

MAY 14 1984

The Northwest Experiment Station News

Published by the Northwest Experiment Station of the University of Minnesota

Crookston, Minnesota

APRIL, 1984

VOLUME 12, NO. 2

Development Committee Meets Dairy Consultation in Syria

by Marlyn Jacobson



Lowell Larson, director of development (L) Medard Yutrzenka, chairman of the University of Minnesota Development Steering Committee, Argyle; and Gene Miller, Northwest Experiment Station development officer, are shown just prior to a recent steering committee meeting. The steering committee consists of 48 representatives from all of the surrounding counties who have volunteered to help develop the funds and the programs of excellence at UMC and at the Northwest Experiment Station. Members of the steering committee heard reports on the progress of the development activity relating to both the College and Experiment Station funding.

Larry Smith, superintendent of the Northwest Experiment Station, spoke on the specific needs of the Experiment Station at Crookston while Don Sargeant, assistant provost, UMC, related to the problems of financing and updating top-level teaching laboratories and renewing good instructors.

Sam Bigger, Polk County area coordinator, talked about the relative importance of agricultural research. Bigger cited the millions of dollars of income which this area receives from wheat, barley and sugarbeet production. He named specific varieties and practices which had been fostered and perfected by University research and related the total values to northwest Minnesota economy.

Gene Miller spoke briefly for the Northwest Experiment Station Fund. He emphasized that the drive which began under the direction of Bernie Youngquist, who recently retired, is continuing and area support will be needed to add to this annuity fund. Annuity funds, Miller indicated, are not really spent, but continue to provide money for research and education for generations to come, as only the interest is spent each year. Miller continues to work with Lowell Larson, director of the overall program, and with the many volunteers like Yutrzenka who help guide the effort.

The University of Minnesota contracted with U.S.-AID to developing countries to provide cattle, chickens, teaching experience and equipment to the University of Damascus Agriculture College for a five-year program. I was selected to help provide dairy management for the new herd established at the research farm at Kharabo. Before the contract, the herd consisted of 18 mixed-breed cows milked by hand. Personnel from the University of Minnesota selected 50 bred heifers from Minnesota, Wisconsin, and Ohio and flew them to Syria. A bucket milking-machine and vacuum pump were purchased and installed in the existing barns.

When I arrived in Syria in July, all the heifers were fresh and there were only two of the older cows left in the herd. I was assigned to teach dairy techniques to 13 college students and the dairy personnel at Kharabo. Those of you who remember the switch from hand milking to the use of machines, from the use of a bull to artificial insemination, and the early days of electric power can appreciate the many problems we had to overcome. New buildings are being planned and built for dairy, animal nutrition and poultry.

The workers and students were friendly and eager to learn the new methods of dairy techniques. Most of the dairy animals in Syria are sheep and goats rather than cows. They use the milk from sheep, goats and cows to make cheese, yogurt, ice cream and milk for coffee. Very little milk is used as bottled milk as we know it.

(Continued on Page 2)

This archival publication may not reflect current scientific knowledge or recommendations.
Current information available from University of Minnesota Extension: <http://www.extension.umn.edu>.

Smith's Comments



by guest writer John Wiersma

About 75% of all the wheat and barley grown in Minnesota is treated with some kind of herbicide application at least once each year. Without extensive information, prudent decisions regarding this large investment would be difficult at best. To facilitate this decision-making process, I have written a brief, preliminary computer program which compares herbicides labeled for weed control in wheat and barley and their associated

rates and times of application, approximate costs, and the appropriate stages of crop and weed development necessary for their application. Although this program does not contain detailed label information, or information pertaining to specific circumstances, it does illustrate many of the alternatives available for chemical control of wild oat, foxtail and broadleaf weeds in wheat and barley.

As mentioned above, this program is preliminary. Your suggestions and comments are sincerely welcome. If there is sufficient interest, I would be happy to write additions to this program, or to write additional programs related to chemical control of weeds in wheat and barley. This program, "Choices of Chemicals, Recommended Rate of Application, and Approximate Costs Associated with Weed Control in Wheat and Barley", was written in Basic using DOS version 1.1 for use with an IBM PC. To obtain a free copy, send one, formatted disk to: John Wiersma, Northwest Experiment Station, Crookston, MN 56716.

