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# SOUTHEAST EXTENSION AND RESEARCH CENTER & EXTENSION DISTRICT V

# 1982

# ANNUAL REPORT



## SERVING SOUTHEAST NEBRASKA THROUGH THE

- NEBRASKA COOPERATIVE EXTENSION SERVICE
- NEBRASKA AGRICULTURAL EXPERIMENT STATION
- NEBRASKA FOREST SERVICE



THE UNIVERSITY OF NEBRASKA—LINCOLN

# 1982 ANNUAL REPORT

of the

## SOUTHEAST EXTENSION & RESEARCH CENTER/EXTENSION DISTRICT V

Dr. Loyd L. Young, Director  
Elizabeth A. Birnstihl, Supervisor

a unit of

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Dr. Leo Lucas, Dean & Director, Cooperative Extension Service  
Dr. Irv Omtvedt, Dean & Director, Agricultural Experiment Station  
Dr. Ted E. Hartung, Dean, College of Agriculture  
Dr. Robert W. Kleis, Dean, International Programs  
Dr. William L. Powers, Director, Water Resources Center  
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University of Nebraska-Lincoln

Southeast Extension  
& Research Center  
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Lincoln, NE 68583-0714  
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November 1, 1982

Dear Friends,

We are happy to present the Annual Report of Cooperative Extension Service, Agricultural Research, and Nebraska Forest Service programs conducted by the staff during 1982 in southeastern Nebraska. The report represents an overview of the programs in the three areas and not a detailed description of each and every program carried out here at the Center and in the individual counties of southeast Nebraska.

The Southeast Extension and Research Center is located in Miller Hall on the East Campus of the University of Nebraska-Lincoln. The Center serves a twenty-three county area of southeast Nebraska, stretching from Albion to Falls City and Tekamah to Fairbury.

The research portion of our program is very limited as the major agricultural research for southeast Nebraska is carried out on the campus or at the University of Nebraska Field Laboratory located near Mead.

The scientists, foresters, extension agents and extension specialists are all members of the faculty of the University of Nebraska-Lincoln (UNL). The extension agents serve as your direct link with the resources of the UNL Institute of Agriculture and Natural Resources. Through your local agent, you can obtain results of research and other information in agriculture, home economics and related subjects.

We are very pleased with efforts of our faculty and look forward to even more effective programs in all areas in the future. I hope you will find these highlights of some of our programs interesting and informative. If you have any questions or would like more information about any program, please contact me.

Yours truly,

Loyd L. Young  
District Director

UNIVERSITY OF NEBRASKA-LINCOLN, COOPERATING WITH THE COUNTIES AND THE U.S. DEPARTMENT OF AGRICULTURE

## District Director's Report

1982 was a year of challenges for all the various members of our unit including the researcher, the extension worker, the forester, and all the support staff. Our program year started on October 1, 1981 and ended on September 30, 1982.

From the agriculture standpoint, it has been a difficult year. The fall of 1981 was not favorable to the agricultural producer. Rain, freezing temperatures and even light snow was prevalent in October, 1981. Throughout the winter of 81-82, it was cold and snow was on the ground most of the winter.

It was not uncommon for counties in the spring of 1982 to receive five inches or more of rainfall during a week. Parts of the district received nearly 15 inches of rain in two days. This abundance of rainfall caused considerable crop loss not only from the water, but from the hail received around the district.

The extremely wet weather of May, when most of the winter wheat was flowering, caused many problems. A disease known as "head scab" attacked much of the wheat south of the Platte River. This was the first time in 31 years that this disease was a problem. Vomitoxins caused by the scab disease were found on the grain and straw which reduced their value. The disease changed a good prospective wheat crop in May to a very poor crop by harvest time. Many of the yields were reduced and test weights were poor. The wheat straw was questionable for use even as bedding for livestock. This fall many farmers were searching for good seed wheat as the germination on some of the 1982 crop wheat was poor.

Farmers were pleasantly surprised by the yields and maturity of the fall harvested crops. By mid-August it did not appear that many of our fall crops would mature before the first killing frost. However, the frost was delayed and a good harvest is expected.

The economic situation has not been favorable for any of our clientele in southeast Nebraska. Poor grain and livestock prices with increased operational costs have faced our farmer clientele, while our non-farmer clientele were plagued with questionable job security and increased living costs. A general economic recession greeted everyone. All of these challenges identified very clearly, the work that needed to be done by our staff to help people where we had the expertise.

During the year, members of our faculty took various steps to increase their professional growth. Shirley Niemeyer (Sarpy County) completed her Master of Science degree at Iowa State University and returned to her Extension Agent position. Sheila Johnson (Platte County) was granted leave of absence from the University and the county so that she could complete her masters degree at the University of Nebraska-Lincoln in the spring of 1983. Debra Kabes (Richardson-Pawnee) will begin her leave of

absence in January, 1983 to work on her masters degree at Kansas State University. She will return to her position upon completion of her degree. Gary Bredensteiner (Farm Business Association) completed his Master of Science degree at the University of Nebraska-Lincoln.

Nine faculty of our unit were granted academic promotions or were granted tenure by the Board of Regents. The academic promotions are effective July 1, 1982. Those granted promotion or tenure are as follows:

- Douglas Duey (Southeast Extension and Research Center) to Professor of Agricultural Economics
- Russell Lang (Dodge County) to Extension Agriculturist (Equivalent to full Professor)
- Dennis Kahl (Colfax County) to Associate Extension Agriculturist (Equivalent to Associate Professor)
- Kay McKinzie (Gage County) to Associate Extension Home Economist (Equivalent to Associate Professor)
- Bruce Webster (Southeast Extension and Research Center) to Assistant Forester (Equivalent to Assistant Professor)
- John Wilson (Burt County) to Assistant Extension Agriculturist (Equivalent to Assistant Professor)
- Sheila Johnson (Platte County) to Assistant Extension Home Economist (Equivalent to Assistant Professor)
- Tom Leisy (Southeast Extension & Research Center), Professor of Cooperative Extension, was granted a continuous appointment (tenure) effective July 1, 1983
- William Zollinger (Southeast Extension and Research Center), Associate Professor of Animal Science was granted a continuous appointment (tenure) effective July 1, 1983.

The capabilities of the faculty continue to be recognized by the many awards bestowed upon them during the past year. We commend them for their professional achievements. I hope I will not miss any of the awards they received. A partial list of the awards that I am aware of are:

- Linda Buethe (Nemaha-Johnson Counties), Distinguished Service Award from the National Association of Extension 4-H Agents
- James Novotny (Dodge County), First recipient of the Distinguished Extension Agent Service Award by the Nebraska Cooperative Extension Service
- James Novotny (Dodge County), Livestock Service Award, Walnut Grove Products, Atlantic, Iowa
- Robert Voboril (Platte County), Distinguished Service Award from the National Association of Extension 4-H Agents

The Eastern Nebraska 4-H Center was officially dedicated on Saturday, May 15, 1982. This project began in the late 1950's with the early planning. The Center, which will serve the 4-H

members from Extension District V, is available to groups and organizations for educational programs. The total physical plant is valued at more than \$1.5 million.

The extension staff at the county level are beginning the second five-year cycle of our program reviews. Johnson, Otoe, Richardson, and Pawnee will complete their review this year. Gage, Butler, Lancaster and Polk will complete their reviews during 1983.

Jim Enal, Extension Agent in Saline County, moved on a temporary basis on July 1, 1982, from his agent position to Extension Microcomputer Specialist for one year. During his temporary appointment, he will be coordinating an extension microcomputer educational program for production agriculture, home economics and the 4-H community. During his leave of absence from Saline County, Randy Pryor has been appointed temporary Extension Agent-Agriculture.

The research efforts of our faculty with research appointments is progressing under limited state funding. Both researchers are to be commended on the outside financial support that they have obtained.

In our forestry program, we made two significant staff changes. Dave Mooter, stationed in Omaha, and Bruce Webster, stationed in Lincoln, had confined their efforts in urban forestry to those cities. After consulting with the foresters of our unit and Dr. Gary Hergenrader, Head of the Department of Forestry, Fisheries and Wildlife, we expanded the program responsibilities of the urban foresters to the entire district. Mr. Mooter covers the towns in the north half of the district, while Mr. Webster covers the south half. Mr. Webster's office was moved from the Lancaster office to Miller Hall on the East Campus of the University of Nebraska-Lincoln.

In the following pages you will find brief reports of programs of our staff in extension, research, and forestry. If you have any questions about any of the programs reported or on programs not reported, please contact the appropriate faculty or my office.

I am very proud of all the staff of our unit. They are very conscientious and dedicated individuals, who work as a very effective team.



As I closed my report last year, I indicated that we faced some financial challenges. The picture has not changed as the financial constraints have tightened even more. We are approaching a financial situation whereby we are compelled to make some adjustments in staff and program. These will be very hard and difficult decisions to make.

Loyd L. Young  
District Director  
Southeast Extension & Research Center,  
Extension District V

SOUTHEAST EXTENSION AND RESEARCH CENTER

PROFESSIONAL STAFF

Young, Loyd L.	District Director*
Birnstihl, Elizabeth A.	District Supervisor
Adams, Dennis A.	Extension Forester
Ahlschwede, William T.	Extension Swine Specialist (.25 FTE)
Bredensteiner, Gary L.	Extension Farm Business Consultant (.50 FTE)
Duey, Douglas D.	Extension Economist-Farm Management
Gustafson, William A. Jr.	Extension Horticulturist*
Hay, DeLynn R.	Extension Irrigation Specialist (.40 FTE)
Jones, Mike L.	Extension Farm Business Consultant (Stationed at Washington County Office)
Leisy, Tom D.	Extension 4-H Youth Specialist
Leonard, Wanda M.	Extension Community Resource Development Specialist
Lodes, Richard J.	NRD Forester
Mooter, David P.	Urban Community Forester (Stationed at Douglas County Office)
Naber, Keith	Extension Farm Business Consultant- Corporations & Partnerships
Penas, Edwin J.	Extension Soils Specialist*
Webster, Bruce L.	Urban Community Forester
Zollinger, William A.	Extension Livestock Specialist

\*Joint Research and Extension Appointment

## EXTENSION DISTRICT V COUNTY STAFF

## PROFESSIONAL STAFF

<u>COUNTY</u>	<u>NAME</u>	<u>SUBJECT AREA</u>
Boone/Nance	Phil Johnson*	Agriculture
	Anita Hall	Home Economics
Burt	John Wilson*	Agriculture
	Janet Shamburg**	Home Economics (.6 FTE)
	Becky Versch**	Home Economics (.6 FTE)
Butler	Delmar Lange*	Agriculture
	Dianne Zeilinger**	Home Economics
	Judy Fruhbauer**	Home Economics
	Duane Kantor**	Agronomy
Cass	Connie Ahlman*	Home Economics
	John Miyoshi	Agriculture
Colfax	Dennis Kahl*	Agriculture
	Judy Fruhbauer**	Home Economics
	Dianne Zeilinger**	Home Economics
	Duane Kantor**	Agronomy
Dodge	Jim Novotny*	Agriculture
	Russ Lang	Agriculture
	Jody Jurging	Home Economics
	Eunice Beran**	Expanded Nutrition (.6 FTE)
Douglas	Bill Cartee*	Agriculture
	Dotti Callahan	Home Economics
	Charlotte Kern	Expanded Nutrition
	Mary Kudlacek	Home Economics
	John Lindsey	Youth
	Betty Maier	Home Economics
	Mary Ross	Horticulture
Vern Waldren	Agriculture	
Gage	Paul Hay*	Agriculture
	Larry Germer	Agriculture
	Kay Mckinzie	Home Economics
	Alice Henneman**	Expanded Nutrition
Jefferson	Bob Stritzke*	Agriculture
	Barbara Lake**	Home Economics (.6 FTE)
	Vi Damkroger**	Home Economics
	Marilee Karlberg**	Home Economics
Johnson	Jim Carson*	Agriculture
	Linda Buethe**	Home Economics

Lancaster	Don Miller* Allen Boettcher Don Janssen Alice Henneman** Leon Wissmann Twyla Lidolph Esther Wyant	Youth Agriculture Horticulture Expanded Nutrition Agriculture Home Economics Home Economics
Nemaha	Warder Shires* Linda Buethe**	Agriculture Home Economics
Otoe	Gary Garey* Judy Schwab	Agriculture Home Economics
Pawnee	Duane Dalluge* Deb Kabes**	Agriculture Home Economics
Platte	Bob Voboril* Eunice Beran** Sheila Johnson Duane Kantor** Jane Munson	Agriculture Expanded Nutrition (.6 FTE) Home Economics Agronomy Home Economics
Polk	Don Sigler* Judy Fruhbauer** Dianne Zeilinger** Duane Kantor**	Agriculture Home Economics Home Economics Agronomy
Richardson	Gerald Hopp* Deb Kabes**	Agriculture Home Economics
Saline	Jim Emal* Vi Damkroger** Barbara Lake** Marilee Karlberg**	Agriculture Home Economics Home Economics (.6 FTE) Home Economics
Sarpy	Dennis Bejot* Sue Bush Monte Stauffer Pat Wollenhaupt  Bob Woolman Shirley Niemeyer	Youth Home Economics Agriculture Home Economics (10-81 through 5-82) Horticulture Home Economics (6-82-Present)
Saunders	Gayle Hattan* Keith Glewen Sharon Skipton	Agriculture Agriculture Home Economics
Seward	Marvin Sefrna* Marilee Karlberg** Barbara Lake** Vi Damkroger**	Agriculture Home Economics Home Economics (.6 FTE) Home Economics

Washington

Jim Peterson\*  
Becky Versch\*\*  
Janet Shamburg\*\*

Agriculture  
Home Economics (.6 FTE)  
Home Economics (.6 FTE)

\*Indicates designated Agent Chairman

\*\*Serves multiple counties

COOPERATIVE EXTENSION SERVICE  
PROGRAMS  
IN AGRICULTURE AND NATURAL RESOURCES

All Extension work planned or performed that deals with agriculture, forest production processing and marketing, fisheries, wildlife, natural resources, conservation and related environmental improvement is grouped in the Agriculture and Natural Resources area of emphasis.

The Cooperative Extension Service provides information and educational programs to all people without regard to race, color, national origin, sex or handicap.

Cooperative Extension Service  
Agricultural and Natural Resources  
Success Stories - County Level

Pork Producers Association Formed (Boone-Nance Counties)

Over 80,000 head of swine are raised in the Boone and Nance County area. The swine producers represent a good percentage of the farmers and for the most part, are good managers and operators. However, with the immense amount of information generated by the swine industry, the producers could still benefit from the formation of an organization to bring them together for educational and promotional purposes. The Cooperative Extension Service in Boone and Nance Counties saw the establishment of a pork producers association as an effective way to reach the producers and challenge them to greater activity of behalf of their product.

An informational meeting was held in each county featuring as speaker, Terry Schrick, from the Nebraska Pork Producers' Association. Terry explained the objectives of the association and how a local group can become a part of the state organization. As interest began to develop, our office invited other interested persons to meetings. From those in attendance, a nucleus of potential members was established.

