“Man works from dawn to setting sun but woman’s work is never done.” That quotation must surely have applied to the early North Dakota housewife and especially to the farm housewife. An ever-shrinking amount of money along with monotony and boredom were the lot of many rural housewives and Saturday shopping with the “butter and egg money” was their major social outlet. Farmers’ Institutes successfully interjected into that background an opportunity for rural women to attend women’s meetings and later to join women’s clubs. The Better Farming movement continued that work and when Extension arrived in 1914 an eager audience awaited its home economics offerings.

Mildred Vietch and Julia Newton were the first two women employed as lady speakers. Their talks were more inspirational than factual and at that time inspiration was the best medicine to get listeners to use their own imaginations and talents to improve home living.

However, not much Extension Home Economics work was done until the pressure of World War I brought out the great need for growing and preserving more food. Here the slogan “food will win the war” aroused women’s enthusiasm and hurriedly employed emergency Extension Home Economists blanketed the state with “cold pack” canning training meetings and demonstrations on substitute foods for use in meatless and sugarless meals.

Then came the close of WWI and with it a great let-down for Extension Home Economics. Staff members had been so busy with war food programs that nothing else had been planned and many people regarded Extension as only an emergency service program. Emergency funds for home economics work were discontinued and most of the emergency agencies were dropped. The years 1919-1922 were years of adjustment for all of Extension and especially for Extension Home Economics. The first Home Demonstration Leader was May McDonald who served 1915-1918. She was followed by Julia Newton 1918-1920, Louise Campbell 1920 and Myrtle Gleason Cole 1920-1927. The short tenures of Louise Campbell and Julie Newton slowed needed reorganization of the home economics program and it fell to Myrtle Gleason Cole to undertake that task. No home economics specialists had been employed up to that time and most programs had been of a broad or general nature. Inez Hobar was designated as the first foods specialist in 1920 and State Leader Cole expanded her own job to include being the first clothing specialist. Those were the only program specialist assignments until the appointment of Ruth Kennedy in 1923 as home management specialist.

Early Extension Home Economics work was confined mostly to institute type meetings and state staff members traveled throughout the state to present demonstrations at community meetings and institutes. World War I demanded women’s efforts to conserve food and clothing and Extension was assigned responsibility for leading that program. Federal funds were provided and sixteen Emergency Home Demonstration Agents were employed. They were located at county agents offices around the state and became the first county home economists in North Dakota starting from July 1, 1917 through July 1, 1919. Tenure of most of those home economists was only six months to one year but three stayed for about three year and set a foundation for future county home economists. They were Emma De Witt in Barnes, Edith Hoffman in Divide and Elsie Stark in Burleigh.

Staffing of county home economists has until recent years been more difficult than staffing for county agents. Part of the problem was funding and part was a shortage of qualified graduate home economists. Until the late 1950’s county home economists were paid entirely from state and federal funds and those funds were not adequate to expand the home economists’ staff. Presently counties pay a portion of their salary.

Home economists were staffed intermittently during the 1920’s in eight to ten counties and by the mid 1930’s twelve counties had Extension home economists. Two additional counties were added during the 1940’s and that number remained relatively stable until the 1960’s when eighteen county home economists and four area home economists were employed. Then by the end of 1985 twenty-seven counties had home economists and they, along with six area home economists, provided updated home economics and family living information for all North Dakota counties. They in turn were kept updated, trained and reinforced by specialists in foods and nutrition, clothing, home furnishings and equipment, home management and family living.

During the 71 years, 1914-1985, ten different women and one man have headed up Extension’s home economics programs in North Dakota. Tenure for 6 of them was four years or less and not much change was made during their tenures.

Two Extension home demonstration leaders have been largely responsible for the organization and direction of Extension’s home economics programs in North Dakota. Myrtle Gleason Cole, 1920-1927, has already been mentioned. Her seven year tenure during the difficult 1920’s set the pattern for
organization and servicing of Homemakers' clubs. When she left in 1927 there were 186 Homemakers' clubs and 4,566 Homemakers' club members being serviced by Extension.

Grace DeLong was one of Mrs. Cole's able assistants and she was appointed to succeed Mrs. Cole as Home Demonstration Leader. Miss DeLong promoted organization of County Homemakers' Councils and organization of the North Dakota State Homemakers' Council. Those Councils have been continuously active and have served in an advisory manner for planning home economics programs and projects. When Miss DeLong retired in 1960 Extension was working through 1,585 Homemakers' clubs and 21,269 Homemakers' club members.

WE'LL WORK AND LEARN TOGETHER YES, WE'LL ORGANIZE A CLUB. "HOMEMAKERS" WE'LL CALL IT AND THAT WILL BE OUR HUB.

Extension home demonstration work did not initially include any aspect of community organization but some women attending Extension meetings started to band together and request meetings on topics of their interests. Some groups organized with officers and adopted regular meeting dates and names for their organization. Such groups were forerunners for Extension Homemaker's Clubs and Extension was quick to recognize their value and make special efforts for organization of more such groups. During 1922 a total of forty-eight groups were organized by Extension and they were called Homemaker's Club. Some of the earlier self organized groups reorganized and joined the Homemaker's Club ranks making a total of sixty-five clubs and total membership of about 1,000.

Extension realized those clubs would need worthwhile lessons, projects and activities to hold them together and Assistant State Home Demonstration Leader, Agnes Boling, was given responsibility for making discussion materials available. She drew heavily upon other states and libraries and kept specialists busy preparing mimeographed discussion materials. Special requests for specific topic materials were met and soon a thick file of different lessons was available. Miscellaneous topics presently provided to Homemaker's Clubs are an outgrowth of those early lessons.

Two popular clothing projects for several years were making of hats and making of dress forms. Clothing repair and mending were also popular and many women became so expert that their repairs were almost invisible.
Ruth Kennedy stressed kitchen modernization, better buying and record keeping. Her lessons included purchasing of fixtures and appliances and proper maintenance of them.

Home demonstration work was reinforced again in 1922 when all work of county agents, home demonstration agents and 4-H club agents was reorganized and integrated towards a whole family approach. All titles were changed to County Extension Agents and each county program was required to include work with women and with boys and girls. If a county had more than one agent one had to be a woman and she would be responsible for the home economics part of the county program.

In the early days there were few enough clubs so that specialists could attend local meetings; in fact, specialists' schedules were made on the basis of one day for each club. Demonstrations given were very largely on the basis of the specialist's own choosing, although County Extension Agents soon began to receive requests from the clubs for certain kinds of subject matter. The specialists met these requests to the best of their ability. The program was not without its fads. Dress forms, made on the figure from adhesive paper tape, took the counties by storm and clothing specialists spent months doing little else. Cheese making was another popular demonstration. Canning of vegetables waned in interest as a public demonstration, but canning of chicken had quite a round of interest for a time. And there was hat making.

Local leader training began in 1923 in response to requests from clubs for help in making the miscellaneous programs more interesting. At first specialists spent one day with each club, half the day being spent in conference with leaders who expected to present miscellaneous programs later and the other half-day in an open meeting for all club members. As the number of clubs grew, this had to be abandoned for county-wide leaders' conferences. Two or three specialists traveled together to the counties requesting
On the road again. Home Economics Specialists travelled by train until the 1930's and were out for a month or more at a time. Was it a dog's life?

that sort of assistance. County Extension Agents notified all leaders of all miscellaneous programs in all clubs, and they gathered on the appointed day at a county center. A short time was devoted to explaining the purpose of the conference, and then the assembly was divided into sections - clothing, foods and home management - with the specialists taking charge of their respective groups. Each specialist went through the various miscellaneous programs, as chosen by the clubs represented, showing illustrative materials leaders might make or send for, and discussing approach, presentation, summary and results to be desired.

Rapid increase in the number of clubs and a larger vision of educational possibilities soon led to another type of programs. The first of those was offered in foods. From that it was an easy step to the major project with a separate training meeting for each discussion in the series. That type of major project has been in use since 1924. The number of discussions per project has varied from three to six, depending upon the size of travel budgets and upon the number of staff members as compared to the number of counties to be served.

Poor crops and low prices of the mid 20's meant lean county and state budgets and Extension's budgets from those funds were leanest of all. Extension County Home Agents were the first to go and by 1926 only one county, Barnes, had a Home Agent. Records for 1927 indicate there were no Home Agents and County Agents were fully responsible for organization and general servicing of Homemaker's Clubs. Many new clubs were organized during that period and by the end of 1927 there were 204 clubs and a membership total of 4,314. Improved economic conditions in the late 20's saw five county home agents back on the staff and by 1931 there were 470 clubs and 7,786 Homemaker's Club members. During that year more than 2,500 local women acted as project leaders and carried subject matter lessons from training meetings back to their clubs. About 1,900 club officers also received training in leadership and planning.

Neither drought and grasshoppers nor price disasters of the 1930's could slow down the growth and activities of North Dakota Homemaker's Clubs. The years 1932 through 1937 saw club numbers jump to 748 and membership to 11,936. During those disastrous farming years Homemaker's Clubs showed their true spirit and worth by their work with disaster programs. About 45% of all North Dakota farm people were receiving some form of federal assistance and Homemaker's Clubs programs on foods and nutrition and home management were both popular and helpful. They assisted the Red Cross, the National Youth Administration, the Workers Progress Administration and local welfare boards in getting assistance where it was most needed. During that period county reports made some strong comments for that assistance. Homemaker's clubs spent a great deal of their time in relief work. They constituted an organized group in the communities whose relief efforts were neighborly acts with a friendliness not found in federal and county relief.

Frances M. Ross, home agent in Williams County, tells of relief work of Homemaker's in that county.

"A great deal of relief work was done by the Homemakers' clubs in Williams County during the winter of 1931-1932, despite the fact that the clubs were situated in the heart of the drought area. At the county council meeting in August, each club was urged to appoint a relief committee whose duty it was to see the needy in each community and to assist as much as possible in relieving their needs. About fifty women acted on committees of this nature, a large number of them acting as chairmen of the Red Cross when that was set up about six weeks later. The representative of the clothing relief work for Red Cross saw the agent and received the list of names of those acting and suggestions of others that might be appointed to other townships. The 4-H leaders served in many instances also."

E.M. Gregory, County Agent in Burke County, said, "No organizations have been more faithful and willing to cooperate during the period of distress than the Burke County Homemakers' clubs. All twelve clubs carried the nutrition major project and the members did their work in a very commendable manner.

"In addition to cooperating in all Extension projects, the Homemakers have worked faithfully with the Red Cross organization and have assisted materially by making clothing and furnishing assistance to needy of the county. At the present time Burke County Homemakers are making clothes for needy children in order that these children may have sufficient clothing to attend school."
"The most pleasant part of our Homemakers' work is the realization of the fact that instead of our Homemakers' organizations weakening during this period of depression, they have become strongly organized and are without question the most substantial organization within the county."

The Editor of the Bismarck Tribune paid tribute to the Homemakers' clubs when he said in an editorial of greater importance to the state than mere members can signify is the report of the growth of the Homemakers' clubs in North Dakota. As is suggested by their titles, the clubs formed almost entirely of women of rural communities, have as their chief aim, homemaking. Their job is the most noble as well as the most fundamental of any, upon their success depends to a great extent the solidarity of the Nation.

Mrs. Geo. Schlabuch of the Driscoll Homemakers' club, expressed something of the feeling of the rural women for their homemakers' clubs in the last stanza of a poem she wrote in reporting the work of her club. She said: "We can do without money and rainfall, without parties and nice things to wear, but our Homemakers' clubs we'll keep going, Tho' the shelves in our cupboards are bare."

In Mary Laycock's annual report of 1932 - Miss Laycock was home agent in Barnes County - "The finest kind of cooperation in helping to carry out a real Extension program has been given by most of the agencies in Barnes County outside of the taxpayers' association.

"This year the agent has spent considerable time in developing the use of home grown products and the raising of gardens and this work is continuing into the coming year.

"We are doing all of our recreation work, which is going across big and our reading project for which the Valley City library is opening its bookshelves to the people of the county free of charge. The women are also organizing themselves in their clubs to exchange magazines.

"The whole program is one in which we wish to bring the women closer together. Many of the Homemakers' clubs have already made plans to try in some way to help the less fortunate in their communities."

Grace DeLong was often asked which was the first Homemakers' Club to be organized in North Dakota and in her "Brief History of Home Demonstration Work in North Dakota 1914-1950" she states, "The question has been asked many times, which was the first Homemakers' club to be organized? Has proven to be a hard question to answer. It depends upon a number of factors. Perhaps it would be a good question for a state council committee to look into and decide. But this seems to be a good time to state the facts as far as the state office and several interested Homemakers have been able to get them.

"The club which has had the longest contact with Extension is the Get-Together Club of Adams County. This club was organized in 1918. Extension specialists in the early days, never visited Adams County without meeting with the Get-Together Club which was interested in food preservation, clothing construction, millinery, dress forms, gardening and all the other projects offered in the early days. They changed their name and became a Homemakers' Club in 1922.

"Another very early club was Missouri Ridge in Williams County which was organized first on August 4, 1920. It was first called the Missouri Ridge Friendly Circle. Williams County employed its first Home Demonstration Agent in 1919, and the Missouri Ridge club was organized to make better use of her services. On November 3, 1921 the name was changed to the Missouri Ridge Homemakers' Club.

"In a story in the Farmers Press of Williston, "Madinol" says, "Way back in July 1920 a group of farm women in Missouri Ridge township decided to organize a Home Demonstration Club. They made their plans at a farmers club meeting, and held their first meeting (organization) on August 4, 1920. This was Miss Eulalie Church's first meeting as home demonstrator, and the club's first meeting as well. This club was the first Homemaker's club to be organized in Williams County, and perhaps in the entire state."

In another report from a Missouri Ridge club secretary we read, "The Missouri Ridge Homemakers' Club met and was organized under Miss Marie Lewis, Home Demonstration Agent, on November 3, 1921. Our club first took up Home Demonstration work in 1922."

Two clubs in Golden Valley County can rightfully claim to be among the earliest clubs to be organized with the name of "Homemakers." According to a report of Mr. J.C. Russell, who was County Extension Agent at that time, "The week beginning August 29, 1921, Miss Agnes Boening and Mrs. Myrtle Gleason Cole returned to the county for the purpose of organizing Homemakers' clubs. This was the first county they chose to organize because the women of this county were the first to get together in groups for Extension work. Meetings that week were held at Thelen on August 31st and at Golva on September 1st. The Thelen Homemakers' Club was organized, but the ladies of Golva postponed their organization."

We do not have a record of the exact date the Golva Homemakers' club began, but it was sometime later than Thelen.

As important perhaps, as who was 'first', is the fact that all these fine clubs have so many years of
honored service to the homes of their respective communities, and that while they are justly proud of past accomplishments, the eyes of their members are ever looking toward the future, as they plan for greater activities.

Another club which should not be overlooked is the Fillmore Mothers' Club of Divide County. That club was organized in the homestead days. It has always worked closely with the Extension Service, but it was not until 1923 that it began to use the Homemakers' Club program service. It is still active and it also has a long and honorable history as a study, service and social club.

Of the 48 Homemakers' Clubs organized in 1922, six are still active in 1985. They are:

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County Homemakers' Council

In every county there is a county council of Homemakers' Clubs. This council consists of the presidents of all the Homemakers' Clubs in the county. The council has two regular meetings per year, fall and spring. Special meetings may be called if necessary. The council discusses such matters as plans for Achievement Day, promotion of clubs in new communities, choice of Major Projects, how to make Major Projects most effective, and general ways and means of uniting the efforts of the clubs within the county in order that there may be an effective county-wide program, and that the program may reach the greatest possible number of homes in the county. Councils were organized in the various counties between 1928 and 1932.

The North Dakota Homemakers' Council

On February 12, 1942 delegates from 26 counties met at the North Dakota Agricultural College and organized a state council. By 1945, 49 counties were affiliated with the state council. At present all counties are affiliated.

The North Dakota Homemakers' Council consists of one voting delegate from each county council. Delegates are selected by the various county councils. Three-fourths of all state dues are prorated back to the counties to equalize the expenses of delegates to the annual state meeting.

The purposes of the state council as stated in the constitution are as follows:

(a) To unite and strengthen the interests and activities of the Homemakers' Clubs of the state through closer association of their county councils.

(b) To act as an advisory body to the Cooperative Extension Service in matters which concern the general welfare of Homemakers' Club work.

(c) To establish and maintain active cooperation with other educational and service organizations and agencies within the state.

The most valuable work done by the state council is planning Major Projects. Delegates come from the counties instructed by the clubs as to what the Homemakers' Club members would like to have included in the Major Projects in the future.

Homemakers' club members peaked in 1955 with 1,633 clubs and 23,040 members and about 60% of them were in rural areas. North Dakota farm numbers continued to drop by about 1,000 farms per year and by 1985 were down to less than 38,000. Homemakers' clubs suffered from that great decline and by 1985 their numbers were down to 1,008 clubs and 12,770 members with about 54% from rural areas. At that time annual net losses were nearly zero and could possibly be reversed.

Home Demonstration is Broader Than Homemakers' Clubs

Because so much emphasis is placed upon Homemakers' clubs, many people in North Dakota are inclined to forget that there is much more to the Home Demonstration program.

The Extension Service has always felt that it owes its services to every home in the state whether the homemaker belongs to a Homemakers' Club or not. Some of the services available are through radio, newspaper stories, bulletins, open meetings, home and office calls by and to Home Extension Agents, women's camps, public demonstrations, exhibits, and the answering of letters to the county workers or to the North Dakota Agricultural College. This can be a large or small part of a Home Extension Agent's work, depending upon the public demand in any particular county.
HOME ECONOMICS WORK HAS PASSED THE TEST IN NORTH AND SOUTH AND EAST AND WEST

Extension home economics work was divided into four general subject matter areas with one or more specialists working in each of the areas of foods, clothing, home furnishings and family life. Ever changing social customs and scientific knowledge have resulted in dynamic home economics programs and greatly increased demand for them.

Following are brief summaries of North Dakota home economics subject matter work assembled by former Traill County Extension Home economist Anne Green. They well illustrate how home economics programs were changed to meet new conditions.

WE ARE WHAT WE EAT CONCEPTS WE REPEAT

Emphasis on the Wellness programs of the 1980’s is an expanded image of the programs noted in a 1915 report which states that a nurse was employed part time for the purpose of giving talks on sanitation, health, and care of the infant.