Dairy in Syria Continued



Seventy-five percent of the milk products used in Syria are imported from Europe. Most of the cow herds are less than 10 cows on a daily tie-out and milk-by-hand system. There are some herds of over 200 cows and the government is planning for four 1,000 cow herds. Many of the students at the University of Damascus come from other Arabic countries--especially Sudan in Africa. I had one student from Sudan who was planning to return to Sudan as a teacher in poultry and dairy after his graduation. The Sudan dairy animals are very seldom housed and the herdsmen follow wherever the cattle go to eat and then catch the cows to milk them.

My experience in seeing the different ways of handling cows and teaching our methods was very rewarding and enjoyable. Syria is a very interesting place to visit to see historical ruins from ancient times as Damascus claims to be the oldest capitol city in the world. Many civilizations have left their "mark" on Syria as it is a gateway between Europe and Asian countries.



First Cow to Make 1000 pounds Milk Fat in 305-Day Lactation in Northwest Experiment Station Herd, Crookston.

L to R: Dairy crew--Marlyn Jacobson, Marvin Chandler, James Broekemeier, Alex Johnson, Richard White, David Szczech, and Dr. George Marx are standing by their top producer U of Minn C Kennedy Iodine, a registered Holstein 5-year old cow that just completed a third lactation record in 305 days with 1008 pounds of milk fat and 23,851 pounds of milk. Her total lactation record for the year was 342 days with 25,990 pounds milk, 4.3% butterfat and 1106 pounds of milk fat. She is classified very good with 85 points and weighs 1741 pounds.

Presidents Club - Agricultural Chapter Crookston

The Agricultural Chapter of the Presidents Club is a group recognized for their high level of financial support for special projects in agriculture. The group is often called together for special functions with President C. Peter Magrath and others within the University of Minnesota.



Newest Presidents Club member, Delmar Hagen, of Gatzke. Delmar and Eunice have farmed in the Gatzke area for many years.

Delmar related to his long association with the University of Crookston having two daughters and a son who attended the Northwest School of Agriculture. Hagen related to the progress and changes which he could see about the campus and to the past accomplishments of the School of Agriculture and Research Station. He especially cited Olaf Soine, former soils and agronomy professor, for his many efforts with soil and water conservation programs.

Delmar expressed continued support for research in northwestern Minnesota, citing the early struggle on his farm with drainage, special soil conditions and rock removal. The ability to handle the peat and mineral type soils which were prevalent on his farm were a past University and Station demonstration.



Diane Magrath presented a Presidents Club plaque to Bill Strickler, Euclid. Bill is a former Northwest School of Agriculture graduate.

Sandy Smith, Crookston, receiving the Presidents Club plaque from Diane Magrath on behalf of her husband, Larry, superintendent of the Northwest Experiment Station.



Bernie and Bernice Youngquist were the first members of the Northwest Experiment Station Research Fund. Bernie reminded all present that, "this annuity fund will actually never be spent. Only the interest will be used over the years for research support. Future generations will continue to reap the benefits of this fund which has been bolstered by the contributions of those present who have helped in varying degrees."



Diane Magrath, representing the University of Minnesota, presents a Presidents Club plaque to Roger Odegaard, Crookston. Roger and his mother, Mildred, received the plaque for their contribution in memory of T. W. Odegaard.

Earl Hvidsten, Stephen area farmer, receives his Presidents Club plaque from Diane Magrath.



Diane Magrath presenting Medard Yutrzenka, Argyle farmer and chairman of the Development Steering Committee, with his Presidents Club plaque.

George Flaskerud, Fosston, was the featured speaker at the appreciation luncheon. Flaskerud, a former King Agassiz, spoke on the issue of "Value of Agriculture Research." He cited the many new varieties of wheat, barley, and other farm produce which have been a boon to farmers. He related to the need for today's farmer to get new information as quickly as possible after researchers discover it. "This allows farmers to be competitive in the marketplace", Flaskerud stated.