The final step was taken following a meeting with Kermit Bohling, State President, who outlined his operation and shared his feelings about membership in the association. From those in attendance, a board of directors was elected and the Boone-Nance Pork Producers Association became a reality.

The basic purposes of the group are to promote the production and consumption of quality pork along with better breeding, growth and marketing. The association wants to provide educational opportunities for producers in all phases of the industry and work in the best interests of each producer.

During the summer, the association supported the swine carcass contest at each county fair by donating the trophy for the champion carcass. A family picnic was also held and new members were encouraged to attend. During the fall and winter, educational programming will feature extension specialists talking on a variety of topics and other activities to promote pork.

With the help of the Cooperative Extension Service, pork producers have a chance to become an active organization that will not only benefit from the promotion of their product, but from the educational aspect as well. This will result in a better informed and more productive group of swine producers.

Pet Vaccination Important (Burt County)

Even accidents can be turned into positive learning situations if handled properly. That was the case in June 1982 when John Wilson, Extension Agent-Agriculture, learned that he and five other Burt county residents had been exposed to a rabid dog. Wilson decided that rather than ignore and forget the situation, he would take this opportunity to use his firsthand experience in informing other people how to protect themselves from rabies.

The local paper gave Wilson front page coverage as he prepared releases on the incident and a follow-up vaccination clinic. Wilson also explained the disease, its symptoms in animals, and the importance of vaccinating pets to prevent the spread of the disease to humans.

The vaccination clinic was successful as they vaccinated over 50 cats and dogs that evening. Within three weeks about 150 pets had been vaccinated and now, four months later, they've more than doubled that number.

Maple Creek Model Implementation Project (Colfax County)

The Maple Creek Model Implementation Project, better known as the MIP, was a federal pilot project set up in 1978 for the purpose of making a concentrated effort to encourage soil conservation on farmland within a 33,000 acre area in Colfax, Stanton and Platte Counties. This project became a cooperative effort between several USDA agencies and the Natural Resources District. The incentive was a 90 percent cost-share rate on all "Best Management Practices" a farmer applied.

Planning for the special project was done by a special coordinating committee including District Soil Conservationists, Natural Resource District assistant manager, county ASCS director, farmers on the county ASCS committees, and extension agents. This committee met at least twice a year to develop plans and identify needs in order to publicize the program.

The general objective of the MIP educational program was to stimulate changes in attitude and behavior of the residents of the Maple Creek Watershed that will result in the acceptance and implementation of "Best Management Practices" to reduce erosion and significantly improve water quality.

Meetings

March, 1978 - Explanation was given of some of "Best Management Practices" as terraces, waterways, conservation tillage,



Cooperative Extension Service  
Agricultural and Natural Resources  
Success Stories - County Level

dams. Seventy-five people attended. As a result of this meeting and newsletters, ten small dams, ten acres of waterways, 45,000 feet of terraces were signed up for. Conservation tillage was used on 908 acres in Colfax County MIP.

February, 1979 - The first meeting was on the rest of the best management practices including sediment retention basins, windbreak and conservation tillage. One hundred-ten people attended this meeting in Leigh. As a result, another meeting was set up in February to further cover the topic of conservation tillage. As a result, 2,316 acres were cost-shared for conservation tillage in 1979. This amounted to over \$3,400 in energy savings for those farmers trying it, plus the savings in soil erosion.

January, 1980 - As things progressed and energy prices skyrocketed to nearly \$1.00 per gallon for diesel fuel, more and more questions were asked about conservation tillage. In January an energy meeting was held in Clarkson with one of the major areas of emphasis being conservation tillage for fuel efficiency presented by Elbert Dickey, Extension Ag Engineer. Also a new slide set, "Water Quality - Whose Responsibility" was shown for the first time. The two programs evidently got more people thinking about soil and energy conservation as more sign-ups for conservation work came about. In 1980 twenty percent of the acres in the MIP were under conservation tillage.

#### Tours

May, 1980 - The first tillage twilight tour was held in the MIP to look at four different tillage techniques on four different farms. Seventy-five farmers went on the spring tour. More reduced tillage equipment was bought from local implement dealers.

July, 1981 - A crop-tillage twilight tour was held to visit four different farms in Platte and Colfax Counties. Sixty-five attended. Weed control, push-up terraces and tillage comparison on a University research plot were stops on the tour.

Two Land Evaluation Contests were conducted for youth in the MIP area. The first year, 114 youth participated with three teams from the MIP area competing in the state contest. In 1981 sixty-four youth participated with two teams from the MIP area representing the counties at the state contest. These contests were in addition to the area contests sponsored by the NRD's.

There were several more small programs included, however, the results of the project were that 33 percent of the acres were treated with some type of conservation practices and all of the

allotted federal funds have been committed for the area. Now farmers are more aware of conservation, as this is common talk in coffee shops and other meetings.

### Improving Soybean Production (Dodge County)

Extension Agents Russ Lang and Jim Novotny set high goals in 1982 to have farmers use higher yielding soybean varieties as well as new production techniques such as narrow rows, new herbicides and new harvesting equipment.

The results of their efforts were:

1. Five issues of a soybean newsletter were sent to 200 selected farmers in the county. In a survey of newsletter readers, 66 replies indicated that all but two wanted to receive the newsletter. Twenty-two readers considered the newsletter "very useful" and 43 respondents rated it "useful." These farmers indicated that since receiving the newsletter they had put into practice 109 of the practices advocated in the newsletter. Thirty-one indicated they were using new varieties. Twenty-five were using new herbicides, five were using narrow row systems of planting beans and eleven farmers reported using new harvesting techniques. In addition 15 indicated that they were using varieties with tolerance to "Platte Valley Yellows." On this basis it can safely be stated that the above objectives of 50 percent of farmers using new varieties, 25 percent using new technology and 90 percent using "Platte Valley Yellows" tolerant varieties were approached if not exceeded.
2. One hundred thirty varieties of soybeans were tested in 1981 through the out-state testing program under the program directed by Gus Drier. This trial was located on the Virgil Wagner farm. In 1982 the same program was repeated on the Willis Bopp farm with over 160 varieties in the trial. A field day was held at the Virgil Wagner farm in the fall of 1981. The results of the 1981 trial were published in the out-state testing circular on soybean varieties. (EC 81-104)
3. Thirty-four varieties were tested in two locations in 1981 for tolerance to the soil condition known as "Platte Valley Yellows." These trials were repeated in 1982 at the same locations in the county using 40 varieties. This work was carried out in cooperation with Dr. Ed Penas.

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Agricultural and Natural Resources  
Success Stories - County Level

4. Each year, 1981 and 1982, eight to ten materials were tested at the two locations of severe iron chlorosis in soybeans. These soil admendments were added to help the soybean plants overcome the adverse conditions which created the chlorotic soybeans. Dr. Richard Wiese conducted these trials. Some assistance was given from the local extension office. Field days were held at the trial locations in order to interpret the results at mid-season. Several of the materials tested did give signifiacnt improvement in overcoming the chlorotic problems.
5. During the year, six radio programs were aired on the local radio station on specific soybean problems.
6. Four news releases on specific soybean problems were made during the year. In addition several news releases were made of a general crop nature where soybean information was included.
7. From April 1 to September 1 a weekly feature in the local newspaper (circulation 11,000) reported crop progress and soybean development. Planting dates, irrigation timing, rainfall amounts over the county, insect problems and disease outbreaks were discussed.
8. A soybean production workshop was held in Fremont with 80 farmers and dealers in attendance. This meeting was planned and carried out in cooperation with the Nebraska Soybean Association. Topics included narrow row technology, weed control, planting and harvesting dates, storage of soybeans and minimum tillage systems for soybean production. Three specialists from UN-L and three extension agents presented the information on the program.
9. Countywide average yield was 37.7 bushels per acre (preliminary) in 1981 according to Nebraska Agricultural Statistics. The 1980 and 1981 average is now 32.2 bushels per acre compared to 31.7 bushels per acre for the 1975-1979 period. This average will be compared for a five year period.

Master Gardener Program (Douglas County)

An overwhelming task facing a horticultural extension agent is handling the tremendous number of telephone calls from the public. In Douglas County we think we've got a pretty workable solution.

Cooperative Extension Service  
Agricultural and Natural Resources  
Success Stories - County Level

Every winter a group of volunteers attends a series of training sessions called the Master Gardener program. After completing it, each volunteer donates 50 hours during the year to the horticulture program. Most of these are donated in the spring and summer when the Master Gardeners help the Extension staff answer telephone and walk-in questions.

These volunteers make it possible to reach a bigger audience. The average number of calls is 25 persons daily, so approximately 125 people are helped each week. As many as 2000 calls and visits per month can be handled this way.

How do we reach potential Master Gardeners? Word of mouth is a big recruiting tool. Many current participants are members of garden clubs and they encourage other members to volunteer. Some candidates come to us after consulting with the staff or a current volunteer. Television, newspapers, radio, and newsletters also provide contact with potential volunteers.

Each January the extension agent for horticulture interviews applicants. Those selected attend eight weekly training meetings. Sessions are each about four hours long. Extension agents and specialists, as well as personnel from the Nebraska Forest Service teach the course. Current Master Gardeners may attend any sessions, and we are preparing an advanced course for them.

The volunteers' education doesn't stop with the formal training course. Throughout the year they are updated by information packets, bulletins, extension programs, conferences and field days.

The Master Gardeners use 'vacant' staff telephones, but do have headquarters in the extension office's diagnostic laboratory.

Although office assistance has been the volunteers' main function, they do other things too. Some help prepare information and registration packets for programs and clinics, some give programs to community groups, others work in 4-H horticulture and at the county fair. We're considering having them man shopping mall information booths and serve as field agents.

A recognition banquet for the volunteers is part of the program. Certificates of appreciation are awarded, and participants (both staff and volunteer) can make suggestions for the next year's program.

Cooperative Extension Service  
Agricultural and Natural Resources  
Success Stories - County Level

Although our program isn't large (about 30 currently active volunteers), we think it's a good solution to the problem of the ever-ringing telephone. The volunteers' commitment, as well as our personal and educational support for them has made it a success.

Minor Irrigation Pumping Plant Adjustments Can Save You "Big Dollars" (East Platte Area)

Many irrigators could save 500 to 1000 dollars or more per well during the irrigation season and still pump the same amount of water. This was demonstrated to Mr. "Soybean," a local soybean seed producer, during a recent pumping plant efficiency test performed by Mark Schroeder in the East Platte Area. Mark is part of the pump test team with the University of Nebraska, IANR. Pumping plant efficiency testing equipment can now be loaned through the Cooperative Extension Service offices, and local irrigators can check their own pumping plants.

During this pumping plant demonstration the well was found to be performing at only 72 percent of the Nebraska pumping plant performance criteria. A minor adjustment of the bowl setting improved the efficiency to 84 percent, saving 0.6 gallon of fuel per hour. Additional adjustments to the carburetor of this propane unit improved the efficiency to 94 percent and reduced fuel consumption an additional 0.9 gallons per hour. These adjustments will save the irrigator \$510 per year, irrigating 120 acres and applying 12 inches of irrigation water during the year. Efficiency could be further improved and additional savings would be observed if the 105 horsepower unit was replaced with a recommended unit of 60 horsepower. Sound fantastic!! Over 200 farmers attending the crops tour and demonstration wondered how many dollars they were losing during a pumping season due to poor performance of their pumping plants. Irrigators operating five, six, or a dozen wells certainly are losing a "bundle."

Yes, other wells checked in the area have indicated performance ranging from 50 percent to over 100 percent. Some of the wells in the area have been pumping for many years and irrigation equipment has been altered in many cases over the years, resulting in some poor performing units. Irrigators need no longer accept this kind of performance since they can do their own pumping plant efficiency test with equipment available through the Cooperative Extension Service and those that would prefer can hire a professional consultant.

These demonstration tests certainly have made irrigators aware of large dollar savings by merely improving the efficiency of every pumping plant they operate.

Cooperative Extension Service  
Agricultural and Natural Resource  
Success Stories - County Level

1982 Farm Crisis (Gage County)

The 1982 year has carried our farm clientele into an ever enlarging dead furrow. Low crop and livestock prices coupled with two 50 percent wheat crops, higher production costs and high interest rates have been undermining farm projects.

The average farm involved with the Southeast Nebraska Farm Business Association in 1981 showed an Operator Return to Management of \$43,018 and an Operator Net Income of \$2,829. Gage County currently has 25 of their better than average farm managers enrolled in this recordkeeping association in Gage County. The picture for 1982 looks as though it will be worse than 1981.

How can a story like this be a success story? Paul Hay, Extension Agent-Agriculture, doesn't have the faintest idea! Hay is very optimistic about the future of farming and the agriculture sector for those who survive. He believes that is what their story is about, trying to help farmers survive.

Their economic survival programs for 1982 have included farm recordkeeping and analysis programs, farm production cost analysis, farm marketing programs, and readjustment of farm lease arrangements.

Gage County farmers are only going to be profitable in the future with a good historical record of their operation, close analysis and careful management decisions, coupled with sound production management. The Southeast Nebraska Farm Business Association offers farmers an excellent recordkeeping system, comparative analysis with other farmers, individual enterprise analysis, and private consultant services for record analysis and tax preparation. Our goal was to increase our membership by five in the association in 1982. We actually grew by about 7 to 25 currently enrolled. We now have a halftime consultant based in our office to serve 48 members in the nine county area south of Lincoln. Our local banks have joined us in promoting the program because they are seeing the need for the type of quality records that the Farm Business Association can offer.

We have worked closely with financial interests including banks, Production Credit, Federal Land Bank and Farmers Home Administration during 1982 on production cost information. We have also worked privately with numerous farmers on production cost factors including seven detailed AGNET reviews. We carried this information in detail to one meeting of over 100 farmers.

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We scheduled and conducted two marketing meetings in March, 1982. One focused on Crop Marketing and featured Drs. Lynn Lutgen and Roy Fredrick, Extension Ag Economists from the University of Nebraska-Lincoln. We conducted this program in connection with Beatrice National Bank and 65 farmers attended the day long program.

Our second session was an Advanced Farm Forum conducted in connection with the Chicago Mercantile Exchange and Al Wellman, Extension Ag Economist from UNL. We had 75 farmers attend this program focusing on livestock marketing factors, particularly as they relate to futures trading.

Hay feels that these two marketing programs saved our farmers quite a bit of anguish. We have had lots of pressure exerted about getting into the futures markets from various lenders. Our producers and lender's needed an understanding of current conditions in order to make good decisions.

The upward spiral of production costs has also created lots of interest in cash leases from longtime share lease landowners. We have had about a 40 percent increase in lease structure and rate information in the last year.

Hay is hopeful that the farm economy will improve, as the hogs recently have, to bring our farmers some profits. He feels that our economic programs have over the past year helped some of our farmers to weather a very stormy sea.

