Sugarbeet Research Expands

Dr. Larry Smith joined the staff of the Northwest Experiment Station in 1971. He had a B.S. degree in agricultural education, and M.S. and Ph.D. degrees in agronomy from the University of Minnesota. Smith was appointed as agronomist for the Station.

Smith assumed the responsibility for the sugarbeet research when Dr. Soine retired. About a section of good quality research land had been purchased in the 1960’s and 70’s without a dollar of the taxpayers’ money. A sugarbeet contract was arranged to insure making land payments. The Sugarbeet Growers Association requested more research and extension personnel to service Minnesota and North Dakota.

In 1977, The Minnesota Legislature appropriated funds to underwrite a full-time agronomy position for sugarbeet studies at the Northwest Experiment Station.

Roger Ruthenberg worked in the school’s horticulture department starting in 1965. After the Experiment Station transition, Ruthenberg was assigned to the agronomy department under Soine. Ruthenberg developed several unusual pieces of special plot equipment since he was an excellent mechanic. Roger came to be familiar with plot layout, hiring plot workers, and sugarbeet harvesting while working for Smith’s sugarbeet project.

Juel Torvi and Elvin Moran moving trees with a D4 Cat.

Farm foremen on University Experiment Stations have always been key persons to getting research and general farming accomplished. Juel Torvi came to the Station April, 1923. His service until February 28, 1971, was a tour of duty that extended from a Station with a barn full of horses to the enclosed cab combines. He cultivated the “wild oats” and eventually sprayed them to death. He was probably involved with a greater change in technology during his tenure than any other staff member.
Many Changes at the Station

James Jacobson was hired to replace Torvi as farm fore­man on July 1, 1971. Jacobson had a B.S. degree in general agriculture from NDSU and experience with both the Soil Conservation Service and the Farmers Home Administration. With the advance of technology, it was thought a modern farm foreman should have training to enable him to better understand research.

Dr. W. Daniel Svedarsky was hired by the Station under a new joint appointment program with the College to es­tablish the Natural History Area.

1971 was the year that public opinion across the nation first pointed a finger at agricultural pollution. E.C. Miller conducted extensive spring runoff studies and water analy­sis from ditches, wells, and potholes.

Director Hueg called an “all stations” meeting at Morris and a state-wide program was established by the Univer­sity to investigate agricultural pollution. The result at the Station was to construct several holding tanks and liquid manure systems that still serve today.

Through the late 60’s and 70’s the Station continued to demonstrate the ensiling of high quality forage crops. Dr. George Marx led the research in this area. Moisture control, was a major problem in producing good hay silage. Differences in moisture of 10-20 percent could ruin a crop.

Marx and Miller embarked on a search for electronic test­ing equipment that would be reliable and easy to use in a farm situation.

An open experimental pole building had been con­structed in 1971 to house beef animals. The building was designed to capture early sun to help warm and clear the newly installed slatted floor. The timber industry requested the Station to try a treated wood manure pit which was included in the design.

Data collected on temperatures by E.C. Miller showed no advantage to this open pole building design.

Patti Malme joined the staff as principal secretary in 1972. Malme was a native of Gonvick, Minnesota. She graduated from Bemidji State College with B.S. and M.S. degrees in business.

Russell K. Severson was appointed to the Northwest Experiment Station staff in 1973. He was to work directly with Dr. Soine. Severson completed his B.S. degree in soil science at the University of Minnesota.

The Beef Cattlemen’s Institute, a cow-calf oriented pro­gram held in the Winter Shows building was popular and well attended in 1973. Forage handling, evaluation of cross-breeding, external and internal parasites of cattle, repro­ductive and calving problems, and production testing of beef cattle were among the program offerings.

In 1971, an experimental pole building was designed to capture warmth of the early morning sun and clear the slatted floor.
Accounting Changed

The University’s method of accounting, where all monies left at the end of the year were returned, had to be changed to accommodate the beef research. There was never money available at the right time to purchase the large number of beef steers required for a viable research project.

Until the University corrected this and let the Station have a revolving account, Superintendent Youngquist had to personally sign the note for thousands of dollars to keep the research going. Needless to say, he directed the researchers to keep a good eye on this stock until it was again sold.