Allan Dragseth, Eldred, farmer and early member of the Presidents Club, Agriculture Chapter, was master of ceremonies for the appreciation luncheon. Dragseth is a graduate of the Northwest School of Agriculture. He is an active alumni and is now president of the NWSA Alumni Association. Allan farms a major acreage of sugarbeets and small grain crops.



Assistant Provost, Don Sargeant, receiving his Presidents Club plaque from University of Minnesota president, C. Peter Magrath.

In another vein, Flaskerud said, "future research needs may be different than in the past decade. The tremendous production which farmers now enjoy is also part of their downfall. The continuous effort to increase yields must make way for research pointed more to research on efficiency of inputs. Inputs must be reduced throughout the entire farm operation to keep farmers solvent in this new age of competition."



C. Peter Magrath, U of M president, congratulating Bruce Hamnes, Stephen, on his President's Club membership.



Dairy Day Held At NW Station

Northwest Minnesota Dairymen's Day held at the University of Minnesota, Northwest Experiment Station was attended by over 200 dairymen from surrounding counties. The dairymen heard research reports and were anxious to hear the latest aspects of the milk marketing program recently put in place by the federal government.

George Marx enumerated several important projects which have been implemented through the 60-cow dairy herd at the Northwest Station. Marx explained that milk-o-meters weigh the milk at each daily milking and feed is weighed each day and recorded for each cow in the herd. Marx reported further on trials which compared high-moisture ear corn against high-moisture shelled corn in the dairy ration. The data of the two-year study are being summarized and analyzed and will be presented at the meetings of the American Dairy Science Association this coming June.

Robert Appleman, Department of Animal Science, St. Paul, presented two sessions. His first presentation, regarding profit in dairying, pointed out that along with concern for profit, every dairy farmer must be aware of the over-production of milk in the United States. If all the cows in Minnesota were dried up, it would just about balance the national surplus of 12 percent. Appleman advised dairymen to keep their numbers as flexible as possible by signing up for at least eight percent cut and close to the maximum at 27 percent should they want to go that far. The production cut will be based on the 1982 average for most calculations, but it is possible to average 1981-82 production. Return over variable costs will have to be analyzed more carefully in the near future and any fixed costs that can be cut will have to be determined. Appleman warned farmers not to dribble off rations over a long period of time to reduce output on a dairy herd, they should rather consider drying cows off sooner to meet production quotas.

Charles Young, Department of Animal Science, St. Paul, spoke on milk marketing and the economic factors associated with marketing regulations.

Marlyn Jacobson, assistant dairy scientist, Northwest Experiment Station, reported on his experiences in Syria. (See article elsewhere in paper).

Marsha Dahlgren, dairywomen in partnership with her brother, David, at Roseau, reported on their successful dairy operation. In 1981, Marsha and David decided to build a modern dairy barn for 50 to 60 cows of their parent's farm. They built two 20 x 70 silos as well as a new barn. They built a large concrete lot so they could install a feedbunk for young stock. In the 60-stall barn they decided to go to the tie-stall system. A calf nursery with individual ties for each calf completed the installation. The calf nursery is completely shut off from the barn. It is

ventilated and heated on its own for better disease management during the early life of the calf. A large office area with bathroom and shower room are a part of the unit. Marsha indicated that their production records and ability to run a profitable herd were the result of the way they had planned the new facilities, but also the new facilities had fit in with the management objectives which they had set for themselves prior to building. Marsha came to the decision to be a dairy farmer after having grown up on a dairy farm and having many years of experience and practical observation. She credits her county agent and other University personnel who gave advice during the construction period.



Les Bly, Waubun; Gary Hanson, Thief River Falls; Dr. Robert Appleman, St. Paul, and David Richter, Vergas discussed specifics of Appleman's stray voltage report following Dairymen's Day at the Northwest Experiment Station.