Marketing Skills Help Farmers (Jefferson County)

Thirty-one farmers learned that value of a sound marketing program will continue to be of great importance to the continued profitability of the farm operation. The objective of the program was to help the participants to improve their marketing skills. The workshop was held from 9:00 a.m. to 3:30 p.m. on December 15, 1981.

Fluctuating prices, government programs, local and world conditions and the lack of knowledge of marketing alternatives cause increased difficulty in making profitable marketing decisions. Increased producer knowledge of these factors that affect farm prices helped them market commodities at higher prices and at increased profits.

Lynn Lutgen, Extension Economist, discussed and presented his outlook for the grain prices for the next few months. He also presented various grain marketing alternatives and factors that will affect the various marketing decisions.

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Al Wellman, Extension Economist, provided livestock market outlook for the next few months. He also presented information on the "Swine Advisory" and "Beef Advisory" programs that are available on the AGNET system or by direct mail from the university.

Those producers who had been getting the reports gained additional information that will make the reports more useful to them. Twelve of the participants who were not aware of the reports signed up for the reports and found them to be useful.

Marketing and production plans for the next few months or until prices become more favorable were also discussed by both specialists. The meeting was completed with some basic information about market charting. Market charts can be a very useful tool when used with other information for the evaluation of various marketing alternatives.

Get the Word Out with Mass Media (Lancaster County)

When you try to reach the maximum number of people through extension programming, the use of the newspaper, radio and television is essential. No one media system seems to be more acceptable than another. For this reason, a multi-media program can be used and should give you maximum benefit of time invested.

In the past year the horticulture program in Lancaster County has developed programs for all areas of mass media. The newspaper columns in the Sunday Journal and Star and the Monday Star are the backbone of the media program. In a survey conducted by the Program Evaluation and Staff Development Departments of the University of Nebraska, it was found that over 67 percent of the adult readers were familiar with and read the "Garden Gossip" and the "Garden Line" columns. In Lancaster County this could account for over 70,000 readers per week. Throughout the year 76 columns were prepared.

The "Garden Tips" radio program is prepared for KLIN and KFOR radio stations. According to the horticulture survey, these programs were heard by approximately 18 percent of the population on at least a once-a-week basis. These programs are aired daily at 6:30 a.m. and 9:30 a.m. Their value is measured by their timeliness and their short, to the point delivery. There were 625 radio programs presented during the past year.

Television offers the horticulture programs the opportunity to be timely as well as visually expressive. The KOLN-TV station in Lincoln produces a program titled "Take-5." Don Janssen, Extension Agent-Horticulture, has participated in approximately



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18 programs in the past year. This program is aired in several regions of the state.

In the extension office there is a media program that can be directly measured. This is the "Horticulture Hotline." The hotline is a one and one-half minute recorded horticultural message that can be accessed by calling a designated phone number. This number is published in the Sunday Journal and Star newspaper in the Garden Gossip column. A different tape is used each day of the year. The messages are kept timely and are accessible 25 hours a day. During the past year the hotline received 26,000 calls.

The mass media programs are not a substitute for other types of extension programming. In fact, they can increase the number of phone inquiries and office visits. The media programs do have the advantage of reaching individuals that have never heard of or had any contact with the Cooperative Extension Service.

Microcomputers on the Farm (Lancaster County)

Fifty-two farmers and agribusiness people attended a four-session microcomputer workshop sponsored by the Cooperative Extension Service in Lancaster County. Each session was two hours in length which allowed time for in-depth discussion on the many aspects of microcomputers.

The program for the first session included: what is a computer, parts of a computer, terminology, introduction to BASIC programming, and a dealer demonstration. Participants discovered the many types, sizes, capacities, and price ranges on various types of microcomputers. Emphasis was placed on selecting a microcomputer after you have decided the task you want it to perform. With a price range of \$200-\$15,000 per unit many aspects need to be identified prior to the selection of a microcomputer.

The second session dealt with computer languages and vocabulary, software development and sources, and a software demonstration by a local dealer. Careful software selection surfaced as the important aspect when buying software. Similar software packages range in price from \$150-\$600. Documentation manuals are also important for buyers in order to assist the user in running the program.

The third session included interfacing with dial-up data base services, (AGNET, DOW JONES, COMPUSERVE), and other dealer demonstrations of microcomputer hardware. By interfacing a microcomputer with a specific data base, one can use programs,

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receive market information and current world news, and even play games. AGNET was specifically discussed as a management tool that all farmers should consider using. The variety of ways a microcomputer can be used seemed to surprise the participants.

The final session covered the selection of hardware, available microcomputer magazines, and a general question-answer session. At the conclusion of the workshop over 50 percent of the participants indicated they were interested in acquiring a microcomputer for their business. They agreed that shopping around and selecting quality equipment and programs that will perform the tasks desired are the important aspects in microcomputers.

Three County Sheep Meetings (Otoe County)

The Cooperative Extension Service in Otoe, Cass, and Lancaster Counties sponsored three sheep production meetings at the Southeast Nebraska Livestock Salebarn near Palmyra during February. The meetings were held on three consecutive Thursday evenings, February 11, 18 and 25.

On February 11, Dr. Ted Doane, Extension Livestock Specialist, visited on breeds, physiology, reproduction and wool. There were 48 farmers attending. Extension Agent John Miyoshi of Cass County, was in charge of this meeting. The evaluation showed 100 percent of those completing the forms were pleased with the material presentation and that the information was adequate.

On February 18, Dr. Duane Rice, Extension Veterinarian, discussed diseases and parasites. Dr. Donald Sweat, veterinarian in practice in the Syracuse area, discussed vaccinations and farm health management. He also demonstrated vaccinating, castration, and docking. There were 61 farmers, farm wives, and youth from eight counties attending. Gary Garey, Extension Agent in Otoe County, was in charge of this meeting. The results of the evaluation on this evening's program on a scale of 1-10 with 10 high were: 8.1 average on program presentation and 7.4 average on usefulness of the information to those attending. There were many other suggestions on the evaluation forms completed.

The third meeting was held on February 25. Dr. William Zollinger presented a talk on sheep feeding and nutrition. A panel of producers, one from each of the counties, discussed their flock management procedures and answered questions from those in the audience. Those on the panel were Otoe County - Roger Dowding, Cass County - Jack White, and Lancaster County - Bruce Robinson. Allen Boettcher, Extension Agent in Lancaster

Bruce Robinson. Allen Boettcher, Extension Agent in Lancaster Cooperative Extension Service Agricultural and Natural Resources Success Stories - County Level

County, was in charge of this meeting. An evaluation conducted by Allen expressed very favorable comments on the evening's program.

These three meetings conducted by the Cooperative Extension Service in the three counties were very successful in attendance and material presented. The evaluation of all three meetings was very good and several suggestions for additional sheep meetings were received.

#### Exposition - Provides Help! (Polk County)

Eighty area farmers attended an all day crop production meeting on February 19th, presented by the Cooperative Extension Service and area agribusinessmen.

The topics covered during the meeting centered around production concerns such as insects, diseases, weed control, fertilization, irrigation of corn sorghum and soybeans and crop rotation. The material covered in the presentations by the six extension specialists in many instances was more general in nature. They did arouse the thinking of the participants. Many discussed their concern either following the presentation or during the day as there was time to talk to the specialists.

Following the workshop and before spring work started, six cooperators visited the Cooperative Extension Service Office to discuss their soil test with the extension agent. Their concern was, is there any way they could reduce their anticipated fertilizer costs? In all cases their soil test results could be interpreted and related to the University of Nebraska recommendations. By doing this they found they could reduce nutrient recommendations or not use trace elements as recommended.

One cooperator reported later in the spring that by following the University's fertilizer recommendation, he had saved himself over \$10,000 in fertilizer costs. In checking prior to harvest, he was still pleased that he had made the decision, but was anxious to see how the crops would yield.

Several other producers stopped in to rediscuss some of the weed control recommendations. In one case a specialist was called to obtain answers on a specific product used on reduced tillage fields. The cooperator reported later that the product eliminated his weed problem as the specialist had indicated and was very happy he had inquired about the product.

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A very well planned and structured meeting was presented by the three USDA agency heads here in Saline County. This meeting involved the ASCS, SCS, and Extension Service personnel. Each was to present a thirty-minute overview of their organization and how it fit into the management strategies of today's farm business. Although the meeting was one of the best publicized and promoted by all three agencies, it was one of the poorest attended. A total of only seventeen women took in either of the two workshops offered.

Results of the series of workshops have shown the need to continue to program for the needs of the farm women. Our plans for the next year or two will include the development of more workshops on Pesticide Safety, Farm Machinery Safety, Rural Water Quality and other topics identified as high priority.

Conservation Tillage (Sarpy County)

About 150 farmers, landowners, and agribusinessmen attended the three sessions. The field day was a cooperative effort of the Cooperative Extension Service, the Soil Conservation Service, the ASCS, the NRD, and the Charles Trumble family. Monte Stauffer, Extension Agent-Agriculture, spoke on the advantages and disadvantages of different "Tillage Systems and How to Manage Crop Residues to Reduce Wind and Water Erosion." A demonstration was given on how a minimum tillage planter can be used to plant corn in wheat residue. Farmers commented that they were surprised how well the planter worked in the heavy residue. One farmer told the crowd that he didn't feel he had any topsoil wash off his no-till planted fields while his neighbor lost up to five tons of topsoil per acre on conventionally tilled fields because of the heavy rains encounters this summer.

Grain Storage Workshop Provides Payback! (Saunders County)

Thirty-two Saunders County farmers participated in a grain storage workshop that left a favorable impression on Gordon Ohnoutka, a Valparaiso farmer. "This is one of the most interesting and informative programs I have ever attended," Gordon said. The workshop was held on Friday, March 19, 1982 and was sponsored by the University of Nebraska Cooperative Extension Service in Saunders County.

AGNET, the agriculture computer management tool, was relied upon by Dr. Richard Pierce, Extension Agriculture Engineer and Extension Agent Keith Glewen, to assist farmers in solving their grain storage problems.

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According to Glewen, the morning session was devoted to discussing the general concepts of drying and storing grain, and in the afternoon we worked one-on-one with grain producers on solving their grain storage problems via AGNET. Glewen also expressed that the results of a survey indicated that the growers in attendance represented approximately 825,000 bushels of grain in storage. Numerous growers also expressed that from the information they received at the workshop, they could save approximately two cents per bushel because of energy savings, reduced spoilage, and improved grain quality. Applying this savings on to the 825,000 bushels of grain represented at the workshop provided an estimated payback of \$16,5000 to those thirty-two farmers in attendance, Glewen said.

Cow-Calf Production - Pasture Production and Management Workshop  
(Seward County)

A two-session Cow-Calf Production - Pasture Production and Management Workshop was held on February 4 and March 11, 1982 with over 40 beef cow-calf operators in Seward County and surrounding counties attending one or both sessions. Topics covered in the two sessions were "Management and Development of Two-Year-Old Heifers" and "Management Factors Affecting Conception and Re-Breeding of the Cow Herd," presented by Dr. Gene Deutscher, Extension Beef Specialist, North Platte Station; "Summer Fly Control on Pasture or in the Drylot - Does it Pay?" and "International Parasites of Cows and Calves - Is Worming and Grub Control Necessary?" presented by Dr. John Campbell, Extension Specialist-Entomology, North Platte Station.

The information presented in the cow-calf production workshop on Management Development of Two-Year-Old Heifers, as well as the Management Factors Affecting Conception and Re-Breeding of Cows, could result in an extra calf produced in the lifetime of a cow bred to calve as a two-year-old. In addition it could result in a five percent to ten percent improvement in cows re-bred yearly. If the 30 cow-calf operators attending the Cow-Calf Production Workshop implement the recommendations, in a 25-head cow herd the gain of 2.5 calves yearly over a ten-year period, plus a conservative 5 percent improvement in cows re-bred, could result in an additional 1.5 calves yearly, for a total of four calves gained yearly. These calves valued at \$500 each could result in an added calf income of \$2,000 yearly per 25-head cow herd, or a gain in income of \$60,000 for the cow-calf producers participating in the workshop. Gain improvements by effective fly and internal parasite control could boost returns per cow by \$20 per cow, for an additional gain of \$500 to the 25-head cow herd yearly.

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The Pasture Production and Management Workshop of the two-session workshop series held on March 11 covered the topics: "Boosting the Forage Production from Cool and Warm Season Grasses" and "Renovating Abused and Over-Grazed Grass Pastures" which were presented by Bruce Anderson, Extension Forage Specialist, University of Nebraska-Lincoln. The 26 farmers and/or cow herd operators participating in this workshop showed intense interest in the two topics presented. Three participants inquired further into the use of herbicides to eliminate invader grasses and thus permit mature grasses to renovate these abused pastures. These farmers used herbicides in 1982; however, an evaluation of the results achieved has not been made.

Ag Marketing Day Well Attended (Washington County)

Developing a Marketing Plan for Livestock and Grain, Hedging and Cash Contracts, Panel Discussions on Marketing and New Developments in Marketing were some of the items of discussion during an Ag Marketing Day held Tuesday, December 8th in Blair. Led by Al Wellman and Lynn Lutgen, University of Nebraska Ag Economists, fifty producers and wives spent the day in discussion of various grain and livestock marketing tools available to farmers.

Participants in the day long program were exposed to many types of marketing programs designed to a particular producer's needs and interests. Discussion included information on hedging, forward contracting and cash sales. Emphasis was placed on marketing livestock and crops at an above average price for the year rather than trying to hit the highest price of the year. For example, cash corn prices this past year ranged from a high of \$2.71/bushel to \$2.11/bushel. This is a 60 cent per bushel spread. Developing a market plan to market corn at above average prices either through hedging, forward contracting or cash sales would have resulted in a savings of 30 cents to 40 cents per bushel above that of the low price. On a farm raising 20,000 bushels of corn, the savings to the farmer by marketing above average would be \$6,000 at least. This is a considerable savings.

In order for a producer to better predict these prices, the participants were also introduced to several marketing forecast programs available through the University of Nebraska through either the AGNET computer or newsletters. Approximately 10 to 12 participants in the program signed up to receive this information by letter.

A survey was made of the producers attending the program. Twenty-nine producers returned the survey immediately following the program. The overall impression of the program was very good

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with 20 of the 29 respondents rating it very good to excellent. A panel discussion on marketing, which included a banker, two farmers and a stockbroker got the highest review among the participants. Some excellent discussion between the panel and the audience ensued during this period. A discussion on developing a marketing plan for grain also received high marks.

A question on the survey asked the participants if they were planning to make any changes in their current marketing plan based on the meeting held. Eight of the 29 respondents indicated that they were going to make extensive changes in the marketing plan with the majority of the respondents indicating some changes to be made. Those that commented, indicated that they would be using hedging more and would look forward to a profit in the future.

Interest was also expressed by the participants for future marketing meetings. It was felt to be an excellent program by those in attendance.

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Agronomy - Soils

Using Fertilizer More Effectively

by Edwin J. Penas, Extension Soils Specialist

Publications

The NebGuide entitled "Using Phosphorus Fertilizers Effectively" has been published and is available for distribution. Comments received indicate that it is a very useful NebGuide that gives information not readily available from other sources.