Dr. Soine retired in 1974 and was replaced by Dr. George “Walt” Wallingford, a graduate of Kansas State University with a Ph.D. in soils.

Sady Newell, senior account specialist, joined the Station full-time in 1974, although she had worked with some Station and College accounts since 1967. The volume of accounting work at the Station had multiplied to the extent that an accounting office was necessary.

A new dairy building was designed by E. C. Miller. Looking for ways to cut agricultural pollution, Miller designed a building with a slatted floor placed over an eight foot deep manure pit. The building’s foundation walls, which provided the manure pit, were poured into trenches dug while the concrete truck discharged its load behind the trencher. When the walls were completed, the interior was dug out and a concrete floor installed.

Research in 1977

In 1977, Dr. Larry Smith, agronomist, and Dr. “Walt” Wallingford, soil scientist, took projects to the Stephen, and Grygla, Minnesota areas respectively, to look at problems with other soil types.

The Grygla plots were where “burning the surface layer of peat” had been discovered to rejuvenate the next year’s grain crop. Wallingford determined that burning had released micronutrients which could easily be applied in fertilization, thereby saving the organic matter in the soil.

Wallingford left the Station in July, 1977, to accept a position as Eastern Midwest Director of the Potash Institute of America.

A new research position was created in 1977. Dr. Larry Smith was appointed as agronomist-sugarbeet. A major meeting of all sugarbeet interests—farmers, researchers, and industrial participants—met at the Station to organize new projects which included cooperative work with NDSU.

Dr. Gary Varvel joined the staff November, 1977, as soil scientist. He continued the research done in part by “Walt” Wallingford. An important study, at the Station, was the correlation of soil test results with actual crop response to various fertilizer rates. Research efforts included tests on cooperative farmers’ fields as well as Station areas. Even with new plot land available, researchers took great pains not to test areas where past residual fertilizer would upset the results.
Dr. John Wiersma, agronomist, and Mark Hanson, senior research plot technician.

Dr. John Wiersma joined the staff February 1978 to fill the role of general agronomist. He had completed his B.A. and M.A. degrees at the University of Minnesota and a Ph.D. at Ames, Iowa. On a post-doctoral assignment with Michigan State University, Wiersma was involved with a large soybean project prior to coming to Crookston.

In 1978, a new soybean variety was named after former Superintendent T.M. McCall. The McCall variety was bred to be most suitable for northern and central crop maturity zones in Minnesota.

**NWES Swaps Land**

Pressed by Crookston on its southern borders, the Experiment Station made a land swap. Approximately 102 acres to the south were turned over to developers while the Station acquired the Borgman Farm of 320 acres, a mile to the north. This enabled cooperative research with many departments on the St. Paul campus. They had always been involved with Crookston because of the ideal land and weather for breeding new small grain varieties. Cooperative research multiplied and entirely new crops were brought in by Dr. Robert Robinson, and other agronomists, from the St. Paul Station.

Dr. Richard J. Sauer was named the director of the University of Minnesota’s Agricultural Experiment Station by the University’s Board of Regents December, 1980. He was then professor and head of the Department of Entomology at Kansas State University, Manhattan.

**CPM Started**

A new alternative to scheduled applications of pesticides was started when a program called Crop Pest Management (CPM) was introduced. Michael Hutter was welcomed to the Station in 1979. Hutter left in 1980. Replacing him in 1981 was Carlyle Holen, a former county agent, Kittson County.

At first just potato acreage was enrolled in CPM. Later sunflowers and sugar beets were covered. When pest populations multiplied to dangerous proportions, the pest management crew advised farmers how to handle infestations. The contracting with individual farmers stopped in 1983 and the CPM program focused on educational programs. Seed dealers, crop consultants, and farmers were trained to identify the various pests and recommend threshold values.

**Pioneer Researcher Honored**

Dr. Robert G. Robinson was honored as a pioneer researcher at the July, 1981, Crops and Soils Day. One of the research ranges at the agronomy farm was named in his honor. Well conceived plans, careful and timely communications with the Station and “on the scene” observations were mentioned as some of his honored research traits. One of Robertson’s last projects at the Northwest Experiment Station was planting sunflowers on different planting dates, thus some fields would miss the influx of the sunflower midge moth which laid eggs on thousands of acres in this era.
The Red River Valley Winter Shows changed tradition in 1982. Board president would no longer be Station Superintendent.