From Basic 7 to Basic 4, from cookstove to microwave, from hot water bath canning to freezing and drying, Extension’s foods and nutrition objectives have remained basically the same though subject matter and methods have changed with advanced knowledge and technology.

As War Food Assistants taught food preservation methods during World War I, they told families what they should eat in order to have maximum health. World War II homemakers reiterated these lessons. Though nutrition education has never been a popular topic with audiences, Extension specialists and home economists have consistently included it as a program emphasis and often have “smuggled” it into the more popular food preparation programs.

Grandma measured with a coffee cup, the blue trim on a particular bowl, or the feel of the dough. Recipes were passed from friends and relatives and homemakers discussed “luck” in food preparation. Extension foods programs carried homemakers through the introduction of measuring devices, new materials for and pieces of cookware, new equipment and new foods as commercial canning and freezing and new marketing concepts opened a wider variety to North Dakota consumers. Even table setting and etiquette were topics Homemakers Club and 4-H Club members requested. Programs have always included time, money and energy saving concepts.

As early as 1914 Extension was concerned about the lunches of school children when they published a bulletin called "The Rural Hot Lunch". In 1938 a State School Lunch Committee was formed of which the State Extension Nutritionist was a charter member. Her greatest contribution, she felt was to create an awareness of the need for hot lunches in schools. She wrote a program for Extension Homemakers Clubs and a 4-H Club project explaining the need and the organization necessary to establish a school lunch program. Homemakers and 4-H Club leaders immediately started to organize to establish lunch programs in their local schools. Some served as cooks, some organized mothers to share food preparation responsibilities. They helped create community awareness and filled the gap in actually supplying the lunches until the state school lunch program was established.

Specialists and county home economists at various times and in various places in the state have assisted in the promotion of North Dakota’s agricultural products: beef, lamb, pork, and poultry, hard red spring and durum wheat, barley, oats, edible beans, and sunflowers, and the variety of foods prepared from each.

YOUR GARDEN ALL YEAR WILL SERVE IF IT’S PRODUCTS YOU PRESERVE

Stored ice, cellars or “down the well” were highly inefficient and risky ways to control food spoilage so it is not surprising that one of the early bulletins published about 1919 by the North Dakota Extension Service was “Preservation of Food in the Home”. Food preservation programs have reoccurred repeatedly since that time.

World War I needs for growing and preserving food led to the employment of War Food Assistants. Following the war the lack of funding for home economists cut the food preservation program, though it was never completely abandoned.

In 1937-38 Food and Nutrition specialists brought into the state a commercial demonstrator who presented 168 demonstrations attended by 6143 homemakers. The program was continued the next year with an attendance of 3895. In 1939-40 Homemakers were still reporting the number of quarts canned. By 1942 we were back to Victory Gardens to help win World War II and another emphasis in food preservation. In 1944 when some of the pressure cookers in North Dakota could have been about 20 years old, the agricultural engineers instituted a method of testing pressure cooker gauges and provided counties with the equipment necessary to have pressure cooker gauge testing clinics. 1965 gauges were tested that year.
home economists on the subject of Frozen Food. By vegetable harvest time counties were being introduced to freezing techniques.

In 1955-56 food preservation methods were emphasized during a special TV shortcourse.

Foods specialists continued updating county Home Economists as preservation methods changed and knowledge accrued, and these methods were taught to county residents.

The latest emphasis was called a “Master Food Freezer Program”. In 1984 forty-nine volunteer leaders from 17 counties were given 30 hours of training in the latest food preservation principles and techniques. In return each of these leaders promised to teach these same concepts to residents of her county.

The food safety program has evolved from the problems concerned with food spoilage to the problems of food additives, pesticide residues, and radiation.

Gone the pressure cooker and the hot water bath, if a homemaker chose, after World War II home freezers appeared on the market. In 1945-46 Extension specialists arranged a 5 day workshop for Extenson
PHYSICAL HOME IMPROVEMENT MAKES A FAMILY MORE CONTENT

In 1966 as this history is being written, very little difference exists between the farm home in North Dakota and the home in the city. Though it is obvious that a multitude of factors have contributed to this change, Extension Service programs certainly provided the educational base that helped many families achieve this metamorphosis.

A 1915 Extension program of work promised to help North Dakota farm families learn about "installation of modern sanitary devices in the home," and "equipment in the home to relieve labor"; and again in 1919 an Extension home economist's goals were "making housework easier" and "raising health standards". These goals were undoubtedly met through open meetings and home visits because the Homemakers Club program was not developed until 1922.

Extension's work in helping electrify farm homes and introduce modern plumbing are noted in other sections of this publication. However, educational work continued throughout the years with programs teaching plans for bathroom arrangement and selection, use and care of electrical equipment. In 1963 a Lighting Workshop taught in cooperation with the Power Use Council retrained Extension home economists in new developments in lighting and lighting requirements for various "jobs" in the home. Each county received a comprehensive manual filled with reference material to aid in answering individual requests for information about home lighting and to use as a basis for presenting information at workshops or other public presentations.

Emphasis for Extension Home Furnishings and Improvement programs have included information on criterion for selection of window treatments, floor coverings, wall finishes, wooden furniture, upholstered furniture and household equipment and appliances. As families were taught to select they were taught how to care for the things they acquired. Frequently, construction of household items were taught through demonstrations or workshops.

The demand for furniture refinishing and upholstery information has recurred and has been met in several ways. The most intensive program began in 1953-54 when refinishing furniture was the topic of a Homemakers' Club major project. The amount learned seemed just to whet appetites because three years later specialists were still getting requests for refinishing workshops. In 1967 shortly after Esther Schoewe retired as an Extension Home Economist she was employed to write a bulletin on refinishing and to teach refinishing workshops throughout the state. In counties with Extension Home Economists, upon request Mrs. Schoewe would teach one workshop with the expectation that additional workshops would be taught by the Extension Home Economists in that county. However, it was the purpose of the program to teach the workshops in the counties without Extension Home Economists.

In 1962 Extension Home Economists were given training in upholstery and many taught workshops in their respective counties during the next few years. In 1964 Geneva Johnson, retired Cass County Home Economist, was employed to teach workshops in counties without home economists. As one home economist reported "in both refinishing and upholstery some participants in the workshops made repeated use of the skills acquired and a few simply gained an appreciation for the value of having the work done commercially."

Frequently, a woman trained in these workshops became the 4-H leader who inspired a 4-H member to enroll in the furniture refinishing project.

FROWN NOT ON WORK IN CRAFT AND ART FOR OF ALL PEOPLES IT IS PART

Julie Brekke was Clothing Specialist for the North Dakota Extension Service but she had an interest in music and so it was she who added this dimension to the Homemakers Club program. She wrote several popular miscellaneous topics about music the most popular of which was called "Hymns You Like to Sing". County Homemakers' Choruses were a feature of Homemakers' Achievement Day programs during the 40's and 50's. 4-He's still sing with gusto at camps, local club meetings, county and state events. Country 4-H variety programs were popular as a means of stimulating music and drama experiences for members and became popular money raising events.

In 1963 a North Dakota 4-H member competed in the 4-H music awards program, and won the opportunity to play an oboe solo with the Chicago Symphony Orchestra.

The need to create and to provide beauty for homes has been evidenced in the craft programs in both Homemakers and 4-H Club work. Though crafts have suffered from lack of support from all levels of Extension administration, in one way or another they have persevered. Homemakers' Clubs have learned knitting, crocheting, metal etching, glass etching and embroidery. They have arranged flowers, dry weeds, and memorabilia boxes. They have woven baskets and enameled metal objects. Occasionally these programs were taught by Extension home economists or State Specialists but more often they were taught by volunteer leaders.
What the 4-H Club Handicraft project lacked in art principles was made up for in numbers. Judging the handicraft exhibits at county Achievement Days became a matter of concern because standards were vague and quality varied from very poor to excellent.

During the 1960's an attempt was made to improve the quality of the 4-H Handicraft projects by writing a variety of craft projects thus eliminating many of the crafts of questionable value. Each of these projects established standards for judging quality. Representative of this effort was a series of art projects on sketching, drawing, and painting written by Mary Ann Myhra, Ward County Extension Home Economist completed in 1974. Many other Extension employees with special interests in particular contributed to the present list of 4-H Handicraft projects.

EVERYONE IS INCLUDED IN FAMILY LIFE
HUSBAND, CHILDREN, CLOSE RELATIVES AND WIFE

In his 1920 program of work Director Gordon W. Randlett stated as one of Extension’s missions: “to further the movement for better agriculture by assisting the women or the rural communities to improve their home conditions and to raise the standard of living so as to compete successfully with living conditions in the city and thus make more happiness and contentment for farm families, particularly among young men and women who otherwise tend to drift away to the cities.”

It was probably as a result of this mission that Grace DeLong started recreational workshops in North Dakota. However, despite this early indication of concern for “people problems”, the over-riding need to improve home conditions was the portion of the mission that Extension staff chose to emphasize.

Programs in family relationships and child development were integrated with the programs of other disciplines or taught to Extension Homemakers’ Club through miscellaneous topics. Not until the 1960’s was much emphasis placed on family life subject matter. During the 60’s several counties and home agents and state staff, particularly those in 4-H, were encouraged to attend the federally planned Human Relations and Development Workshops. In 1966 Home Extension Agents attended a one week Family Life Workshop which involved not only subject matter but also a review of audio-visual materials to help in presenting family life subject matter in their counties. A family life newsletter was inaugurated by the home economics program leader and sent to all counties to provide additional current information.

From the late 1950’s each biennial budget carried the request for funds to employ a family life specialist. Finally in 1970 that request was granted. Since that time Extension Homemakers Clubs have had the option of a family life program each year and Extension Home Economists have been able to organize family life programs in their counties or areas. Programs have involved building personal and family members’ self confidence, coping with problems and dealing with stress, and opening lines of communication between family members of various ages. Strong cooperation between Extension family life programs and those of other agencies have been developed.

NO CROPS! NO MONEY! NOT MUCH WE COULD AFFORD! COMMUNITY RECREATION KEPT US FROM BEING BORED

Being flat broke and having much idle time can be quite depressing. That was the situations for thousands of North Dakota families during the drought and depression years of the 1930’s. Extension agents listened to hundreds of complaints from people who needed something to relieve their frustration and depression and from that developed an Extension self entertainment recreation program.

State Home Demonstration Leader Grace DeLong headed a committee for planning and organizing recreation training. She coordinated five recreation workshops at centers around the state where instructors taught games, stunts, square dancing and other group types of recreations. A.G. Arvold, head of the NDAC Speech and Drama Department, gave much assistance with recreation ideas and securing of instructors.

Each county was assigned a quota of delegates to the workshops and of the total attendance 165 represented Homemakers’ clubs. As a result, county home agents and Homemakers’ clubs were predominate in conducting community recreation. Their effectiveness is best judged from comments written by those who participated. Dozens of letters and reports of recreation activities were received by Miss DeLong and two samples are listed as follows:

"Last year we held seven meetings in which we used our recreation work and put on a play for provide records and a portable Victor. We plan on more recreational work this winter."
It was in the 30's and life was bare. A helpful tonic was learning to square.

"Playing together has sort of made us over. You can't take a hold of your neighbor's hand and hate him - the result has been the obliterating of prejudices and dislikes among us.

"It has made possible parties where the whole families are included and enter equally in the fun. This is bound to bring about a better understanding between parents and children and the community as a whole.

"The teachers and parents have gotten acquainted more quickly.

"A part of our time is spent in music appreciation and singing.

We have not only gotten a lot of fun from our recreational work, but a satisfied community does everything else better."

-Mrs. Milt Wilson
A Homemaker of Barnes County

"The rural recreation work is one of the biggest things that has ever come to our community. We have a rural township consolidated school as our community center. Until the organization of our Homemakers' club, we had nothing in common. Our biggest problem was to afford some type of entertainment at home. We had two delegates at the first Recreational School held for one day by Miss Ella Gardner. We followed this by a party for our own members and husbands. We had such a good time that we invited a neighboring club and their husbands. We had some of the older 4-H girls help us."

-Mrs. E.A. Stoffel of Orr, who was sent to the Park River Recreational School as a delegate of the Orr Homemakers' club, was in charge of special community recreation programs sponsored by the club. During the winter season such programs were held in the town hall every two weeks beginning at 7:30 and closing promptly at 10:00 p.m. Everyone in the community was welcome. Games were played, there was plenty of community singing and stories were interpreted by actions of the teller."

-Wm. R. Page
Grand Forks County

'TIS A DELIGHT TO SEW A SEAM ON A SMOOTH RUNNING SEWING MACHINE

Clothing has been a major project since the beginning of Extension's home economics programs. Most rural families included several children and making shirts, dresses and general mending were in steady demand. Clothing construction and mending were common Homemakers' projects and often the first home convenience acquired was a sewing machine. Many of those machines were hand-me-downs from grandmother's time and after many years of service were not operating well.

Clothing specialists and county home agents received many requests for help with those machines and that led to a popular special project named "Sewing Machine Maintenance and Adjustment." Extension Agricultural Engineer, S.L. Vogel, cooperated with the home economics staff in planning and conducting the project training meetings and breathed new life into thousands of machines that had nearly been relegated to the junk pile.

When project leaders brought their machines to the training meetings most machines were badly gunked up, filled with lint and much out of adjustment. Leaders were first taught how to remove parts for cleaning and all machines were thoroughly cleaned, reassembled and oiled. Cleaning and oiling were stressed as the basic maintenance factors for proper machine operation.

Many different makes of machines were encountered but most fit under the general rules for adjustments. Upper and lower tension and thread take-up spring adjustments were demonstrated and each leader adjusted her machine accordingly. Each machine was checked and given a sewing workout and was taken back home in good working condition.

Project leaders were reinforced with circulars on sewing machine care and adjustment and went back to their respective clubs to teach the lesson. That project was especially popular during the late 1940's and 1950's and has been repeated whenever there was sufficient demand. Besides making sewing more pleasant it also has saved many dollars in maintenance costs to those who have participated.
How often should a machine be cleaned? This depends to some extent on how well the machine is cared for while in use. If the machine is dusted frequently and oiled regularly, it will keep clean and stay in good condition almost indefinitely. Use only a good grade of sewing machine oil. A poor grade of oil deposits a gummy substance which hardens in the bearings, causing the machine to run hard. If the machine runs hard after standing, it is probably gummed and needs a thorough cleaning.

Have an oil can available filled with kerosene and some additional kerosene for further treatment of parts, a clean gauze dust cloth, a pie tin and a small paint brush, a stiletto or darning needle, and screw drivers.

CLEANING THE MACHINE

1. Remove thread, needle, bobbin case, presser foot, throat plate or plate covering foot feed and side or face plate on head of machine. Be careful to place screws which are removed with the parts to which they belong so that there is no difficulty encountered in reassembling the machine.
EMERGENCY! WHO CAN HELP? EMERGENCY! CAN YOU HELP OR WILL YOU FLEE?

Training for emergency situations has always been a worthwhile project but it is often overlooked in the whirl of everyday living. Extension has been much aware of the need for emergency action training especially in rural North Dakota and has maintained programs through Homemakers' clubs and 4-H clubs. Artificial respiration and the Dr. Heimlich treatment have been taught to thousands of adults and 4-H members at meetings and camps. Circulars and news stories have been released at timely intervals to maintain public awareness. One circular "Stalled But Safe," by Jane Williamson Winge, dealing with preparations for winter traveling has had more than 90,000 copies requested.

During the early 1960's National Civil Defense was being emphasized and Maurice W. Erwin, Ward County Agent, was appointed as Extension Rural Civil Defense Specialist. His work was coordinated with state and county Civil Defense directors and promoted through Homemakers' and 4-H clubs. County agents and home agents included brief emergency preparedness materials at many of their meetings and urged participation in public Civil Defense meetings.

Adult "evenings schools" were planned with eleven lessons dealing with emergency treatments and care. A total of 108 such schools were conducted with 2,121 adults completing the whole course.

Mr. Erwin urged that governmental agencies train their staffs for emergency self help and while that was not done formally staff members were urged to participate in the "evenings schools." One result of Mr. Erwin's urging was the teaching of over 400 employees of REA Cooperatives the entire evening school course.

Lessons for the evening school were as follows:

Lesson No. 1 - Radioactive Fallout and Shelter
Lesson No. 2 - Healthful Living in Emergencies
Lesson No. 3 - Artificial Respiration
Lesson No. 4 - Bleeding and Bandaging
Lesson No. 5 - Fractures and Splinting
Lesson No. 6 - Transportation of the Injured
Lesson No. 7 - Burns
Lesson No. 8 - Shock
Lesson No. 9 - Nursing Care of the Sick and Injured
Lesson No. 10 - Infant and Child Care
Lesson No. 11 - Emergency Childbirth

Mr. Erwin retired in 1964 and his position was left unfilled. That, however, did not end Extension's promotion and training for emergency situations and such programs are on-going in all areas of Extension work.

"OH IT'S NICE TO GET UP IN THE MORNING BUT IT IS NICER TO LIE IN BED

Those words from an old Irish tune may have been quite appropriate for the approximately 20,000 North Dakota families who participated in making mattresses and comforters during 1940-41. The United States was faced with a burdening supply of cotton and at the same time hundreds of thousands of families were sleeping on inadequate mattresses. A national program was designed to help correct both situations and North Dakota county agents soon became mattress makers. It was a self help program wherein the government furnished the materials and the recipients had to make their own mattresses or comforters.

Mattress making centers were set up in each county. Extension Agricultural Engineers helped to design and set up equipment for measuring and sewing the ticking and for stuffing and blowing cotton into the ticking. Flailing poles were used for pounding the cotton into uniform distribution and mattress needles were used for rolling edges and for tufting. A good crew could complete a mattress in about 50 minutes and most centers could accommodate several crews at the same time. People helped each other and along with coffee, cake and cookies activities at many centers resembled on old time community "Bee."

This writer was Slope County Agent at that time and when our load of cotton arrived at Bowman, 25 miles from our center, we began to appreciate the term "cotton pickin'" Some of the bales were wet on the outside and all of them looked dirty. They weighed 500 to 600 pounds and our spirit was somewhat dampened. We thought we had been "snookered" but we just didn't know cotton for when that cotton was fluffed and blown into the ticking it was as fresh and white as a Monday's washing.

