.

BEEF NUTRITION RESEARCH

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held annually at the Agricultural Experiment Station.

Dr. Harvey F. Windels heads the research work in beef nutrition at the Northwest Experiment Station in cooperation with scientists from the Animal Science Department at the University of Minnesota, St. Paul campus.

RECORD CROWD ATTENDS CROPS AND SOILS DAY ON JULY 19

Over 600 persons attended the annual Crops and Soils field day held at the Northwest School and Agricultural Experiment Station, Crookston, on July 19.

Visitors were taken on tours beginning at 9 a.m. and continuing through 12:00 Noon. Visitors were transported by tractor-drawn wagons to the major plot areas. Research specialists from the Institute of Agriculture, University of Minnesota, St. Paul campus, and the Northwest Experiment Station were on hand to discuss the work in sugarbeet rotations, forages, fertilizer trials with sunflowers, chemical weed control, and varietal trials for small grains and specialty crops.

Continuous tours of garden and landscape plantings were also scheduled. An addition to Crops and Soils day this year was the separate tours for those who were interested in touring the dairy, beef, and sheep research facilities at the Northwest Experiment Station.

A noon luncheon was served in the Dining Hall. At 1:15 p.m., a program was held in the Livestock Pavilion. Dr. William F. Hueg, director of the Agricultural Experiment Station, University of Minnesota, St. Paul, highlighted the research plans that he and his colleagues have in mind for the Red River Valley. Dr. S. D. Sahlstrom, director of the U of M Technical Institute, reported on the success and progress of the one-year old Technical Institute.

A plant problems clinic was another feature at the field day. Persons with an insect, plant disease, weed, or soil problem brought specimens and specialists were available to help diagnose the problem and recommend control measures. The clinic was conducted by the University of Minnesota Extension specialists and representatives from the Minnesota State Department of Agriculture.

Through the courtesy of the Crookston National Bank, First National Bank, and Polk County State Bank, all of Crookston, and the Red River Valley Crops and Soils Association, free coffee and pop was served to visitors attending Crops Day.