In July 1981, Elmer Radke retired after 36 years of service. As an farm animal attendant, Elmer had worked under four department heads, starting with O. M. Kiser.

Continued needs for researching the availability of alternate fuels seemed practical in 1982. Miller directed installation of furnaces burning “pelleted sunflower hulls” to heat the sheep research facility.

**Changes at Winter Shows**

The Red River Valley Winter Shows completed it’s most radical change since it’s beginning 72 years ago. June 16, 1982, the board president would no longer the Northwest Experiment Station Superintendent. Dr. B. E. Youngquist stepped down after 26 years. Dr. James Lofgren was elected Winter Shows president for 1982-83; George Nornes first vice president; Cliff Zaffke second vice president and Wayne Wagner secretary-treasurer.

The NWES Advisory Committee was established in 1982 to help direct University research. The advisory group meeting January, 1983, noted that, “information must move out” from the researchers without delays. They advised that the farming situation was changing too fast for past communication means to keep up.

**Plant Breeding Increases**

Dr. Robert Busch, wheat breeder at the University of Minnesota, depended on the land and staff at Crookston. The cooperative research, which the Station conducted, had increased as more plot land became available at Crookston.

The Station agronomists had always been involved in University of Minnesota plans for development of new varieties, now these varieties prosper. The variety ‘Wheaton’ was released in 1983. Wheaton was a joint release by Minnesota Agricultural Experiment Station and the USDA’s Agricultural Research Service.
Dr. Don Rasmusson explains trial results at Crops and Soils Day held at the Northwest Experiment Station.

Dr. Donald C. Rasmusson, and his cooperative staff, developed 'Robust' barley and released it in February, 1983. It was one of the progeny of a cross between 'Morex', named for it's "more extract", and 'Manker', and exhibited good traits of both parents. Tests showed that Robust gave consistently better yields over 'Glen', 'Larker', Morex, and Manker by 6-13 bushels per acre.

**Station Events**

Dr. John Wiersma reported in a paper in 1983 that 75 percent of all the barley and over 50 percent of all wheat produced in Minnesota during the past growing season was grown in the Northwest District 1, which includes twelve counties. "The ability of growers in our district to excel in the production of wheat and barley is directly related to the availability of superior varieties and production practices," said Wiersma. "Varieties and practices which the Minnesota Agricultural Experiment Station has promoted since the early part of the century."

The Northwest Experiment Station hosts the National Fiber Fuels Conference June 15, 1983. Miller chaired and helped organize programs which attracted a wide range of fiber fuel manufacturers and parties interested in burning these alternate fuels. Governor Rudy Perpich attended.

January, 1983, E. C. Miller was officially named to an institutional development role by Superintendent Youngquist. Working with Lowell Larson, UMC director of development, Miller was to promote the Annuity Fund for agricultural research.

**B.E. Youngquist Retires**

Dr. Bernie Youngquist retired in July, 1983, after 27 years at the Northwest School and Experiment Station.

At his retirement ceremony, Youngquist gave this overview of this era: He remarked, "In late 1956, the Superintendent's office clearly identified widespread feeling that farmers wanted a stronger program at the Northwest Agricultural Experiment Station.

A ten-year program of far reaching internal adjustments began in 1957. The research staff was relieved of 70 percent of their teaching load. Research with chickens, turkeys, and the beef cow-calf herd was dropped. A full-time agronomist was engaged. A classic twin male bovine species artificial insemination project was assumed and completed. The sunflower research effort and industry was launched. A second animal scientist was engaged. Sugar beet research was engaged. A full breeding program of potato research was expanded from zero to about 14,000 entries annually. Likewise, the Northwest Station provided land, machinery, and manpower to assist with expansion of the barley research effort from a few plots to approximately 14,500 entries annually.