The mattress program was designed for low income families and coming out of the 1930's most rural and many small town families qualified but early sign-up was slow. However, when people saw and heard rumors of the finished products the local "mattress factories" were soon swamped with applications. Local costs for that program were met by a charge of about $1.00 per mattress and 25c per comforter.

Extension Home Management Specialist, Florence P. Day, supervised that program in North Dakota and two Arkansas women helped to orient and train the Extension staff. Goals for the mattress program
were largely fulfilled and during that program North Dakota made use of 1,364,086 pounds of cotton, 264,210 yards of cotton ticking and 200,870 yards of percale comforter covering to make approximately 28,000 mattresses and 16,000 comforters for 20,000 families.

Estimates for the number of mattresses needed were much too small and if materials had been available about 50% more mattresses would have been made. Some comments from those working with the mattress program are interesting.

"I did not realize so many people were using straw ticks in place of a mattress. I thought straw ticks were things of the past until I started supervising the mattress making."

"You'd be surprised how many parents said that this mattress was going on their bed. Many said that now they could make sofa pillows or a bon-fire out of the old feather ticks. I was surprised to learn how many feather ticks were still in use. During and since the project, I never heard a word of complaint on the mattresses after they had been tried. Everyone appreciated the opportunity of getting one or more mattresses. The only complaints I heard were from those who were too negligent to fill out an application last spring and so were not getting any."

"I feel that this project was worthwhile. It really helped many families and I like to think of the many children who will be 'snug' in their beds this winter - some whose parents were really poor but were too proud to ask for relief and couldn't buy new mattresses. This project was a grand opportunity for folks to get acquainted. They had a fine time visiting and working together. I really feel that the reaction of everyone to this program has been very favorable."

"I think the mattress project was just one grand picnic. I got to know my neighbors better, also people I'd never met before. I am really glad that I too had a chance to learn how to make a mattress, as I can use this knowledge in renovating my old ones."

We thought we had been snookered when we saw those bales of cotton.

But that cotton fluffed out clean and light.

THE OBJECTIVES OF HOMEMAKERS' CLUBS
WRITTEN IN 1950

All through the years, Homemakers' Clubs have had three main objectives:

I. To teach skill in homemaking. Under this heading comes all the general subject matter such as meal planning, canning, garment making, textile selection, refinishing furniture, planning family budgets, etc.

II. Personal development. Many women welcome the Homemakers' Club as a means of continuing an education, which has been interrupted by work, marriage, etc. For this reason projects and programs of general interest such as music appreciation and reading are included.

III. Leadership. Women who accept responsibility as officers or project leaders find that they soon develop greater ease in expressing themselves, in presiding at meetings, in planning and carrying out projects. Such leadership is felt in every other organization in the community to which such a woman belongs.

It would be hard to say which of these objectives is most important - the first two which help a woman to be a better homemaker and a more interesting person, or the third which makes her a greater force in her community.

At any rate, the enthusiastic endorsement given to Home Demonstration work by thousands of North Dakota women each year, and the fact that the Homemakers' Clubs are now the largest women's organization in the state, indicate that there must be something very satisfying about them. The national enrollment is about three million.
Homemakers' Clubs made a wonderful record for themselves in World War II. First, through their meetings they kept their members well informed in all the wartime programs, such as rationing, bond sales, and salvage drives. Second, they raised and gave money and time to all the wartime activities, including the Red Cross. Third, they helped to keep up the spirits of their members, during the dark and anxious days of the war when loved ones were far away and in great danger.

A notable fact in Homemakers' Club work is that regardless of ups and downs in personnel and budgets, the number of women enrolled has steadily grown. This progress can be attributed to many factors, but most of all to the soundness of the program, the excellent guidance of the Extension staff, and the continued activity of a loyal local leadership. Without any one of these factors, Homemakers' Clubs would have gone the way of many other organizations during the years of drought and depression.

Homemakers' Clubs have always appealed to women of all ages. Most of the members fall into the range of 20-70 years. Largest numbers are between 30 and 50 years. A fine and interesting development has been the increase in membership among young married women since World War II.

Extension programs have always been of such a nature that they can be easily adjusted to meet the needs of rural people, who are urged to take an active part in planning their own projects and programs. A recent trend is more and more toward the family type of Extension program. Farm women know that their sympathetic understanding and their constructive suggestions are needed in helping to solve the problems of farm income and the conservation of natural resources. They know, also, that problems involving the family food supply, adequate housing, wise spending of the family income and the problems of youth on the farm need the planning of men as well as women if a happy and satisfying family life is to be attained.
HOW LONG HAVE HOMEMAKERS' CLUBS BEEN ACTIVE IN THE STATE?

The first Homemakers' Clubs were organized early in 1921. This was really a dozen or two that were organized in a few months. By 1931, there had been a rapid growth both in the number of clubs and in the number of members enrolled. Membership in voluntary self-help is free to drop the work at any time. Each club has considerable freedom of choice in its program for the year and each club chooses to study the topics which will be most practical and most helpful for the members.

TEN YEAR INCREASE IN NUMBER OF WOMEN ENROLLED IN HOMEMAKERS' CLUBS

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WHAT DO WOMEN DO IN HOMEMAKERS' CLUBS?

Homemakers' Clubs and projects are available on almost every place of homemaking. This year the clubs are doing many projects, such as growing potatoes, raising chickens, weaving, basket making, canning, knitting, and selling home products.

PURPOSE OF HOMEMAKERS' CLUB WORK

Homemakers' Clubs have two main purposes:

1. To keep homemakers in touch with the most up-to-date information bearing on everyday home problems, and to make that information easy to follow by presenting it in a form of demonstrations.

2. To offer an opportunity for busy women to exchange ideas with other homemakers, to develop personality through self-expression, and to self-improvement.

WHAT HAS THE COUNTY AGENT TO DO WITH HOMEMAKERS' CLUB WORK?

All Homemakers' Club work is centered upon the County Agent of the Agricultural Extension Service. Where an assistant is employed, she is a graduate of Home Economics, and takes charge of the Homemakers' and 4-H Clubs. County Agents work with clubs, make schedules for the specialists, arrange for local training classes, achieve day instruction, help exhibits, women's camps, and so on. They plan various projects, and furnish information on gardening and poultry. Without a County Extension Agent it is very difficult to carry on Homemakers' Club work successfully and few clubs try to do so. Major projects are not given in counties without county extension agents.

HOW MANY STATE PEOPLE ARE EMPLOYED TO WORK WITH HOMEMAKERS' CLUBS?

The state program is planned so that the work has been given to the 5,200 members by as many as 50 state workers. This is the same number that was employed 10 years ago. The great increase in the number of clubs reached by these workers is made possible by the aid of project leaders who are selected by the local club from among their own members and who serve without pay.

Last year 82 committees in 67 clubs hold meetings for any of the men or homemakers in any of the communities of their counties. A large increase in the number of Homemakers' Clubs has not increased the expense to the county, state or federal government. Much credit for the growth and for the success of Homemakers' Club work can be given to these project leaders who have given their time and effort to make the work of the County Agent reach an ever increasing number of homes in the county.

DO WE HAVE TO VOTE ON EXTENSION WORK IN ORDER TO DISMISS A COUNTY AGENT WHO IS UNSATISFACTORY?

No. The vote is always on the work, never on the man or woman who holds the position. Any County Agent who does not give satisfaction can be dismissed by making proper provision in the Extension Division of the Agricultural College and the County Commissioners who jointly hold voting power in County Agent work. An expression of distrust does not always lead to dismissal, but may mean that they need the services of an educational organization of this kind more than they did when times were better.
Typical Achievement Day Program

ANNUAL HOMEMAKERS'

Achievement Day

Tuesday, June 24, 1930
10:00 A.M. - 4:00 P.M.
at
NORTH SIDE HIGH SCHOOL
Casselton, N. D.

CLOTHING PROJECTS
of
HOMEMAKERS' CLUBS
of
CASS COUNTY

Organized under the direction of the U.S. Department of Agriculture and North Dakota Agricultural College Cooperating with Cass County

PROGRAM

10:00-10:30 A.M. — Viewing Exhibits and Get Acquainted.

Introductory Remarks
Kathryn Lamont Backh

President's Address
Mrs. A. D. South

11:00-12:00—Community Singing and Business Meeting.

12:00-1:00 — Picnic Dinner.

1:00-4:00 P.M. —

Community Singing
Mrs. J. O. Hatfield

"Welcome Homemakers"
J. P. Cushman

Summary
Miss Gena Johnson

Vocal Solo
Miss Mary Brog

Reading
Kenneth McLain

Review of Pioneer Costumes
Homemakers' Clubs

Reviewing Achievement Dress
Club members

Awards in Wash Day Contest
Pauline Reynolds

Achievements
Julia E. Brekke

Community Singing
Mrs. J. O. Hatfield

OUTLINE OF PROJECT

1. Sewing Equipment
2. Care and Use of Sewing Machine
3. Tailored Finishes (Buttons and seam finishes)
4. Tailored Finishes (Pocket)
5. Textile Fibers and Fabrics
6. The Modified Kusono Dress

Plans for Achievement Day
Julia E. Brekke
Extension Specialist — Clothing
Kathryn Lamont Backh
Aurr. County Extension Agent

The Prizes awarded in the Wash Dress contest have been cheerfully contributed by:
The Strauss Clothing Co. — Casselton
O. J. deLambert Co. — Fargo
The Black Company — Fargo
Herbert's Dept. Store — Fargo
The Moody-Currie Co. — Fargo
FROM EDITORS AND OTHERS

Editorially the Bismarck Capitol comments on the Homemakers' Clubs in the state: "Of greater importance to the state than mere numbers can signify is the report of the growth of the Homemakers' Clubs in North Dakota. As is suggested by their titles the clubs, formed almost entirely of women of rural communities, have as their chief aim, homemaking. Their job is the most noble as well as the most fundamental of any. Upon their success depends to a great extent the solidity of the nation."

Mr. R.A. Grant, Mayor of the city of Mott, in his address to the women of the Homemakers' Clubs on Achievement Day, June 13, 1934, stated, "that it was his firm conviction that the work of the Homemakers' Clubs has produced untold good to every home in the county and furthermore that these clubs are perhaps a better organization than any of the other clubs in the county. The work of these clubs is strongly felt in every avenue of social and home life. They are avenues through which the proper knowledge and the best in home making is given. In addition to the information and knowledge which these clubs give to the homes in the county, they are also the means of greatly moving social standards."

From a letter to the State Home Demonstration Leader: "Your talk was a most pleasing revelation to me. I am afraid I have made the mistake, along with a great many men engaged in commercial work, of feeling that the old extension service spirit and work had been rather generally demoralized during the past two or three years into a mass of emergency and A.A.A. regulatory measures.

"May you continue in your work with courage and with, as I believe, the realization that the time is not far distant when the things you are doing and trying to do will be properly appreciated by the general public."

—H.R. Sumner, Executive Secretary
Northwest Crop Improvement
Association

Editorial from Dickey County Leader, reporting a Homemakers' Achievement Day program: ""The thing that impressed me most was the helpful friendly spirit among the women and between the clubs; what energy and enthusiasm they all seemed to have, and what a will to learn! I was a bit ashamed of my lack of pep as I listened to the annual reports of the various clubs and know in my heart what sacrifices had been made in order that these community activities by achieved. And, another thing — do you know that I didn't hear a single word about the two Dreadful D's* during the whole afternoon. I'm certainly for the farm women. They're the bravest women in the world. I think this Homemaker program is great, and I have learned many things from the Homemakers news articles in the paper at various times."

*—Drought and Depression

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EXTENSION REVIEW
October—December 1936

HOME LEADER

4-H Program Includes Improvement Projects

Farm and Farm Home Improvement project is the name of a new group of subjects approved for study by boys' 4-H clubs in 1937. Information on this project is furnished by the state club service to county agents throughout the state. Twenty-eight different subjects of "subprojects" have been approved and a certain number of units of credit assigned to each subproject. Farm and Farm Home Improvement project

Sub-projects listed as eligible for credit include these: Horse Making Machine; Rope Work; Belt Making; Such and Gas of Ordinary Farm Livestock; Harrow Repair; Cleaning of Seeds; Cleaning of Vegetable; Culling the Farm Poultry Flock; Homemade Game Boards and Puzzles; Study of Handmade Mobile Devices for the Neighborhood; Home Repair; Farm Management; Cleaning up the Farm Yard; Iceless Refrigerator; Flip Truck for Outdoors Building Wood; Repair of Farm Machinery; and the Member's Own Room.

Ten units of credit may be earned for each of the following subprojects completed: Concrete Work; Construction of Home Made 6-Volt Electric Farm Plant; Farm Records; Milk Production Records; Electric Fence; and the construction of a plan of building and supplying planting material for the planting trees on prepared ground and care of trees. Besides a study of the subject matter, each club member is required to plan, construct, or repair some object or perform some task in connection with each subproject.

J. S. DeLong

TREES SURVIVE IN SPITE OF DROUGHT

SHELTERBELT PLANTINGS GROW, ALTHO CONDITIONS ARE UNFAVORABLE

A very good survival of farm shelterbelts planted in 1936 by farmers in North Dakota in cooperation with the extension service and the state forest service is reported by Walter H. Paul, extension forester.

An average survival of 59 percent for the hardwood trees planted and 32 percent for the evergreens reported. This survival proportion is quite satisfactory considering the rough treatment the trees received, most of the state from drought, high temperatures and insects.

While little could be done about the effects of nature, a cause that could have been avoided was the lack of cultivation. The cultivation must be carried on in order to conserve the greatest possible amount of moisture. Growth of weeds must not be allowed and the soil should not must remain on the surface all the time. Last summer was hot as far as moisture was concerned, so a large number of cooperators probably thought the trees were gone anyway. In cases where the survival of the trees was practically 100 per cent.

"Others postponed cultivation to due to more urgent work on the farm and the effectiveness of the treatment. Under average conditions the results were conclusively demonstrated. The amount of moisture proper care would have resulted in a fair to good survival of the most hardy species in most cases."

Honeysuckle Hardy

The highest average survival of various species of trees planted throughout the state this past year was made by the Tatarian honeysuckle. Planting of the honeysuckles was limited to the eastern and western parts of the state, with 87 percent of these trees survived. The Tatarian honeysuckle is a hardy species suitable for hotel and tourist use. The most popular species in the western part. The Tatarian honeysuckle is a hardy species suitable for hotel and tourist use. The most popular species in the western part.

SIBLEY GIRL FIRST FOR SOCIAL PROGRESS

Vivian E. Larson, 18, of McKen- zie, was named North Dakota's 4-H girl best byassy of the objectives of the club movement as a feature of the national 4-H program. She is a member of the Sibley Butte Poultry club of 11 members, led by her mother, Mrs. Harry Larson.

The Sibley Butte 4-H Poultry Club was also awarded North Dakota honors in the national 4-H program on social progress.

The club, now in its eighth year, numbers 11 active members who meet twice a month and conduct four special get-togethers this year. The club was awarded first on the following project for service and achievement: attendance at P.T.A. meetings; public service of 25 public service projects; 20 athletic events, games and crafts with 133 accomplishments; general public service, 300; five permanent school; food and agricultural; teaching; building; outdoor; social; and other projects.

HOBBYMEN CLUBS OF STATE NOW TOTAL 781

That homemaking is a subject women never know too much about is emphasized by the popularity of Homemakers' clubs in North Dakota. At present there are fewer than 600 groups organized under the extension service, and the numbers are increasing constantly.

During the month of September 15 new clubs were organized, in October 28 and in November 12. For the year Tillis county leads with seven new clubs, while Pembina, Divide and Mercer counties followed with six each. A total of 118 new homemakers' clubs were added in the past year. The clubs now have 140 members in food and nutrition, clothing, home management and development and family relations.

E. E. Calman

AGENT 23 YEARS

RAT CONTROL WORK IS BEING DONE BY AGENTS

Rats, rabbits, and mites are finding plenty of opposition this winter in many North Dakota counties as a result of intensive control work being done by farmers with the aid of their county extension agents.

Special attention to the rodent problem has been given in Custer, Waish, and South Dakota counties by C. R. Southam and J. H. Tannah. Ten meetings were held in Custer county by Southam and 8 in Waish by Tannah. More than 800 men and women attended the meetings at which farmers learned how to deal with the problems presented by the rodents.

Drought Rates Extended

The extension service has been notified of an extension of the emergency drought rates on livestock feed by the railroads. The drought rates are to be continued by the roads to Mar. 1, 1937. County agents of the state are being supplied with full information on the drought rates as soon as the exact information can be secured.

Picture a 15-year-old 4-H girl preparing a succession of 100 trips for her invalid grandmother and a trip for a week for her sick mother, and you'll know one reason why Ione Juanita Wallisett of Wheelock in Williams county was a high ranking 4-H foods club winner in the state contest at the Achievement Institute.
EXTENSION WORKERS
YOU WILL FIND
TRY TO WORK
WITH ALL MANKIND

Extenson's services are available within personnel
limitations to all peoples of the state and in that
respect a sincere effort has been made to
accommodate our native Indian population. There are
four large reservations within North Dakota and since
the early 1960's Extension staffs have been maintained
at all county seats and at six other locations within
those reservations. More than half of those staff
members have been Indians who were well trained and
qualified for their jobs.

Many Indian homes were widely scattered along the
Missouri River Valley and those families had to be
relocated before Garrison and Oahe Reservoirs began
to fill. Most of those homes were without electricity
and water and the families decided to congregate into
small villages where those services would be made
available. Extension Engineers and home economists
conducted numerous discussion meetings and
demonstrations concerning house plans, house
maintenance, electric service and usage and selection,
care and use of furniture and home appliances.

Location of those families into small villages raised
some social problems and Extension made efforts to
provide for some social outlet. Home economics
groups for the women and 4-H clubs for youth were
organized with good success. Frank Moran and Louise
Painte, both native Americans, were employed and
located at Cannonball, North Dakota where 30 or
more Indian Families were relocated in two separate
groups. Mrs. Painte conducted many group meetings
and made innumerable home visits in helping those
families and other Sioux County natives in the use of
electricity, care of home appliances and family
nutrition. Mr. Moran performed all the duties of a
county agent and established lasting good public
relations between Indian families and Extension in
Sioux County. The Extension office moved to Fort
Yates in 1962.

