

PLAN OF WORK REPORT OF ACCOMPLISHMENT



**University of Nebraska Cooperative Extension
Institute of Agriculture and Natural Resources
University of Nebraska-Lincoln**

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**Federal Fiscal Years
2000 to 2004**

**Plan of Work Report of Accomplishments
University of Nebraska Cooperative Extension
FY 2000 to 2004**

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Plan of Work Report of Accomplishments University of Nebraska Cooperative Extension

I. INTRODUCTION:

University of Nebraska Cooperative Extension is a division of the University of Nebraska Institute of Agriculture and Natural Resources. Other divisions include Agricultural Research Division and College of Agricultural Sciences and Natural Resources.

This Annual Report describes Cooperative Extension program impacts and accomplishments for the Cooperative Extension Division for fiscal year 2003, as required by the Agricultural Research, Extension, and Education Reform Act of 1998. It includes the elements identified in the USDA document, "Guidelines for Land Grant Institution - Annual Report". This federal Annual Report is based on the current strategic plan of Institute of Agriculture and Natural Resources and on emerging issues identified through stakeholder input in anticipation of beginning the next revision of the Institute of Agriculture and Natural Resources Strategic Plan. This federal Annual Report is for the University of Nebraska Cooperative Extension Division programs only, but was developed in conjunction with University of Nebraska Agricultural Research Division's Annual Report.

Cooperative Extension Action Teams guide our work and are represented under the five Goal areas. Nebraska Action Teams include: Building Strong Families; Community and Residential Environment; Community Resource Development; Food Safety; Health and Wellness Education; Health Care Policies and Education; Integrated Animal Systems Management; Integrated Crop Management; Leadership and Public Issues Education; Natural Resources and Environmental Management; and 4-H Youth Development.

In fiscal year 2002-2003, the University of Nebraska Cooperative Extension funding in support of the programs described in this plan totals \$41,696,674 of state, non-tax, and federal source expenditures. Smith Lever Federal Formula Funds (including regular E3bc, special needs, CSRS retirement, and penalty mail) provided \$4,866,077 or 12 percent of this total. However, the reports included in this report represent all funding streams not just federal dollars.

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A. PROGRAMS (5 FEDERAL GOAL AREAS)

Goal 1: To achieve an agricultural production system that is highly competitive in the global economy.

Overview: (includes sections a, b, c & d)

Agricultural production is the foundation Nebraska's economy and is of particular importance to our rural communities. Nebraska Cooperative Extension's Integrated Crop Management (ICM) Action Team addresses the need for sustainable and profitable agricultural production systems and concerns about environmental stewardship. ICM provides educational programs for management of soil fertility, soil and water resources, pests and crop production in a way that sustains agricultural profitability and promotes environmental stewardship. The ICM program is supported by the educational program of the Natural Resources and Environmental Management Action (NREM) Team. The educational programs offered to support Nebraska's agricultural producers continue to be wide ranging in the breadth of subject matter to address current needs and issues.

The livestock industry plays a significant role in Nebraska's agricultural economy accounting for nearly 65% of the total agricultural receipts in the state. Livestock production offers producers an important means to add value to their grain and other crops. Nebraska has 23 million acres of rangeland and pastures, not counting the crop residues across the state that are used for livestock. Long-term sustainability requires that animal systems be economically viable, ecologically sound, and socially responsible. Cooperative Extension's Integrated Animal Systems Management (IASM) Action Team's education programs encourage producers to manage their operations as holistic units rather than as a set of independent enterprises. The IASM program is also supported by the NREM team with programming that emphasizes proper manure management and comprehensive nutrient management planning that protects the environment.

The drought continued in much of state during 2003 with some areas of the state in their third and fourth year of being impacted by the drought conditions. Some of our educational efforts in the state continued to address these concerns. A number of workshops, web pages, satellite programming, and media releases addressed drought issues from the perspective of the producer while recognizing the economic viability of the rural communities is dependent on agriculture. The drought has impacted both crop and livestock producers. Reduced rangeland grass resources have forced ranchers to reduce herd sizes, wean early, and make other management decisions to react to having reduced feed supplies. Critically reduced surface water supplies and the cost of pumping increased amounts of ground water have had significant impact on irrigated crop production. Another issue related to the drought in 2003 was a severe infestation of grasshoppers in some of the state's rangeland area. Cooperative Extension provided education and helped facilitate rancher organizations to form blocks of range that could be sprayed for grasshopper control. This effort was in cooperation with the Nebraska Department of Agriculture (NDA) and USDA Animal and Plant Health Inspection Service (APHIS). NDA and APHIS both provided funding to cost share the grasshopper control program with ranchers. We continue to provide educational programs to help producers make critical decisions required as a result of the drought.

Nebraska Cooperative Extension has continued to deliver its successful Crop Management and Diagnostic Clinic program. In 2003, 508 agribusiness professionals attended Crop Management and Diagnostic Clinics, representing 63 Nebraska counties and 6 states attended these clinics. These individuals represented approximately 35% of Nebraska's row crop acres and participants valued the clinics equal to \$7.18/acre or if extrapolated to over 40.6 million dollars. In addition, using the resources of these clinics, 51 area growers participated in a tailor-made program for growers.

Farm and ranch operations along with rural businesses face many challenges including hiring and retaining quality employees needed for a successful operation. Personnel management is not a strength of most agricultural operations and small businesses. Cooperative Extension developed a workshop to help agricultural employers better understand labor management issues and compensation packages to improve their success. Communication strategies were also presented to help both employers and employees build relationships. Initial responses to this workshop have been highly positive. A 2003 post-conference survey indicated that participants represented 632 full-time employees and 192 part-time employees. All the participants indicated the value of the information received out-weighed the cost of attending the workshop. When asked if they would make a management change with respect to the various components of the workshop, 40 to 65% of the participants indicated they were likely to make a change. The workshop addressed hiring quality employees, letting go of poor performers, compensation packages, communication skills, personality profiles, employee orientation and discipline techniques.

The Integrated Crop Management, Integrated Animal Systems Management, and Natural Resources and Environmental Management teams continue to deliver a variety of educational programs to support Nebraska’s agricultural producers and agribusinesses. This report illustrates just a few of those programs and example impacts. With the current drought and financial situation facing agriculture in Nebraska these programs are important to individual producers as well as the state as a whole. The teams continue to strive to deliver programs that meet the needs of Nebraska agriculture and in a way that allows effective learning. The programs supporting this goal must be ongoing to support the continuing changes in agriculture.

e) Total Expenditures and Full-time Equivalent(FTE):

FFY2003	Federal*	State	Local	Other	Total
Funding:	\$ 997,052	\$ 4,721,413	\$ 1,428,632	\$ 2,443,138	\$ 9,590,235
FTE**:					73

* FY2002-2003 Federal Formula Funds (includes Smith-Lever regular E3bc, special needs, CSRS retirement)

** Includes both professional and para-professional funded from all sources

Key Theme - Agricultural Profitability

(refers to Plan of Work Goal 1, Output Indicator 1, and Outcome Indicators 1 & 2)

a) Swine specialists and extension ag engineers in Iowa, Minnesota, Nebraska, and South Dakota routinely respond to questions regarding production problems related to ventilation design and management. Often times, producers and employees demonstrate a basic lack of knowledge of ventilation principles. A series of 12 ‘Hands-on’ ventilation workshops for pork producers, employees, contractors, veterinarians and equipment suppliers were held in Iowa, Minnesota, Nebraska and South Dakota from December, 2002 thru mid-March, 2003. Enrollment was limited to a maximum of 36 per site. There were a total of 335 paid attendees, including one site that was veterinarians only. The all day workshops began with classroom presentations on the basics of environmental needs of pigs and how pigs interact with their environment, cooling systems for pigs and troubleshooting common ventilation problems. A key component of the workshops was ‘hands-on’ demonstrations of ventilation principles using a 6’ x 8’ x 8’ demonstration room constructed at South Dakota State University. Partial funding for the room and transport trailer was obtained from grants from the Pork Producer Associations in each of the cooperating states. The demonstration room is equipped with fans, various inlets, heaters, and controllers and allows practical demonstrations of many of the ventilation principles taught in the classroom portion of the

workshop. At each location, an extension swine specialist and an extension ag engineer were involved in the classroom presentations and demonstrations.