75th Winter Shows History

A history is being written by B. E. Youngquist as part of the 75th Anniversary celebration. The deadline for completion of the writing is July 1, 1984. Anyone having clippings or information useful to such a project is invited to

communicate with Bernie by letter or telephone at the Northwest Experiment Station, Crookston, MN 56716 or 218-281-6510, ext. 483. Personal observations and commentary are especially invited.



Soybeans Moving North

by Marlin O. Johnson

The soybean crop is moving north in Minnesota. Marshall County, for example, has expanded acreage from a few hundred acres in 1978 to 30,000 acres in 1982, according to recent agricultural statistics of the Minnesota Department of Agriculture.

Developments in varieties more suitable to northern Minnesota have helped make this movement possible. Since the period of the late 1960's, soybean yields have increased more than 10 bushels per acre in trials conducted at the Northwest Experiment Station.

Selecting a Variety

Soybean performance trials conducted from 1974 through 1983 at the Northwest Experiment Station, show the earlier maturing varieties are usually the better performing for the most northwestern portions of Minnesota. The recommended list includes Clay and McCall for the Crookston area and north to the Canadian border. McCall, Clay and Ozzie are adapted for the Crookston area and south to Moorhead.

McCall has been a top yielder with an average of 27 bushels per acre over the ten-year period at Crookston. The range has been 17 to 50 bushels per acre. The higher yields have been associated with warmer growing seasons. Clay has averaged 25 bushels per acre. In considering the years 1981 through 1983, both varieties averaged 34 bushels per acre in trials conducted.

The variety Ozzie averaged 29 bushels per acre in 1983 testing. Ozzie has been a better performer at the University of Minnesota testing location near Moor-

*The Northwest Experiment Station News
Issued Quarterly by*

THE UNIVERSITY OF MINNESOTA
NORTHWEST EXPERIMENT STATION
Crookston, MN 56716

E.C. Miller, Editor

Patti Malme, Associate Editor



head with a 39-bushel per acre average during the period 1981 through 1983. The varieties Ozzie and Evans have been top performing and outyielding the variety McCall by seven bushels per acre at Moorhead.

McCall is about four days earlier maturing than Clay and would be the preferred variety for a margin of safety against a cool growing season or early September frost. McCall reached maturity on September 5 when planted in mid-May 1983. Clay reached maturity on September 9 and Ozzie was mature on September 17. Evans was mature on September 19.

McCall was developed by the Minnesota Agricultural Station and released as a variety in 1978 for northern Minnesota. It is classified high yielding, tall and has good lodging resistance. The variety is susceptible to Phytophthora root rot. It has good tolerance to lime induced iron chlorosis when planted on Red River Valley soils.

The variety Clay was also developed by the Minnesota Agricultural Experiment Station and is best adapted for the Warren area and south to Moorhead. The variety is susceptible to Phytophthora but has good iron chlorosis tolerance.

The variety Ozzie is classified high yielding and lodging resistant. The variety was developed by the Minnesota Agricultural Experiment Station and released in 1983. Ozzie is resistant to races 1 and 2 of Phytophthora.

The Varieties Chico and Maple Presto

The variety Chico was developed by the Minnesota Agricultural Experiment Station and released in 1983 as a small-seeded variety that fits the needs of specialty markets. The first consideration in the planting of this variety should be a market. The variety matures slightly earlier than Clay, so it is adapted for northern Minnesota. Chico has averaged 26 bushels per acre during the period of 1981 through 1983 in testing at Crookston.

Maple Presto is a very early variety that was developed by Agriculture Canada and matures about 12 days ahead of McCall. Maple Presto reached maturity on August 23 as compared to September 5 for McCall. The variety has yielded 26 bushels per acre in trials conducted at the Northwest Station. The variety best fits the most northern regions of the State or for late spring planting.

Calendar of Events

Dairy Conference
(In House)
June 13 & 14
Morris

Crops & Soils Day
July 18, 1984

Second-class postage paid at Crookston, Minnesota

Address Correction Requested

UNIVERSITY OF MINNESOTA
ST PAUL CAMPUS LIBRARY 07357
1984 BUFORD AVENUE
ST PAUL, MN 55108