Over four hundred acres of land were purchased. The entire Station building complex was remodeled or replaced. The dairy herd was tripled in scope. Private research grants became an added source of support. The sheep project was revised, tripled in effort, and supported in part by a $50,000 Hill Foundation grant. The record of those years shows that scope and quality of the research effort was sharply increased and major adjustments were accomplished in staffing, rebuilding, and expanding the physical plant of the Northwest Experiment Station."
New Superintendent Appointed

Dr. Larry Smith was appointed superintendent of the Northwest Experiment Station July, 1983. Smith, who joined the staff in 1971, received his B.S., M.S. and Ph.D. degrees from the University of Minnesota. His twelve years at the Station includes service as general agronomist and agronomist-sugarbeets, and active cooperative research with researchers from NDSU. He had been involved with training assistants in his departments and purchasing the special plot equipment needed.

Dr. Richard J. Sauer, director of the Minnesota Agricultural Experiment Station, was named deputy vice president for the Institute of Agriculture, Forestry and Home Economics at the University of Minnesota, St. Paul in October, 1983.

Plant Pathologist Hired at Station

May, 1984, Dr. Carol E. Windels became the first plant pathologist at a branch station of the University of Minnesota's Agricultural Experiment Station. Windels conducted research on diseases of crops grown in the Red River Valley. Windels is a native of Long Prairie, Minnesota and holds a B.A. Degree in biology from St. Cloud State University, and M.S. and Ph.D. degrees in plant pathology from the University of Minnesota.

Dr. C. Eugene Allen was appointed dean, College of Agriculture, and associate director of the Minnesota Agricultural Experiment Station in 1984.

July 1, 1984, Dr. John Lamb joined the station staff as soil scientist after Dr. Gary Varvel resigned. Lamb completed his Ph.D. at the University of Nebraska.

In April, 1985, longtime staff member, Marvin Chandler, retired after serving the Station for 36 years. Chandler spent his entire time in the dairy and livestock department.

Dr. Donald Sargeant became the new chancellor of University of Minnesota, Crookston, in 1985, succeeding Dr. S.D. Sahlstrom.

Sahlstrom was elected to the University of Minnesota Board of Regents.

1986 Station Events

At the 1986 Crops and Soils Day, a research range was named for B.E. Youngquist, retired NWES Superintendent. Youngquist, was honored at a range naming ceremony July 16, 1986 at the agronomy farm of the Experiment Station. Speakers related to Youngquist's 27 years of service to the Station and the Red River Valley.

Dr. John Lamb reported on soils research. In 1986, NWES was in the third year of the nitrogen rate x inoculation study funded by the Minnesota Soybean Research and Promotion Council.

In 1986, Dr. Harvey Windels, checked on the progress of lambs born in February to the Station's most productive ewe on record. The ewe of 1/2 Finn and 1/2 Targhee bloodlines has held up well for 11 years producing 44 lambs. She had 6 lambs as a four-year old, quads for a couple years, then a set of five, more quads and five again in 1986.

Under Windels, the Station purchased a trained sheep dog who took the place of almost two men.
New Dairy Facilities

In January, 1986, new dairy facilities were planned. The "new" wing attached to the 1908 dairy barn was also 20 years old. Everyone concerned felt a new start was necessary. A complete new wing was planned for the College's dairy science classes. A double-5 herringbone milking parlor was to be installed, automatic computer cow identification was included, automatic detachers to remove teat cups from the cow, and complete computerization of weight of milk from each cow was part of the system.

The system also had special handling and weighing rooms, state-of-the-art ventilation, and a huge above ground manure tank would store five months of manure production. Cows were fed total mixed rations. Feed was delivered from silos already in operation by self-propelled, self-unloading carts equipped with load cells and electronic scales for metering out specific rations for each cow.

The summer of 1986 brought many personnel changes to the Northwest Experiment Station. Among those who resigned, changed positions or hired were: Elvin Moran, Janet Solheim, Donna Nabben, Janet Sannes and Julie Hamre.

Elvin Moran, farm foreman, retired in August, 1986, after 39 years. Moran had been with the Station from horses to four wheel drive tractors.

October, 1986, Russell Severson, associate scientist, soil science, resigned to accept a position with the Minnesota Extension Service as county extension agent in Polk County. After Dr. Soine retired, Severson became known as the weatherman. He recorded daily weather much used by area media, weather record agencies, and commercial businesses.