Family nutrition in reservation areas generated
discussions and planning for concentrated efforts
towards home gardens. Two assistant agents were
employed to work with that project. Tribal officers
gave strong support and scheduled community
meetings throughout their reservations for discussion
of it and setting up of demonstration gardens. During
the gardening season demonstrations of planting
patterns, weed control, insect control, vegetable use,
storage and preservation were conducted with fair
participation.

Starting in 1962 Extension has staffed offices at
New Town on the Fort Berthold Reservation and at
the Fort Totten Reservation area. At New Town the
staff has included a county agent, a home economist,
and office secretary and five EFNEP assistants. The
Fort Totten office has been staffed with an office
secretary and four Expanded Food and Nutrition
Extension Program (EFNEP) assistants.

Extension's Expanded Foods and Nutrition Program
(EFNEP) has received major emphasis in all North
Dakota Reservation areas. In addition to the program
assistants at New Town and Fort Totten, four
EFNEP assistants and an office secretary have been
staffed at the Rolla Turtle Mountains area and two
EFNEP assistants in the Sioux County area.

Purpose of EFNEP has been to improve the
nutrition and health of all people and especially of
lower income families. Ways of making the family
grocery money buy more nutrition and to provide a
pleasant variety of attractively prepared foods have
been emphasized and continuously demonstrated.

EFNEP has been a federally funded program
deleagated to Extension. Its extensity and intensity are
governed by annual federal funding. Besides the areas
already listed, EFNEP assistants have been working in
Barnes, Bottineau, Burleigh, Cass, Cavalier, Divide,
Dunn, Grand Forks, Logan, McHenry, McIntosh,
Stutsman, Ward and Williams Counties. A special
EFNEP nutritionist was also placed on the central
staff to train and retrain the program assistants.

Federal funding for EFNEP has been cut back
several times and by the end of 1985 program
assistants remained in the four Indian Reservation
areas and five other counties as follows: Fort
Berthold, Fort Totten, Fort Yates and Turtle
Mountain Reservations, and Burleigh, Cass, Grand
Forks, Morton and Ward Counties.
CAPABLE VOLUNTEER LEADERS
IN ALL FIELDS ABOUND
TO ASSIST WITH PROGRAMS
THEY BELIEVE TO BE SOUND

Extensions' job is out of school teaching. Its aim is
to help people to help themselves and their
communities by learning and using new and
improved methods and materials in their business
operations and in their homes. Extension's audience
is voluntary and it is free to accept and use or to
reject any or all of the information presented.
Extension's teaching methods have included about
every known way and they have been used with all
degrees of individual expertise and success.

Personal contacts, personal letters and phone calls
have been successful methods but their volume
limitations are an obstacle to reaching a large
audience. When equipment for making circular letters
became available Extension's audience and
effectiveness were greatly increased. Extension workers
became "experts" at writing and illustrating circular
letters and that method of teaching soon also became
a method for recruiting audiences for Extension
meetings.

Subject matter discussion meetings started early in
Extension's history and still are a primary method for
presenting information. Subject matter specialists also
prepared pamphlets and bulletins on nearly all phases
of North Dakota agriculture and home economics
and kept them revised and up-to-date.

Organized clubs and commodity groups have been
excellent vehicles for obtaining audiences that will
follow and make use of recommended practices and
materials. Homemaker's clubs and 4-H clubs are best
elements but many others exist. These groups make
extensive use of demonstrations for their teachings
and have often been sponsors for large field and
livestock demonstrations by Extension specialists.

Mass media! Circular letters, radio, television,
newspapers, magazines, pamphlets and bulletins are
means by which information can be supplied to
unlimited audiences. For many years federal bulletins
were much used but by 1930 North Dakota specialists
were well prepared to develop bulletins and circulars
for North Dakota situations and by the late 1950's
few federal bulletins were used. Early bulletins tended
to be too inclusive and contained much more
information than the client desired. Later and present
day bulletins are quite specific and are easy to revise
and keep up-to-date.

A look at some successful on-going Extension
teaching methods adds much to the history of
Extension's activities. Newspaper stories, radio and
TV programs, fairs, camps, achievement days, etc.,
are subtle means of awakening interest in new
methods, materials and programs so let us take a look
at their use.

As repeated many times in this Extension story,
Extension's job is teaching and teaching methods and
materials are continually changing. Communications
workshops have been used to keep Extension workers
 abreast of such changes and to sharpen their skills in
using all communications materials and methods.
Extension has used many methods for conducting its
work and samplings of them follow.

Special railroad trains were one of the early
methods of attracting people and obtaining an
audience. at least seven such trains were made up and
exhibited throughout the state between 1914 and
1951.

Judging contests as a means of teaching standards
and qualities have attracted much interest and
participation. They have been a major factor in
improving the quality of agricultural market products
and the understanding of quality of things to be
purchased.

Demonstrations have been a major Extension
teaching method. Hundreds of farmers and
housewives have been recruited to host
demonstrations on their farms and in their homes
and in so doing have become volunteer Extension
leaders. Extension has also taught demonstrating to
many thousands of youth and homemakers.

Mass communications - radio, television, newspaper
articles, bulletins and large public meetings - have
been a popular Extension teaching method. They
have provided a first Extension contact for thousands
of people and generated much follow-up.

Farm and home institutes with something for the
whole family have provided excellent teaching
opportunities. Business people and farm families
worked together in planning and conducting
combined social and learning programs. Subject
matter topics were selected jointly by local people,
county agents and commercial interests. Many
institutes included some general entertainment and
this writer well remembers a song taught at a Lisbon
institute meeting in about 1920. It is a North Dakota
song and was sung to the tune of the then popular
Barney Google song. It's words are:

What's the most important state this country
ever knew?
Oh, it isn't Minnesota and it isn't South
Dakota
I'm mighty proud that I'm allowed a chance
to cast my vote
For North Dakota with its miles and miles of plains, North Dakota with its fields of waving grains, North Dakota is the place with its wheat, corn, cattle, hogs and coal. North Dakota is the greatest state of all.

Boys and girls institutes were started in 1910 in cooperation with county superintendents of schools and were the forerunner for present day state 4-H achievement institutes.

Extension paid workers have been spread quite thinly across the hills and plains of North Dakota and without volunteer leaders coming to their aid their efforts would have quickly died. In fact, without the work of volunteer leaders Extension would never have existed in some counties.

Most outstanding among volunteer leaders have been those who work with youth and are known as 4-H leaders. Most 4-H clubs have two or more adult leaders who devote fifteen or more days and drive several hundred miles each year to fulfill their leadership responsibilities. Initial recruiting and organization have usually been a joint effort of Extension agents and one or more parent in a community. Selection of club leader is delegated to club members and once leaders are selected they are largely responsible for the conduct and success of that club. Extension provides leadership and project subject matter training but on-going and continuing work of the club rests with the leaders, the club members and the parents. This system has worked well and 30+% of 4-H leaders have served for five years or more. Many have served for more than 15 years and some have even been 4-H leaders for three generations of some families. Recent 4-H membership has been between 21,000 and 24,000 members enrolled in 1,200 to 1,300 clubs with about 85% of members completing project work. Average length of 4-H membership has been 3-4 years. The full impact of this 4-H leadership both within the community and on the Extension program is difficult to measure but it has been of great value.

Homemakers' clubs have always been strong pillars of support for Extension and much of their existence can be credited to work of volunteer leaders. Until recent years only about one-fourth of North Dakota counties had home economics agents and club officers and project leaders in the rest of the state were largely responsible for their community and county wide programs. Project subject matter training meetings were conducted by state specialists at central points but some club leaders sometimes were unable to attend. Project leaders from other clubs often volunteered to present lessons to those clubs. Homemaker's club membership has ranged around 15,000 members in 1,000 clubs. Throughout Extension's existence Homemaker's clubs have been active in many community improvement programs, health promotion and youth activities. They have had a strong influence in community affairs and been strong supporters of overall Extension programs.

Numerous commodity groups organized with Extension's help have continued as community leaders and promoters for many programs and activities. Most groups such as Crop Improvement Associations, Livestock and Breed Associations, Milk Producers and others, received Extension's assistance in getting organized. As they became self-sustaining they often sponsored Extension demonstrations and subject matter meetings and assisted with county youth programs and activities.

Statewide organizations such as the Greater North Dakota Association, Bankers' Association, Merchants' Associations, State Crop and Livestock Associations and farm organizations gave freely of their facilities in furthering the Extension program just as Extension cooperated in the programs of those organizations. In fact, as Extension Service grew in experience it developed this talent for cooperation with other agencies and organizations to become one of its most valued techniques in the field of Extension education. As this talent for cooperation grew and Extension Service became more firmly established in the counties and the state, Extension began to accept leadership for coordinating programs and facilities of other organizations carrying out state and county, agricultural and home living educational programs.

Volunteer leaders and support groups have multiplied the efforts and effect of paid Extension workers many times over and undoubtedly saved the "county agent's skin" from more than one "bruising."

1932 was a difficult year for county finances and Steele County Commissioners failed to appropriate money for the county agent. "Volunteer Friends of Extension" canvassed the county and raised enough donations to finance the county's share for one year but it ended in hollow triumph when the money was deposited in a local bank which soon went broke.

The development of leadership among farmers, farm women and farm youth is a product of Extension which is rarely given the proper weight in counting the results of Extension work.

The manner and the methods used in carrying out Extension programs give the local people the maximum opportunity to determine what the work shall be as well as to assist through committees, councils and as individuals, in planning and carrying out the program. Therefore, besides learning better practices in the improvement of the farm and the home, these progressive people gradually became leaders in the community. They learn to look beyond the farm and the farm home for influences which affect the conditions of agriculture and the rural community. Many farm people who got their first
experience in community affairs on an Extension committee, a Homemakers' club leader or a 4-H club continued their interest and went on to take important places in county, state and national affairs.

Some have forgotten their humble beginning but many thousands remember and continue their supportive roles.

Extension’s job has been made much easier through the wholehearted support and assistance given by many individual and business firms. That is especially true in the 4-H program where awards add zest to the program.

It is not possible to list names of all such supporters and donors as many changes occur each year. Most donors are tied to a specific program or activity and promote participation and excellence in that work. Railroads have been major cooperators throughout Extension’s work in North Dakota. They have helped in planning and have funded transportation costs for many Extension programs including 4-H.

Farmer owned organizations and especially Rural Electric Cooperatives have made their facilities available for many meetings and demonstrations. They have also provided awards for several 4-H programs.

Local business groups and service clubs have given continuous and invaluable support for Extension programs and activities. Many Extension programs and activities would not have been held or would have failed without their support.

Larger, non-local business groups have cooperated by supplying materials and working jointly with Extension at meetings and demonstrations. They have also been major donors for 4-H programs.

Local, state and federal government officials and agencies have been generous in their good will and support. Numerous programs and activities have been sponsored and conducted jointly with them.

County commissioners and state legislators have been especially supportive in providing funds for Extension work even during times of difficult budgeting.

Congress of the United States has been the largest financial supporter for Extension and without federal funds North Dakota Extension programs would be greatly curtailed.

Support and good will from newspapers and radio and TV programs have been especially important to Extension. Untold dollar value of time and space given by them have greatly enhanced and facilitated Extension programs.

A North Dakota Extension report taken from the March 15, 1985 Fargo Forum summarizes work of volunteers during 1983 as follows:

EXTENSION VOLUNTEERS INVALUABLE

“In 1983, more than 55,000 volunteers donated a total of more than 920,000 days of work to North Dakota Extension programs - work worth nearly $60 million, according to estimates based on a recent survey sponsored by the U.S. Department of Agriculture.”

“During the same period, less than $7 million was paid in salaries to full time Extension workers in North Dakota.

“Citizens who volunteer their expertise as members of advisory committees, as master gardeners, as 4-H leaders, and as volunteers in similar Extension roles, are critical to the success of Extension programs in North Dakota, says Bill Pietsch, Associate Director of the N.D. Cooperative Extension Service.

“The long-standing objective of Extension to help people help themselves is clearly revealed in these survey results.”

“Nearly one of every 12 North Dakotans volunteered time to Extension programs in 1983, a percentage considerably greater than the national average of one out of every 80.

“Nationally, about 2.9 million individuals volunteered a total of 71 million days to Extension work, according to researchers at the University of Wisconsin’s Department of Continuing and Vocational Education, which carried out the survey.

“These researchers estimate that if the government had to pay for all volunteer services provided to Extension, the bill in 1983 would have come to more than $4.5 billion - an amount greater than five times the total budget of the Cooperative Extension Service.

“About 524,000 of the nation’s Extension volunteers worked with local 4-H clubs and interest groups, 269,000 with Extension homemaker clubs, 70,000 with ag commodity and breed groups, and 52,000 with resource Extension groups.

“In North Dakota, the study drew samples from Divide, Grant, Ransom, Traill and Stutsman Counties, which represent roughly 10 percent of the state’s land area and 7 percent of its population.
“In 1983, these five counties had about 5,500 Extension volunteers who donated a total of 92,000 days of work worth about $6 million, according to the survey.”

How does an agency like Extension thank all of those supportive and cooperative groups? Among friends a simple thank you and a hand clasp well convey the feelings. Therefore, friends, lend your ears and reach out for the hand that Extension offers in thanks for 100 years of support you have given to early NDAC Extension, to the Better Farming Association and to the North Dakota Cooperative Extension Service.
I CAN'T ALWAYS REMEMBER WHAT WAS SAID  
BUT A BULLETIN KEEPS ME IN GOOD STEAD

Spoken words alone are often times confused or soon forgotten. Written words may also soon be forgotten but can be readily recalled when a reference circular or bulletin is at hand. Extension's job is to provide accurate, usable information and to help people to use it. Many letters and telephone calls requesting information are received every day and several hundred information meetings are conducted by county agents and Extension specialists each year. One of the most practical means of providing information is through printed circulars and bulletins which can describe, illustrate and instruct the requested subject. Experiment Station workers provide basic factual information which is written into circular or bulletin form by subject matter specialists, edited and printed in needed quantities.

Extension-type bulletins were printed as early as 1907 by NDAC professors and others who conducted institute type meetings at 20 places around the state. Those bulletins were called lectures and thirty-nine of them were presented at that first institute. Handouts were not available at the meetings but were combined into a booklet called Farm Institute Volume I and made available at a later date. The first Extension type bulletin printed for distribution was issued in 1909 and named, "Rural School Agricultural Contests and State Corn Show." Its purpose was to interest and enlist boys and girls in project work with farm animals and with corn. Only three Extension publications were issued before 1914 when Extension was officially established and from then until about 1940 Extension issued fewer than 6 new publications per year. Wartime efforts greatly increased the need for circulars and new multithread equipment was added to the department. Multiple page circulars were replaced as much as possible with single sheet, single to triple fold circulars. By the end of 1960 more than 2 million multithread and 700,000 mimeograph copies.
were being produced each year. Most of these were distributed through county Extension offices, meetings, 4-H programs and Homemakers programs but in 1960 about 225,000 copies were distributed directly from the Department to individuals requesting them by mail or telephone.

All Extension specialists participate in researching information and writing of leaflets, circulars, bulletins and lesson materials. Much work is done for 4-H and Homemakers club study lessons. Home economics specialists use much of that material for teaching project lesson leaders.

Every day correspondence, telephone calls and personal office calls requesting information are a large part of Extension's educational program. County agents in one agent counties service agriculture, home economics and 4-H office callers and telephone calls. During an average year that county agent has received between 2,100 and 2,500 office callers and approximately 3,000 telephone calls requesting information.

County agents in counties having two or more agents, home economists included, do not service quite as many office callers or telephone calls per agent. They are able to make more farm and home visits and to conduct a greater number of informational meetings.

EXTENSION CIRCULARS - Examples
Nos. 1 Through 13 printed as Extension Bulletins 1909 - 1923

1 Rural School Agricultural Contests & State Corn Show - 1909
2 Garden Canning Project
3 Preservation of Food in the Home
4 The Rural Hot Lunch - 1914
5 Farmers Beef Ring - 1916
6 Report of Director - 1916
7 Bread Making - 1917
8 Horse Production in North Dakota - 1917
9 The Farm Fruit Garden
10 Potato Culture in North Dakota
11 Potato Storage in North Dakota
12 Preservation of Meat
13 Report of Director
14 Control of Diseases of Farm Crops - 1918
15 1918 Flax Crop
16 Orig. and Dir. of Clubwork
17 Management of Incubator Chicks and fowls - 1919
18 Sow Thistle and Other Weeds of Similar Habits
19 Alfalfa for North Dakota
20 Sweet Clover for North Dakota
21 Potato Seed Plot and Certification of Potato Seed Stocks
22 Potato Culture in North Dakota

23 Farmers Clubs
24 Brome Grass, Slender Wheat Grass and Timothy
25 Selection and Care of Textiles
26 Help for the Home Dressmaker
27 Rural Hot Lunches
28 One Period Cold Pack Canning Guide
29 Child Feeding
30 Home Nursing
31 Food for the Family
32 The Farm Bureau
33 Visual Instruction Service
34 Marquis vs. Durum Wheat - 1920
35 Managing Sheep on North Dakota Farms
36 Wheat Grading for Schools
37 Annual Hay and Forage Crops
38 The County Farm Bureau
39 Cropping Systems for North Dakota
40 Practical Pointers on North Dakota Farming
41 Boys and Girls Club Handbook - 1922
42 Control of Garden and Household Insects
43 Shelterbelts for North Dakota
44 Flax Cropping - 1921
45 Wrong Side Up
46 Making the Paper Dress Form - 1922
47 Dipping Vats
48 Fight the Sow Thistle
49 The Hot School Lunch
50 Potato Hand Book
51 Feeding and Management of Dairy Cattle - 1923
52 Poultry Houses for North Dakota
53 Call the Poultry Block - 1922
54 Feeding Farm Poultry
55 The County Agent's Job