- b) An evaluation indicated that the biggest changes in knowledge, based on participant rankings of before and after knowledge, were in the areas of temperature and airflow needs of pigs, understanding the basics of ventilation including static pressure, and troubleshooting techniques. A majority of the comments on the evaluations indicated changes were planned in swine facilities based on the knowledge gained of static pressure and the impact of inlets on static pressure. A majority of comments also included statements regarding knowledge gained regarding correct design and application of cooling systems for pigs. Attendees were asked to indicate how many pigs they manage or influence. The total number of growing-finishing pigs influenced was 8.9 million, while the number of sows influenced was 570,000. While there is some duplication in these numbers due to multiple attendees from a swine enterprise, the large number suggests that as a result of the workshops, the ventilation systems of a large number of swine facilities in the 4-state area will be managed in a manner that will likely improve the well-being and performance of the pigs in the facilities. When asked to estimate the production value of the meeting, responses varied from \$100 or less total value to \$10 per hog on some farms. A majority of the attendees rated the value at between \$1000 and \$5000.
- c) Scope of Impact - Nebraska, South Dakota, Iowa, Minnesota
- d) Funding:
 - NU Cooperative Extension
 - Federal Formula Funds
 - Participant fees
 - State Pork Producer Associations

Key Theme - Agricultural Profitability

(refers to Plan of Work Goal 1, Output Indicator 1, and Outcome Indicators 1 & 2)

- a) One example of Nebraska Cooperative Extension's response to drought and grasshopper populations were the programs implemented in north central Nebraska as a result of the lack of rainfall, grasshopper infestations, temperatures below normal at night during May, and feed shortages. Producers had not been faced with the compounding of the above factors for decades, thus programs were held to educate producers facing these problems on how they might best cope. One very important aspect concerning the programs held was the timing of the programs. The University of NE Cooperative Extension programs in north central Nebraska were held before private industry started conducting programs. Thus, most producers received early unbiased research-based information. One grasshopper management meeting was held May 9 in Eddyville with over 40 local producers attending. Cooperative Extension coordinated the meeting and had a University of NE Cooperative Extension Entomologist, APHIS (Animal and Plant Health Inspection Service) representatives, aerial applicators, and chemical representatives on the program. Seven drought meetings held in north central Nebraska in early July had over 200 producers, ag lenders, media, and veterinarians attending. Again, these were the first meetings held concerning strategies to best cope with drought. Topics covered included: early weaning, feeding considerations, and beef animal rations; pasture management and co-product feeds; alternative forages; alternative feeds; and grasshopper management
- b) As a result of the May 9 meeting, a 35,000 acre block to be sprayed for grasshoppers in Custer and Dawson Counties was put together resulting in a savings of \$1.28 per acre sprayed. In Dawson

County an 18,000 acre block was put together and sprayed using a reduced area treatment method, saving nearly \$2.50 per acre. Over 20 ranch visits were made in Custer County to sample grasshopper numbers to determine if the rangeland needed to be sprayed. An example of the impact these ranch visits had was that 10,000 acres that were going to be sprayed were determined not to have the threshold number of grasshoppers that warranted spraying. This saved producers \$7.50 per acre or \$75,000. News media coverage of the grasshopper infestation in central Nebraska included radio, television, and newspapers from across the state as well as national coverage.

One producer's comment from the drought meetings was, "We didn't even know where to start, your meeting saved our bacon and gave us a place to start." The results of these meetings were seen throughout the summer and fall. Producers early weaned their calves to save forage, thousands of acres of dryland corn were baled for feed, and in the fall farmers and ranchers baled soybean stubble and corn stover. This not only provided feed that ranchers needed for their cattle, but also income for farmers. Also as a result of these meetings, Extension Educators ran and evaluated hundreds of rations for producers. An example of the impact is a ranch in Brown County. This ranch decided to feed 175 tons of corn gluten feed pellets instead of the traditional commercial feed, saving \$12,600. Also, nine center pivots were planted to rye and oats for fall grazing in Brown, Rock, and Cherry Counties. A rancher quote was "It worked perfect!" Another direct result of the meetings was that a grain elevator in northern Nebraska started selling co-product feeds. These feeds are high in protein and energy and offer producers economic savings.

c) Scope of Impact - State Specific

d) Funding:

NU Cooperative Extension

Federal Formula Funds

Key Theme - Animal Production Efficiency

(refers to Plan of Work Goal 1, Output Indicator 1, and Outcome Indicators 1 & 2)

- a) Protein supplementation of cow herds in the sandhills of Nebraska is mandatory if the herd's protein needs are going to be met. Alfalfa hay or commercial protein supplements are the two most often utilized sources of protein supplementation. As a result of Alfalfa hay being priced at over \$100 per ton and 40% crude protein commercial cake costing over \$200 per ton, a more economical source of supplemental protein was needed to reduce protein feeding costs. Raw soybeans contain 38% crude protein, 94% TDN and 18% fat. Current research data also indicates that feeding high fat diets to cows 45 days prior to calving in many cases increases pregnancy rates and first service conception rates in cows. If ranchers can increase pregnancy rates without increasing costs their potential for profit should improve. Seventy-five ranchers participated in three educational workshops that addressed utilization of whole raw soybeans in beef cattle diets and 100 producers attended a series of ration balancing workshops. These workshops taught by the extension educators showed producers how to use the new NRC (National Research Council) protein system for beef animals. Feeding soybeans was also demonstrated on the computer model at these workshops. The computer program for the NRC protein system is now being used by many of the producers so they can formulate their own rations. Individual consultations also made up a large part of this educational effort.
- b) Surveys were sent to the 75 producers 12 months after the educational meetings were conducted. The survey indicated:

- 50% of the producers responding to the survey fed whole raw soybeans to their herds in 2002-2003 as a direct result of the education meetings they attended.
- Ranchers fed 1,265 tons or 42,125 bushels of whole soybeans to over 13,365 head of cows, bred heifers, yearlings and calves resulting in a calculated savings of \$6.39 per head or a total \$85,402.00 in reduced protein supplementation cost when comparing the cost of soybeans at \$133 per ton vs alfalfa at \$100 per ton and 40% Commercial supplement at \$200 per ton.
- 63% of those responding to the survey also fed whole raw soybeans as a high fat diet source to cows to help increase pregnancy rates. It was not possible to put a dollar value on the increase in pregnancy rates producers reported as a result of this educational effort, but that value could easily total another \$30,000 to \$40,000 in gross income to their operations.

c) Scope of Impact - State Specific

d) Funding:
 NU Cooperative Extension
 Federal Formula Funds

Key Theme – Plant Production Efficiency

(refers to Plan of Work Goal 1, Output Indicators 1 & 2, Outcome Indicators 1,2,& 3)

- a) It is critical for crop producers, crop consultants, and agribusinesses to have up-to-date information on the current situation facing crop production during the growing season. Nebraska integrated crop specialists stay in touch with producers and agribusiness representatives across the state via Crop Watch, an 8 to 10-page newsletter published 26 times from March to November. In addition to the printed version, an expanded version of the newsletter is available at cropwatch.unl.edu.
- b) During the heart of the growing season, the Crop Watch web site will have more than 20,000 hits a month, often with 6,000-7,000 unique visitors. More than 550 readers have subscribed to a service to provide updates when new issues are posted to the Web. In the last reader survey, 90% of those responding said they had changed a practice because of information in Crop Watch. Another 3% said they hadn't made a change in the current year, but planned to in the future due to information in Crop Watch. Of those indicating an area of change, most changes were in pesticide selection and timing, use of crop rotations, and weed, insect, and disease scouting. Generally the value of change was estimated at \$2 to \$15 an acre. Totals per response ranged from fairly small amounts to over \$100,000 (crop consultant who changed his recommendations to clients). Reader comments about the value of Crop Watch included: "Timely updates on pest management and long-term study information on management systems. I also use the weather data extensively;" and "Up to date information that relates to my farm, both in practice and by location." .

c) Scope - State Specific

d) Funding:
 NU Cooperative Extension
 Federal Formula Funds
 User fees

Key Theme – Agricultural Profitability

(refers to Plan of Work Goals 1&3, Output Indicators 1 & 2, Outcome Indicators 1, 2 & 3)

- a) Teaching farmers using on-farm demonstrations has been an effective teaching tool for adoption of new technology. Nebraska has a network of Extension Specialists and Educators conducting on-farm research and demonstration plots in cooperation with participating farmers and crop consultants. The goal of these efforts is to enhance participating producers profits by demonstrating to farmers and consultants how to design, implement and interpret on-farm research comparisons.
- b) Currently at least ninety farm operators and industry cooperators representing sixteen Nebraska Counties are participating and conducting On-Farm Research. Participants at one of the program's field days were asked if the on-farm research projects influenced their management in any way; 63% indicated that it had. Evaluation data from the Nebraska Soybean and Feed Grain Profitability Project indicated that participating producers believed they had achieved an average annual benefit of \$7,768. Many positive comments about the on-farm research efforts have been obtained. A few examples include: "I really appreciate sharing with other producers the results of our projects. The program has made me really think about different aspects of my family's operation. Since joining the program, we've adopted no-till corn and soybeans and applying biosolids to our cropland. In tillage costs alone, we have saved \$7-8/acre on 2,500 acres. I would recommend this program to anyone." "To me, the approach of the farmer asking the question that will be answered by testing on his farm with his equipment and labor is the highest tradition of teaching, the best part is that both the farmer and consultant benefit."
- c) Scope of Impact - State Specific
- d) Funding
 NU Cooperative Extension
 Federal Formula Funds
 Participant fees