Newsletters

Three soil Science News were written. Topics discussed were "Another Look at Soybean Chlorosis" which dealt with the soybean variety trials in Dodge County on soils where soybeans are chlorotic, "Soybeans in Rotation -- What's Their Worth?" which summarized research where soybeans were evaluated in rotation studies, and "Phosphorus Fertilizer Effectiveness Depends on Placement" which summarized experiments on wheat in 1982. These three newsletters have been quite popular as a source of new research data.

Radio

Two radio programs were developed in cooperation with agents when this specialist was in the county for meetings or plot work.

Agent Training

An agent training session was presented to update agents on "Interpreting Soil Test Reports" which included both UNL and commercial testing labs and "Lime Update" with special emphasis on lime suspensions. The agent from Burt County reported that he consulted with 11 farmers in his county on fertilizer recommendations. By using the University interpretation of soil test values, he was able to reduce fertilizer recommendations for these growers. Fertilizer program costs were reduced between \$27 to \$45 per acre. On 1820 acres, these 11 producers could save \$57,720.

Fertilizer Management Schools & Crop Production Clinics for Producers

Meetings were numerous and popular this past year. Some of the best attended and most beneficial meetings were the area Soy Profit meetings (7), Agriculturama in Schuyler, Ag Update in Butler and Polk Counties, and Fertilizer Management Schools (3). Soybean growers in particular were glad to learn that they did not need to apply as much fertilizer for soybeans as they are often led to believe. Soil testing is also gaining in popularity. Producers are becoming aware that, properly used, soil testing is a good management tool. Not only does it give guidelines as to which nutrients are needed but also how much is



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needed. Those producers that are using deep samples for nitrogen are finding that they can save money when the soil contains carry-over nitrogen. Some growers are reporting savings up to \$30 per acre for nitrogen alone. Reports from growers indicate that even in a wet year such as 1982, soil testing for nitrogen in fine textured soils is dependable if the samples are properly taken.

Fertilizer Management & Soil Schools for Dealers

The Soils In-Depth School was again conducted for fertilizer dealers. Also Farmland Industries held an update school for some of their dealers. Dual placement of nitrogen-phosphorus was discussed as part of the research update. It is important for fertilizer dealers to be aware of Nebraska research data and to understand that fertilizer recommendations should be based on this research.

Field Demonstrations, Tours, and Field Meetings

Fertilizer needs and fertilizer management were discussed on six field tours and two plot meetings during the summer and early fall. Stops at research plots where rates of nitrogen on corn being evaluated were included in two county tours.

Plot meetings were held at two sites where rates and methods of phosphorus application were being evaluated. Proper application of phosphorus is very critical. One wheat producer reported that since a dual placement experiment on his farm a year ago, he has converted his ammonia application equipment for dual-placement. He indicated that the cost of conversion was less than \$2,000 for an 18-foot rig.

The Field Day at Northeast Station and Agronomy Field Day at Mead also included fertilizer use and management. This specialist assisted with the stop at the Soil Test Comparison Study at the Northeast Station. Visitors were impressed by the performance of the low cost fertilizer program suggested by the UNL Soil Testing Lab. The Agronomy Field Day was dampened by rain but well attended in spite of the weather. Field demonstrations had to be modified but were of interest. The deep sampling for nitrogen went well. Equipment for dual-placement was shown but could not be demonstrated.

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Animal Science

Improved Crossbreeding Systems for Pork Producers  
by William T. Ahlschwede, Extension Swine Specialist

Changes in farrowing schedules by both large and small pork producers have led to difficulties in following rotational crossbreeding systems. A crossbreeding systems analysis program was developed on a microcomputer to help pork producers evaluate the production and profit differences of various systems. The evaluation revealed that in times when most producers were breaking even, terminal crosses could produce profits \$30-\$40 per litter larger than the rotation crosses. Based on the microcomputer projection, crossbreeding systems were emphasized at Area Swine Days at Arlington and Tecumseh, at county meetings and in consultation with producers. The crossbreeding systems analysis program on the microcomputer was used as the focal point of an educational booth at the Feeder Pig Exposition in Columbus. Individual producers were able to evaluate their current crossbreeding program, compare it to systems that might be adopted and discuss methods of changing systems.

Sheep Expanding Numbers  
by William A. Zollinger, Extension Livestock Specialist

The number of sheep and sheep production units have grown rapidly over the last five years. This growth is characterized by small flocks across the state. There are about 2500 sheep producers in Nebraska with about 650 in southeast Nebraska. Clientele experience ranges from none to lifelong involvement. A multi-effort program was developed to meet the needs of the different producers.

A statewide symposium will be held annually. This is developed jointly with the Nebraska Sheep Council and those producers with extensive experience and interest. The theme for this year was flock health and the related impact of nutrition on health. Dr. Frank Hinds from the University of Wyoming was the keynote speaker. Fifty producers attended and received formal and informal presentations of information.

To impact on the intermediate-type producer, the specialist participated in the five Area Sheep Days across Nebraska. These were held in Ogallala, Chadron, Loup City, Pierce and Seward with 240 producers in attendance. Topics included selection of breeding stock, management of the nursery, predator control, and optimizing wool production. Individual producer evaluations were held to change management techniques to increase profit.

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Animal Science

Within southeast Nebraska, a series of workshops in Platte, Lancaster, Otoe, Cass, Nemaha, Johnson, Seward and Gage Counties were held to impact on the inexperienced producer. Subjects were chosen and presented so that the beginner can build his management techniques on a solid basis. One hundred sixty-five producers were contacted through this method. This represents 30-35 percent of the potential producers in the district.

On May 4th, 58 rams began the first annual Nebraska Ram Test at the Mead Station. Producer interest was high with frequent visits to the site. The test concluded in July when the extremely hot, humid weather stopped ram performance. The test was terminated and the rams penned together to relieve mortality. A field day was held July 31 to return the rams to their owners. The purebred committee of the Nebraska Sheep Council supported continuing the program with minor changes. The test will be held earlier to counteract the weather and more fit the age requirements for rams.

Overall, in a one year period of time, 583 producers were contacted which represents 24 percent of the potential. Further, it is estimated that contact with producers exceeded 50 percent in District V.

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Agricultural Engineering

District V Irrigation Program

by DeLynn R. Hay, Extension Specialist, Water Resources and  
Irrigation

The thrusts of the irrigation program are improved irrigation water management and pumping plant efficiency. Above normal rainfall during 1982 greatly decreased the need for irrigation in District V. Many irrigators, especially those using surface water in the southeastern part of the district, did not apply any irrigation water in 1982. At least five counties continued to provide cooperators with irrigation scheduling information. The emphasis of educational material presented at seven winter meetings was irrigation water management. Two of these meetings were held in cooperation with Rural Public Power Districts who were presenting information on irrigation electric load management programs. Irrigators can reduce energy costs by accepting higher levels of load management. The irrigation management information presented enables irrigators to more easily use the higher levels of load management.

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The annual Irrigation Shortcourse held in January, 1982 continued to provide an opportunity for District V irrigators to attend an in-depth irrigation educational program. There were 39 people from District V in attendance. The irrigation scheduling workshop held in March, 1982 provided training for 81 people with 12 from District V.

Summer tours in Platte and Butler/Polk Counties provided an opportunity for discussion of irrigation water management in the field with approximately 200 people. Crop water use was discussed on the Farm and Ranch TV show in the first week of August.

The interest in pumping plant efficiency was not as great in 1982 since the pumping plants were not used as much as during previous years. Six counties in District V held pumping plant performance evaluation demonstration and training events during the summer of 1982. Loan equipment available from the County Extension Offices continues to be used for simplified pumping plant performance evaluation by irrigators. On a statewide basis, the average performance rating was increased 14 percent for 31 pumping plants adjusted during demonstrations. Also, on a statewide basis, adjustments on diesel units saved an average of 456 gallons of diesel fuel or \$524 per year based on the irrigators' actual fuel costs.

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Farm Management

Machinery Economics

by Douglas D. Duey, Extension Economist-Farm Management

Every two years a survey is made of 3500 known farm machine custom operators and farmers to obtain the rates being charged for hiring various farm jobs and operations. This information is highly sought by clientele. The summary of data is published as a NebGuide. It has become the most widely distributed publication of any NebGuide, according to the Department of Agricultural Communications.

The custom rates are summarized by State Crop Reporting Districts and by job. Averages, a range of values, and mode (most common rate) are given. As soon as summaries are completed, the Nebraska Farmer magazine publishes the entire custom rate information. They have many readers who diligently clip and file the custom rate tables for reference.

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There continues to be a large number of telephone calls and letters for information on farm machinery custom rates. They are used as a basis of settlement between neighboring farmers, between operator and landowner, and for budgeting or projecting production costs.

A quarterly supplement to the Cornhusker Economics newsletter on percent change of custom rates using USDA index of prices paid by farmers has met with widespread and overwhelming approval.

The cost of owning grain storage on the farm has been a very popular question this summer and as fall harvest was approaching. Grain storage will be extremely tight this year following a bumper crop of 1981 and with another large crop in 1982.

AgNet is used considerably by extension agents to determine machine costs of ownership and operation with the MACHINE, CUSTOM, AND CROPBUDGET programs.

General Farm Records and Analysis

by Douglas D. Duey, Extension Economist-Farm Management

Farm records and analysis is a continuing educational effort. The results of better farm records become apparent with the satisfaction of having made more profitable management decisions and the filing of accurate income tax returns. Profitable farm management decisions are based with the farmers' experience and the ability to utilize the information available to him with records. Good farm records provide the base to make interpretative analysis of the farm business and enterprise selection and adjustments on the farm.

Farm wives often have much involvement in the keeping of farm records. They have been eager to know more about the business of which they are a part. Four county meetings were held and labeled as "How to Be a Better Business Partner."

The "blue" farm record and account book which is made available to farmers in Nebraska has been the mainstay of the Nebraska farm records thrust. This year's edition was revised slightly and 15,000 were printed for a two-year supply. The county extension offices are distributors of this publication. Banks and accountants also order quantities for distribution at year-end. A memo was received this year from the Bank of Niobrara: "Farmers have nothing but compliments about the record books. Every year more people use them so every year we try to increase our order."

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Microcomputers are coming on the market with farm accounting programs. The extension staff is keeping abreast with developments and doing some consulting with the objective of having quality programs commercially available in the future.

Southeastern Nebraska Farm Business Association

by Gary L. Bredensteiner, Extension Farm Business Consultant

The primary objective of this program is to provide financial management assistance to individual farm operators. Emphasis is placed on the development of a complete farm records system to provide the needed basis for achieving this objective.

The Southeast Nebraska Farm Business Association is open to all southeast Nebraska farm operators. Farmers who enroll pay a fee for the individual services provided and also have a voice in the operation of the association through an elected Board of Directors. The program has relied heavily on the support of district farm management specialists, extension agents, and current members for the recruitment of new clientele. In addition, many agricultural lenders have cooperated in promoting the association.

Farm Business Association members are provided with: 1) a farm accounting system, 2) year-end computerized total farm analysis, 3) quarterly or annual detailed enterprise analysis (if desired), 4) comparative analysis data and, 5) individual consultant service. It is the consultant's job to provide individual attention to each member as required and the success of the program relies heavily on the consultant. There are currently two fulltime and three part-time consultants serving Southeast Nebraska members. Consultant assistance is given in areas such as: 1) explanation of and continual overseeing of the farm records program, 2) accurate completion of analysis data, 3) explanation and use of analysis data, and 4) individual consultation on income tax management and other financial management.

The association approach originated in District V in 1975. Membership in the association has grown from 25 in 1975 to 130 in 1982.

The importance of accurate financial information to a modern farming operation cannot be overemphasized, especially in view of recent economic conditions. Consultants make use of financial data each day to assist association members with management problems. For example, crop enterprise analysis data was used to project 1982 grain production costs as a first step in developing

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Farm Management

an effective marketing plan. This information was used with individual members as well as at group marketing meetings held. Also current financial data was used to assist members with estate planning in 1981-1982. Consultants in District V assisted with the formation of four new family farm corporations and one general partnership this year.

Efficiency factors stressed by consultants to association members have led to improved management practices. For example, feed efficiency data has provided the incentive for ration analysis and also facility alterations for several members.

Farm Business Association members have made use of analysis data for enterprise selection decisions, particularly in regard to the mix of crops produced in 1982. Also, data and consultant assistance has been helpful in appropriately cutting production costs in 1982.

Income tax management is emphasized on the consultant's fall visit each year. Because the majority of farm operators are cash basis taxpayers, effective tax planning assistance provided by the consultant pays big for many members both in higher and lower income years.

Working a son into a farming operation can be a difficult task. Consultants assisted with operating agreements or other planning devices for father-son operations for seven association members this year.

Finally, simply teaching what records are necessary and how to effectively use records in your farming operation is an "every visit" task for the consultant.

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Horticulture

Extension Horticulture Propagation Workshops Are Popular With Nebraskans

by William A. Gustafson, Jr., Extension Horticulturist

The ancient art of budding and grafting, known to the Chinese at least as early as 1000 B.C. is becoming very popular with Nebraskans. Why?

The midwestern region has thousands of native plants. These plants have adapted to the low rainfall, low humidity, high wind

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movement and medium altitude. These plants are more adapted to Nebraska than the plants that are adapted to the very cold winters of Canada and the New England States.

Many of these native plants have beauty and food value and can be found growing in landscapes of Nebraska, but there are many that have yet to be appreciated, let alone domesticated. One of the main reasons native plants are not used in the home landscape is that they are not available on a commercial scale. Many of these plant materials are difficult to mass produce by commercial nurseries because suitable propagation techniques have not been identified and development is not currently economically feasible for small population centers and small geographic areas such as Nebraska.

Plant propagation workshops were designed to teach the skills and techniques of asexually reproducing woody plants. A spin-off of this training is that people will become more aware of the importance of proper horticulture cultivar and plant selection for their gardens and landscapes. A third benefit is to get homeowners to appreciate and accept the more adapted native plant species in their "homescapes."

One hundred and thirty-two Nebraskans attended a charge plant propagation workshop on February 27, 1982 and received in-depth training in the technique of apple bench grafting. This workshop received many high evaluations and very few critical remarks. This was the first charged workshop in this area. This workshop was designed to handle 100 people but had an over-response of 130 people.

One hundred and thirty questionnaires were mailed out to grafting workshop participants to determine grafting success. Forty-eight percent of the participants responded to the questionnaire. Responders were asked to tell how many of their apple grafts grew when they were planted outdoors in the landscape to determine grafting success.

From this survey it can be assumed that 61 percent of the grafting workshop participants were totally successful in learning the grafting technique. An additional 22 percent were successful in learning the technique but only one-half of their grafted trees grew. Therefore, 82 percent of the grafting workshop participants were successful in learning the grafting technique. There should be 188 new grafted apple trees growing in Nebraska that were grafted by 108 participants because of this workshop.