"Jerome" Sirek, employed for 35 years, and Herman Gilbertson, employed for 34 years, retired from duties in the beef and sheep department in 1987.

Dale Kopecky was promoted to farm foreman March, 1987, replacing Elvin Moran.

In 1987, Dr. John Lamb started a new study at the Station to evaluate the effect of applying additional N to spring wheat during the growing season. The N was applied as a spray at three different stages of growth to wheat which had been fertilized according to a 0-2' nitrate - N soil test for 60 bushel yield goal.

Wildlife Use of Shelterbelts Studied

A two-year study was completed in 1987 at the Northwest Experiment Station by Dr. Dan Svedarsky to document wildlife use of different types of single-row shelterbelts in the Red River Valley. Wildlife values are often mentioned as a benefit of windbreak plantings but very little data had been available. Windbreak types were evaluated for summer bird use from late May to early July with incidental use by mammals also noted.

Windbreak types studied were: green ash, Siberian elm, hybrid poplar and cottonwood. Lower branches of windbreaks are commonly pruned to allow a more even distribution of snow downwind and the effect of this practice on bird use was also evaluated.

Thirty-one species of birds were regularly observed during the study with 15 species nesting in at least one windbreak type.
Sady Newell, principal accountant, retired June, 1987. Her years of driving each day from Fertile Minnesota would have circled the globe several times. She was involved with the first computerization of Station accounts.

Brad Heppner was hired as her replacement. He attended Mayville State College and graduated with a B.S. degree in business administration and accounting.

The Minnesota Crop Improvement Association in 1985-86, funded a corn stalk rot survey conducted by University of Minnesota plant pathologists, Dr. Carol E. Windels, Northwest Experiment Station, Crookston, and Drs. Thor Kommedahl and Ward C. Stienstra, St. Paul. In early October of 1985 and 1986, they examined 40 randomly selected cornfields in twelve counties in northwest Minnesota for symptoms of stalk rot. Small pieces of stalk tissue also were collected and assayed in the laboratory for Fusarium.

They concluded that corn refuse on the soil surface provides inoculum for both corn and small grain diseases. The presence of Fusarium in corn refuse may be potentially more damaging to small grain than to corn.

Roger Odegaard chaired the fund drive for the Northwest Experiment Station’s new dairy facility. High bids found the original University budget short of completing the basic facility. Area farmers pitched in to help. Odegaard has been a faithful friend of the University since he graduated many years ago from the Northwest School of Agriculture.

**Dairy facility dedicated**

The Dairy Research and Teaching Center was dedicated July 15, 1987, at the Northwest Experiment Station. The new Center was designed to continue the applied research in nutrition, breeding, and management. It would further test and demonstrate high technology in the environmental area, record management, data collection, milking procedures, and labor saving systems.

**1988 Research**

Dr. Harvey Windels researched how large frame calves should be fed to best advantage in 1988. He reported that steers fed a continuous high grain diet gained faster and the carcass grade was higher.

Dr. John Wiersma reported that his tests showed high grain yields and grain protein concentrations of soybeans require large amounts of nitrogen, often much larger than those of other crops commonly grown in northwest Minnesota.
Canola Gains Attention

Marlin Johnson, Area Extension Agent, Crops and Soils, reported that the oil crop canola is gaining attention in the northern regions of Minnesota and North Dakota because of increased opportunity for production contracts in 1988.

Canola was developed from oilseed rape by Canadian agronomists. It is a recent development with the first variety licensed in 1974. Acreage of canola has grown to six million acres annually in Canada.

The varieties 'Global' and 'Wester' have been top yielders in University of Minnesota testing at Roseau, Minnesota.

Dr. John Lamb was involved in 1988 with the National Wind Erosion Project which was started at the Northwest Experiment Station. Because of the Food Security Act of 1985, conservation plans had to be implemented to limit soil erosion to a tolerable level by 1992 for producers to qualify for government programs. A need was identified for a more site specific method to estimate soil loss from wind and water erosion.