Key Theme – Agricultural Profitability

(refers to Plan of Work Goal 3, Output Indicator 1, Outcome Indicators 1 & 2)

- a) Financial record keeping is critical for farmers and ranchers to understand and manage their production enterprises. Computerized financial record keeping workshops have been presented in Nebraska by several teams of Extension Educators to help producers better understand and manage their financial record.
- b) A followup survey was mailed to workshop participants six weeks after the series ended to help evaluate the impact of the workshops. Survey results showed, prior to attending the workshop, 64% of the respondents were keeping a set of financial records in an account book, 47% were using computerized record keeping software, 12% had created their own system using a computerized spreadsheet program, 35% percent were keeping both manual and computerized financial records and 12% were not keeping financial records beyond recording checks in their checkbook ledger. Seventy six percent of the respondents said they learned to keep a more complete set of financial records, 58% said they expected to save time on tax preparation, 82% expected to keep a more accurate set of financial records in the future, 82% said they had learned to create reports that will help them make better management decisions and 94% said they would recommend the workshop to others who were at the same level of experience that they were prior to attending the workshop.

Of the participants who were not using a commercial record keeping software program prior to attending the workshop, 56% had already begun to do so within six weeks following the workshop and all of the other 44% were planning to start to use commercial software within the next year.

- c) Scope of Impact - State Specific
- d) Funding
 - NU Cooperative Extension
 - Federal Formula Funds
 - Participant fees

Key Theme – Agricultural Profitability

(refers to Plan of Work Goal 3, Output Indicators 1, Outcome Indicators 1 & 2)

- a) Farmers and Land Owners needed information on the complex commodity program provisions of the 2002 Farm Bill in order to complete program sign-up. There were five options and three variations of the option four choice. The farmers/land owners needed to understand the options, the effect on base and yield information, options on how to prove yields, and some method to evaluate future price influences for the six year period of the program. Forty-three Nebraska Educators and Specialists reported 154 joint information meetings with Farm Service Agency (FSA) offices attended by 11,689 farm owners and operators. In more than half of these meetings, Extension Educators presented part of the program reaching 6,187 clientele. Extension educators and specialists developed media efforts to inform and educate farmers about the five options and three sub-options offered to farmers in the program. These included 93 news columns, 46 radio tapes, 3 television programs, 28 newsletters, 93 e-mail notes to producers or producer groups, 11 satellite meetings, 43,587 hits on the University of Nebraska website: www.FarmBill.unl.edu, and 31 Extension presentations at Cooperative Extension meetings and other meetings to audiences such as corn growers, sorghum growers, swine producers, Farm Bureau, Farmers Union, and Ag lender group meetings. Together these efforts made an estimated 195,434 contacts.
- b) A Farm Bill Education Satellite program trained 116 persons including land managers, lenders, crop consultants, farmers, and Extension Educators to run the Texas A&M Base and Yield Analysis program. Eighty-seven responded to an evaluation of the satellite program that indicated programming influenced 289,496 acres and 84 people learned new information about the 2002 farm bill.

Extension Educators assisted 1,637 farm operators and owners to figure farm program options on 992,862 acres. Educators also helped 364 persons individually to learn how to run the Base and Yield Analysis program on the Web, helped 486 persons to understand the computer printout they had printed from their home computer, and gave the URL for the program to 7,942 persons besides those who might have found the website through media contacts. The potential estimated financial impact of these direct efforts in using the Base and Yield Analysis program is \$3,898,421. Examples of producer comments include: A livestock producer said "I was going to default because I didn't understand how to prove yields; that would have cost me \$5000 per year." An FSA Executive Director said for each farmer Extension worked with, it saved 3-4 hours of office time for FSA and for the farmers." A diversified producer said, "understanding how some of the alternative crops fit in the farm bill was very helpful."

Extension Educators also used several spreadsheet versions of Farm Program calculations to help producers understand the five options. A total of 663 farmers participated in these sessions impacting 652,977 acres. The budgeting materials were downloaded 17,500 times from the FarmBill.unl.edu website which had both Excel spreadsheet versions and hand worksheets. The estimated financial yearly impact of these direct efforts in using the spread sheet programs is

\$1,255,954. A Central Nebraska farmer commented, "Because of the instruction I received, I am confident that I will now make a correct decision for my farm." One farmer said, "Our FSA office didn't encourage us to go to the extra work of proving yields on our 3500 acres, Your (Extension) training helped us get things together for Option 4, this really helped our operation, maybe over \$10,000 per year."

c) Scope of Impact - Nebraska, Texas

d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme – Agricultural Profitability

(refers to Plan of Work Goal 3, Output Indicators 1, Outcome Indicators 1 & 2)

- a) One of the challenges faced by Nebraska crop producers is effective risk management and marketing to assure profitability. One teaching tool has been a marketing simulation educational program called Winning the Game. Twenty-seven Winning the Game workshops were held across the state in January and February 2003. The primary objectives of the workshops were to help producers recognize seasonal price patterns and re-evaluate their insurance coverage and forward pricing plans. Participants were asked to make decisions for insuring and marketing corn or wheat for a hypothetical farm situation. The decision making was presented in a game format.
- b) The workshops registered a total of 480 participants. The average size of farm among the farmer participants was 974 acres. There was significant representation of producers from several size categories, particularly 300-500 acres and 1,000-2,000 acres. Nearly 40% of the corn growers, 50% of the soybean growers and 70% of the wheat growers attending reported they had not previously forward contracted more than 10% of their expected production. Eighty percent of the participants reported they expect to forward price more grain as a result of what they learned at the workshop.

The participants expecting to increase their forward contracting as a result of the workshop indicated they plan to increase their forward contracting of corn from roughly 25%, on the average, to 50% of their expected production. Soybean growers reported plans to increase forward contracting from 15% to 40% and wheat growers from 8% to 35%. These changes would have increased the average revenue from corn alone by approximately \$2,200 per farm per year over the period 1983-02 for a total of \$335,000 per year for the corn acreage represented by workshop participants. Twenty percent of the workshop participants indicated the workshop did not influence them to increase their forward pricing; however, they reported they had already been forward pricing an average of 40% of their expected corn production and 25% of their soybeans.

Over 70 percent of the participants indicated they plan to meet with their insurance agent to consider changes to their crop insurance coverage as a result of what they learned at the workshop. Approximately 25% of the participants indicated they had their previous crop insurance plans confirmed as a result of attending the workshops.

c) Scope of Impact - State Specific

d) Funding:
NU Cooperative Extension
Federal Formula Funds

Goal 2: A safe, secure food and fiber system.

Overview: (includes sections a, b, c & d)

Nebraskans continue to be concerned for food safety. Recent bio-terrorism scares enhance the concern for food safety. Additionally issues such as irradiation, chronic wasting disease, bovine spongiform encephalopathy (BSE) or "mad cow disease" and use of food products derived from biotechnology are concerns that consumers have identified. Nebraska Extension education programs continue to focus on food safety for a variety of audiences: consumers, the food industry, retailers, farmers and ranchers.

Much of Nebraska's income is based on providing a safe food supply for public consumption. Educational programs targeting food managers of restaurants, schools, nursing homes and deli's are crucial. More than 7000 food service professionals have taken Serv Safe in Nebraska since the program was introduced in the mid-90's. Over 98% of these individuals have passed successfully the Serv Safe tests. This represents millions of safe meals served on a daily basis.

Awareness and caution are among the best defenses against intentional or accidental livestock disease threats. Nebraska Cooperative Extension is heading a biosecurity training effort to safeguard the state's \$6 billion livestock industry. This program, which also includes Kansas and Iowa, teaches veterinarians, producers, youth and others how to prevent or contain disease outbreaks spread accidentally or through bioterrorism. A new Web site at <http://farmandranchbiosecurity.com>, meetings and publications are part of the effort. Training programs for food processors also emphasize biosecurity and preventative measures to minimize risks to the food supply. This training has helped more than 1,500 Nebraska livestock producers and food processors guard against intentional or accidental biosecurity treats and is expanding the number of people on the lookout for such problems.

Although 4-H livestock exhibitors learn about the animals they raise and show at fairs, they may not have a good understanding of consumer concerns for meat quality and safety. Nebraska Cooperative Extension's Assuring Quality – Livestock Quality Assurance Program for Youth teaches 4-H members more about the responsibilities of raising livestock for food and how their care of the animal influences meat quality and food safety. Of about 6,500 4-H'ers who participated in 2003, 80 percent reported gaining valuable knowledge, changing their attitudes about the responsibilities of raising livestock and implementing quality assurance practices. Parents report that their children better understand the time and knowledge needed for animal care.