Representatives of Extension Leaflets

H 327 North Dakota Fruit Varieties and Culture - Tree Fruit Culture for N. Dak. (New)
H 328 Description of Fruit Varieties for North Dakota
E 329 Farm Fly Control
E 330 Approved Dairy Cattle Sprays
E 331 Garden Insect Control Guide
A 332 Creep Feed Your Calves
333 Summary of North Dakota Irrigation Farm Results
334 How to Care for Carpets and Rugs
335 What to Look for When Buying Carpets and Rugs
SF 336 How to Sample Soil for Testing (Soil Test for Profit)
A 337 What to Look for in Buying Smooth Floor Covering
338 Look at the Fibers
339 Your "Looking Glass Self"
340 Today's Hams
341 Satisfied Consumer
342 Ideas—of Those Who Buy
343 Meat—It's Good For You
V 344 Blackleg—Malignant Edema
A 345 Over-the-Tree-Row Cultivators
The Loose Smut Test for Barley Seed
Nitrato Poisoning of North Dakota Livestock
Barley for Fattening Cattle
Will it pay to Switch from Marketing Cream to Whole Milk?
North Dakota Fertilizer Guide
Chemical Wild Oats Control in Field Crops
Selling Milk for Manufacturing Purposes
Farmer's Guide for Seed Buying
Winter Wheat Production in North Dakota
Renal Calculi Water Belly
Antibiotics in Milk
Guide for feeding and raising Dairy Calves - New (Feeding & Mgt. of D. Cattle)
Rabies in pets, livestock and wildlife
Vibriosis - Vibronic Abortion
USDA Sedimentation Test
Quality Durum
Fertilization of Trees
Planting and Transplanting Evergreens
Care of Gift Plants
North Dakota's Spring Wild Flowers
Lumpy Jaw and Wooden Tongue in Cattle
Flax-An Important North Dakota Business
Pocket Gopher Control with the Mechanical Burrow Builder Machine
Impact of Supply Adjustment on Cash Crop Income in North Dakota
Early Summer Wild Flowers
An Easy Way to Iron a Shirt
How to Save Time When You Wash Children's Clothes
Selecting and Using Interfacing
Cowpox
Needle Teeth
Lilies for North Dakota
Wrap Your Fields in Windbreaks
Energetoxemia of Sheep and Lambs -Cattle and Calves
Vesicular Venereal Disease of Cattle
Care of Cats
Fowl Cholera
Developing a Youth Recreation Center: Some Organizational Tips
Complete Dairy Ration
Grain Elevator Bankruptcies: Understanding Your Legal Rights as a Producer
Integrated Reproductive Mangement - Part I. The Cow Herd
Integrated Reproductive Management - Part III. The Replacement Heifer
Socially Isolated Senior Citizens in Senior Community Service
Farm Accidents in North Dakota
Call Scours: Causes, Prevention, Treatment
Revenue Assistance to Local Governments in Oil Development Areas
Interseeding Native Pasture
EAE and Other Chlamydia Diseases of Sheep
Integrated Reproductive Management Part IV, The First-Calve Heifer
Performance Testing of Beef Cattle
Collection, Preservation and Shipments of Specimens
Breakeven Prices for Backgrounding Calves
Christmas Decorations Made with Fresh Evergreens
Root and Crown Rots of Small Grains
Woodchips, Sawdust, and Woodash for Home Garden Use
The Delayed Pricing Contract
The Use of Census Data in Retail Marketing
Diseases of Evergreens and Related Problems
Planting Tips..Rangeland, Pastureland and Hayland
Crop Storage Management
Irrigation Scheduling by the Checkbook Method
1982 Hybrid Corn Grain & Silage Performance Trials at Branch Exper, Stations
Grass Varieties for North Dakota
Balancing Rations for Producing Dairy Cows
Management Strategies for Depreciating Assets Acquired After 1981
No Till Crop Production Basics
Integrated Reproductive Management
Canada Thistle Identification and Control
Sunflower Midge
Determining Grain Storage Costs
Ram Fertility and Management
Head Slight (Scab) of Small Grains
Proso Millet in North Dakota
How a Tree Grows
Crop Dryinger and In-Storage Cooling
Developing a Marketing Plan
Determining Farm Building Rent
Amaryllis Care in the Home
Retaining Customers by Handling Complaints
Good Customer Relations with Improved Personal Selling
North Dakota Tractor Use Study
The North Dakota Swine Production Testing Program - Sow Productivity
Sunflower Seed Weevils
Your Balance Sheet
OH, YES, I HEARD IT ON THE AIR
I COULDN'T SEE IT
BUT IT WAS THERE

Extension Editor W.C. Palmer started radio programs as early as 1922 over station WDAY Fargo and those were the days when earphones were necessary for many farm radios. Not much is recorded about those early broadcasts and radio is not mentioned in annual reports again until 1927 when 4-H members broadcast from the 4-H achievement institute. Mr. Palmer presented 43 fifteen minute subject matter programs over WDAY in 1929 and daily 15 minute subject matter programs called “farm flashes” started in 1930. Farm market reports were also started that year. Extension’s use of radio greatly expanded in 1931-32 with the addition of station’s KFYR Bismarck, KGCU Mandan, KLPM Minot, KFJM Grand Forks and KVOC Valley City to their broadcasts. Subject matter programs were scheduled on a specific daily basis:

Monday - crops, soils, marketing, farm economics
Tuesday - livestock, home economics
Wednesday - fruits and vegetables, botany
Thursday - dairy, miscellaneous
Friday - poultry, home economics

Farm market reports were then increased to three daily reports giving opening, noontime and closing prices. During that year Extension reporting year 4,375 minutes of subject matter programs and 2,985 minutes of market report programs were presented over each of those six stations.

By 1933 radio was well established as an Extension information outlet and it was used extensively to explain the Agriculture Adjustment Act passed by Congress that year.

During 1937 stations KRMC Jamestown and KDLR Devils Lake were added to those regular broadcasts and county agents were beginning to use radio to present their programs. Wire recorders were provided and interviews with farmers, housewives, 4-H members, specialists, businessmen and others became useful ways of presenting information. Morton County Agent Ralph Newcomer was one of the first agents to try radio broadcasts and soon the Mandan Creamery and Produce Company sponsored time for his program.

Mr. Palmer was employed primarily as Extension Publications Editor and radio broadcasts cut greatly into his time. He preferred to maintain his publications assignment and as the radio load became too great a succession of assistants were hired and trained for radio program responsibility. Commercial radio was advancing rapidly and one assistant another received training and in about a year moved out into the higher paying commercial field. However, that was not all bad because most of those trainees became important links between Extension and commercial radio.

By 1985 there were 20 radio stations carrying Extension programs in North Dakota to a maximum. That year 3,120 taped programs and an additional 1,404 individual articles were released to those stations. Six stations carried regularly scheduled 15 minute five days a week programs and county agents carried regular programs on 9 other stations.

Early radio broadcast presenting the Dean of Chemistry.

RADIO TALKS

A portion of a broadcast given on the National Farm and Home Hour.

Community Activities and Better Rural Living
A broadcast from Chicago in the Department of Agriculture portion of the National Farm & Home Hour, Wednesday, April 2, 1941, over stations associated with the NBC Blue Network.

Participation: Mrs. and Mr. Henry Erber, Tatman Twp., Ward Co., N. Dak., Miss Ethel Jones, Associate County Extension Agent, Ward County, N. Dak.

MITCHELL: This is Home Demonstration Day on the National Farm & Home Hour – and we have visitors from Ward County, North Dakota. They are Miss Ethel Jones, Associate County Extension Agent and Mr. and Mrs. Henry Erbert of Tatman Township.

JONES: Mr. and Mrs. Erber are like the other folks in Tatman Township, Mr.
AND THEN ALONG CAME TV, EXTENSION’S STORY TO TELL ‘TWAS IN JULY ‘53
AND I REMEMBER IT WELL.

WDAY-TV Fargo and KCJB-TV Minot were the first N.D. television stations to help Extension to sell its wares but they were quickly followed by KFYR-TV Bismarck and KVOX-TV Valley City. WDAY-TV got the headstart with a live thirty minute weekly NDSU-TV program starting July 1953. This was a new experience for everyone involved and much nervous enthusiasm contributed to their bright light perspiration. Robert Crom, NDSU Communications Director, headed up those early programs and one of the biggest problems was preparation of props and visuals. Minot KCJB-TV picked up this program in December 1953 but it required travel from Fargo to Minot and return and soon became both a financial and a physical drain. As a result, the Minot program was assigned to 11 county agents in the Minot area. They worked out live thirty minute Sunday afternoon 4-H demonstration and talent programs which continued for many months.

KFYR-TV joined the NDSU program outlets in 1954 and again that required travel from Fargo and return and the program was assigned alternately with the Burleigh and Morton County Agents. That was a 30 minute Sunday evening program and soon became a problem for NDSU staff members to service and was turned over entirely to the county staffs. This writer participated in that program as Morton County Agent and found it an excellent means of presenting demonstrations.

Both radio and television proved to be effective means for Extension to present information to the general public but by 1954 it became evident that more staff was required if their use was to be extended. Applications for several TV stations were pending and their approval would greatly enlarge the potential for Extension’s programs. Requests to hire a radio-televison specialist and a person to prepare demonstration props and materials were approved and S. David Bateman, a native of Arkansas who had become an Iowa County Agent, was hired in 1954 as radio-televison specialist. He was tall, well built, good looking and had a blarney tongue with an Arkansas accent. He quickly established rapport with all radio and TV stations and set up schedules for use of Extension tapes. TV recording equipment and cameras were obtained and Extension specialists were soon able to present programs state-wide through one TV setting.

Bateman had a showman’s flare and developed plans for several series of one hour daily week long short courses. These were presented starting in 1955 over TV channel 4 network during late winter between 11:00 a.m. and 1:00 p.m. and public response was excellent.

Both radio and television programs greatly enlarged Extension’s audiences and increased requests for community meetings and demonstrations. Demonstrations presented over television resulted in many telephone calls, letters and office visits requesting additional information. That increased the office work load and necessitated larger office space and more secretarial help in many counties.

Television discussions and demonstrations have been especially effective in presenting home Economics information to non-homemakers club members.
4-H INSTITUTE IS ATTENDED BY 505

56 COUNTIES SEND BOYS AND GIRLS TO ANNUAL ACHIEVEMENT EVENT

Officers to guide the activities of the North Dakota 4-H club organization in 1937 were elected by the 565 delegates from 52 counties assembled at the final session of the 1936 State Achievement Institute at the Agricultural College, Dec. 11. The institute, which opened Dec. 8, was the most representative of any since the event was inaugurated 27 years ago.

Elected were Lorraine Docktor, Jamestown, St.utsman county, president; Everett Barta, Steele, Kidder county, vice-president; Richard Chaddock, Langdon, Cavalier county, secretary; and Bernice Bliss, McFadden, Burleigh county, treasurer.

48 COUNTIES COOPERATE WITH EXTENSION SERVICE

Continuous development of agricultural and homemaking programs in North Dakota was assured Nov. 3 with approval for the establishment of permanent extension work being given by voters in 27 counties.

Forty-eight counties are now supporting county agent work on a full cooperative basis.

Of the 28 counties which voted on the question of establishing the work, only Logan county failed to approve the proposal. In all except Logan, substantial majorities in favor of county agent work were registered.

The list of non-cooperating counties in the state includes only Logan, Mountrail, Steele and McKenzie. Cooperation with the extension service is being given in Walsh county but not in the form of a special county agent appropriation.

Assistance in financing the cost of county agent work is given in all cooperating counties by the North Dakota extension service and the United States Department of Agriculture.

Cooperative extension work provides for the advancement of a wide range of agricultural and home economics programs, including 4-H clubs for boys and girls, and homemakers club activities for women.

4-H PROGRAM INCLUDES IMPROVEMENT PROJECTS

Farm and Farm Home Improvement project is the name of a new group of subjects approved for study by boys' 4-H clubs in 1937. Information on this project has been furnished by the state club office to county agents throughout the state. Twenty-eight different subjects of "sub-projects" have been approved and a certain number of units of credit assigned to each sub-project. Fifteen such credits must be earned in order to complete the Farm Home Improvement project.

Sub-projects listed as eligible for five units each are: Rope Making Machine; Rope Work; Belt Lacing; Model Buildings; Sharpening and Care of Ordinary Farm Tools; Harness Repair Work and Oiling; Collection of Plants; Collection of Seeds; Collection of Insects; Cull the Farm Poultry Flock; Homemade Game Boards and Puzzles; Study of Handy Mechanical Devices Used in Neighborhood; Shoe Repair; Farm Management; Cleaning up the Farm Yard; Iceless Refrigerator; Fly Traps; Painting Outside Building; Wood Work; Repair of Farm Machinery; Fixing the Member's Own Room.

Ten units of credit may be earned for each of the following sub-projects: Concrete Work; Homemade 6-Volt Wind Electric Plant; Farm Records; Milk Production Records; Electric Fence; draw a plan of farmstead as is and another showing proposed plantings of shelterbelt and shrubs and preparing ground for planting; planting trees on prepared ground and care of trees.

Besides a study of the subject matter, each club member is required to plan, construct or repair some object or perform some task in connection with each sub-project he chooses.

This new project which requires very little if any capital to carry should interest many groups of boys. In some counties the problem of obtaining suitable livestock or crops for projects, and especially the problem of financing purchase of such projects, has prevented the organization of a number of clubs in the absence of a definitely approved project requiring little or no investment.

FARM RADIO PROGRAMS NOW BROADCAST DAILY

The Farm and Home Bulletin radio program featuring news and information of an agricultural nature is presented daily, except Sundays, over KEVR, Bismarck, and WDAY, Fargo, by the Extension Service cooperating with the publications department of the North Dakota Agricultural College, the United States Department of Agriculture, and these radio stations.

Incorporating localized farm news, information with talks, interviews, and discussions with extension specialists and representatives of college departments, information of interest to homemakers is presented each Monday, various departments each Tuesday, Poultry and Horticulture on Wednesday, Thursday, and Friday. Director H. L. Walther and members of the Agricultural Department discuss topics related to soil and crops, State and County Extension news is usually presented each Friday, while a program of interest to 4-H clubs is given Saturday mornings by members of the 4-H club office.

Programs are broadcast over KEVR each morning at 7:15-7:30, except Saturday and Sunday, and over WDAY each afternoon except Saturday and Sunday at 12:15-12:30. The Saturday broadcasts are presented over both stations at 10:30-10:45 A.M.

Evidence of the popularity of these broadcasts is contained in requests for copies of the talks, requests for bulletins and comments by state and county Extension workers.

RURAL LEADERS TRAINED

Recreation institutes to train leaders of 4-H clubs, homemakers clubs, community clubs and other interested groups, methods of conducting community activities, were held in 12 North Dakota communities for the extension service this fall by A. G. Arnold, founder and director of the Little Country Theatre.

Institutes were held in Steele, Linton, New Salem, Boulia, Watford City, Walpole, Langdon, Linton, Oakes, Adams, Rolla and Rugby.

The extension service sponsors the community institutes which were begun last year to replace regional recreation centers formerly held at five points in the state each year in cooperation with the National Recreation Association.

Attendance at the institutes was restricted to a limited number of delegates from each organization in the community.
OH, I SAW IT IN THE PAPER
SO IT MUST BE TRUE, I TALKED
TO JANE, DICK AND HARRY
AND THEY SAW IT TOO

It is said that nothing gets read more thoroughly than the local weekly newspaper and sometimes it even may be "read between the lines." Extension has taken advantage of that hunger for local news by supplying Extension news articles on a regular weekly basis to nearly all North Dakota weekly newspapers. Most editors have welcomed those articles and made provisions for a weekly county Extension column which carried reminders for timely practices and up-to-date Extension activities. In addition, space has been provided for 4-H, Homemakers and Commodity groups activities. Friendly relationships with news reporters and editors have been invaluable to Extension. Without their goodwill and support Extension's job would have been most difficult.

Annual reports of 1924-25 show that Extension was providing a weekly farm Information Service to 215 North Dakota weekly papers with a total circulation of 175,000, to 8 daily papers with total circulation of 60,000 and to 2 N.D. farm magazines with total circulation of 20,000. During that year 441 information stories averaging about 400 words each were included in that service. Those stories together would be about the same as an average sized textbook.

Weekly newspaper numbers have shrunk but much of that has been through consolidation and by 1985 there were 105 weekly, 10 daily and 3 semi weekly papers receiving the Farm and Home Information Service. In addition, the Dakota Farmer of Aberdeen, S.D. and the St. Paul Farmer magazines each with about 50,000 circulation in N.D. received that service.

George Strum, Extension Animal Husbandman with "On The Spot" T.V. interview.

Arthur Schulz, Extension Agriculture Engineer presented T.V. programs on farmstead layout and house plans.
LEADERS MUST BE AT LEAST ONE STEP AHEAD OR THEY MIGHT JUST AS WELL STAY AT HOME IN BED

Agriculture and home living materials and methods have undergone great changes since Extension was born. Those were the days of much hand labor, horses, whistles, eveners and big-team hitches. Agriculture was moving at a slow pace until it was jarred awake to produce more food for WWI soldiers and with less manpower to produce it.

At War's end tanks and trucks designed for war use supplied the basis for farm tractors and trucks. Development and agriculture moved on at an even greater pace. Pressures increased for greater production efficiency and county agents were challenged to keep up with the times. It soon became evident that some efficient means of training and updating their knowledge was needed. Circular letters and memos did the trick for a while but as the pace of Experiment Station information increased it was thought advisable to provide more intensive training. Agents were assembled at the NDAC-NDSU campus and other appropriate centers where new information and methods for using it could be discussed and planned. Grassland range management schools were conducted in 1940-41 at Mandan Great Plains Experiment Station and at Medora. Irrigation methods and results demonstrations were conducted at Upton, Sheldon, Mandan, Williston and Carrington irrigation sites. Commercial fertilizer use, application and result meetings were conducted at Williston, Minot, Devils Lake, Grand Forks, Dickinson, Mandan, Jamestown, Fargo in 1955. These are just three examples of training for agents and training has been given annually to all agents.

Most county agents have had only a B.S. degree when they started work and they have been encouraged to take leaves for further study. Many agents have done so and have earned M.S. degrees. Several central staff members have also continued studies and earned Doctoral degrees in their subject matter fields.

Annual Extension training meetings have been conducted at NDAC-NDSU both for subject matter updating and for 'esprit de corps' regeneration. Both Experiment Station and commercial resources have been used to teach and demonstrate up-to-date agriculture and home economics information and techniques on a continuing basis.

Records prior to 1961 are not complete in regard to advanced study and degrees received by Extension staff members. However, for the period 1961-85 a total of 89 advanced degrees were added to North Dakota Extension staff members. They are listed here to show their diversity.

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THE SPECIALIST, WHOEVER IT MAY BE HAS ANSWERS TESTED BY ADVERSITY

Agriculture and family living both have dynamic natures. Equipment and methods change continuously and one of Extension's jobs has been to keep people aware of those changes and to help them to make efficient and effective use of such changes. County agents by themselves are unable to do that job. Therefore, they are fortified by specialists who are trained in and able to keep abreast of changes in specific subject matter fields.