The new grain and feed handling facility started in early summer of 1988 was nearing completion. The facility contains a fully automated, computerized grinder-mixer for livestock rations that is fed from eight 1,250-bushel overhead bins. The ground experimental rations can then be transferred to eight holding bins of various sizes located in the building or transferred to other ration bins located around the Station.

Five 10,000-bushel storage bins, with full floor aeration, are available for storing the Station's grain production. Grain from these bins can be transferred or mixed via a leg system to the grinding-mixing area, other bins or delivery vehicles. An 80,000 pound electronic scale used to record grain and forage production rounds out the facility.

The facility was completed in November, 1988.

Dr. Bobby Holder, assistant professor of soils in UMC's Agriculture Division, accepted a joint appointment with the Northwest Experiment Station beginning March, 1988. Holder was the project leader of the water quality research and pesticide (herbicide, fungicide and insecticide) research programs on the Northwest Experiment Station.

Holder is originally from Southern California. He received his B.A. from Evergreen State College in Olympia, Washington; M.S. from Michigan State University with majors in biological sciences and water resources; and Ph.D. in 1982 from Michigan State University in soil fertility and soil chemistry.

James Cameron, started at the Station in 1975 and worked in the agronomy department with Dr. John Weirsma, has spent the last 10 years with Dr. Holder as a senior research plot technician.

In 1988, Dr. C. Eugene Allen was appointed acting vice president for the Institute of Agriculture, Forestry and Home Economics, and acting director of the Minnesota Agricultural Experiment Station.

Dr. C. Eugene Allen
University of Minnesota

Richard Behrens
Research Range

Pictured at the research range dedicated to Professor Emeritus Richard Behrens are University of Minnesota President Nils Hasselmo, Professor Behrens, and Superintendent Larry Smith. Dr. Behrens was selected because of his many accomplishments made to agriculture. The dedication was made in conjunction with Crops and Soils Day.

1988 Station Staff Changes

June—Nathan Derby was hired as junior scientist with the wind erosion project. Derby comes from Norcross, Minnesota, and in May 1988 received his B.S. in soil science from NDSU.

November—Cheryl Engelkes was the first graduate student at Northwest Experiment Station. She worked with Dr. Carol Windels.

Grasshoppers Hit NW Minnesota

In 1989, Carlyle Holen, Minnesota Extension Service, reported that a major grasshopper epidemic was occurring in portions of northwestern Minnesota. Grasshopper populations in a CRP field north of Crookston were estimated at 300 to 400 per square yard on June 15, 1989, and egg hatch was still occurring. Fortunately, the average grasshopper population is much less, but 15 to 30 grasshopper nymphs/square yard is not an uncommon infestation in fields and borders where problems are occurring.

Range Dedication

On July 18, 1989, Dr. Richard Behrens was honored at a range dedication. A research range on the agronomy farm of the Northwest Experiment Station was named in honor of Professor Emeritus Richard Behrens, researcher, teacher and advisor in the Department of Agronomy and Plant Genetics, University of Minnesota. The dedication of this range was one of many testimonies to the outstanding contributions he has made to agriculture in northwest Minnesota as well as the State and Nation.

During his tenure at the University, his research in weed science was devoted to studies on the uptake, translocation, selectivity and mode of action of herbicides. Coupled with this research was the development of research techniques and equipment that permitted detection, quantitation, and control factors more effectively than had been possible previously.

The research range dedication is designed to honor people who have made genuine and long lasting contributions to agriculture and northwestern Minnesota in particular.

In 1989, Sam Bigger joined the staff of the Northwest Experiment Station on a part time basis as assistant director for development.

Bigger was well known in northwest Minnesota having been the West Polk County Extension Director for 23 years. He was involved in the Red River Valley Winter Shows, Greenbush Sheep Days, Beef Cattlemen's Institute, Sugarbeet Growers Institute, as well as many other local, state and national organizations.

Dr. C. Eugene Allen was appointed vice president for the Institute of Agriculture, Forestry and Home Economics, and director of the Minnesota Agricultural Experiment Station in 1990.

In 1990, Dr. John Wiersma reported that recent studies had estimated that nearly three-fourths of the yield gains achieved by Minnesota early spring barley growers during the last 40 years can be attributed to improved varieties. Barley grain yields in northwest Minnesota have increased almost 300 percent since the early 1920's. Little change occurred prior to 1960, but yield increased dramatically during the 1960's, 1970's and 1980's.