Food allergies are a worldwide health concern and cause as many as 200 deaths and countless allergic reactions each year in the United States alone. Food companies and regulators worldwide rely on the Nebraska expertise. The NU-developed tests and training are helping the food industry protect allergic consumers and reduce product recalls. Companies that use the tests can be confident that their products contain only the ingredients listed on the label. At one NU training session, 100 industry representatives changed a manufacturing practice and estimated avoiding potential recall costs averaging \$500,000 each.

Food irradiation is a technology to reduce food borne pathogens and has been available for 50 years. The educational/survey research program was conducted in five grocery stores in two Nebraska communities during the time frame that grocery stores have in-store demos and free samples. About twenty-five percent perceived a difference in the taste of the irradiated meat sample. Sixty-five percent said they either liked or liked very much the irradiated meat; thirty-two percent stated that they neither liked or disliked the irradiated meat. Only four percent stated that they either disliked or disliked very much the irradiated meat sample. When asked if they would purchase irradiated meat if it was available, eighty-two percent responded either definitely yes or probably yes.

e) **Total Expenditures and Full-time Equivalents(FTE):**

FFY2003	Federal*	State	Local	Other	Total
Funding:	\$ 173,400	\$ 821,115	\$ 248,458	\$ 424,894	\$ 1,667,867
FTE**:					12

* FY2002-2003 Federal Formula Funds (includes Smith-Lever regular E3bc, special needs, CSRS retirement)
 ** Includes both professional and para-professional funded from all sources

Key Theme - Food Quality

(refers to Plan of Work Goal 3, Output Indicator 3, Outcome Indicators 3 & 4)

- a) The objective of this program is protection of the food-allergic consumer (primarily small children) from potentially life-threatening reactions to food products. The program was implemented to assist the food industry, regulatory agencies, physicians, and consumers in analyzing food samples for undeclared, potentially hazardous residues of allergenic foods and evaluating cleaning strategies and procedures for cleaning food-processing equipment to remove allergenic food residues.
- b) Food companies and regulatory agencies used the data obtained from the program to make decisions about the safety of food products for food-allergic consumers and the efficiency of food industry equipment cleaning practices. The food companies changed cleaning practices, labeling practices, and manufacturing practices with information gained through this program in order to better protect food-allergic consumers. Regulatory agencies used the information to make regulatory decisions on foods that were out of compliance and posed a threat the health of food-allergic consumers. Physicians and food-allergic consumers used the information gained through this program to find out if the food they suspected of causing a reaction did, allowing them to go forward to regulatory agencies with a complaint after a severe reaction. This program had 44 food companies, 2 physicians, 3 consumers, and 2 regulatory agencies participate. Of the food companies, approximately 22 of the 44 contacted the program for further information and follow-up on allergen control strategies. Educational delivery was by written report and phone consultation. The subject of the written reports and phone consultation was results of analysis for residues of allergenic foods in food products and on equipment surfaces. The food companies who participated in the program changed the way they cleaned equipment and also how they made food; also, receiving information from this program saved an estimated \$440,000 in potential recall costs and unknown amounts of potential lawsuit payouts from consumer reactions.
- c) Scope of Impact - State Specific
- d) Funding:
 NU Cooperative Extension
 Federal Formula Funds

Key Theme - Food Safety

(refers to Plan of Work Goal 4, Outcome Indicators 1 & 4)

- a) Because of the concern for chronic wasting disease in game animals, a game meat safety program was conducted for extension educators and Nebraska Game and Parks personnel. Dr. Cathy Cutter from Penn State shared program materials that she developed and how to market the program in Nebraska. The workshop included information on diseases of wild game and birds, chronic wasting

disease, proper field dressing, what to look for in a processor, game meat preparation and processing.

- b) As a result of the program, a 91% increase in knowledge about proper field dressing was reported by participants. Participants were knowledgeable about safe handling of game meat (29% increase - with an average score of 4.25 - 5 = high) but knowledge about game meat cookery and game meat processing increased 58% and 84% respectively. The results of the program indicated that we cannot separate food safety from cooking and processing.
- c) Scope of Impact - State Specific
- d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme - Food Safety

(refers to Plan of Work Goal 1, Outcome Indicator 1)

- a) The Food Safety for Seniors education program was provided for participants at Senior Citizen Centers. The topics taught were heating, cooling, storage, and other food preparation techniques. Evaluation comments following the program indicated that the participants would: 1) no longer thaw meat on the counter, 2) put food in proper storage quickly, and 3) wash vegetables before use.

"Oh How Times Have Changed" was developed by a team of central Nebraska extension educators to promote National Food Safety Month. The program targeted older adults who eat their noon meal at senior centers. The goal was to have them understand why they can no longer use the same food safety procedures as they have in the past because (1)older people are at greater risk for food borne illness as their immune systems are less tolerant to food borne pathogens and (2)the food supply is now more easily contaminated because of the expansion of food sources and methods of production and transportation. The program was advertised at senior centers on monthly calendars and tent cards placed on dining tables. Placemats displaying food safety information were added to tables the day of the program. A 15 to 20 minute presentation was made at the end of the noon meal and then Food Safety Bingo was played. At least 90 percent of the diners remained to play Food Safety Bingo. Appropriate prizes were awarded to winners such as dish soap, hand soap, paper towels, etc. Participants were given the bingo card to take home which contained food safety tips on the back side. They completed a short survey that discussed food safety procedures used prior to the presentation and changes planned because of information gained.

- b) As a result, forty-five percent of the participants indicated they would make changes such as avoiding practices of leaving leftovers at room temperature and defrosting food on the counter. They also planned to use a food thermometer more often to check temperatures of cooked foods. Presentations were given to more than 400 people at eight central Nebraska senior centers.
- c) Scope of Impact - State Specific
- d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme - Food Safety

(refers to Plan of Work Goal 1, Outcome Indicator 1)

- a) Hand washing has been an emphasis of the food safety program. Hand washing was an educational topic for 100 private pesticide educators at the certification training and for over 1,000 youth during farm safety camps, Nutrition Education Program training, and school enrichment projects during the school year. The youth participants included Native Americans and other low-resource youth.
- b) In a follow up visit, many of the youth remarked that they were still washing their hands. One child said, "I remember that my hands were orange. I try really hard now to keep my hands washed."
- c) Scope of Impact - State Specific
- d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme - Food Safety

(refers to Plan of Work Goal 1, Outcome Indicator 1)

- a) A food safety and limited resources management program was delivered on the Santee and Omaha Indian Reservations. The program was funded by a grant from USDA with Julie Albrecht, Extension Food Specialist, and Kathy Prochaska-Cue, Extension Family Economics Specialist, as project directors.
- b) As a result, over 800 Native Americans were contacted and taught food safety handling techniques, food preservation, and nutrition.
- c) Scope of Impact - State Specific
- d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme - Food Safety

(refers to Plan of Work Goal 1, Outcome Indicator 1)

- a) A food safety course isn't required for most students, including college students. Reaching students in college housing may be the last chance to teach food safety before they live independently. This project's objective was to promote food safety in a cost-efficient and timely manner. Educators stress the "teachable moment" -- about 2,000 students at a local university rent dorm refrigerators through campus dining services with a teachable moment of when to refrigerate, eat and toss food. A food safety flyer was designed, with student input, for placement in refrigerators. Information was packaged in short, catchy phrases with an eye-appealing graphic. For reinforcement and evaluation, the flyer encouraged students to take an Internet quiz -- based on the information given in the flyer -- to be eligible for one of five \$20 pizza gift certificates donated by a local restaurant. This was the fourth year campus dining services offered a flyer in student refrigerators. The flyer concept was initiated and designed by the local cooperative extension office and health department. This was the first year for an Internet component.