Specialists prepare materials to update county agents and train them in their use. They are also available to help county agents present information at local meetings and demonstrations.

History of North Dakota Extension specialists is interesting. General Extension policy has been that field work by specialists is channeled through the local county agents but there have been some exceptions. During 1920's-30 when many counties did not have county agents, specialists would find a local person or group to work through. Some continued to do so after an agent was in place and that caused some problems.

Most Extension projects attempt to include all elements and several specialists may thus be involved. If changes in livestock production are being promoted then changes in feed and water supplies, shelter, labor, marketing and record keeping become important factors.
ALFALFA
The Best Fodder Crop
E.G. Booth
Specialists' subject matter areas are reviewed in this section and much joint effort is evident. No attempt is being made to isolate the efforts of each specialist in such joint projects. Purpose of this section is to illustrate work and impact of Extension efforts.

Until 1977 all specialists were stationed at NDAC/NDSU. Travel was a continual problem and organization of some agriculture specialists by areas was undertaken. Area assignments were based on specific project demand and specialists were located where they could best serve that demand. Dickinson College and Experiment Stations at Minot and Carrington have served as area centers. Other centers have been located at Devils Lake, Williston and Washburn.

Some county agents have also been assigned work in more than one county. That true when Extension first started and applied mostly to club agents and then to home agents. Club agents were discontinued in 1922 but some home agents assignments still include more than one county. In 1969 Wayne Hankel became the first county 4-H club agent since 1922. His assignment included four counties - LaMoure, Dickey, Ransom and Sargent - and he was officed at LaMoure.

WHAT CROPS TO PLANT AND HOW TO GROW?
AGRONOMISTS WILL HELP ONE TO KNOW

E.G. Booth became North Dakota's first Extension Agronomist when he started work on August 1, 1927. Payroll notations indicate that W.R. Porter worked with field crops for one year starting February 1, 1919 and ending January 30, 1920. Further notations show that former Grand Forks County Agent Edgar L. Olsen succeeded Porter and worked with field crops for two and a half years - January 1, 1920 - June 30, 1922. Neither Porter nor Olsen carried the title of Extension Agronomist although their work would probably have justified that title. Booth's employment agreement specifically stipulated that immediate emphasis be placed on pure seed production and on production of more livestock feedstuffs.

Booth was a firm believer in diversification and strongly promoted alfalfa and sweet clover production. During his first three years as Extension agronomist acreages of those two crops more than doubled and kept on increasing each year.

Mixed grain and smutty wheat were major problems costing North Dakota farmers several million dollars each year. Pure seed supplies were very limited and Booth undertook to correct that situation in cooperation with the NDAC Experiment Stations and local county agents. Between 1927 and 1929 pure seed crop acreage was increased from 6,500 acres to 33,755 acres and the number of pure seed growers from 92 to 506 farmers. Next was a campaign to teach farmers the value of using pure seed and to help pure seed growers to market their seed to other farmers. A 1929 survey of grain shipments showed that 10 to 43%, depending on shipping point, of all wheat shipped from North Dakota was discounted because of admixtures and another 12% was discounted for smut. An adequate supply of pure seed and proper grain handling could correct those problems.

Commercial interests were also interested in improving grain quality and organized the Northwest Crop Improvement Association with headquarters in Minneapolis. North Dakota leaders had also organized the Greater North Dakota Association and Booth worked with both organizations to promote diversification and use of pure seed. His 1930 annual report shows he conducted 88 pure seed meetings where a total of 1,200 farmers purchased 45,000 bushels of pure seed.

Booth believed that pure seed growers needed special training and considered conducting a special school for them. No public funds were available so he contacted the Northwest Crop Improvement Association and the Greater North Dakota Association and between them financial arrangements were completed. North Dakota's first Seed Growers School was then conducted at NDAC, January 15-17, 1929 and was followed with similar schools in 1931 and 1932. Attendance at each school was limited to 150 and forty-two counties were represented at those schools even though there were county agents in only about thirty counties.

One other goal of the Seed Grower's School was to establish an organization to work statewide for continued crop improvement and at the conclusion of the first school in 1929 the North Dakota Crop Improvement Association was organized with W.H. Points of Crosby as President and O.W. Hagen of Watford City as Secretary/Treasurer.
Laboratory demonstrations of varieties, diseases and mixtures. Farmers' School, January 15, 1929, Agricultural College, Fargo, North Dakota.

CHARTER MEMBERS
North Dakota Crop Improvement Association
July 15, 1929

Carl N. Skarness, Hillsboro
Fred Stegner, New England
C.B. Hammond, Clyde
Millhouse Bros., Alexander
Fred Kaiser, Berthold
W.E. Smith, Manning
S.J. Provan, Amenia
H.A. Brown, Cooperstown
Clyde Whiteman, Hannaford
R.M. Banning, Flasher
Jesse Pulley, Flasher
Geo. F. Sygulla, Golva
J.F. O'Neill, Williston
E.N. Pennington, Colfax
WM. Kroeber, Napoleon
John Zurcher, Russell
Frank Edenstrom, Christine
Wm. Whiteman, Mohall
Clarence Dilse, Scranton
Lewis Odland, Beach
Jno. Kyltonen, Borcker
A.D. Fryxile, Flasher
Nels Swanson, Tolley
Rasmus Christianson, Flaxton
G.H. Elliott, Drayton
Jno. C. Hart, New England
Geo. Lippman, Granville
Harry Storman, Devils Lake
Jas. N. Johnson, Cartwright
Roy Bueck, Tuttle
Gunder Midgarden, Hoople
Archie Snider, Emmett
Geo. C. Hammond, Golva
E.C. Allenson, Parshall
F.J. Splonskowski, Braddock
David N. Hylden, Park River
Robert Boggess, Mohall
J.T. Wild, Osnabrock
Howard Wilson, Leal
Florence Schwartz, Fargo
Otto Mund, Minnor
Viggo Ryter, Kenmare
Haakon Lund, Hillboro
Geo. C. McKown, Mapes
R.H. Points, Crosby
O.W. Hagen, Watford City
Jeff Baldwin, Oberon
August Cordes, Douglas
J.H. Gebracht, Chantapea
C.G. Johnson, Stanley
Ward Gable, Enderlin
Arthur Dahl, Barton
Otto R. Hass, Anamoose
Geo. W. Gregg, Garrison
Geo. M. Robinson, Coleharbor
W.L. Noyes, Cando
Jno. Frey, Turtle Lake
C.H. Hofstrander, Church's Ferry
O.G. Nordhaugen, Lees
W.F. Moore, Carrington
L.J. Kriewald, Carrington
Otto W. Blundworth, Fessenden
Donald Nicholson, Carrington
Geo. Hoople, Hoople
M.O. Steen, Bismarck
H. Maw, Tappen
Geo. Will, Bismarck
G.J. Perdains, South Heart

Paul Ludwig, Langdon
D.C. Ctrimans, Hazleton
A.F. Sinner, Casselton
Erwin Thompson, Thompson
Sivert Hiele, Tunbridge
Louis A. Schultz, Windsor
Goldberg Seed & Feed Co.,
Fargo, J.H. Goldberg
W.P. Sebens, Minnog
Wm. Bauer, Thunderhawk, SD
Halvor Rolfsrud, Keene
A.C. Sunder, Maddock
J.G. Stone, Moorton
E.D. Culver, Gladstone
Frank F. Provan, Ypsilanti
R.N. Johnson, Cartwright

Booth took leave of absence starting July 1, 1933 but did not return to North Dakota and the Extension agronomist position was left vacant for nearly 2½ years.

Wm. J. Leary was appointed as the second Extension agronomist on November 30, 1936 when agriculture was deeply depressed. Three years of drought, rust and grasshoppers had wiped out most grain stocks and what was available had been shriveled by drought. Its value for seed was questionable and much Extension time was used to locate seed supplies, supervising germination tests and supervising seed loan programs.

Leary resumed the grain quality program and started emphasis for standardization of grain varieties. More than 10 varieties of spring wheat were being grown by North Dakota farmers and milling and baking qualities varied greatly among them. Some of the varieties were of inferior quality and elimination of them could make a substantial difference in market value.

Noxious weeds gained a strong foothold during the drought years. When hay supplies containing leafy spurge came into the state, Leary made strong efforts to acquaint farmers with that weed and to exterminate it from its start but limited resources prevented many farmers doing much to control it.

Leary worked with B.E. Groom, agricultural secretary of the Greater North Dakota Association and durum growers to organize a State Durum Show and the First Annual North Dakota Durum Show was held at Langdon, December 15-16, 1938. That show and durum production meetings held in connection with annual durum shows have done much to help growers maintain durum crop quality and market position.

Leary left Extension on May 31, 1945 to go into commercial work and L.A. Jensen who had worked as both a 4-H agent and as district supervisor became Extension agronomist on June 1, 1945. He was well acquainted with the agronomy program and continued work Leary had been doing.

Jensen was much interested in use of commercial fertilizer and started work with it immediately. During 1947 he supervised a total of 52 fertilizer use demonstrations with 22 counties cooperating. Plots were harvested and soil samples were taken and tested. Those were the first attempts to correlate fertilizer use with soil tests. North Dakota's first Extension circular on fertilizer use was prepared cooperatively with Dr. G.A. Johansen, head of the college soils department in the fall of 1947. Jensen left Extension on January 31, 1948 to go into commercial work and R.B. Widdifield, Barnes County Agent, became Extension agronomist February 1, 1948.

Chemical weed control and expanded use of commercial fertilizer became major projects for Widdifield. He also did much work in introducing sunflower production and subsequently sunflowers became a major crop in North Dakota.

Throughout all Extension agronomist's programs crop quality, variety standardization, seed clinics and crops judging were on-going programs. Review of annual reports indicate there was enough demand for agronomy work to keep several people busy and agronomists were unable to undertake many worthy projects.
North Dakota Durum Show Big Success

"Durum Is King." That was the slogan of the first strictly durum wheat show ever held in America December 15 and 16, 1938.

Cavalier County, North Dakota produces not only large quantities of durum but the best qualities and the Cavalier County Crop Improvement Association considered it proper to hold the first durum show in the county seat, Langdon. The program and exhibits were devoted entirely to durum and told an interesting story of its travels from the field to the table.

The slogan--"Durum Is King," suggested by a Langdon editor was prominently displayed at the show. This, according to the press of the state of North Dakota had a special significance when the facts are known about durum production in the countryside surrounding Langdon. In Cavalier County from 70% to 85% of the wheat acreage during the last ten years had been seeded to durum. The average production has been over two-thirds million bushels. With three adjoining counties, the durum wheat production is about 6,500,000 bushels annually, or one-third of the total production in North Dakota.

Appearing on the programs during the two days were some of the leading County, State and Federal officials interested in durum growing and processing. Eight very interesting displays composed the educational exhibition. Motion pictures showing the modern method of processing durum wheat into macaroni products were shown during the two days. Many macaroni manufacturers and durum millers cooperated in making the show successful from every angle.

Among the outstanding features of the program were: A discussion of "Durum Wheat and Production Trends" by Paul E. R. Abrahamson, Cavalier County Extension Agent; "Quality of the 1938 Cavalier County Durum Crop," by William J. Leary, Fargo, Extension Agronomist; "Development of Improved Durum Varieties," by Glenn S. Smith of Fargo, Durum Wheat Breeder with U. S. Department of Agriculture; "Consumers' Reaction to North Dakota Durum At the International Grain and Hay Show in Chicago," by R. E. Groom, Agricultural Secretary of the Greater North Dakota Association; "Processing and Uses of Durum Wheat," by Henry O. Putnam, of Minneapolis, Executive Secretary of the Northwest Crop Improvement Association; "Quality of Durum Needled by the Macaroni Manufacturer," by William Warner, durum buyer of Pillsbury Flour Mills, Minneapolis; "Market Grades as They Relate to Macaroni Quality," by Robert H. Black, Federal Grain Inspector from Minneapolis; "The Amount and Quality of Durum Consumed in Cavalier County," by Mrs. F. F. Hawley, President of Cavalier County Homemakers Council, and "Keeping Ahead—Problems of Maintaining the Production of High Quality Durum," by Victor Sturlaugson, President of Cavalier County Crop Improvement Association.

In the exhibits were samples of prize-winning durum wheat. North Dakota's durum exhibit direct from the International Grain and Hay Show in Chicago, a milling exhibit, a display of macaroni products manufactured from the best qualities of Cavalier County Amber Durum Semolina—informative literature for public distribution supplied by the National Macaroni Manufacturers Association, and a demonstration by the Homemakers Club showing how to prepare tasty macaroni dishes. The Foulks Milling Company's film showing modern methods of macaroni making was shown several times during the 2-day show.

The attendance at the first all-state durum show was so encouraging that the authorities are planning to make such a show an annual affair with increased cooperation between growers, crop improvement clubs, officials of State and Federal Agricultural bodies, millers and macaroni makers.
Large Crowds Attend First Annual State Durum Show

Outstanding Entry List and Practical Program Are Features.

With more than 1,000 spectators and growers from all parts of the durum area present at the two days of the North Dakota State Durum Show in Langdon Thursday and Friday, officials of the show and attendants expressed enthusiasm over the reception given the exposition in its first year.

The largest durum display ever organized at a single show anywhere, including the International at Chicago, is what W. E. Groom, agricultural secretary of the Greater North Dakota association, termed it here. Other prominent figures in agricultural circles were equally enthusiastic over the results of the program, contests and displays and predicted a brilliant future for the exposition.

Attendance the first day was about 400 and an estimated 600 persons viewed the exhibits and attended the program in the Langdon auditorium Friday. The 360 samples displayed in the exhibit room in the basement of the auditorium were formed the largest number of entries of durum shown in any show.

The program was divided into two general classifications, with emphasis on production the first day and marketing and processing of durum receiving the attention of the second day. Prominent authorities have said that marketing and processing, rather than production, are the key points to the growth of the durum industry.

One of the important displays at the show was the exhibit sent by the U. S. department of agriculture showing the steps in the development of improved durum varieties. The North Dakota exhibit as shown at the International at Chicago and which featured durum was shown by its creator by Mr. Groom. The Northwest Crop Improvement association displayed an outstanding exhibit on the processing and milling of durum for macaroni and other products.

Durum diseases was the topic of a display by the North Dakota Agricultural college. The Cavalier County Homemakers clubs were responsible for an interesting display of the uses of macaroni.

The show was under the direction of a general committee consisting of Paul E. R. Abrahamson, president; Victor Surflaunson, vice president; Miss C. Formo, secretary; Louis M. Whalen, treasurer, and Fyed P. Schmidl, Joe Boyd, Herman Loff and Ed Frants. Arranging with arrangements were the Langdon Commercial club, the North Dakota Extension service, the Greater North Dakota association, Cavalier county Homemakers clubs, the Northwest and Cavalier County Crop Improvement associations and local elevator managers.

Durum Show Publicized Over All North Dakota

With newspapers over the entire state carrying advance stories concerning the first annual state durum show at Langdon last week and stories of the meeting while in progress, Cavalier county was generously publicized. The show attracted as much publicity as any community effort staged in the state during several years.

The show was thoroughly covered Thursday of last week when William J. Leary of Fargo, NDAC agronomist, devoted most of his regular broadcast from stations WDNY at Fargo and KEPR at Bismarck to the show.

Durum Follies Brings Talent - From All Sections of Cavalier County.

Entertainment features, in connection with the First Annual State Durum Show in Langdon Thursday and Friday were well received by large crowds during both evenings of the show. "The Durum Follies," a series of home talent acts, stunts and musical numbers, was the feature of Thursday evening's entertainment, with a near-capacity attendance in the Langdon auditorium. Clyde, Langdon, Harvey County and North Dakota talent combined to present a successful show. Dr. E. DeLaurier, in charge of the follies, also introduced the numbers on the program.

COOPERATING:
GNDA, NDAC, USDA, Elevators and Homemakers Clubs Provide Displays for Shows.

Six outstanding exhibits in addition to the numerous contest entries will be included in the two day State Durum show opening in Langdon today. These displays and entries in the two divisions of the durum contest will be shown both days in the basement of the Langdon auditorium.

Outstanding among these exhibits will be the 200 samples collected by Cavalier county elevator men during the 1937 harvest season. These samples have been carefully graded to show percentage of mixture, size, naked seeds, disease and general quality. A system of numbering will make it simple for each producer to identify his grain and compare it with others.

The North Dakota durum exhibit is shown at the recent International Grain and Hay Show in Chicago and will be shown intact as a feature of the exhibits. Since durum was featured in the North Dakota exhibit, this is probably the first time it has been shown in a similar manner.

Cavalier county Homemakers clubs present exhibits showing uses of macaroni and other durum products, completing the display of all phases of durum from production through consumption. Homemaker members under the leadership of Mrs. F. E. Rawley will be in charge of the display.

The exhibits have been arranged to illustrate and supplement the program.
Fertilizer dealers were as anxious to learn about the use of commercial fertilizer as were farmers. Fertilizer supplies were short and application methods were new to this area. Widdifield set up a short course especially for dealers in 1950 and it was so successful that follow-up short courses were held for several years.

Widdifield moved to the position of program supervisor on August 1, 1956 and after being in commercial work for nearly eight years L.A. Jensen again became Extension agronomist.

Payroll records indicate that Cecil Yampoliski was Extension Plant Pathologist starting January 1, 1919. He served through November 30, 1919 and was succeeded by Worth Covey who served through June 30, 1923. No narrative report of their work has been found. Extension had financial troubles throughout the 1920's and pathology work does not appear in the records again until it is listed under the specialist title of Entomologist and Plant Pathologist in the 1930's.

Extension's agronomy related programs were greatly boosted by the addition of a soils specialist in 1953 and eight other specialists during the next 25 year period. Work with crop pests - insects and diseases - was combined into the position of entomologist and plant pathologist starting in 1933. Most of the work had been with insects and disease problems were building up to where services of a full time pathologist were needed. Howard Bissonnette was hired as a full time plant pathologist and started work January 1, 1962.

Sugarbeets and potatoes have been major crops for many North Dakota farmers but it was not until 1962 that Extension had specialists for those specific field crops. Growers are mostly in the Red River Valley both in North Dakota and Minnesota and both sugarbeet and potato specialists were hired jointly with Minnesota to service those areas. A sugarbeet weed specialists was added in 1969.