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Fifty percent of the responders indicated they were willing to pay \$10.00+ for future workshops ( in addition to the registration fee), seventeen percent were willing to pay \$8.00, twenty-six percent were willing to pay \$5.00, one percent wanted to stay with the original \$3.00 charge and three percent had no response to the questions.

Plans are being made to teach future workshops in plant propagation. In February, 1983 the chip budding technique will be taught on Prunus sp. A \$6.00 workshop charge will be charged in addition to the registration fee.

COOPERATIVE EXTENSION SERVICE  
PROGRAMS  
IN COMMUNITY RESOURCE DEVELOPMENT

All Extension work planned or performed that is directed toward the solution of community problems, achievement of community goals, development of community leadership and community organizations is grouped in the Community Resource Development area of emphasis..

The Cooperative Extension Service provides information and educational programs to all people without regard to race, color, national origin, sex or handicap.

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Community Resource Development  
Success Stories - County Level

Blizzard Safety (Butler County)

"Thank you for the blizzard safety information. I am not sure we would be here if it wasn't for that blizzard kit." The response was phoned to Extension Agent Delmar Lange on the night of a bad storm, just 10 days after a blizzard training meeting.

Blizzard safety training was presented to the Rotary Club, the retirement home, the American Legion Auxiliary and the Jaycettes. The training provided information on how to avoid getting caught in a blizzard and how to survive if caught. An explanation was given on what hypothermia was and how to treat it.

A complete blizzard kit was presented and an explanation was given for the purpose of the articles. Handout material explained essential articles and articles for a deluxe kit.

A survey was taken two weeks after the presentation at the Rotary Club. Six of the 33 members had made blizzard kits for their vehicles. One member had made a kit for each of his grown children.

The Jaycettes asked for a follow-up program in the spring on tornado safety. This program was also successful.

Preventing Home Burglaries (Polk, Butler, Colfax Counties)

The leader training lesson, "Preventing Home Burglaries," was presented to 61 persons representing 43 Home Extension Clubs with a total of 494 members. The sheriff's office was contacted prior to the lesson in each county and offered crime prevention supplies they had available. Each extension office purchased a hand engraver to be made available to the public on a free loan basis. Unfortunately, these engravers have not been used as was hoped.

The home burglaries lesson has been revised and is now available in a shorter version to any other public group interested. It is scheduled to be given at two senior centers at this time.

Development of Community Facilities Continues (Dodge County)

Considerable progress has been made toward completion of the Christensen Field Agricultural Complex. A fund drive to raise some \$250,000 for the construction of a new livestock arena was started in the spring. At this time some \$215,000 has been raised and contracts for the facility are expected to be awarded this fall.

The addition of a show arena of sufficient size to hold horse shows, livestock shows and other community events, will make the Agricultural Complex more functional and is expected to attract a large number of users to the community. Many state, regional and national livestock events are currently held at Christensen Field using the available barns and multipurpose building.

In addition to making the complex more functional and useful by adding a show arena, it will also allow greater usage of the current multipurpose building for other community activities.

The Extension Agents of Dodge County have assisted this project by calling attention to the need for a building, helping set up committees, assisting with the building design, helping organize the fund drive, and by numerous means.

Community Crime Prevention (Lancaster County)

To encourage coordination of community watches and to encourage marking and documentation of personal property in order to reduce crime and vandalism were the prime objectives of the Lancaster County program in community crime prevention.

To reach these objectives, Esther Wyant and Twyla Lidolph, Extension Agents Home Economics, used several approaches.

Home Extension Club lesson. Sgt. John Becker and Officer Steve Standley from the Lincoln Police Department Crime Prevention Unit presented the training for home extension club lesson leaders on the topic "Preventing home Burglaries." The officers used excellent teaching techniques and made use of visual aids including slides and examples of locks. They explained the neighborhood watch program and also encouraged people to mark belongings and document valuables by photographing or video taping. A random telephone survey of home extension clubs attending the training indicated that 30% have been involved in establishing a neighborhood watch program.

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Success Stories - County Level

Program at Council of Home Extension Clubs meeting.

"Documentation of Personal and Real Property," is the title of a program given by Sandin Garner at the January meeting of the Lancaster County Council of Home Extension Clubs. The program provided information on why documentation is important and how individuals can take pictures or video tapes of their real and personal property to show proof of ownership in case of fire, theft, vandalism or natural disaster.

Workshops for Small business Establishments. Approximately 95 managers of small businesses in the East Park Plaza, Gateway and Edgewood Shopping Centers attended two sessions titled "To Catch a Thief." Wanda Leonard, Extension Community Resource Development Specialist, with the help of Sandin Garner, presented information on identification of a forgery scheme, color copied checks, falsified identification, counterfeit money and short change artists. A pretest and post test were given. On the pretest 63% of the participants had correct answers. This percentage increased to 87% on the post test.

Reference Center is Learning Experience for Shoppers  
(Lancaster County)

The Gateway shopping mall was the location of a new reference center established by the Cooperative Extension Service of Lancaster County during the summer of 1982. The project was designed to create a greater awareness of extension programs which are available in the urban and rural communities.

The Gateway Mall was selected as the location for the experimental program because it is one of the largest indoor shopping malls in the area and it represents an excellent cross section of urban and rural audiences. The reference center display was located next to the Wards retail outlet from May 15 through July 15, 1982.

The project provided a remote reference center for shoppers and was staffed by extension personnel every Thursday, from 11:00 a.m. to 7:00 p.m. Various demonstrations were presented by staff during their three hour appearances at the reference center.

The reference center was constructed from both existing supplies and new movable counter displays. Four counterheight movable displays were assembled to make one shelf. The front of each display contained slots for posters. The background of the display consisted of the 4H display for Lancaster County with a lighted panel entitled, "Cooperative Extension Service Reference Center."

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Success Stories - County Level

Photographs of each staff member were displayed on the backdrop along with important information regarding the Cooperative Extension Service programs. Agriculture and home economics NebGuides were assembled in a catalogtype retainer and were available on the counter tops for easy access. A return card was provided for people wishing to request up to five circulars from the reference center.

General observations during the experiment indicated that the display was extremely attractive and well arranged. Nearly everyone coming into the mall looked at the display. Very few individuals walking past the display failed to note its content or attractiveness.

When the display was staffed by extension personnel, there was a tendency for people to be reluctant to approach the display in fear of being confronted with a sales pitch. However, method demonstrations were successful in attracting attention to the display and avoiding this problem.

One hundred forty-five requests for information were received during the test period. Of those, 55 percent indicated it was their first contact with the Cooperative Extension Service.

Forty percent of all contacts requested home economics information and 39 percent requested horticultural information. Agricultural information was requested by 17 percent of the people submitting request cards and one percent requested 4-H and miscellaneous information. It should be noted that 4-H publications were not promoted.

Approximately 88 percent of the people stopping at the reference center had Lincoln addresses, while 12 percent indicated rural Lancaster County or outside the county addresses.

Lincoln residents comprised 91 percent of the new audiences or new contacts made at the reference center and 9 percent were from out of town. The new extension audiences requested horticultural information as their top priority followed by home economics, agriculture and miscellaneous. The traditional audiences, on the other hand, most frequently requested home economics information followed by horticulture and agriculture. The high frequency of new contacts from the urban area supports the belief that this audience is contacted less frequently by traditional extension programs.

A spin-off of the summer reference center resulted in the establishment of specific extension reference centers at key locations throughout the community. A clothing reference center

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Success Stories - County Level

has been established at one of the local clothing stores. Plans are underway to erect horticultural reference centers at the lawn and garden centers.

Eight letters complimenting the extension service for the nature of this display were received during the summer. Some of the comments included, "I would just like to say that this is a very good and interesting display," "It looks very nice," "Very eye catching and very well done."

There was a strong effort to make the center a high quality, professional-appearing display. It was felt that if the center lacked the quality of surrounding retail displays, area merchants would oppose its location on the mall.

The Cooperative Extension Reference Center for Lancaster County has been a very rewarding undertaking. Plans are to move the reference center to a downtown location in the fall of 1983 in an attempt to capitalize upon the football crowds in downtown Lincoln. Currently the display has been dismantled and is being used in various locations as separate units dealing with specific subject areas.

You Can Catch A Thief (Pawnee County)

White collar crime costs America more than 40 billion dollars a year. Forgery, insufficient funds, or no account checks, or short change artists can make quick work of a day's profit.

Wanda Leonard, University of Nebraska Extension Resource Development Specialist told 41 local businessmen that fall months are a particularly active time for paper pushers. Thirty percent of all forgeries occur during January to September, while 70 percent take place during October to December.

Rural merchants are generally warm, welcoming and friendly, and in many ways they open their stores and their pockets to the unscrupulous.

Ms. Leonard presented some techniques to help business owners and their employees fight their constant war on paper crime at a program at the Pawnee City Star Cafe on November 5, at 7:00 p.m.

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The businessmen in attendance were given a pre and a post test to help evaluate the training session. The test showed that the businessmen in attendance increased their knowledge about checks by 83 percent. This means they almost doubled their knowledge on the subject.

Retail Trade Survey (Pawnee County)

Questionnaires were mailed on November 16th to 20 percent of the Pawnee County residents and a 37 percent return was received.

The survey was designed to yield information about shopping habits in Pawnee County and surrounding communities.

The objectives of the survey were: 1) To learn where people shopped for what items and why; 2) To learn what goods and/or services were needed to be made available in Pawnee City to entice residents to shop at home; and 3) To learn through written comments what people liked and disliked about their community and more specifically, their business community.

The survey yielded information about why shoppers buy in other communities, rather than spend locally. Dollars leaving the community have a very direct effect on the health of all local businesses.

Two meetings were held with local businesses to report the survey results. Recommendations were made to: 1) Develop projects and programs to help people feel an ownership in the community and in the very businesses themselves. Some ideas here could be a community celebration run, owned, operated, etc., by the people with support from the chamber and council. 2) Provide information that helps rationalize the dollars involved with saving 3 cents per gallon on gasoline by driving X miles. 3) Provide information on quality and price compared to price and usability, and 4) Note the expressions of concern for cleanliness, parking availability and deal with those expressions.

Since the survey and report to the community, there have been inquiries for specific information as it pertains to eye care, a women's dress shop, and a craft store.

Crime Prevention Training (Saline County)

Three hundred and twenty men and women in Saline County were trained in security measures that should be used to delay a burglar from gaining access to private homes in order to curb home burglaries in the county.



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The Cooperative Extension Service in Saline County in cooperation with the Saline County Sheriff and deputies arranged and provided training in ways to secure the home; different type of locks and the value or property identification systems that were available to county residents.

The Saline County Sheriff reported though crime reduction was not noticeable, more cooperation by people reporting crime was very evident. He felt the training was very helpful.

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District Report

Business Crime Prevention

by Wanda M. Leonard, Extension Community Resource Development  
Specialist

Crimes reported in Nebraska increased 26 percent between 1976 and 1981. Victimization surveys indicate that as many as one in four Nebraskans is the victim of crime in a given year and that slightly over one-half of these crimes are reported.

Crime is not just an urban problem. National evidence indicates that rural crime has nearly tripled while the urban crime rate has only doubled. Reported crime incidents in Nebraska also tend to support this conclusion. A comparison of 1976 and 1981 Nebraska crime index offenses revealed Omaha and Lincoln experienced increases of 11 and 22 percent, cities of 5,000 to 100,000 people had a 28 percent increase, and cities below 5,000 population experienced a 40 percent rise. Counties, which included the rural areas and cities under 1,000 population, reflected a 21 percent increase over 1976.

During 1981-1982 a Cooperative Extension Service Crime Prevention Task Force was established. The Extension Crime Prevention Program is divided into five program areas: home security, personal security, business security, community security, and farm security. Business security program development was the emphasis in District V during 1982. Six business crime prevention educational programs were developed in the areas of: robbery, burglary, shoplifting, internal theft and checks, money and credit card fraud.

The checks, money and credit card theft security programs were presented in four communities to 316 business owners and managers. Two of the business owners asked that the programs be presented as "in-house" training for their business employees.

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District Report

Per that request 140 employee clerks and cashiers received training. All participants were taught quick and easy methods to use to identify potential non-sufficient, closed account or forged checks. Methods to detect counterfeit money, stolen or copied credit cards and short-change artists were also taught. Tests before and after the training were given to 185 of the participants. The increase in knowledge gained ranged from a low of 47 percent to a high of 98 percent, with a combined average of 88 percent. Some participants have asked that the programs be repeated for their individual learning, as well as for others in their business community who were not able to attend the first session.

COOPERATIVE EXTENSION SERVICE  
PROGRAMS  
IN HOME ECONOMICS

All Extension work planned or performed that pertains to individuals and families and has as its basic orientation the improved quality of family living is grouped in the Home Economics area of emphasis.

The Cooperative Extension Service provides information and educational programs to all people without regard to race, color, national origin, sex or handicap.

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Home Economics  
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Parent-Child Interaction (Burt County)

The parent-child interaction program was conducted in Decatur during January, February, and March. Judy Connealy was the volunteer leader for the parent meetings. Fourteen families (15 children) began the program. All completed except one who moved away from the area. A pretest and post-test were given to each child. Out of 75 possible points, the beginning scores ranged from 24 to 63 points and the end scores ranged from 37 to 59 points. The gain made by each individual ranged from 0 to 26 points with an average gain of 12.36 points.

In written evaluations, half of the parents mentioned that they had realized how important it is for them to spend time with their children. One-third noted that they became more aware of their child's abilities.

Speed Tailoring Classes Very Well Received  
(Polk-Butler-Colfax Counties)

Forty Polk and Butler County women learned how to sew lined blazers using Speed Tailoring techniques. The 3-workshop series, held during the months of February through May, 1982, consisted of six to seven class meetings with demonstrations and a question and answer time allowed. Some of the features learned in the class included pad stitching of the collar and lapels, taping the roll line, machine sewing invisibly stitched patch pockets, and making tailored buttonholes. Participants also gained expertise in choosing appropriate fashion fabrics and interfacings for tailored garments. A number of new pieces of sewing and pressing equipment were introduced throughout the classes. Each week, class members had a chance to share their experiences with the group and ask questions.

Based on estimates of like garments purchased rather than sewn, these class participants saved at least \$1,329 by sewing their blazers. Comments from the class participants were varied: "I've enjoyed the class immensely and learned a lot," "I liked the idea of demonstrating in class so I could see what the directions were trying to tell us," "I was very pleased with the class and learned a lot of techniques patterns don't show," "This class is going to help me in a lot of my regular sewing with shortcuts."

Certificates of accomplishment were awarded to class members when they showed their completed blazers in class. Several of the women also had the opportunity to model their completed jackets at the annual Home Extension Club Spring Event held in each county.

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Flood Assistance Valuable to Community (Cass County)

Late night hours of June 14 brought even more rain to the already saturated ground in Cass County. Many homes in the low-lying areas were flooded, some by as little as one foot of water, others by as much as six feet of water. Some basement walls collapsed. People needed information on how to clean up the mess and to salvage appliances and personal belongings.