- b) As a result, direct feedback was received via the Internet from 152 of the 2,000 students (about 7%) who both received the flyer and took the Internet quiz. (Internet response rate may have been affected by a possible lack of immediate Internet access at the time of moving in.) Each question was answered correctly by 95% or more students; 84% felt this activity increased their food safety awareness. Based on the positive responses of the students taking the Internet quiz and the cost-effectiveness of this delivery method, this project will be repeated.
- c) Scope of Impact - State Specific
- d) Funding:
 NU Cooperative Extension
 Federal Formula Funds

Key Theme - Food Safety

(refers to Plan of Work Goal 1, Outcome Indicator 1)

- a) National Food Safety Education Month™
 Activities included:
 * Article: "Cleaning Up the Office Refrigerator"
 * Refrigerator food safety poster
 * Table tents
 * Food safety quiz
 * Handwashing poster
 These materials were used to teach food safety via a variety of distribution channel including worksites, web sites, newsletters, news releases health fairs, senior sites, childcare centers and grocery stores.
- b) Here are some comments from food safety activity participants indicating the helpfulness of these materials:
 "Thanks for the food safety table tents, we are going to use these in our cafeteria for the next 6 weeks. They are terrific!!"
 "You did a great job on your food safety site ... can we use it as a recommended site for food safety month?"
 "Great poster. You are so creative and have a marvelous outreach. Thanks for sharing."
 "Thanks, it's a great poster. I plan to use it in LTC and Head Start as well as Assisted Living Facilities."
 "I plan to use quiz in staff mailboxes -- have them turn in for a drawing."
 "Great reminders as food often sits out too long at workplaces."
 "I appreciate these types of support activities."
- c) Scope of Impact - State Specific
- d) Funding:
 NU Cooperative Extension
 Federal Formula Funds

Key Theme - Food Safety - Food Service

(refers to Plan of Work Goal 1, Output Indicator 1, Outcome Indicators 1,2 & 4)

- a) Food safety is a concern for all Nebraskans. Much of Nebraska's income is based on providing food from the agricultural producers to the local consumer through restaurants, with over half of our meals eaten away from home. Safe food handling practices is important to the well-being of the economy and the personal health of the people of Nebraska. More than 7,000 food service professionals have taken ServSafe in Nebraska since 1996. The ServSafe topics taught included the disease organisms and bacteria; food borne illnesses; food safety systems; safe storage; preparation and serving of food; and cleaning and sanitizing.

- b) As a result participants were able to calibrate and use thermometers correctly for food preparation, cooking and holding after attending the ServSafe course. Ninety-eight percent of those trained passed the course and received certification. Surveys show that individuals who successfully complete the course increase their food safety knowledge and make safe food handling changes that reduce the risk of food borne illnesses. These food service managers impact on the average an additional 15 people in their establishments the importance of food safety after completing this course. ServSafe is taught as a 16 hour, two day training with a team of extension educators/ specialists, as well as health inspectors from the Nebraska Department of Health and Human Services or the Nebraska Department of Agriculture. Participants - food service managers from mom-and-pop restaurants, large-chain restaurants, health care facilities, schools, and retirement centers, have subject matter delivered through lecture, video, and hands-on activities to teach the importance of food safety in their food service establishment.

- c) Scope of Impact - State Specific

- d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme - Food Safety - Food Service

(refers to Plan of Work Goal 1, Output Indicator 1, Outcome Indicators 1,2 & 4)

- a) Although the number of foodborne illness outbreaks is decreasing, the number of occurrences in schools is on the rise. In an effort to combat the problem, a four-member team of extension educators from central Nebraska conducted a survey of school foodservice personnel to determine the need for food safety education. A random telephone survey reaching managers/ head cooks in Nebraska schools found that many had no formal food safety training. Even managers/ head cooks who had been trained, indicated it was sometimes difficult to get their workers to follow good food handling practices. Building upon the survey, Food safety education curriculum for use by school foodservice is now available across the state. Because there are few food safety programs specifically designed for school foodservice, team members developed a curriculum entitled "School Food Safety Zone" for a two-three hour workshop. The course is designed to help employees understand the importance of using proper food safety procedures. The curriculum includes a Powerpoint presentation, pre-post quiz, handout materials, hands-on activities, evaluation, and a participant certificate of completion. Mini-grant funds allowed team members to duplicate curriculum materials, add a toolbox for the hands-on activities and provide the information to twenty Nebraska extension educators.

- b) The program was presented to over 200 school foodservice workers from 54 different schools in central Nebraska from 2001-2003. More than half of the participants surveyed reported they had no previous food safety training. Pre-post test scores increased an average of twenty percent indicating an increase in knowledge. One program given as a training session several days before starting school in the fall, was called "the best inservice training they had received." At another session, several participants who realized they had been using unsafe practices said they would make changes before the new school year. Many workers planned to follow procedures more closely especially when washing hands, cooling foods and taking food temperatures
- c) Scope of Impact - State Specific
- d) Funding:
 NU Cooperative Extension
 Federal Formula Funds

Key Theme - Food Safety - Food Service

(refers to Plan of Work Goal 1, Output Indicator 1, Outcome Indicators 1,2 & 4)

- a) A Temporary Food Establishment curriculum was written by Northeast Nebraska Extension Educators in cooperation with two Extension Specialists. Nebraska Health and Human Services System food inspectors reviewed the curriculum and are now using the material to train clients on food safety issues. The curriculum topics include the importance of using potable water; time and temperature control; cleaning and sanitizing; and hand washing. Temporary quantity cooks expressed concern about current food handling techniques and as a result of the food safety education program are going to change the way they cook, transport, and serve food at public events funerals and potluck dinners.

This program was implemented to teach food safety education to help prevent foodborne illness. The program is designed as a three-hour workshop that teaches the causes of foodborne illness and methods to prepare, serve and store food safely. The curriculum includes introductory skit, pre-post test, 56 slide set/powerpoint presentation, hands-on activities, handout materials, background materials and evaluation. Since 1997, south central food safety team members have given 18 workshops in 12 communities reaching more than 300 people who prepare/serve thousands of meals. Participants represent church groups, community and school organizations, part-time caterers and seasonal workers from camps, food stands, etc. This program is also delivered by other Nebraska extension staff. Reports from other states indicate that extension staff in Kentucky used the Nebraska program to train nearly 1000 people in 2002 and Ohio State plans to incorporate some of the curriculum materials into their program that is being updated.

- b) Participants increased their food safety knowledge which changed their food safety practices. Workshop pre-post test scores increased by 23 percent. Follow-up surveys indicated that participants implemented a number of practices including checking food temperatures and using gloves and sanitizing solutions. Some practices were eliminated such as serving home canned foods and pies and pastries that require refrigeration. Comments from workshop participants were very favorable and included "an excellent, complete program" and "all groups or individuals that serve food need this education now."
- c) Scope of Impact - State Specific

- d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme - Food Safety - Food Service

(refers to Plan of Work Goal 1, Output Indicator 1, Outcome Indicators 1,2 & 4)

- a) The FMI approved course was used to provide a 4 hour food safety workshop for grocery store managers in 9 workshops across the state of Nebraska. The course includes topics on microorganisms, food borne illness, food temperature control, personal hygiene, cleaning and sanitizing, and HACCP. The course is taught by the Nebraska Extension Specialist and Department of Ag Food Inspector.
- b) As a result of the program, 100% pass rate was obtained by the participants on the certification exam.
- c) Scope of Impact - State Specific
- d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme - Food Safety - Technology

(refers to Plan of Work Goal 4, Output Indicator 3, Outcome Indicator 2)

- a) The U.S. Food supply has a high level of safety, yet microbiological hazards exist. Illnesses and death have occurred from foods contaminated from pathogenic bacteria. Food irradiation, a newly available technology, is available to eliminate pathogens on raw products such as ground beef. Consumer attitudes toward the use of food irradiation may be influenced by lack of knowledge. This project focuses on increasing the knowledge level of food and nutrition educators and consumers. A one-day workshop was held in Dakota Dunes, South Dakota for food and nutrition educators (37 participants) to increase their level of knowledge about irradiation. This topic can be controversial, so the workshop included sessions on risk communication and communicating irradiation to consumers and the media. A tour of the irradiation facility was included. A video and brochure were developed by the multi-state educational team for educators to use for consumer programs.
- b) As a result of the program, 100 percent of the participants stated that in the future they plan to purchase irradiated foods. Also, participants increased their comfort level with buying and using irradiated foods (3.5 to 4.6 on a 5 point likert scale) even though they knew that irradiation is an effective method for destroying harmful microorganisms in food (4.0 to 4.8). Participants changed their attitude about choosing an irradiated product over a comparable non-irradiated product (3.1 to 4.1). Participants felt that current educational material are based on opinions. Materials (video, brochure, resource information, and follow-up package program) provided to the food and nutrition educators, as part of USDA-IFAFS grant, are science-based and content neutral. The one-day workshop included the following topics and speakers: Irradiation Basics, Consumer Attitudes and Perceptions of Irradiation, Risk Communication, Communicating to Consumers and the Media, and a tour to SureBeam (irradiation facility). The 37 participants were food and nutrition educators from Nebraska, Iowa, South Dakota, Minnesota and Kansas.