Without question, varieties recently released by the barley breeding project of the University of Minnesota, under the direction of Dr. D.C. Rasmusson, had provided the genetic potential for exceptional progress. The Northwest Experiment Station is pleased to have had the opportunity to play an important role in developing and testing these varieties.

Dr. George Marx was elected President of the Red River Valley Winter Shows at their November, 1990, meeting. Marx has been in charge of the Dairy Day committee and show for over 25 years.

Dr. Gary McVey answers questions about commercial vegetable growing in northwest Minnesota.

Plans were made in November, 1990, to begin a commercial vegetable research project. Dr. Gary McVey headed the project.

In April, 1991, Dr. John Lamb, soil scientist at the Station, resigned to accept a position as soil scientist of the Management Systems Evaluation Area with the Northern Cornbelt Sand Plains project at St. Paul.

Dr. George Marx reported in November, 1991, that his tests showed sunflower seeds supply high energy in dairy rations. Most of the energy in sunflower seed is derived from the high fat content and is the reason for the high TDN content which ranges from 95 to 105 percent in the seed.

Dr. John Wiersma reported that 1992 was a very good year for small grain production in Minnesota in general and northwest Minnesota in particular. A recent state summary released by the Minnesota Agricultural Statistics Service reported record-setting yields for barley (75 bu/a) and near record yields for spring wheat (50 bu/a). In northwest Minnesota, producer reports of barley yields greater than 100 bu/a and wheat yields greater than 60 bu/a were common.

December, 1992, Dr. Michael Martin was hired as associate dean of research, College of Agriculture, and assistant director of the Minnesota Agricultural Experiment Station.

Earl Carlson, general maintenance supervisor, retired May 17, 1993, after serving 29 years.
1993 Research Highlights

November, 1993, Dr. Dan Svedarsky, presented a paper entitled “Gravel Pits as Habitat for Wetland Wildlife in North America and Europe” at the International wildlife Congress in San Jose, Costa Rica. The Station’s Natural History Area, approximately 80 acres set aside for wildlife study and student observations in the late 60’s, continues to be an asset for the University programs. Schools throughout the area schedule days at the natural history area to observe the area’s inhabitants.

Dr. Harvey Windels reported on Vomitoxin Trials with bred ewes. The 1993 and 1994 harvest of barley and wheat in northwest Minnesota and eastern North Dakota was troubled with head blight, commonly known as scab. This fungus can produce deoxynivalenol (DON), a mycotoxin commonly called vomitoxin which has been reported to cause reduced feed intake and performance in livestock, particularly swine. Vomitoxin was present at various levels in much of the barley and wheat in the Valley, mostly in the 1-10 ppm range, but some as high as 25-30 ppm.

Personnel Changes in 1995

Dr. C. Eugene Allen is named provost for Professional Studies, and director of the Minnesota Agricultural Experiment Station for the University of Minnesota in 1995.

March, 1995, Dr. Jochum J. Wiersma, small grains specialist, joined the Station staff. Wiersma is from the Netherlands. He completed his Ph.D. in plant breeding at the University of Minnesota. He has experience in wheat breeding and screening crop lines for disease resistance.

June, 1995, Dr. Albert Sims accepted the Station soil scientist position, replacing Dr. John Lamb. Sims received his Ph.D. in soil science at North Carolina State University at Raleigh, North Carolina. He has been hired as an assistant professor in residue management and soil science.

June, 1995, Dr. Harvey Windels retires after 31 years at the Northwest Experiment Station.

RESEARCH IN THE FUTURE

Perhaps a “history” should end with the last happening, but even today is already a part of the past. Looking toward the future we might ask if the soggy soils which Superintendent Hoverstad plodded in when he arrived in 1895 were easier to deal with than planning research today in a time of great national debt and downsizing. Perhaps the genetics, the fertilization, and the culture of our resources in northwestern Minnesota is the easy part. We can surely give credit to those briefly credited in this publication for their contributions of the past, and, encourage the leadership of the future.

— Author