Extension Agent Ahlman assembled a set of brochures on flood problems, such as care of furnaces, water heaters, freezers (one freezer full of meat was floating), how to remove mud from floors, walls, and doors, cleaning clothing, furniture, and other items.

Ahlman visited 20 homes, giving residents an information packet. A special program was called in to the local radio station on emergency procedures for flood clean-up. Follow-up articles in local newspapers on mold and mildew and other related topics helped to answer other questions.

EFNEP Adults (Dodge and Platte Counties)

The "I Can Do It" diet and weight loss series was started in July 1981. Meetings were held once a week on Tuesday mornings for an hour. Participants weighed in, discussed diet tips and successes of the week and did twenty minutes of exercise. A lesson was presented on some phase of dieting by one of the nutrition aides and a goal for the coming week was recorded.

It was a six week series. At the end of the six weeks, interest and participation was still high, so another six weeks series was started. In fact, the series was extended for nearly a year, ending in June 1982.

Behavior modification and eating a balanced diet was the goal. Food records were kept and evaluated. Aides stressed the importance of the food groups and the number of servings needed. Other lessons were on serving sizes, cooking "slim" measuring, "lean" proteins, how to reduce calories in a recipe, what is a calorie, and others on weight loss tips.

A total of nineteen ladies participated with an average attendance per week of six to seven. Actual weight loss varied. One person lost 40 pounds. One person ended with a net gain of two pounds! Most lost several pounds and several lost 10-12 pounds. The series was a success.

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Home Economics  
Success Stories - County Level

Teenage Pregnancy and Nutrition (Gage County)

State Health Department Statistics show that Gage County has a high percentage of teenage pregnancies and births each year. A check with local home economics instructors showed that few include pre-natal nutrition as a part of their class curriculum.

Consequently, a special lesson on Teenage Pregnancy and Nutrition was developed. The program was presented to three Adult Living home economics classes at Beatrice Senior High School. Sixty-seven students were in the three classes.

Emphasis was placed on the importance of good daily nutrition at the early stages of fetal development. Special attention was paid to the first trimester of pregnancy, a time when many girls do not know or are not certain that they are pregnant.

A variety of teaching methods were used. Included were a film, overhead transparencies and lectures.

In reviewing the presentations with the home economics instructor, she indicated that it would be a good lesson to incorporate into a variety of units. She also suggested that other area teachers be informed about the program.

Newsletters: A Useful Source of Information (Lancaster County)

Extension Agent, Esther Wyant, says that newsletters have been a popular way to reach the public with educational information. She explains, "'Enriching Family Relationships' is the title of a newsletter written by Nebraska Cooperative Extension Service Specialist Dr. Herb Lingren. A total of 1,300 newsletters are being distributed through seven churches in Lincoln. Churches subscribe to the newsletter to cover printing costs and pick them up at the county extension office.

"The Working Women's Newsletter is edited by a volunteer, Clarice Orr, and 2,000 copies are distributed every second month through 12 agencies which employ a large number of women. Content includes a variety of information from personal and family enrichment to time management skills. An evaluation after the first six issues indicated that working women do use the information and every agency indicated the wish to continue receiving the letter for their employees. An advisory committee made up of working women was formed to provide suggestions on content and on how to effectively reach women who are employed.

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Home Economics  
Success Stories - County Level

Stretching Family Clothing Dollar (Lancaster County)

Extension Agent Lidolph shares the following results of the clothing related programs in Lancaster County:

The extension club leader training session on "Take the Stain and Pain Out of Laundry" was given to 93 persons in the fall of 1981. Participants had an opportunity to take out ballpoint stains, mustard and wax stains. Participants had an opportunity to witness the stain coming out for one person but not for another. (The stain, fabric and time element were identical.) Participants learned the proper methods and chemicals to use as well as how much the human element plays in removing stains from fabric. Information on stain removal is included in Nebtips (90 second telephone call for a taped recording on various subject areas). The recording on mildew received 49 calls in two day's time. Personal telephone calls on mildew have been high due to the large rainfall in the spring and summer - an average of 10 calls per day.

Young homemakers with small children are concerned about the price of clothing for infants and toddlers. The young homemakers as well as grandmas were interested in the workshop offered on "Children's Clothing." A two-session class (two 2-hour classes) was given to 25 homemakers in October. Participants were shown fabric selection, construction techniques and decorative ideas. Construction techniques included zippers, ribbing, seam finishes, snaps, elastic, and hems. Decorative ideas included buttons, applique, smocking and lace. Several members had never done any construction of garments using ribbing.

Comments from participants included: "Oh I wish I had known ribbing was so easy to do. Now I can make many outfits for my children in no time!" "I'm so excited! I can go home and find lots of fabric in my cupboard at home to make outfits for my children -- without spending any money. You've given me so many ideas!"

Smocking is being seen in children's clothing, household items and trim on adult clothing. A workshop to learn smocking was offered in February to 30 participants and for Teacher Update where 13 attended. Of the 43 participants only 3 had done smocking before. Of the 30 participants in February, 25 were young mothers, five were grandmothers! One participant has mentioned she had made three outfits costing her a total of \$15 as compared to one similar outfit in a store with a price tag of \$70.00.

Speed Tailoring was a workshop offered to 53 persons in the spring and 22 persons at Teacher Update. Techniques learned by

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Success Stories - County Level

participants included bound buttonholes, patch pocket, welt pocket, using fusible interfacings, collar construction, sleeve heads, shoulder pads, and four-point closing. Each one made samples of various techniques.

Comments from participants included: "I've been wanting to learn how to make a welt pocket for years -- now I can! I'm so glad you made us make one in class," "This method of making a buttonhole is much easier than the one I used before," "Oh, what an easy way to finish the back side of the buttonhole," "I'm going to try fusible interfacings now!"

One participant wanted to construct a jacket as well as have her daughter construct a jacket for a 4-H project. She found eight others willing to take a six week course from a clothing instructor who had taught other classes as well as taken workshops offered through the Extension Service. So from this class ten jackets were completed. Cost of the jackets ranged from \$20-\$50 as compared to ready-to-wear for \$50-\$150. Participants saved at least one-half on the cost of the jacket.

Another participant said she finished a suit for her mother using methods learned at the workshop. She also showed her mother and aunt how to make welt pockets and bound buttonholes. Her suit cost \$40 as compared to \$125 in stores for comparable style and fabric.

Leadership Skills Strengthened (Johnson/Nemaha Counties)

Seventy home extension club officers, representing 92 percent of the clubs in the two-county area, attended "Cupid's Leadership P's and Q's" training sessions, sponsored by the Home Extension Councils in Johnson and Nemaha Counties during February.

Executive council members who had previously received district officer training, did an effective job of teaching participants the techniques of being a club president, vice president, secretary, and treasurer.

Hints on gaining new members, plus conducting a meeting according to parliamentary law, were also shared with the group by council officers.

Local newspaper editors added tips about writing articles for publication in the papers.



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Completing the day's program were sessions on developing enthusiasm for the Home Extension Club program, favor fixings, and ideas for successful club programs.

The officers who attended the training expressed a greater feeling of confidence in performing as a club officer.

Club members also felt their meetings now are conducted more efficiently with the parliamentary procedure background.

More clubs are reporting to the local newspaper, and in a more effective manner, according to reports from the editor and printed articles appearing in the newspapers.

Easter Parade (Otoe County)

Cowboy hats, diamond rings, snappy shoes and pretty clothes joined Easter bonnets in the Easter Parade. The parade was sponsored jointly by the Cooperative Extension Service and the Retail and Trade Committee of the Syracuse Chamber of Commerce.

Two main street clothing stores, a western clothing shop from the edge of town, the shoe and jewelry stores, and the fabric store joined together to feature fashions in the Easter Parade. "All of these stunning fashions for spring and summer are available in our own hometown," said Judith Schwab, Extension Agent.

This was the first time these merchants have joined together to make people aware of the fashions available in town. Some had made individual efforts in the past through style or trunk showings. The jewelry store had never participated in anything of this nature.

Over two hundred people attended the parade and enjoyed every minute of it. Some comments from the audience included: "I didn't realize we had so much right here at home!" "It's great to see all kinds of fashions on all kinds of figures and ages!" "I think I'll do more shopping right here at home. I only purchased baby clothes here!"

A few comments by business persons who participated were: "I'm so glad to join in with you all. We never though we would be in an Easter Parade." "Business hasn't been so good for a long time!" "It's nice to be included with the downtown folks, thank you."

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Two days after the Easter Parade, one of the business persons made an informal survey of participants and found that sales of over two thousand six hundred dollars had been made. More were made in subsequent days.

A long term effect has been the weekly attendance of all but one of the parade participants at the weekly retail committee meetings. previously only two businesses had any kind of a regular attendance. Interest of other business persons in this committee has also picked up because of the "new life" being generated.

Special promotions and more buying at home is evident because the merchants are "pulling together" to make special sales promotions. One of the latest has been a successful moonlight madness promotion which included bedraces, merchants minding stores in their pajamas and a cut rate dinner! Plus of course, increased sales.

Yes, people are really 'going to town', and it all began with an Easter Parade!

Building Marriage, Parenting, and Family Strengths: Personal and Family Development (Platte County)

A variety of methods were used by Extension Agent Johnson in Platte County to reach the young family with information on parenting and building family strengths. Effective methods used were:

Twenty-three radio and CodaPhone programs were developed on parenting and family strengths topics.

The Cradle Crier newsletter was produced and introduced to new parents at the county hospital. Five families are currently enrolled in the Cradle Crier program.

One hundred seventy-five families are receiving the Young Family Newsletter.

A display on parenting and family strengths was used at the county fair to introduce this thrust. Two hundred and two people enquired at the booth for information and twenty-five registered for the Young Family Newsletter.

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The Military Community (Sarpy County)

A total of 315 active military personnel and adult dependents attended a series of four educational meetings. The meetings were sponsored by the Extension Service in Sarpy County with the cooperation of Offutt Air Force Base.

The 81 individuals attending the "Family Budget" meeting learned the importance of budgets, how to start a family budget, budget analysis, and average monthly expenditures for major monthly purchases.

Forty-nine percent of the families did not have a family budget but 36 percent indicated they were planning on developing a budget. Seventy-two percent said they could develop a budget and 69 indicated they could develop a record keeping system from the information presented.

One hundred and seven people attended the "Buy a House" program. The individuals learned such things as what to consider when purchasing a home, determining monthly payments, determining funds to expend and alternative housing.

Seventy-six percent indicated they were anticipating purchasing a home in the near future and 100 percent said the information was of value in making their decisions. At present 50 percent of the participants were in government housing, 30 percent in rental property and 20 percent owned their own homes. Thirty-three percent said the information on "Types of Loans" was new information.

The "Buy a Car" program taught 83 individuals how to determine need for a car, how to select a new or used car, determine funds available for a car purchase, facts about car loans and miscellaneous costs of owning a car.

A total of 98 percent said the information would be useful when purchasing a car. Fifty-three percent were unaware of the actual cost of owning a car. Twenty-three percent said the information on determining "Need" was new while 35 percent indicated that information on "Car Loans" was new.

The life insurance program taught individuals the differences between insurance policies, selecting insurance based upon need, and the meaning of various insurance terms.

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At the beginning of the meeting approximately 50 percent of the individuals did not have a good working knowledge of various kinds of life insurance. Eighty-five percent of individuals indicated they learned about the Federal Life Insurance and the various options available to the military person.

Programs will be continued based upon the need of the military community.

Housing in a Changing Society (Sarpy County)

Letters and information were sent to all lumber yards in Sarpy County with information about setting up an educational display at store sites on weatherization, caulking and weatherstripping. As a result a two-day mini demo display was set up at Payless Cashway and scheduled for Millard Lumber. Included was a mini demonstration on caulking. VTR's ran continuously on caulking, weatherstripping, wood stoves and planning an energy efficient home. Publications were distributed. As a result 134 persons were directly contacted through questions they had. The weekend was scheduled as the store estimates 800 customers per day on Saturday and Sunday. The store promoted the program for two weeks in advance by clipping fliers to packages and including it as a part of their ad. The most frequently asked questions related to wood stoves, caulking, garage doors, solar, weatherstripping and patio doors. Eighteen follow-ups resulted with questions needing added information. The manager of the store asked if the agent could return again in later October and requested other programs. Almost all contacts were new contacts.

Zucchini Squash Lesson A Success (Saunders County)

Five hundred people learned about zucchini squash in 1982 through the efforts of the Cooperative Extension Service in Saunders County. Sharon Skipton, Extension Agent-Home Economics, developed and presented a lesson zucchini squash after receiving many questions last year about the vegetable.

The lesson answered two basic questions: how to safely store and preserve zucchini for use at a later time and how to stretch one's food budget by using the plentiful vegetable in a number of ways. The lesson included a lecture, a demonstration, and a free handout written by Extension Agent Sharon Skipton.

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Sharon presented the lesson at Ashland, Yutan, Wahoo, Cedar Bluffs, and Ceresco during the month of July, 1982. It proved to be the teachable moment for many interested people, as 210 participants attended the five sessions. By word-of-mouth or by reading about it in the Wahoo paper, an additional 290 people asked for and were given the publication on zucchini squash.

As a result of this lesson, 500 people are now saving money by using this bountiful vegetable and are doing so with the safety of their family in mind.

Convenience Mixes (Washington County)

"Because the homemade mixes are more economical and are also quite convenient, I prepare a wider variety of foods using the mixes," writes Sherril Warrick of Blair, Nebraska after attending a lesson given by the Extension Agent-Home Economics. The lesson on making convenience mixes in the home, was attended by over 150 Washington County residents at various Lunch 'n Learn programs, club meetings, adult education classes and presentations at the county's meal sites for the elderly.

In addition to providing information on the actual procedures involved in making mixes, the program reviewed why homemade mixes are popular. Two of the main concerns cited were reducing preservatives in the diet and cutting the cost of the convenience items.

In a follow-up survey conducted two months after the program, over 50 percent of those responding reported having prepared at least one of the mixes. In addition, several homemakers reported having experimented with the mixes sufficiently to have already made alterations in the recipes.

When asked to describe any financial savings realized as a result of attending the programs, homemakers typically responded by identifying those products they had made and compared with commercial products. One homemaker added, "By using this mix (condensed milk) I will use more condensed milk. The cans are just too high for practical everyday use."

Further evidence of the success of the program can be measured by the increase in sales at the local bookstore. Owners of the Blair Book & Supply report selling three copies a month of the "Make a Mix Cookery" before the programs were given. After the meetings, sales rose to ten books in a two-week period. The store manager reported, "Quite a number of people came in. If we had had more on hand we probably would have sold more. Do you have plans to do any more of these?"

COOPERATIVE EXTENSION SERVICE  
PROGRAMS  
IN 4-H AND YOUTH DEVELOPMENT

All Extension work planned or performed with either 4-H volunteers or youth of 4-H age in all subject/project areas is grouped in the 4-H and Youth Development area of emphasis.

The Cooperative Extension Service provides information and educational programs to all people without regard to race, color, national origin, sex or handicap.