- c) Scope of Impact - Multi-state (NE, IA, SD, MN, KS)
- d) Funding:
 NU Cooperative Extension
 Federal Formula Funds
 USDA-IFAFS grant

Key Theme - Food Safety - Technology

(refers to Plan of Work Goal 3, Outcome Indicator 2)

- a) Food irradiation is a technology to reduce food borne pathogens and has been available for 50 years. Because of consumer acceptance (real or perceived), irradiation of food has been limited. Recently irradiated meat is available to consumers in limited markets in Nebraska. Our educational program was developed to provide consumers with information about food irradiation and to provide an opportunity for consumers to taste a sample of irradiated meat. The educational program was conducted at five grocery stores (Kearney, Lincoln and Omaha) during the time frame that grocery stores have in store demos and free samples. Extension Educators and Beef Council Nutritionists/ Communication Specialists were available to interact with consumers. An educational display provided an overview of food irradiation. Two consumer brochures were available: one on irradiation provided by University of Nebraska Cooperative Extension and the other on grilling beef which included food safety tips and irradiation of beef developed by the Nebraska Beef Board in cooperation with the Extension Food Specialist
- b) Taste test forms were available for consumers to provide information on their acceptance of irradiated meat. One-hundred sixty three consumers participated in the taste test. Prior to this experience, only 13.5% had tasted any irradiated food. Although we did not have a non-irradiated grilled ground beef sample to compare, 29.4% perceived a difference in taste for the irradiated meat sample. After tasting the sample, 64% stated that they either liked or liked very much the irradiated meat; 32% stated that neither liked or disliked the irradiated meat. Only 4% stated that they either disliked or didn't like very much the irradiated meat sample. When asked if they would purchase irradiated meat if it was available, 82% responded either definitely yes or probably yes. Based on this informal educational program with a tasting component, consumers appear to be more willing to consider the purchase of irradiated meat. The Grocery Store Education Program on Meat Irradiation was part of an USDA multistate funded project titled "Consumer Food Safety and Food Irradiation Education." Food safety and meat irradiation information was presented on a display board and 2 brochures contained information on irradiation and food safety. Consumers could pick up these brochures. Irradiated ground beef was grilled during the display time and available for consumers to taste. During the display time, more people received information, either from brochures or through the research component of the project than participated in the taste test. Approximately 700 consumers participated in the taste test.
- c) Scope of Impact - State Specific
- d) Funding:
 NU Cooperative Extension
 Federal Formula Funds

Key Theme - Food Safety - Technology

(refers to Plan of Work Goal 2, Output Indicator 3, Outcome Indicators 2 & 3)

- a) Two food biotechnology workshops were conducted for food and nutrition professionals. A website with 5 biotechnology lessons on food biotechnology was developed for continuing education for professionals (<http://citnew.unl.edu/nutrition/>). Workshop and lesson topics include benefits and potential risks of biotechnology, changes in the nutrient composition of foods produced using biotechnology, assessment of the potential allergenicity of bioengineered proteins in foods, extraction of the genetic material from a plant food, gene expression, and detection of a transgene. A video, Living with Biotechnology: Food and the Consumer was developed and used in the workshop.
- b) The workshop included laboratory experiences and small-group discussion. Before the workshop 13% of the attendees indicated that were aware of how biotechnology would affect their food, health and the environment. After the workshop this increased to 93%. Attendees were asked to rate their abilities in relation to biotechnology before and after the workshop using a score between 1 (high) and 4 f(low). The largest change was in the ability to identify fundamental differences between genetically engineered crops and traditional crops (3.7 before, 2.07 after). Attendees also improved in their ability to respond to consumer concerns about the potential allergenicity of bioengineered proteins in food after the workshop (3.71 before, 2.13 after). An educational packet containing a lesson plan and the video were distributed to food and nutritional professionals after the workshop.
- c) Scope of Impact - State Specific
- d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme - HACCP

(refers to Plan of Work Goal 1, Output Indicator 1, Outcome Indicators 1,2 & 4)

- a) Participants at a 2001 nationwide Hazard Analysis and Critical Control Points (HACCP) training sponsored by the National Food Service Management Institute, indicated the lack of Standard Operating Procedures (SOPs) prevented schools from implementing the HACCP system. A random telephone survey of Nebraska school food service managers showed the same problem, demonstrating the need for SOP education. Extension Staff designed "Road to Food Safety" to help school food service managers formulate SOPs in their facilities. Program materials include a slide show, learning activities and a participant notebook. 16 central Nebraska school food service managers from 11 schools were trained on developing SOPs for their facilities.
- b) To evaluate the program, participants were asked to complete a written evaluation after the program. One hundred percent of the schools did not have written SOPs in their facility. Specific questions were asked to measure knowledge gained from the program. Evaluation results are summarized below:

My food safety knowledge has improved in the following areas (on a 5 point scale):

1. Understand the importance of HACCP -- 4.5 points
2. The prerequisite programs of the HACCP Safety Assurance Pyramid -- 4.5 points
3. What Standard Operating Procedures are needed -- 4.5 points
4. Categories where written Standard Operating Procedures are needed -- 4.2 points

5. How to write Standard Operating Procedures -- 4.2 points

Follow-up school visits were arranged four months after the program to check on SOP development and implementation. Fifty percent of the schools were developing written SOPs for their facility. Once schools are utilizing their own SOPs, they will be one step closer to adopting a HACCP program -- a vital step to insuring safe food for children in Nebraska.

- c) Scope of Impact- State Specific
- d) Funding:
 - NU Cooperative Extension
 - Federal Formula Funds

Goal 3: A Healthy Well-Nourished Population

Overview: (includes sections a, b, c & d)

Helping Nebraskans make informed healthy lifestyle choices leading to an improved quality of life is the focus of Nebraska Extension educational programs. What follows illustrate Nebraska's educational efforts to help consumers achieve more healthy lifestyles.

Some of Nebraska's most needy participate in Nutrition Education Programs (NEP) led by Cooperative Extension. Temporary Assistance to Needy Families (TANF) and Employment First Programs (welfare to work) of the Department of Nebraska Health and Human Services look to NEP to help insure that their clients know how to eat a healthy, well nourished diet, even if limited dollars are available for food. The belief is that individuals are less likely to be ill if they are eating a healthy diet. A research study which included Nebraska families, shows that \$8.00 health care dollars are potentially saved for each dollar put into the Nutrition Education Program. NEP is composed of two educational efforts: Expanded Food and Nutrition Education Programs (EFNEP) and Food Stamp Nutrition Education Program (FSNEP). More than 79,000 Nebraska families have participated in the EFNEP program since it began in 1969. Nearly 17,000 families in 26 counties have participated in the FSNEP program since it began in 1994.

Cooperative Extension partners with a variety of local, state and multi-state agencies to deliver educational programs. Partnerships provide access to expertise, resources and targeted groups of clientele who participate in health related programs. One example of a collaborative effort is the "Lead Reduction Protects Children's Health" program in Omaha. The U.S. Environmental Protection Agency has designated about 20 square miles of east Omaha as a potential Superfund cleanup site due to lead-contaminated soil. To help neighborhood residents cope, Cooperative Extension is partnering with the City of Omaha, the local Health Department and other local entities to help families manage lead in their homes and yards. In one of the older northeast Omaha neighborhoods, 42percent of children tested positive for lead from 1992-1998. Thanks to what families are learning most participants in Extension programs are reducing the risk of lead poisoning in their homes. For example, a two year old boy's lead levels declined after his mom took classes and changed her food preparation and housekeeping methods.

The ABCs for Good Health curriculum is being used with a variety of Nebraska audiences. This three part curriculum: **A**im for Fitness, **B**uild a Healthy Base, and **C**hoose Sensibly use the concepts of the Dietary Guidelines for Americans. In addition to delivering the ABCs for Good Health to the general public, Cooperative Extension contracts with the Nebraska Health and Human Service to offer the ABC classes to an outreach program funded by the Centers for Disease Control through the Nebraska Health and Human Services. As an example of the outcomes of this outreach program through Nebraska Health and Human Services, during the first year of Extension provided education, 328 women were enrolled and participated. In general, they set physical activity goals and made changes in fruit and vegetable consumption, and monitored portion sizes of food. In one urban site, classes were specifically designed and taught to 19 Latinos. At the end of the program, these women reported preparing meals with less grease or oil, using more vegetables with their meals, and selecting foods using the Food Guide Pyramid..