Employment of agronomy and agronomy related specialists to work on an area basis started in 1977 and by 1985 agronomists were stationed at Carrington, Devils Lake, Dickinson and Minot. A soils specialist was stationed at Williston and a grassland specialist at Dickinson. Other agricultural area specialists in 1985 were farm management specialists at Minot and Carrington and an irrigation specialist at Carrington.

Jensen retired in 1971 and was succeeded by Howard Wilkins from Kansas. Wilkins continued ongoing agronomy programs and returned to Kansas in 1977.

Duane Berglund and William Ball succeeded Wilkins as Extension agronomists and it was under their guidance that area agronomists were set in place. Berglund moved to the position of Assistant Director, Agriculture and Community Development in 1983 and William Ball remained as Extension agronomist.

High quality wheat for high quality flour.
How Cereal Crops Grow

Diagram showing important structures and functions of a cereal plant.

FOR USE OF COUNTY EXTENSION AGENTS AND OTHERS
IN THE FURTHERANCE OF MORE PROFITABLE FARM MANAGEMENT

Prepared by:
L. A. Jensen, Extension Agronomist
and
Dr. H. Roald Lund, Assoc. Professor
Agronomy Department—NDSU

COOPERATIVE EXTENSION SERVICE, North Dakota State University, Fargo, North Dakota 58102
A LITTLE SEED TO DEMONSTRATE THAT NEWER VARIETIES ARE DOING GREAT

Corn has been a major North Dakota Livestock feed crop both for silage and for grain. Standard varieties that would mature in North Dakota were low yielders and into the 1940’s such varieties as Falconer, Northwestern Dent and Minnesota 13 predominated. Hybrid varieties were being developed by the North Dakota Experiment Station and they needed exposure throughout the state.

Extension started a few corn variety field demonstration plots in 1936 and in 1938 eight counties had such plots. Seventeen growers in those counties included the first Nodak hybrid in their plots. That was expanded to 30 counties and 74 demonstration plots by 1942 with seed furnished for four different hybrids.

Standard corn varieties were also included in each plot and field tours were conducted to show and discuss varieties. All plots were harvested and yield results publicized.

Hybrid corn demonstration plots have been continued in one way or another to this date. 4-H members have been involved in many of them and about 150 members participate each year in what started as the Pride Corn Project in 1945. That project was sponsored jointly by the Pride Hybrid Seed Company of Dassel, Minnesota and Interstate Seed and Grain Company of Fargo. Ten pounds of each of two hybrid corn varieties is supplied to each club member that enrolls in the project. That corn is planted along side of other varieties grown on their farms and comparisons are then made between all varieties grown. All field demonstrations are judged and the three best managed projects are selected in each county. Members with those three best demonstration plots and their parents are hosted at a banquet. The sponsor also sponsors the outstanding North Dakota 4-H corn project member to the annual National 4-H Club Congress.

Pride Hybrid Seed Company has been sold and renamed at least twice but the company has continued sponsorship of the hybrid corn project. It was named Midwest Research Associates in 1965, Weather Master Seeds in 1978 and currently is Payco Seeds, Inc.

4-H club members also were active participants in a corn project sponsored by the greater North Dakota Association 1938-41. Each member that enrolled was given a peck of seed corn. That member then promised to raise that corn and return two bushels of corn or the market value of two bushels of corn to their county 4-H council in the fall for use for exhibit premiums. It was a popular project with 515 members enrolled the first year. It continued as a project until interrupted by WWII.

GRASS

Grass bears no blazonry of bloom to charm the senses with fragrance or splendor but its homely hue is more enchanting than the lily or the rose. It yields no fruit in earth or air and yet, should its harvest fail for a single year, famine would depopulate the earth.”

—John James Ingalls

BEFORE ONE PLANTS 'TIS BEST TO KNOW WHICH VARIETIES ARE BEST TO GROW

Plant breeders work continuously to develop new varieties. They strive for more desirable quality, greater disease and insect resistance, higher yield capacity, better growth and harvesting characteristics and other improvements. When a new variety has been developed and thoroughly tested it is then released for seed.

State and federal plant breeders and commercial plant breeders don’t always have the same standards or goals for new varieties. Reliable comparisons can be made only when they are grown under the exact same conditions. NDAC-NDSU Experiment Stations have continuously conducted variety plot trials and from them made recommendations for varieties for farmers to grow. Extension has used those recommendations in preparing circulars and thousands of such circulars have been requested by farmers every year.

Crop variety seeds were provided to county agents for many years to plant local crop variety demonstration plots. Names of all varieties were listed in the plots which were located along well traveled county roads. Demonstration meetings were usually held at the plots at harvest time.

Farmers have expressed great reliance on the varieties recommended and that has resulted in a much more uniform crop product.

Crop quality has been a major promotion by the North Dakota Crop Improvement Association. Shortages of pure seed greatly hindered maintenance of crop quality and some means of increasing pure seed supplies was needed. Experiment Station acreage was not adequate for more seed production but if more land was available the Experiment Station would supervise pure seed production on it.
How to secure more land became a N.D. Crop Improvement Association major project during the mid 1940's. A goal of $100,000 to buy land was set and it was to come from private subscriptions by individuals and businesses. Every county agent and every county crop improvement association was active in that fund campaign. Joe Thompson, a Walsh County farmer, was fund drive chairman and he recruited Lyle Currie, Walsh County Agent, to help. Currie took leave of absence and together they worked throughout the state. Sufficient money was raised to buy 480 acres near Casselton in 1949 and an additional 160 acres in 1951. It was incorporated as the North Dakota Agronomy Seed Farm and turned over to the NDAC-NDSU Experiment Station for pure seed production.

New crop varieties produced for seed on that farm since 1950 have resulted in many millions of dollars of additional income to North Dakota farmers.

Other major projects and activities of the North Dakota Crop Improvement Association have much more than justified its existence. They have included:

- Revision of state weed laws
- Establishment of an Experiment Station-Extension Advisory Committee
- Support for Experiment Station and Extension budgets at the state legislature
- Co-sponsoring of annual summer field day at NDSU
- Development of numbered confetti to deter grain theft
- Strong support for 4-H agronomy programs
- Sponsor for several commodity group organizations such as U.S. Durum Growers, National Malting Barley Growers Association, N.D. Sunflower Growers Association and Edible Bean Growers Association

Much of the use of inferior quality seed grain could be traced to a lack of knowledge by farmers of things that reduced market grain quality. Admixtures of grain and growing of inferior quality varieties were major reasons for discounts. Seed clinics were planned to help farmers to recognize those problems. Fifteen clinics were conducted in 1937. One additional clinic had to be cancelled because of a snow storm. Attendance totaled 1,057 and 560 seed samples were analyzed. Those clinics were a joint effort by Extension, the U.S. Department of Agriculture Grain Marketing Service, the Northwest Crop Improvement Association, local elevator managers and farmers. They set a pattern for several hundred seed clinics that were to follow during the next 30 years.

WEEDS ARE TOUGH AND EVERYWHERE GROW CONTROLLING THEM TAKES MUCH TO KNOW

Extension's involvement in chemical weed control has been mentioned and a whole book could be written about just that one subject. It has been a continuing and on-going Extension commitment since the mid-1930's. Chemical weed control needs to be separated into two categories - control of annual weeds and control of perennial noxious weeds.

Annual weed control is not too difficult but control of perennial noxious weeds presents many problems.

Selective chemical weed control in growing crops started with mustard and french weed and a chemical named Sinox. Eight field demonstrations were conducted in 1941 with selected farmers in Grand Forks, Nelson, Walsh and Pembina Counties. Chemical, sprayer and manpower to operate the sprayer were supplied by Standard Agricultural Chemicals, Inc. of Hoboken, New Jersey. Resulting green strips through otherwise solid mustard yellow wheat fields were controversial conversation subjects among farmers and county agents were swamped with questions about it.

F.H. Peavy Company became sponsor for chemical weed control in 1942 and it gained a strong following. Reports for 1943 show sixteen farmers operated spray rigs doing custom work and spraying a total of about 10,000 acres of wheat.

Even through the WWII years chemical weed spraying expanded and by 1946 there were 159 spray rigs operating over 19 counties. Conclusion of WWII made both chemicals and spray rigs more available and by 1948 more than 1.5 million acres of crop were sprayed with 2,4-D. That year aerial operators became interested in weed control work and the first aerial operators spraying school was conducted in 1948. Sprayed acreage then increased rapidly and by 1960 about 8.5 million acres of crop were sprayed.

Since 1945 when 2,4-D chemical became available, selective weed control has been a major Extension Agronomy program. Many different selective weed control chemicals have been developed and by 1963 it was found necessary to hire a weed control specialist. Larry Mittich assumed that job on February 1, 1963 and he provided excellent training, circulars and demonstration support to county agents. Release of chemicals for wild oat control in wheat and pigeon grass in corn and soybeans greatly boosted requests for information.

Chemical control of perennial noxious weeds has caused many problems for county agents. Early glowing reports of success in using one chemical or another to control leafy spurge and creeping jenny
North Dakota Seed Growers School

PROGRAM BULLETIN

"Thou shalt not sow thy vineyard with divers seeds: lest the fruit of thy seed which thou hast sown and the fruit of thy vineyard be defiled."


"Still will the seeds, tho' sown with toilsome pains
Degenerate, if man's industrious hand
Call not each year the largest and the best.
'Tis thus by destiny, all things decay
And retrograde, with motion unperceiv'd."

Virgil, B.C. 70-19

PROPERTY OF: ..................................................
FARGO, NORTH DAKOTA
JANUARY 15-17, 1929
NORTH DAKOTA SEED GROWERS SCHOOL

PROGRAM BULLETIN

OUR SCHOOL
Fargo, North Dakota
January 15-17, 1929

"We should take stock of these things which we must learn if we are to be successful seed producers."

"Are you producing seed for extra financial return or for the love of the game, or for both? We have dispositions and temperaments which must derive satisfaction from our activities or there is no incentive to increased efficiency. In other words, if you are not keenly interested in seed production, you had better try some other branch of the farming industry."

"Have you learned where to obtain foundation seed for increased production, and what varieties to purchase? Above all things, the seed producer must learn that buyers make their purchase on the appearance of the seed.

"Experiment stations test all new and old varieties and usually have available limited quantities of pure seed of the best adapted varieties. This seed should be the foundation seed from which certified registered seed is grown.

"Have we been impressed by the fact that available plant food, which comes with efficient cultural practices, affects the quality, the quantity, and the appearance of the seed produced? Do we realize that plant diseases, which also seriously affect the appearance and yield of seed, are in part controlled by variety and cultural practices?"

"Seed growing is a business which requires intelligent study and the application of business principles."

E. C. BOOTH, Director of Seed School.

YOUR OPPORTUNITY
O. S. Fisher

There is no work that a group of farmers can do in a State that will be of greater value than the work that you men are planning to do here in North Dakota, or at least that I hope you may do, and that is seed improvement associations for the purpose of producing seed of known quality and adaptability to be sold to your own neighbors or to go into other sections of the State to make possible better and cleaner crop production in North Dakota. We have at present more than thirty State crop improvement associations. These associations are independent organizations of farmers that cooperate very closely with the State experiment station in the production of high quality seed. The experiment station determines the best varieties of seed to be grown and in most cases furnish reasonable amounts of foundation seed stock. The farmers take these small amounts furnished by the station and grow them in the very best conditions possible, thus giving a reasonable amount of high quality seed that can be taken and multiplied for general distribution. The success of this work depends not only upon the cooperation of the experiment station and extension service, but to a very large extent upon what each of you do in helping to organize a sound program.

SEED CLINICS

A Practical Program

- a Local Problems Discussed
- Up-to-date Information
- Free examination of hard wheat, durum and barley seed.

A series of seed meetings sponsored by the Extension service, North Dakota Agricultural College in cooperation with the North Dakota Seed Growers' Association and the Farmers' Machinery and Farmers' Fair League.

Meetings - 1927

A Special Feature

AT each meeting will be the free examination of samples of wheat, durum and barley which you are planning to sow next spring. All growers are invited to bring plus samples of their seed so they may be inspected by competent men.

Attractive exhibits will be displayed at each meeting.

The Speakers

- President, National Farmers' Union, Minneapolis, Minnesota.
- President, Farmers' Machinery and Farmers' Fair League, North Dakota Agricultural College.
- R. B. Summer, executive secretary, North Dakota Crop Improvement Association, Minneapolis.

You Are Invited
TO attend one of the Seed Clinics. This leader extends to you a hearty and cordial invitation.

These are seed meetings in which the various problems involved with high seed grain will be discussed. Your ideas are welcome. Come prepared to ask questions.

The Program

Will cover a number of subjects. Some of these are:

- How to Make a Successful Seed Cultivation
- How to Improve Your Seed and Seed Storage
- Seeding Plant Diseases
- Seed Certification and the Terminology
- The End of Wheat, Durum and Barley
- Seed Production by Government Scientists and Other Invited Speakers

 rant Your Neighbor
To Ride With You
JANUARY 15—FIRST DAY

Morning meeting at College Assembly: Time 9:00 a.m.
Registration by all delegates and visitors.
Address of Welcome—C. F. Monticello, Director Extension Division, South Dakota Agricultural College.
The Seed School—L. G. South, Extension Agronomist, North Dakota Agricultural College.
The Foundation Seed Supply—Max S. Hempel, Professor of Field Husbandry, University of Saskatchewan.
Appointment of Committees: Constitution, Nominating, Resolution.
Lunch in Corn Hall Cafeteria: Time 12:30 p.m.
Afternoon meeting at College Assembly: Time 1:30 p.m.
Demonstration in General and Field Production—R. C. Stimson, Professor of Plant Pathology, University of Minnesota.
Germination and Seed Storage—O. A. Schimno, Assistant Seed Commissioner, North Dakota.
Looking Toward an Increase in Yield of Great Seeds—H. L. Selby, State Seed Commissioner, North Dakota.
Visit to Seed Cleaning Plant in Fargo—Harley Seed Company, North Dakota Seed Growers Association, Eastern Growers Association, Western Seed & Grain Company.

JANUARY 16—SECOND DAY

Morning meeting in Green Room, Main Building: Time 9:00 a.m.
Demonstration in Seed Production of Fodder and Field (Demonstration and Laboratory Instruction)—O. O. Churchill, T. E. Sues, and W. L. Brunot of the North Dakota Agricultural College.
Why We Should Grow Pure Seed—P. H. Stewart, Extension Agronomist, University of Nebraska.
Lunch in Corn Hall Cafeteria: Time 12:30 p.m.
Afternoon meeting in Green Room: Time 1:30 p.m.
The Production of Seed Cereals (Demonstration and Laboratory Instruction)—P. O. Olson and W. E. Brunot, North Dakota Agricultural College.
Open Discussion.
The Production of Great Clover and Alfalfa Seed (Demonstration and Laboratory Instruction)—H. L. Whalen, L. R. Waldron, E. L. Chenee of the North Dakota Agricultural College.
Open Discussion.
Evening meeting: Time 8:30 p.m.
Banquet in Little Log Cabin—Dinner, H. L. Whalen, Toastmaster.

JANUARY 17—THIRD DAY

Morning meeting in Green Room, Main Building: Time 9:00 a.m.
Crop Improvement Organizations in the United States—O. O. Fisher, Extension Agronomist, United States Department of Agriculture.
Discussion—H. E. Sumer, Northwest Crop Improvement Association, Minneapolis.
Seed Production and Marketing Facilities in Canada—Max S. Hempel.
Discussion—O. O. Fisher.
A North Dakota Crop Improvement Association—Dr. E. C. Booth.
Discussion—R. M. Paton, Minn. Farmers, D. W. Hoek.
The Organization of a North Dakota Crop Improvement Association.
Lunch in Corn Hall Cafeteria: Time 12:30 p.m.
Afternoon meeting, Green Room, Main Building: Time 1:30 p.m.
Farm S & D Cleaning and Storage Facilities—R. W. Charlin, Extension Agricultural Engineer, North Dakota Agricultural College.
How to Clean and Various Types of Improvements in Seed Grain—H. R. Black, Federal Seed Investigations, United States Department of Agriculture.
Demonstration of New Type Cleaning Facilities, Sieves and Methods for Removal of Various Seed and Grain, Operation aided by Charlin and Black.
Seed Cleaning Competition by delegates. Selection of Seed and Finest Product to be Award of Award.
Cooperative Extension Work in Agriculture and Home Economics
State of North Dakota

South Dakota Agricultural College
U.S. Department of Agriculture
and County Commissioners
Cooperating

Extension Service
COUNTY AGENT WORK

Lisbon, North Dakota
January 11, 1938

Time to Analyze SEED GRAINS for 1938 PLANTINGS

Are you coming to the Seed Clinic?

Englewood, January 17th
Lisbon, January 18th

What will the test of your grain show?

These Clinics will give you an opportunity to have an examination of your samples of durum, hard wheat or barley which you intend to plant this spring. Mr. Leary, Extension Agronomist from the N.D.C., will point out mixtures that will lower the market value, such as hard wheat or red durum in amber durum; presence of disease and crop mixtures that reduce the value of the grain or seed.

Bring your samples of grain along with you when you come to the Clinic, or you can leave them at the County Agent's office, or at any elevator in Englewood or Lisbon prior to the seed clinic. Then if the weather or roads are bad you will receive a report on your sample, even tho' you cannot get in to the meeting.

The seed analysis will begin at 10:00 A.M. There will be a speaking program at 2:00 P.M. Latest information on leading wheat varieties will be discussed as well as important plant diseases.

Very truly yours,

J. Earl Cook

J. Earl Cook
Progress has been made in developing a supply of pure seed in North Dakota. There were 500,000 bushels of pure seed produced in that state last year according to a report issued recently by the Extension Service of the North Dakota Agricultural College. Pure, field inspected seed was raised on 38,755 acres, belonging to 508 farmers, residing in 46 counties. In 1927 there were only 6,500 acres of pure seed belonging to 92 farmers.

This increase of the seed supply is a remarkable one. The speed with which it has increased is even more significant. Within three years North Dakota has passed from a condition of pure seed scarcity to one of nearly adequate supply.

Several years ago the grain conditions in North Dakota made it imperative to have a quantity of pure seed available in all sections of the state. The State Agricultural College, with its several branches and with the assistance of several interested agencies undertook to create the much needed supply. The chart on this page illustrates how rapidly they are succeeding.