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Photo Walk (Butler County)

4-H members were given the opportunity to sharpen their picture-taking skills. Members had some classroom instruction on techniques of taking good pictures. Following the classroom instruction, we took a walk to practice what we had learned.

This year the emphasis was on people, action shots and buildings. The action shots were taken at a boys' baseball game. The members practiced on buildings in David City.

Two weeks following the picture taking session, we had a critique session. All of the members brought their pictures to be evaluated by a professional photographer. He was amazed by the creative ability of the members.

One of the 4-H members received a purple ribbon in county and district competition while the rest received blues and reds.

Horse Camp (Cass County)

The Cass County fairgrounds was the site for this year's District 4-H Horse Camp. Fifty-one 4-H'ers and 23 adults participated for a total of 74 participants.

The program included demonstrations on: 1) vaccinations, worming, and first aid, given by Dr. Larry Stuckey of the Plattsmouth Veterinary Clinic; 2) training and conditioning game horses by Mary Kay Stejskal, Springfield; 3) hoof trimming and care by Vern Miles, Plattsmouth; 4) calf and team roping by Monte Stauffer, Papillion; 5) showmanship demonstration by Patty Olsen, Syracuse; 6) individual videotaping of horsemanship -- critiquing each ride by R.B. Warren, UNL Animal Science Department.

The evening events took place at the Eastern Nebraska 4-H Center where Dr. Warren gave a demonstration on bits and saddles. Videotape of individual rides were also viewed there.

The following day there was a 4-H Horse Show at the Cass County Fairgrounds for anyone who wished to participate.

Nature's Pictures Camp (Colfax County)

The Nature's Pictures Camp is an offshoot of an effort started two years earlier to promote specific 4-H projects through a camping program locally. This year 34 youth plus counselors and agents participated in a camp that emphasized the

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beauty of nature. Included were sessions on charcoal sketching with a local artist, tie-dying using natural dyes, taking photographs and then processing the film and making enlarged prints.

Also included as a part of the experience were camping in tents and preparing their own meals.

The extension agent was in charge of the photography. The campers learned some of the features of a 35 mm camera so they could take a few frames of pictures using different camera settings. To wet the campers enthusiasm for photography even more, they were allowed to process the film and make prints. Some very good photographs were taken. Hopefully, more 4-H'ers will want to enroll in the photography project to learn how to take good photographs.

The camp was so enticing that another 18 youth were placed on the waiting list.

Skillathon Attracts Youth and Adults (Dodge County)

A very successful 4-H Skillathon was held at the Fremont Mall on April 3. Some twenty skill stations were set up throughout the shopping center mall. Each station featured a skill that a 4-H club member might learn in his or her club program. Youth and adults were eligible for a drawing for prizes if they successfully completed ten of the 4-H skills.

Several hundred people tried their skill with the end result that many parents and children have a better appreciation of what 4-H members learn.

Brochure Tells Local Story (Douglas County)

4-H promotion is an everyday, all-year job. A unique opportunity to reach an audience of 500 youngsters in one day developed this fall in Douglas County.

As part of River City Roundup and the Ak-Sar-Ben Livestock Show and Rodeo, a "Salute to 4-H" day was planned by Ak-Sar-Ben. During this event, 500 local fourth graders were scheduled to tour the Ak-Sar-Ben facilities and learn about 4-H.

Packets were prepared for the youngsters and their teachers. The county 4-H staff wanted to include something which helps the students see what 4-H does in their own community.



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Since the children had seen livestock at Ak-Sar-Ben (and most were interested in them), the animals were used as a lead-in on the brochure, but the main theme was that 4-H is much more than exhibiting livestock. A variety of projects and activities were highlighted, along with simple directions for finding out more about 4-H. The fact that 4-H can be conducted through schools, clubs, centers or by individuals was cited.

Cartoon characters and simple type style made the materials appealing to youngsters.

Most of the feedback from this project is yet to come, but the extension agents, assistants and news coordinator who worked on it think the brochure is a very useful tool. It is being used in the Inner City to promote 4-H, and is just as appropriate in the hands of a suburban school teacher or a prospective rural 4-H family.

Micro-Mini Electric Tractor Project (Gage County)

In November of 1981, this office was contacted by Ronald March, a 4-H member in the Barneston, Nebraska area, about starting a toy tractor with electric motor club. He was interested in how this could work into a 4-H engineering project. We informed him that we thought it could be worked into the model, Electricity, and Farm Tractor Safety projects. Ronald's next question was, "What can we show at the fair?" We said that he could display the tractor as part of the models area and/or in the modified electric motor part of the existing fair premium listing.

As a result of this interest and Ronald wanting to start a club, we contacted Richard Goodding, Extension Specialist - Engineering, to come to Gage County and meet with the interested youths and form a club. Mr. Goodding agreed to come to Barneston and in January the new club was formed. The club has 10 members and has been very active. They have promoted a micro-mini tractor pull at the county fair and have visited several other 4-H clubs to give demonstrations to the members. They also gave a demonstration at the Farm Power and Safety Day at Mead. They shared the first place on the program with the University of Nebraska Micro-Mini Tractor Pull Club. After the program, they gave a demonstration at the 4-H booth during the day for those interested. It was a popular display at the Farm Power and Safety Day Program.

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As a result of the club demonstrations, five more youth in other clubs took the project, built models and took part in the pull at the county fair. Approximately 125 people watched the mini-tractor pull at the county fair.

Youth Concentrate on Self-Improvement (Johnson County)

"Body Boutique" was the theme of a youth camp sponsored by the Cooperative Extension Services, in Johnson, Nemaha, Otoe, Pawnee, and Richardson Counties, at Coryell Park, June 3-4, 1982. Its purpose was to assist boys and girls, 9-14 years of age, in becoming more attractive.

Mini sessions on topics related to improving personal appearance included such subjects as "Hair Strategies," "Be a Make-Up Magician," and "Dental Discoveries."

Sound nutrition and other health practices were also emphasized at sessions like "Fad Diets" and "Enthralling Exercises."

Realizing that communication skills and stress also affect one's attractiveness, sessions on "Handling the Hustle" and "Communication Cues" were offered.

Completing the camp activities were educational sessions on "Turkey BBQ," "Egg-citing Omelets," "Leathercraft Lingo," and Winning Ways with Pork and Pigskin."

Youth participants expressed a true feeling of learning, especially at the camp activity sessions involving "hands-on" experiences.

All agreed they had acquired a number of new hints for improving personal appearance -- both "inside and out."

The camp also acquainted youth with knowledgeable adults in their home communities who would be available to provide further guidance in personal development if needed.

Chickens Served at Banquet (Nemaha County)

The Auburn Chamber of Commerce annually sponsors a Farmers-Merchant Banquet just prior to the Nemaha County Fair. The purpose of this event is to promote good will and understanding

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in this agriculturally based community. The meal served at these events in past years were typical for large groups of people. The food was actually catered from outside the county during two of the last five years.

A written proposal was approved by the Chamber of Commerce for the 1982 banquet to prepare and serve chickens raised by 4-H'ers right here in Nemaha County. Accordingly, an agreement was signed by each of the 4-H members participating in the project. The Chamber purchased 250 baby chickens which were divided equally among ten 4-H project participants. The 4-H'ers were expected to provide food, shelter, and care for the chickens during the eight week growing period. The Chamber then bought back 175 fully developed broilers from the 4-H'ers at market value. These broilers were dressed by a commercial concession, prepared by a professional chef and served at the annual Farmers-Merchant Banquet held in Auburn on July 26, 1982.

This joint Chamber of Commerce-4-H venture served several purposes. First, it was primarily responsible for the most appreciated and successful Farmers-Merchant Banquet during its history in this community. The people liked the idea of home grown chickens and especially that they were raised by 4-H'ers. The Chamber of Commerce members were impressed with the enthusiasm and goodwill generated by the project.

Second, it gave several youth an opportunity to earn money through a profitable adventure. Third and most important, it provided an educational opportunity for several youth to learn about poultry production that probably would never otherwise be involved in poultry production.

Daniel Bigbee, Extension Poultry Specialist held a poultry production short course for the 4-H'ers at the beginning of the project to acquaint them with the information needed to successfully raise the chickens. The results were reflected in the fact that there was less than a one percent death loss of the 250 chickens started in the project. Each one of the ten 4-H'ers showed their best pen of three broilers selected from this project at the Nemaha County Fair. Not only were the chickens evaluated, but also the record books which each 4-H'er maintained on the project. The Nemaha County Newspaper carried a feature story and photographs giving a complete account of the story.

Jobs and Careers for Youth (Platte County)

Four schools in Platte County participated in the Job Search Program for a total of 444 students. The classes were visited two or three times by the agent. The first was an introduction

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to the program and interest surveys were completed. During the second visit, AGNET printouts were returned and discussed. The students completed a summary sheet and, depending on the teacher, a third visit was made.

This program will be offered every other year through the school enrichment 4-H program.

Youth Involvement in Polk County (Polk County)

School Enrichment Program. Seventy-eight Osceola grade school students took part in school enrichment programs offered and conducted by Extension Agent Sigler.

1. The six session "Mulligan Stew" was presented to 30 fifth grade students. Discussion was shared by their teacher, Miss Snesrud and Agent Sigler. Students kept records of meals they ate for one week. The meals were then evaluated against the recommended daily nutritional requirements. The Cooperative Extension Service office ran a diet check on one day meals for each student. The students found they were not meeting their daily requirements.
2. Seventeen 5th grade students were presented with the information and seeds to plant and grow scotch, pine and honeylocust trees in a "Plant a Tree" project. Once the trees were large enough for planting, each student planted one tree in the school arboretum. The other seedlings were sent home with the students for home use.
3. "Watching Chick Grow" was the highlight for 31 fourth grade students in the "Embryology Project." An incubator, duck and chicken eggs were provided for the students. Watching the ducks and chickens hatch provided areas for discussion for the students. All the grade school classes became involved with the project and formed class discussion groups after the babies became old enough to leave the incubator. Although the majority of the students were from farms, very few of them had seen the eggs hatch and the chickens and ducks mature.

Fun and Frolic Day (Richardson County)

A special creative arts day-camp was held in Falls City on May 8th. Twenty-six youth of the community participated in "Fun and Frolic for 4-H'ers and Friends." Several 4-H'ers developed

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and conducted programs for the event. Vicky Rieschick and Susan Yoesel prepared and presented a program on latchhooking called "Yarn Magic." Cheryl Goff and Janet Finck provided several breaks during the day and taught "Aerobic Dancing." Susan Kruse and Cathy Bierman presented a learnshop on "Quick Point." Each group also devoted time towards emphasizing 4-H projects in which these newly acquired skills were found. The objective of the day was to familiarize non 4-H members with projects and skills available through the program.

4-H Idea Day A Success (Saunders County)

Don't be surprised if you see a balloon float into your field, garden or yard. Letting loose helium filled balloons was just one activity done this year at the Saunders County 4-H Idea Day held on June 23.

Keith Glewen, Extension Agent-Agriculture, helped sixty 4-H'ers turn loose brightly-colored helium filled balloons. This was done as part of Keith's workshop on weather and the Severe Storms Weather 4-H project. The project is new this year and covers the topics of temperature, barometric pressure, wind, unstable vs. stable air, thunderstorms, tornadoes, and winter storms.

Ann Mumm, Wahoo, and Holly Svoboda, Yutan, both 4-H teens, presented a workshop on modeling. Both Ann and Holly have represented Saunders County at the Nebraska State Fair Style Revue in past years. They presented the basics of how to model and helped the 4-H'ers practice turns and pivots. Ann and Holly also discussed the new Clothing Magic 4-H project and showed a variety of garments that could be made as part of the project.

Snacks can be nutritious! That's what 4-H'er Deanna Leander, Cedar Bluffs, assisted by 4-H'er Janet Kavan, Wahoo, told 4-H'ers during her workshop. Snacks are a part of the Teens Entertain 4-H foods project.

Kim Tvrdy and Pam Tvrdy, Ceresco, members of the Flour Power 4-H Club presented the "talking bicycle" to Idea Day participants. The talking bicycle routine teaches and encourages safe bicycle practices. Bicycle Safety remains a popular 4-H project in Saunders County with the bicycle rodeo at the county fair being one of its highlights.

To end the day, the 4-H teens demonstrated making pom-pom creations. The 4-H'ers and leaders at Idea Day then tried their hand at creating their own pom-pom masterpieces.

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4-H Goes to School (Seward County)

The number of 4-H members in Seward County has nearly doubled this year. This is due to school enrichment projects being offered to county teachers to use as a part of their curriculum.

Extension Agent Marilee Karlberg and 4-H Aide Lorrie Pearson presented lessons in many areas. Some projects that students participated in are Dietcheck, Bicycle Safety, Plant Science, and Gardening.

In the Dietcheck project students were asked to keep a diary of food eaten for one day. They learned how the information was put in AGNET and the results given back. A discussion was held during the last session on good eating habits.

Grades K-4 in many of the county schools heard "Scoot" the talking bicycle tell them about bicycle safety. They also took part in discussion with local policemen about bicycle laws and safety. Films and slides were shown to the classes also.

The Plant Science and Gardening projects were used to teach students how plants grow and reproduce. They were given a chance to grow their own seeds in class and at home.

Area schools that participated include Milford, Utica, Seward, Goehner, Garland and Staplehurst.

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Project Camps in Southeast Nebraska

by Tom Leisy, Extension 4-H Youth Specialist

4-H camping numbers increased at the Eastern Nebraska 4-H Center by 15 percent in 1982. Some of the credit is due to extension staff for a great job of promotion, however, we can't overlook the popularity of project or special activity camps as another reason. Youth seem more interested in attending a camp for a specific reason. The in-depth learning, or a chance to explore more fully their "hot button" was apparently appealing to youth.

In 1982 five special project or activity camps were offered compared to three for 1981. The average attendance per camp increased from 51.2 in 1981 to 62.6 in 1982 or a 20 percent increase.

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Perhaps more significant is the fact that with twelve camp sessions offered in both years, 1982 showed a 15 percent overall increase in participation. Thirty-four percent of the campers attended a speciality camp. Evidence of the impact of special camps came in the form of a letter from a parent following the 4-H Computer Camp. The mother said, "Our son not only had a good time, but most important, felt the knowledge he gained was invaluable." She went on to say that in the small Nebraska schools with only one or two computers, youth, especially the younger students, have no appreciable time with hands-on experience.

She indicated that we are "filling a need" and hoped we would continue to offer a computer camp next summer. Other program areas for speciality camps included a "Spinarama" arts camp, a camp for children with learning disabilities, a sheep camp and a horse camp.

Camper and counselor evaluations were all positive and recommendations were for the continued emphasis of speciality camps. For 1983 the 4-H camp planning committee for the 4-H Center has planned in addition to last years project or activity camps, one on fishing and another on fashion and etiquette.