Note: There are no reports for goals 4, 5, and 6 of the Nebraska Plan of Work due to a change in program emphasis.

e) **Total Expenditures and Full-time Equivalents(FTE):**

FFY2003	Federal*	State	Local	Other	Total
Funding:	\$ 520,201	\$ 2,463,346	\$ 745,373	\$ 1,274,681	\$ 5,003,601
FTE**:					39

* FY2002-2003 Federal Formula Funds (includes Smith-Lever regular E3bc, special needs, CSRS retirement)
 ** Includes both professional and para-professional funded from all sources

Key Theme - Human Health

(refers to Plan of Work Goal 2, Output Indicator 1, Outcome Indicator 1)

a, b) In the last fiscal reporting year, Nebraska’s Food Stamp Nutrition Education Program (FSNEP) served a total of 3,746 Nebraska families. In addition, 11,882 youth participated in some type of nutrition education programming. There were 14,325 direct teaching contacts through the FSNEP program. An area of growth in the reporting fiscal year was with older adults, with 214 seniors finishing the program. Eight-seven percent of program graduates showed improvement in their exit recall for food intakes in at least one food group when compared to their entry recall. In a specific program that targeted 40 Sudanese female refugees, participants learned basics of preparing foods for their families, using foods that are now available to them in the United States.

c) Scope of Impact - State Specific

d) Funding:
 NU Cooperative Extension
 Federal Formula Funds

Key Theme - Human Health

(refers to Plan of Work Goal 2, Output Indicator 1, Outcome Indicator 1)

a) General nutrition education programs for extension audiences involved 21,402 adults and youth (8266 of these were persons who accessed an on-line newsletter and 5,613 accessed a nutrition website). The ABCs for Good Health curriculum is being used with a variety of Nebraska audiences. These classes are focused on Aim for Fitness, Build a Healthy Base, and Choose Sensibly concepts of the Dietary Guidelines for Americans.

b) Walking programs, with 1822 participants, continued to be emphasized in University of Nebraska Cooperative Extension programming using the Aim for Fitness: Steps for Health emphasis that is part of the ABCs for Good Health curriculum. Highlights of some of the local efforts pertaining to this program in the last fiscal year included:

- In Douglas/Sarpy Counties, 10 of 15 participants reported measurable decreases in blood pressure.
- In the Sandhills area, 122 people followed a Steps for Health format to “Walk Across Nebraska.” Average miles walked by participants in the initiating month was 52 miles which increased to 91.5 miles in the fourth month. By the fifth month of the program, 15 persons reported a total weight loss of 112 pounds.
- Northeast Nebraska Steps for Health Program involved over 800 participants in a 15-week program. Seventy-five percent of walkers completed the 15-week program with 90% of them meeting their charted walking goals. Those who recorded high blood pressures at the onset of

the program had decreased their blood pressure by program's end. Other noted benefits included: weight loss, increased energy level, and increased family time. At one of the sites, at least three-fourth of the participants met their goal of walking 10,000 steps on at least five days a week. Educational sessions were often offered during the course of these walking programs that focused on topics such as benefits of sunscreen, food portion sizes, making low-fat food choices, and importance of proper shoe support.

- A western Nebraska program with 24 participants has encouraged participants to maintain a high level of walking on at least 5 days a week. Post program focus group evaluation indicated participants were continuing to use their pedometers and continued to make improvements in their daily walking steps. Individual successes reported in the program included:
“ Lost 7 pounds, eat more fruits and vegetables - - - “
” ... more aware of nutritional eating...pay attention to food labels and buy accordingly...
changing my cooking methods, less fat and frying and more baking and broiling. My good cholesterol is up because I am exercising more.”
“ Lost 10 pounds and walk 10,000-15,000 [steps] on five days each week.”
- In the Nebraska Panhandle an Aim for Fitness: Steps for Health program reached 26 adult participants. Average walking steps increased in a range from 1770-7068 steps/day. Slightly over one-third lost weight and half reduced their blood pressure. All intended continuing their walking program at the completion of the structured program of classes. Mini lessons covered topics on the body's need for water, sugar consumption, strength training, and food portion sizes.

c) Scope of Impact - State Specific

d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme: Human Health

(refers to Plan of Work Goal 2, Output Indicator 1, Outcome Indicator 1)

a, b) The ABCs for Good Health curriculum is also being used with Nebraska women who are enrolled in the Every Woman Matters Program. Every Woman Matters (EWM) is an outreach program funded by the Centers for Disease Control through the Nebraska Health and Human Services System (NHHS). University of Nebraska Cooperative Extension contracts with NHHS-EWM to offer the ABCs classes that target eating and physical activity behavior change to reduce risk of cardiovascular disease, diabetes, and high blood pressure, in particular. In the first year of the program, 328 women were enrolled and participated in the classes. In general, EWM participants across the state set physical activity goals and made changes in fruit and vegetable consumption, and monitored portion sizes of food. In one urban site, classes were specifically designed and taught to 19 Latinos. At the end of the program, these women reported preparing meals with less grease or oil, using more vegetables with their meals, and selecting foods using the Food Guide Pyramid.

c) Scope of Impact - State Specific

d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme - Human Health

(refers to Plan of Work Goal 2, Output Indicator 1, Outcome Indicator 1)

- a, b)** Local community nutrition education programs are also a part of the University of Nebraska Extension health and wellness programs. Examples include: Nutrition and Osteoporosis, Nutrition for Seniors which reached over 102 older Nebraskans, Nutrition for Today's Teens which reached 139 7th-8th grade students, and Your Health, Your Choice for 700 students in middle school systems in 5 mid-Nebraska communities. In Nutrition for Seniors, significant improvements in eating behaviors related to reducing high fat choices, increasing fruits and vegetables, and using food portion controls were identified. Participants in Nutrition for Today's Teens increased the number of food groups they were eating, and had a significant change in behaviors related to reducing fat, salt and sugar in their food choices. Nutrition lessons in the Your Health, Your Choice series prompted students to choose healthier after school snacks.
- c)** Scope of Impact - State Specific
- d)** Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme - Human Health

(refers to Plan of Work Goal 2, Output Indicator 1, Outcome Indicator 1)

- a, b)** Four hundred twenty-eight educators, health educators and other health professionals participated in three health conferences and a professional internet course hosted by University of Cooperative Extension (Nutrition and Food Update, Child Obesity Video satellite, Women's Health Conference, Internet Course for Early Child Professionals) in the past fiscal year. The conferences were designed to assist professionals in gaining new knowledge about health issues, and learn new methods for facilitating behavior change. Participants also gained knowledge to assist in making their own behavior changes, with over half of the attendees at two of the conferences indicating they would use the information to enhance their own personal health behaviors. Significant changes in 4 of 6 nutritional behavioral practices were made by 86 topic participants from the Internet course.
- c)** Scope of Impact - State Specific
- d)** Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme - Human Health

(refers to Plan of Work Goal 1, Output Indicator 2, Outcome Indicator 2)

- a)** Nebraska 4-H was awarded \$24,500 by Nebraska Health and Human Services for Nebraska 4-H Kicks Ash. This project focused on youth working as partners with adults to learn more about tobacco. As a result:
- 20 teens were involved in public policy action education revolving around tobacco issues;
 - 738 youth were reached with 1-3 hours of educational programs focused on the ills of tobacco, individual health and impacting tobacco policy; and

- over 1,625 youth were involved in hands-on activities related to tobacco.
 - Tobacco information was presented to 850 students through health fairs and school enrichment programs.
 - ***Your Health, Your Choice*** demonstrated to 700 teens the risks of tobacco use and the damage to the body that tobacco causes.
- b) Tobacco information was presented to 850 students through health fairs and school enrichment programs. In post tests, the students indicated they understood the effects of smoke and smokeless tobacco on the body. 95% of the students scored 90 or better on a true/false test. Post-session evaluations indicated that 98% of the participants learned that low-tar and low-nicotine cigarettes are not risk-free. They were also able to recall where tar is collected in the body with 51% indicating the mouth; 37% in the lungs; 5% in the stomach; 3% in the heart; and less than one percent indicated that it damaged the brain, liver, teeth, and throat. Students were challenged to find one person to encourage to quit their tobacco use at the end of the session. Most said they knew of at least one friend or family member that they would like to see quit their dependence on nicotine. Most thought the visual displays were "gross" and You mean that really can happen with chew?
- c) Scope of Impact - State Specific
- d) Funding:
 NU Cooperative Extension
 Federal Formula Funds

Key Theme - Human Health

(refers to Plan of Work Goal 3, Output Indicator 4, Outcome Indicator 3)