If the supply is maintained and if the farmers avail themselves of the opportunity to use this seed, our members should notice an improvement in the quality of North Dakota grain within the next five years.
Many sprayers were built with plans supplied by Extension.

often backfired. No firm reliable recommendations could be made. What worked one time was often a failure another time. One of the early recommended chemicals was named Borax and it was primarily borax. Many carloads of it were used in North Dakota but its results were not uniform. To be effective it had to be applied at a rate to keep the soil sterile for several years and it could not be used near trees. It was soon replaced with other chemicals, one after another, and although some have proven very effective, their cost has restricted their use.

LOOKS MAY BE DECEIVING MAKE TESTS FOR BELIEVING

Successive poor crops 1934 through 1936 exhausted most grain supplies deemed suitable for seed in North Dakota. It appeared there would be a shortage of seed for the 1937 crop. Federal authorities were alerted and the federal surplus commodities corporation and the Farmers National Grain Corporation set up a seed supply purchasing program at the Minneapolis Grain Market. That program started in September 1936 and N.D. Extension agronomist Leary spent six weeks there supervising the purchase of grain for seed to be used in the Dakota’s, Montana and Minnesota.

Most grain produced in North Dakota in 1936 was so shriveled and light weight that it appeared to be entirely unfit for seed. Even with the purchase of the grain at the Minneapolis market there would be a shortage of seed unless some of that light weight grain could be used. There was much question as to the germination ability of that shriveled grain and no grain was recommended for seed without a germination test. State seed testing facilities were swamped with samples and to help relieve that situation most county agents set up seed germinating areas in their offices. National Youth Administration (NYA) help was used to make the tests. Surprisingly much of that grain had a high germination. Farmers were cautioned to reduce their seeding rate per acre as there were twice or more kernels per bushel as compared to normal sized kernels. Grain stands produced from that shriveled grain appeared to be about as good as stands from normal seed.

RUSSIAN SEED GRAIN RELIEF A HELPING HAND WAS OUR BELIEF

During peace or during war, Americans have shown generous hands in helping people in less fortunate countries. WWII saw much of the Russian farm crop production lost and 1943 loomed without enough seed grain to grow food. A National Russian Seed Relief Committee was set up and it in turn asked each state to set up its own committee. County agents and the Extension agronomist were leaders in that project and North Dakota people responded generously. They contributed $36,739.36 which was more than any other state contributed. Seed grain was purchased with that money and shipped to Russia. It included:

4 carloads certified mindum and Kubanka Durum
5 carloads certified Rival HRS Wheat
2 carloads certified Vanguard Oats
1 carloads certified grass seeds ~ Brome, Crested Wheat, etc.

NO, ITS NAME WAS NOT AMTRACK BUT IT GOT THEM THERE AND BROUGHT THEM BACK

From early school days do you remember the little train that thought it could? It was willing to give it a try and, sure enough, it could and did carry the load up the steep grade and across the land to its destination. Well, maybe that was the same little train that carried the first big Extension loads over the hills and vales of North Dakota to show farmers and housewives better methods and new ideas for working and home living.

The first trip made by that “little train” in North Dakota was in 1914 and it rolled along the Soo Line Railroad tracks with cars carrying exhibits of crops, farm machinery, livestock and home economics. Its “conductor” was the North Dakota Extension Service and its “engineer” was the Soo Line Agriculture Development Agent. Yes, it was a lot of work but it was also warmly received by 13, 760 people who viewed it as it rested at sidetracks along the way.
ENTRANCE
TO
TRAVELING
FARM INSTITUTE
N.D.A.C. EXTENSION SERVICE
SOIL CONSERVATION SERVICE
BUREAU OF AGRIC. ECONOMICS
AGRICULTURAL ADJUSTMENT AGENCY
NORTHERN PACIFIC R.R.
GREAT NORTHERN R.R.
Soo Line R.R.
COOPERATING

View of bulletin board used at entrance of Traveling Farm Institute to show cooperating agencies.
That little train was very proud of its load and undoubtedly was the forerunner of other little trains that were to come in later years.

Little train #2 hit the tracks in 1926-28. It was a cooperative venture with Northern Pacific, Great Northern and Soo Line Railroads and the North Dakota Extension Service working together. That train ran on tracks of all three railroads and during its run 40,000 to 50,000 people viewed its exhibits and attended meetings held in conjunction with it. Unlike little train #1, that train carried only livestock. Carl T. Carlson, Kidder County Agent, gives a complete account of the visit of the exhibit train to his county. “Eight hundred Kidder County farmers attended this beef cattle special train program held at Steele May 26th and received valuable pointers about the beef cattle business.” After reviewing the local arrangement for the reception of the train, Mr. Carlson said, “an event of the program was the boys’ club demonstration given by two LaMoure club members under the direction of Don McMahon of the Extension Division at the college. The boys who gave the demonstration, Melvin Olsen and Verlin Stanback, members of the Sunshine Baby Beef Club at Edgeley. Their demonstration was in livestock disease control. Using two calves, they showed how to drench cattle, use of different types of halters, dehorned and different methods of throwing cattle.

“The economic outlook for beef cattle production was discussed by J.W. Haw, Agricultural Development Agent for the Northern Pacific Railway. Mr. Haw presented interesting charts showing the price trends for hogs and cattle over a long period of years....

“Characteristics of the different breeds of beef cattle were discussed by W.H. Tomhave, Secretary of the American Aberdeen Angus Association....

“Three magnificent bulls, totaling more than three tons in weight, attracted considerable interest and comments. They included Ladestor, the well known Shorthorn bull from the Ely Aylor farm near Mayville...worthy representatives of the breed to accompany this... The J.W. Thomas herd of Lakota furnished the Hereford bull, cow and heifer... the Aberdeen Angus bull, Ensign Glen Carnoch from the Eastgate Brothers herd at Larimore, the three year old Angus cow from the E. Franklyn herd from Emerado, and a yearling heifer from the Hartley stock farm at Page.”

“Market grades and classes were discussed by George Baker, Livestock Specialist of the Extension Service. Animals were shown to demonstrate the right and wrong kinds of stock to raise and to illustrate the different market classifications.”

“Clyde Challey, student at the Agricultural College and President of the Saddle and Sirloin Club, gave a brief talk on the work of his organization and extended a cordial invitation to farmers to visit the college.... “K. Warner, Meat Specialist of the U.S.D.A. gave a talk and demonstrated meat cuts.” “The remainder of the program for the special train will be held west of the Missouri River on the Northern Pacific Railway during the balance of this week. Next week will be spent on the Soo Line and the next week following on the Great Northern.”

“Much of the success of the meetings thus far is due to the wonderful spirit of cooperation among the business men and farmers at the places where we have stopped” declared John Haw, who is in charge of the train for the Northern Pacific.

“John H. Sheppard of the college who was in charge of the program and Sam F. Crabbe, President of the North Dakota Livestock Breeders’ Association, were enthusiastic with the reception which is being accorded to the train and the programs during the first three days.”

Little train #2 was followed by a purebred sire and heifer special train which carried 70 to 80 purebred sires and heifers that were offered for sale. Its purpose was to help upgrade and improve the quality and productivity of cattle and sheep in North Dakota. At each stop, farmers were permitted to buy the animals that suited their fancy. The Extension Agent helped him in his selection and the Credit Corporation financed the purchase. As the sires were sold out the supply was replenished as the train continued on its schedule.

Cooperation of local organizations such as County Bankers’ Associations, Merchants’ Associations, Chambers of Commerce, Service Clubs, County Crop and Livestock Associations and Fair Associations all added greatly to the effectiveness of Extension educational work.

Little train #4 was a dairy special on the Soo Line tracks with Extension promoting dairy herd improvement and production testing during 1929-30.

Little train #5 was strictly a seed grain train designed to teach and promote the production of unimixed and pure grain. It contained many samples of both pure seed grain and mixed market grain. Each sample was graded and reasons given for the grade. Increased income from having unimixed grain for sale was well illustrated. Seed cleaning machines were exhibited and demonstrated. It operated during the mid 1930’s when seed supplies were low and many farmers had to buy seed. Supplies of pure seed were located and listed and local grain elevators cooperated in taking orders and making seed available at cost.

Little train #6 performed in 1938-39 along the Northern Pacific tracks and received excellent ratings along the way. It was truly a little train of only three
SUMMARY OF NORTHERN PACIFIC SOIL AND CROP INSTITUTE
EXHIBIT AND MEETINGS

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>SPEAKER</th>
<th>MINUTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting Acquainted</td>
<td>A.R. Meisen</td>
<td>5</td>
</tr>
<tr>
<td>Tired Soil</td>
<td>Nesom-Sumner-Walster</td>
<td>25</td>
</tr>
<tr>
<td>What the Doctor Ordered</td>
<td>Sumner-Bond</td>
<td>25</td>
</tr>
<tr>
<td>New Development in Fertilizer Application</td>
<td>Schwantes-Holman</td>
<td>10</td>
</tr>
<tr>
<td>What About Flax?</td>
<td>Putnam-Leary-Grim</td>
<td>8</td>
</tr>
<tr>
<td>New Faces in the Variety Field</td>
<td>Putnam-Leary-Grim</td>
<td>20</td>
</tr>
<tr>
<td>Should Hybrid Corn Move IN?</td>
<td>Grim-Leary-Sumner</td>
<td>10</td>
</tr>
<tr>
<td>Does It Pay To Use Good Seed Potatoes?</td>
<td>Rose-N.D. Seed Certification Dept.</td>
<td>12</td>
</tr>
<tr>
<td>What Does This Mean To Us?</td>
<td>County Agent</td>
<td>5</td>
</tr>
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<table>
<thead>
<tr>
<th>Town</th>
<th>Through Cars</th>
<th>At Hall</th>
<th>Meeting</th>
<th>Weather</th>
<th>Roads</th>
<th>Local Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Killdeer</td>
<td>250</td>
<td>125</td>
<td></td>
<td>10°F below - calm</td>
<td>Blocked - except main highways</td>
<td>Band and free lunch</td>
</tr>
<tr>
<td>Stanton</td>
<td>160</td>
<td>85</td>
<td></td>
<td>15°F below - high winds, drifting snow</td>
<td>All roads blocked</td>
<td>Four $5 cash prizes for drawing</td>
</tr>
<tr>
<td>Halliday</td>
<td>230</td>
<td>114</td>
<td>wind</td>
<td>28°F below - high wind</td>
<td>Only main highway open</td>
<td>Band - gymnastic act - 25¢ lunch</td>
</tr>
<tr>
<td>Beulah</td>
<td>512</td>
<td>150*</td>
<td></td>
<td>30°F above - calm and fair</td>
<td>Only main highway open</td>
<td>Free lunch</td>
</tr>
<tr>
<td>Mandan</td>
<td>620</td>
<td>215</td>
<td></td>
<td>45°F above - thawing fair</td>
<td>Main highways open</td>
<td>Band - mixed adult chorus - 15 prizes for drawing</td>
</tr>
<tr>
<td>Dickinson</td>
<td>515</td>
<td>250*</td>
<td></td>
<td>25°F below - moderated during day</td>
<td>Fair condition</td>
<td>Band - High school chorus - Free lunch</td>
</tr>
<tr>
<td>Beach</td>
<td>750</td>
<td>430</td>
<td></td>
<td>10°F below - moderated some during day</td>
<td>Good</td>
<td>Band - 5 extra prizes for drawing</td>
</tr>
<tr>
<td>Belfield</td>
<td>660</td>
<td>525</td>
<td></td>
<td>15°F below - moderated during day</td>
<td>Good</td>
<td>Band - 44 prizes for drawing - comic movie</td>
</tr>
<tr>
<td>Richardson</td>
<td>580</td>
<td>225*</td>
<td></td>
<td>6°F above and became colder</td>
<td>Good</td>
<td>Band</td>
</tr>
<tr>
<td>New Salem</td>
<td>635</td>
<td>400</td>
<td></td>
<td>Warm</td>
<td>Open - except side roads north</td>
<td>Band - 40 guessing contests at local stores</td>
</tr>
<tr>
<td>Glen Ullen</td>
<td>610</td>
<td>450</td>
<td></td>
<td>10°F above</td>
<td>Open - except side roads east and north</td>
<td>Band - 1 extra prize for drawing</td>
</tr>
<tr>
<td>Carson</td>
<td>875</td>
<td>300*</td>
<td></td>
<td>15°F above Chilly wind</td>
<td>Good</td>
<td>40-50 prizes for drawing - Evening banquet for Institute crew</td>
</tr>
<tr>
<td>Place</td>
<td>Code</td>
<td>Population</td>
<td>Temperature</td>
<td>Condition</td>
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<td></td>
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<tr>
<td>Mott</td>
<td>692</td>
<td>1000</td>
<td>warm</td>
<td>Good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elgin</td>
<td>600</td>
<td>375*</td>
<td>10° above – clear and warmed up</td>
<td>Good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solen</td>
<td>388</td>
<td>225</td>
<td>15° above</td>
<td>Fair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flasher</td>
<td>400</td>
<td>300</td>
<td>0° – cold and threatening to storm</td>
<td>Good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New England</td>
<td>831</td>
<td>550</td>
<td>(Did not get details as I was not present)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Leipzig</td>
<td>883</td>
<td>225</td>
<td>(Did not get details as I was not present)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linton</td>
<td>900</td>
<td>770</td>
<td>15° above – fair and warm during day</td>
<td>Good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazelton</td>
<td>270</td>
<td>300</td>
<td>5° above and snow storm started</td>
<td>Good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bismarck</td>
<td>238</td>
<td>110</td>
<td>8° below – cold wind</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steele</td>
<td>210</td>
<td>101</td>
<td>16° below – raw</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medina</td>
<td>370</td>
<td>350</td>
<td>14° below – windy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jamestown</td>
<td>522</td>
<td>700</td>
<td>4° above – warmed up during day</td>
<td>Fair but side roads to north blocked</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woodworth</td>
<td>237</td>
<td>178</td>
<td>20° above</td>
<td>Roads badly blocked</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pingree</td>
<td>208</td>
<td>80</td>
<td>30° above – warm and clear</td>
<td>All roads blocked except main highway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wing</td>
<td>350</td>
<td>150</td>
<td>50° above</td>
<td>Side roads very bad and main highway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robinson</td>
<td>282</td>
<td>180</td>
<td>60° above</td>
<td>Side roads blocked as was main highway east and west</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wilton</td>
<td>382</td>
<td>200</td>
<td>60° above</td>
<td>Side roads mud and snow and main highway east blocked</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minnor</td>
<td>434</td>
<td>210</td>
<td>Good</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wahpeton</td>
<td>463</td>
<td>225</td>
<td>Good</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Casselton</td>
<td>550</td>
<td>325</td>
<td>10° below – cold</td>
<td>Good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valley City</td>
<td>1058</td>
<td>225</td>
<td>Good</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooperstown</td>
<td>426</td>
<td>235</td>
<td>Good</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lisbon</td>
<td>466</td>
<td>150</td>
<td>Stormy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pembina</td>
<td>241</td>
<td>150</td>
<td>28° below – cold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drayton</td>
<td>666</td>
<td>350</td>
<td>Cold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gilby</td>
<td>311</td>
<td>175</td>
<td>Good</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Forks</td>
<td>620</td>
<td>185</td>
<td>Good</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

TOTAL: 19,920 11,563

*Halls could not accommodate crowds

Orchestra – free lunch (cars did not open until 4 p.m.)

Band – mixed H.S. chorus – glee club girls’ sextet

School play – singing – 14 extra prizes for drawing

Band – Farmers Union women sold 25¢ lunch

Band – many extra prizes for drawing

Band – 4-H club boys rendered songs

Band – 9 extra prizes for drawing

German band

35 extra prizes for drawing

Band – 20 extra prizes for drawing

35 extra prizes for drawing

Free lunch

Tap dancing – H.S. glee club – Free lunch – 8 extra prizes for drawing

Mixed adult chorus – free lunch – 4 extra prizes for drawing

Band – 4 extra prizes for drawing
Little train #7 came along in 1951 and it was really "down to earth." Yes, it was a soils train and truly a product of planned parentage. It contained 3 cars exhibiting soil types and soil and water management techniques and practices. Like little train #2 it traveled on all three railroad's tracks and was accompanied by an Extension staff which conducted soil and water management meetings at all stops. More than 54,000 people viewed that trains exhibits. Local schools conducted class tours through the train and many schools followed up with class discussions and poster projects on soils and water management. Little train #7 made showing at 54 places in North Dakota.

N.P.R.R. Agriculture Agent viewing exhibit of Soils and Water Management on Little Train No. 7.

TRAVELING FARM INSTITUTE IN CITY TODAY WITH EXHIBITS ON TRAIN; ADDRESS AT ARMORY

Many Went Through Train This Morning — Good Crowd At Auditorium — Train Goes From Here To Woodworth

Hundreds of Jamestown and Stutsman county people have gone through the Traveling Farm Institute train sponsored by the North Dakota Agriculture College and the Northern Farm. Company here this morning.

Experts are explaining to those who go through new methods of farming, soil conservation, water conservation, ways and means of ridding the county of the grasshopper and mormon cricket pest and many kinds of machinery.

This afternoon a large crowd was in attendance at the meeting held in the armory. Many scheduled to speak at this conference include G. N. Geisler, soil conservationist; W. J. O'Donoghue, agronomist; W. H. Parmelee, irrigation engineer; Leo Holman, agricultural engineer; Harry A. Gravois, horticulturist; P. Gray Butcher, entomologist, and Harper Busch, former county agent.

One of the most outstanding features of the train was the clear, concise methods used by the experts in charge of the various divisions. This was done by discussing the subject and explaining it by pictures and actual models. Questions on all subjects were asked and answered. There were little model farms done in clay to show how to use grasses for soil erosion prevention; pictures to show how to keep snow on the land by barn sledding, snow fences, how to ridge it up, all in order to keep the moisture on the land; also how to make the most of the water on the land; models of windmills and how to get the most from them were shown.

In the pasture management section many methods of taking care of pasture land were shown: a model trench also was shown in the feed reserve section.

In the machinery car many kinds of plows, harrows, cultivators, a plot with the mold boards removed, and many others were explained.

An entire car was given over to the mormon cricket and grasshopper diseases. Here methods which have been found effective were used: pictures were much in evidence as well as poison mixers in operation land experts explaining the methods.