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Forestry Programs

by Dennis M. Adams, District and Extension Forester  
Richard Lodes, Lower Platte South NRD Forester  
Dave Mooter, Urban Community Forester - Omaha  
Bruce Webster, Urban Community Forester - Lincoln

Nebraska's forestry program is unique among states in that two forestry functions, Extension (information/education) and Service (Nebraska Forest Service) are combined into one program. These functions are not mutually independent. Extension and service programs offer overlap and compliment each other. The objective of the combined forestry effort is to insure the greatest economic and social benefit from trees and forest lands in District V. The following is a brief description of major forestry program areas and highlighted activities/accomplishments for 1982.

1. Information and Education (I & E) - technology transfer methods to transmit information to the public. Numerous news releases, radio and T.V. appearances were made concerning various aspects of forestry. Several workshops were conducted pertaining to Pruning, Woodland Management, and Tree Planting and Care. In addition, a monthly forestry newsletter (Growing Green) is published to promote good forestry and provide timely information concerning trees and forestry.

A major Nebraska Forest Service project each year is conducting the annual Forestry Field Days. The theme for the 5th annual event held in 1982 was "Trees - The Good Life for Wildlife." Approximately 500 people attended the two-day event at Horning State Farm near Plattsmouth. From the comments and evaluations received, participants found the walking tours both educational and enjoyable.

Demonstration is probably the most effective method of persuasion. With this objective in mind a forestry demonstration area was designed several years ago at the university-owned Rogers Memorial Farm near Lincoln. A management plan was developed to guide development. Several forestry practices are being implemented to demonstrate recommended forestry techniques. Forestry practices being demonstrated include black walnut plantation management and woodland improvement. In addition a nut tree arboretum is being established for educational purposes.



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2. Rural Forestry Assistance (RFA) - direct technical forestry assistance to rural landowners.

District V service foresters made approximately 100 rural landowner visits during 1982. Assistance/recommendations were provided concerning planting, management, protection, harvest and utilization of the forest resource. Management plans were developed for 41 cooperators. Management plans include the necessary technical information to guide cooperators in their forestry program. For example, a typical management plan for tree planting would include specifications/recommendations for site suitability, site preparation, tree species, spacing, weed control and future maintenance requirements. In addition, foresters provide "on-the-ground" assistance planting design and tree marking for woodland improvements.

3. Forest Products Utilization (FPU) - technical forestry assistance to landowners and the forest industry in harvesting, marketing, processing and utilization of wood and wood products.

FPU assistance can generally be divided into two areas - landowners and industry. Nebraska landowners are not knowledgeable concerning timber harvesting and marketing and can often benefit from assistance provided by the service forester. By proper selection of trees to harvest and assistance in marketing timber, the landowner will usually benefit economically. Approximately 25 landowners received marketing assistance in 1982. Timber appraisals were conducted for eight individuals.

Forest industry can often use assistance in raw materials procurement, new markets and mill troubleshooting. In 1982 Sawmill Improvement Program studies were conducted on two sawmills in District V. The studies involved an analysis of the efficiency of mill operation. Sample logs were scaled before processing and boards measured after processing. Results of the study were presented to the sawmill managers along with recommendations for improvement. One mill indicated that recommended changes would be made depending on capital available.

An FPU workshop on walnut timber and log grading was conducted in September for the benefit of service foresters. Six service foresters from Kansas, Missouri and Iowa also attended. A sample of 10 trees were

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followed through the entire process of lumber conversion from the standing tree in the woods to the finished product at Missouri Valley Walnut Company sawmill in St. Joseph, Missouri. Participating foresters gained valuable experience in volume and value determination that should be of benefit in service forestry assistance to landowners.

As a special service to forest landowners and industry, the District V forestry specialist published four issues of the quarterly FPU bulletin "Timber Talk." This publication includes information pertinent to the forest industry and lists timber sales as a marketing service to landowners.

4. Urban Forestry (UFA) - technical forestry assistance to urban communities and individuals to help manage and protect the urban tree resource.

A tree selection key for the city of Omaha is being developed as a cooperative project with the Omaha Forestry Division. The key relies heavily on data that has been collected in tree surveys and removal studies. The end result will be a publication that will be designed so that the homeowner can work through a series of easy questions to determine the tree or trees that are best suited for the planting site. It is hoped that this tool will help shortstop many of the tree planting mistakes that are made by property owners. It will be of great benefit to those who are serious about making the proper decision the first time.

The city forester in Fremont worked with the Urban Forester, Dave Mooter, to develop an inventory of trees for Fremont. Fremont was interested in having a rather extensive system that would locate trees individually on all public right-of-ways. A system like this would cost tens of thousands just to put into service. After some discussion of the matter, it was decided that the University AgNet system could meet the Fremont needs and save the city a good deal of money. Two interns were hired by the city and trained to use the AgNet Tree program. Within about two summer months the inventory was completed. The total value of Fremont public trees is in excess of \$34,000,000 and this information will be of use to the city especially during budget time.

During the early part of the fiscal year, the Greater Omaha Tree Council held their first ever meeting. The meeting has been the goal of the Urban Forester, Dave

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Mooter, for some time. The council was formed to create an active awareness of trees in the Omaha area. A program was developed for fourth grade level dealing with how a tree grows and why we should be concerned about trees. The package involves a visit to the school by a volunteer from the council to present a 40-minute tape program. Follow-up programs were also developed for fifth and sixth grades to be incorporated over the next two years. Twenty people were trained as volunteers. The council's program was a greater success than was expected. Ultimately 29 schools representing more than 1,500 children were reached and at least one tree was planted at every location during Arbor Week. Teachers and students alike had nothing but good things to say and expressed continued interest in the program for 1983.

Chlorosis of pin oaks continues to be a major problem in Lincoln. Classified as a noninfectious disease, chlorosis is an iron deficiency in plants, especially pin oaks, characterized by yellow foliage. This problem is most prevalent on high pH soils where iron is not soluble. A program to show homeowners how to treat for chlorosis was put together and offered to the public by Urban Forester, Bruce Webster. Three treatment methods, two trunk injections and one soil application were demonstrated. The programs were held on weekday evenings at various locations throughout Lincoln. A total of 130 people attended the workshops.

The Lancaster County Plant 2 Trees committee sponsored a tree distribution for school children. The urban forestry program was integrally involved in this project.

The project was offered to all schools in the county and to all grades, with the provision that the Parent Teacher Organization contribute \$10 for each grade participating. Several schools chose not to participate, however, Pershing, Saratoga, and Randolph chose to give a tree to each youngster in the entire school. The total distribution for the project was approximately 2,700 trees to children in 26 schools.

The Community Forestry Program for small communities emphasizes planning by an organized tree board. Several District V communities are at various stages. For example, Auburn and Tecumseh have developed

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comprehensive plans and are initiating various annual projects. A tree inventory and assessment has been completed for Waverly. The next step is comprehensive and annual work plans.

5. Tree Distribution - the Nebraska Forest Service annually distributes over 3 million tree and shrub seedlings for conservation purposes through the Clarke-McNary Tree Distribution program. Forestry specialists assist with seed collection, tree shipping, promotion and other activities in support of the program.

The Nebraska Forest Service is continually working to improve the quality of seedlings sold in the Clarke-McNary program. Since black walnut is the premier timber and nut tree species in Nebraska, distributing seedlings grown from nuts collected in Nebraska is of prime importance to insure planting stock that is hardy and adapted to Nebraska growing conditions. Forestry specialists were instrumental in organizing and promoting a walnut-buying station to purchase black walnuts as a seed source. Cooperators who bring nuts to the buying station are paid \$.08 per pound after nuts are processed through a hulling machine. This first year the goal was to purchase 5,000 pounds of walnuts. Actually over 5,200 pounds were purchased which will provide about 50,000 seedlings for the Clarke-McNary program in 1984.

Long-term efforts to improve the quality of black walnut seedling stock are also underway. A black walnut superior tree clone bank is in the process of being installed at J. Sterling Morton Orchard and Tree Farm in Nebraska City. The 3-acre site will be the location for 68 selections of black walnut selected for superior timber characteristics, e.g., straightness, growth rate, few defects. After superior trees are selected, cuttings are taken in the winter and bench grafted onto rootstocks. The grafts are grown in the greenhouse until spring and transplanted into the clone bank. The clone bank presently contains 64 superior tree selections. The long-term goal for the clone bank is to identify trees that produce superior offspring. Trees identified as superior mother trees can then furnish seed for the Clarke-McNary program and also serve as a source of stock to establish superior seed orchards for the Clarke-McNary program.

Agricultural Experiment Station  
Research Progress Report  
Agronomy

Soil Fertility Investigations Related to Corn, Sorghum, Wheat,  
and Soybeans Grown in Southeast Nebraska

Project NEB-47-001 by Edwin J. Penas, Associate Professor of  
Agronomy

Phosphorus Studies on Winter Wheat

Fertilizer studies on wheat included sites in Lancaster and Saunders Counties where methods of applying phosphorus fertilizer (10-34-0) on wheat were evaluated at three rates of phosphorus (23, 46, and 69 pounds phosphate per acre). Methods compared were broadcast and incorporated before planting, knifed in bands into the soil in spring, placed with the seed at time of planting, and knifed in the fall at 23 pounds per acre phosphate with N-Serve.

Wheat grain yields were increased by phosphorus at both sites but only when the phosphorus was applied in bands in the fall or with the seed at planting time. There was no significant difference between these two methods. Broadcast phosphorus increased grain yield slightly in Saunders County at the highest rate of applied phosphorus but was inferior to fall knifed and seed applied phosphorus. Broadcast application did not increase grain yields in Lancaster County. Spring knifed increased grain yield slightly at the highest rate of applied phosphorus at the Lancaster County site. Wheat stands were damaged by spring knifed treatments in Saunders County. N-Serve did not improve phosphorus response at either site. These studies were supported in part by a grant from Dow Chemical.

At sites in Lancaster and Richardson Counties, rates of phosphorus with the seed were compared to rates of phosphorus broadcast and incorporated prior to seeding. The site in Lancaster County was abandoned because of variability due to factors other than treatments. At Richardson County, wheat grain yields were increased by phosphorus and continued to increase as the rate of phosphorus was increased. Even though phosphorus increased grain yield, broadcast application did not result in economic returns with wheat valued at \$3.00 per bushel and phosphorus costing \$.25 per pound of phosphate. When phosphorus was placed with the seed, 34 pounds phosphorus per acre was the most profitable rate in this experiment. This site was infected with scab which reduced yields significantly and likely moderated responses to phosphorus fertilizer.

Nitrogen Rates on Corn and Grain Sorghum

Rates of nitrogen were applied on corn at sites in Burt, Butler, and Saunders Counties. Sites were selected where part of the field had been in corn the previous year and part had been in soybeans. The objectives of this study were to determine the influence of nitrogen on corn yields based on soil tests for

nitrogen and assess the effect of soybeans in the nitrogen needs of corn. All six experiments were harvested but yield data are not available at this time. Visual observations indicate that a yield response to applied nitrogen did occur at all sites as would be predicted by soil tests. These studies are being supported in part by the Nebraska Corn Development, Utilization and Marketing Board.

Similar experiments were conducted with grain sorghum in Lancaster and Otoe Counties. Part of each field was in grain sorghum the previous year and part was in soybeans. Rates of nitrogen were applied in both parts of each field. Yield data have been collected from both sites and should be available in the near future. These studies are being supported in part by the Nebraska Soybean Development, Utilization, and Marketing Board.

#### Soybean Variety Evaluation in the Platte Valley

Chlorosis, or yellowing of soybeans, occurs on some soils, particularly the Gibbon series, in the Platte Valley. This problem is commonly called "Platte Valley Yellows." A variety study was initiated in 1980 and continued in 1981 and 1982 to evaluate variety performance under these soil conditions.

In 1982 40 varieties were studied at North Bend and 39 varieties at Fremont. Range in seed yield was not as great in 1982 as in previous years. Late planting and frequent rains seemed to minimize chlorosis. Also each year, the poorest varieties are discarded and new ones added which tends to make a larger proportion of the varieties in the test tolerant to the soil conditions.

At each site, there were 27 varieties in the top group that were not significantly different from each other in terms of seed yield. Also, 22 varieties were common in both groups of 27 varieties. In 1981 there were five varieties that were common in the top group at two different sites. Of these five varieties, four varieties (Stine 2050, Fontanelle 4545, Schettler TC204A, and Midwest Oilseeds 397) were again in the top group at both sites in 1982.

There are differences in varieties in terms of their tolerance of these soil conditions. Growers can select varieties particularly for these conditions. More years of research are needed to accurately identify those varieties which perform well each year under these soil conditions.

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Horticulture Research Develops Improved Method for Growing Trees  
by William A. Gustafson, Jr., Extension/Research Horticulturist

Horticulture research at the Southeast Extension & Research Center, University of Nebraska, Lincoln, Nebraska, has improved a technique for growing trees in containers. The problem with growing trees in conventional containers (pots) is that they develop winding, rope-like, circular root systems. When transplanted these trees may fail to anchor themselves in the soil and may blow over in storms because the root continues to grow in the circular manner. These twisted roots may also continue to grow in a circle, enlarge and tighten around the stem or root of the container-grown transplanted tree, girdling the tree.

The combined use of open-ended containers and ordinary air is helping UNL's horticulturists grow better trees for transplanting. Even difficult to grow trees -- such as oaks, pecan, walnuts and maple -- have high survival rates. These trees transplant better and live because they develop very fine fibrous root systems.

Seedling trees are grown in the greenhouse in plastic tubes or paper milk cartons with open ends. The tubes are filled with a mixture of peat, perlite and vermiculite, 1:1:1 (v:v). The open-ended containers are placed on a wire screen tabletop (reinforced hardware cloth top with 1/4-inch screen holes). The growing media does not fall through the screen, but air enters the open bottom of the tubes.

This production technique is especially adapted to those trees that have very dominate central leader tap root systems. For example, a pecan tree grown in a nursery field may develop a six foot tap root with only a few fibrous roots along the length of the tap root. In the process of digging the tree up, at most, only 30 inches of the tap root are removed from the ground. Most of these fibrous roots are lost in the digging and transplanting operation.

In the new method of growing, the tap root grows out the bottom of the bottomless tube, through the hardware cloth, and is terminated by the drying effect of air and light. This "air pruning" encourages lateral root development and temporarily terminates tap root growth. This system also allows proper drainage and aeration of the growing medium.

Contrary to popular belief, the tap root is not necessary for success in transplanting unless the tree was dug from a nursery field. Fibrous feeder roots are more important because they nourish the plant. Therefore, if the tree is grown with an

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air pruned tap root before it is transplanted, the enhanced fibrous roots provide the uptake of water and nutrients from the soil that assures success in transplanting. After transplanting the seedling tree from the container to the planting site, the temporarily terminated tap root resumes growth to resume its role (tap root) as a storage organ and support root system.

Overall, the improved method reduces nursery time and produces a better, healthier, more uniform tree. Many trees per square foot can be grown in tubes in the greenhouse. Budding and grafting are more successful, and growth is faster in the controlled, indoor environment.

The method eliminates costly labor and manpower to dig the trees up. Lightweight artificial planting media and cartons reduce shipping costs. Transplanting survival rates are higher and growth is more uniform than field grown trees.