- a) The farm safety camps are sponsored by *Progressive Farmer* Foundation, including a number of national sponsors, along with local volunteers and participating agencies. Attendance has been 400 students each year. One county held, "A Day on the Farm". Over 180 students attended the workshop.
- b) Evaluation to determine behavior changes from the farm safety camps in 2001 was done by the University of Alabama-Birmingham. Pre-tests, post-tests, 3-month follow-up and 10-month follow-up were part of the evaluation design. According to Deb McCallum, team leader for the project, youth showed an increase in correct answers from pre-test to post-test as well as increase in knowledge of safe behaviors. Preliminary data from 3-month follow-up indicates a strong retention of knowledge from the day camps as well as behavior changes made by youth, such as reduced frequency of driving or riding of ATV's by young children, increased use of protective clothing and less riding on tractors. Parents surveyed said farm safety camps were very effective in making their children safer.
- Franklin county students participated in the pre-test/post-test from the UAB study. On knowledge based questions, scores rose from 8.56 correct to 9.52 correct, a statistically significant difference. The four questions with the most change were on topics covered at the camp. When asked what they would do to be safer, the most often cited item was wearing a helmet when riding a bike or ATV. Other items were safety around animals, no riders, and stay away from large machinery. Parents, teachers and participants have told about changes that have been made, including "no riders" on farm equipment, ATV's, and lawn mowers; placing warning stickers on grain bins and machinery; dealing safely with farm animals, and being safe on rural roads and railroad crossings. In the farm safety camps, numerous volunteers conduct interactive presentations to teach the children simple first aid skills; and safety concerning fire arms, all terrain vehicles, power lines, lawn mowers, water.
- In January, 2003, extension staff visited fifth grade classes in three schools that attended the camp two years previously, to identify changes children had made as a result of what they learned. The

evaluation involved 77 students, representing 22 percent of the 350 children who attended in 2001. The children also gave many examples of actions they had taken to correct dangerous situations as a result of the camp. For example:

- A child stays away when someone is mowing the lawn.
- One child asked Mom not to put spices and other things into empty medicine bottles.
- One called for help when Sister drank bleach.
- A boy pointed out to his grandpa that tools lying on the ground could trip someone (hoe, etc.); and the grandpa put the tools away.
- A girl recognized that a cleaner was in a PowerAid bottle and did not drink it.
- A child no longer rides on an ATV with brother.
- Another wears a helmet now, when riding a go cart.
- A girl told little children to stay away from a gun.
- A girl told friend not to climb a grain bin.
- A girl is more cautious in areas where there might be dropoffs, in water.

In Cuming County:

- 80% of youth have a better understanding of electrical safety and what to do and not to do with wires around.
- 76% of youth have a clearer understanding of how dangerous it is to be around PTO's and Pinch points.
- 72% of youth will think about the danger of unknown substances.
- 93% of youth have a better understanding of what to do in case of a fire and crawling "under" the smoke.
- 84% of youth know how to touch an animal safely.
- 96% of youth learned that seat belt safety is a priority in preventing injury in a roll-over.

At the "Life on the Farm" event, a pretest and post-test were used to assess what youth learned. The pretest was given to students at the beginning of the day. A post-test was given to youth at the end of the day. The fourth grade students average pretest score was 45% correct, the average post-test 73% a difference of 28 percentage points. The fifth grade average post-test score of 82% was 18 percentage points higher than their average pretest score of 64%. The sixth grade also showed a marked improvement, 36 percentage points, from their average pretest score of 55% to their average post-test score of 91%. Understanding and awareness of these topics was directly impacted from this program.

c) Scope of Impact - State Specific

d) Funding:
NU Cooperative Extension
Federal Formula Funds

Goal 4: To achieve greater harmony (balance) between agriculture and the environment.

Overview: (includes sections a, b, c & d)

Nebraska's natural resources are critical to sustaining the state's population and economy. Abundant natural resources provide for agricultural production that is directly responsible for a majority of the state's economic activity. Approximately 50 percent of the state's land is pasture or rangeland, and nearly 40% is crop land. Agriculture's economic strength is due in part to irrigation, which accounts for over 50 percent of crop production. Responsible management of surface water and ground water resources is required to sustain the irrigated crop production base. The land and water resources of Nebraska also support a myriad of biological resources. Wildlife habitat provides for hunting, fishing, and other forms of outdoor recreation. Stewardship of Nebraska's natural resources is vital for a sustainable future and high quality of life. Nebraskans continue to expect improved management of our natural resources.

One part of Nebraska Cooperative Extension's educational effort targets youth. Each year we participate in approximately 20 water/environment festivals, many of which target 4th and 5th grade students. An example of one of the festivals is included in the narrative below. Festivals using pre-, post-test evaluations report that test scores increase 40 to 50 percent after participation. The wildlife habitat evaluation program has helped youth learn about wildlife management and develop life skills such as decision making, teamwork, and written and oral communication.

With over 8 million acres of irrigation in Nebraska irrigation management education is important to conserve limited water supplies and protect water quality. The drought conditions of 2002 and continuing during 2003 put extreme pressures on water supplies and increased production costs because of the increased costs of pumping irrigation water. University of Nebraska Cooperative Extension cooperates with Kansas State University and Colorado State University to deliver the annual Central Plains Irrigation Short Course. Nebraska extension irrigation specialists delivered educational programming to help producers address drought issues. Training materials developed by Cooperative Extension are used by Natural Resources Districts to train producers on nitrogen and irrigation management in ground water management areas across the state. Cooperative Extension is involved with many communities in their well head protection plans and provides education for agricultural producers in well head protection areas particularly targeting irrigation and nitrogen management.

Conservation buffers installed in riparian zones to protect surface water quality. Cooperative Extension is cooperating with Natural Resource Districts and Natural Resources Conservation Service to encourage the installation of buffer strips. An extension and research effort is demonstrating the use of woody ornamentals in the buffer strips. The ornamentals can help protect water quality along with producing income.

Livestock manure management is a critical environmental issues. Several program efforts are helping producers effectively use the nutrients in their crop production enterprises. A comprehensive nutrient management plan curriculum was developed and is being using to train agriculture professionals and producers. Recommendations for manure nutrient availability were developed cooperatively with seven manure testing laboratories. Four of the five labs doing the most manure samples for Nebraska have now implemented the recommended interpretations.

Natural resources and environment programming will continue be a high priority for Nebraska Cooperative Extension. The programming will be provided by the Natural Resources and Environment, Integrated Crop Management, Integrated Animal Systems Management, and Community and Residential Environment Action teams. One of the challenges the teams have is the documentation of impact. The teams are able to demonstrate outputs, but have more difficulty identifying outcomes and impacts. The impacts for these programs often require long-term documentation. The following program descriptions are a small sample of program efforts having an impact in Nebraska.

e) **Total Expenditures and Full-time Equivalents(FTE):**

FFY2003	Federal*	State	Local	Other	Total
Funding:	\$ 736,951	\$ 3,489,740	\$ 1,055,945	\$ 1,805,797	\$ 7,088,435
FTE**:					56

* FY2002-2003 Federal Formula Funds (includes Smith-Lever regular E3bc, special needs, CSRS retirement)

** Includes both professional and para-professional funded from all sources

Key Theme - Agricultural Waste Management

(Refers to Plan of Work Goal 1, Output Indicator 2 & 3, and Outcome Indicator 2)

- a) Livestock and Poultry Environmental Stewardship curriculum was developed as a result of a grant from the U.S. Environmental Protection Agency to summarize the current scientific knowledge base in producer and advisor targeted educational resources that addressed environmental issues facing the livestock industry. A team of 30+ individuals from 15 land grant institutions, USDA ARS and NRCS, and US Environmental Protection Agency has delivered a national Livestock and Poultry Environmental Stewardship curriculum. The curriculum includes 26 independent lessons addressing animal dietary strategies, manure storage and treatment, land application and nutrient management, and outdoor air quality, producer-friendly environmental stewardship and/or regulatory compliance assessment tools.
- b) A few of the project's accomplishments include the following: a) A comprehensive, national in scope, peer reviewed curriculum consisting of 26 lessons and supporting tools. b) Sustained national access to this product through MWPS at Iowa State University. c) Participation by 475 state representatives from 46 states in one of 11 regional LPES workshops. 43% of participants were from land grant universities while the remaining 57% were from state and federal agencies, livestock associations, and other agricultural organizations and businesses. d) Recognition by US EPA(funding source for this project) of the critical role that USDA institutions will play in the implementation of educational programs targeting livestock environmental issues including the December 2002 release of the new EPA Confined Animal Feeding Operations regulations. Rick Colbert, Director of EPA's Agricultural Division, shared the following comments about the LPES team: "EPA sincerely appreciates the extraordinary contribution made by all of the members on the Livestock and Poultry Environmental Stewardship curriculum team in promoting environmental stewardship to the livestock production industry. The Team's work has had a significant impact in advancing the science of livestock management, in serving individual farmers and ranchers, and informing state and federal regulators."

Approximately 6 months after the workshops, several states were surveyed as to their current and planned uses of the LPES resources. The following three examples illustrate the uses being made of this educational product:

Illinois Team. In the six months, Ted Funk, the Illinois LPES Team leader, presented eleven different lessons at 10 workshops attended by 252 livestock producers. The University of Illinois Extension is rapidly moving ahead to adopt the LPES curriculum materials as the state livestock manager certification curriculum. During the next three years approximately 3,000 Illinois producers will be certified using the LPES materials.

Georgia Team. In conjunction with the Georgia Department of Agriculture, the Georgia Cooperative Extension Service is using LPES curriculum lessons to provide continuing education units (CEUs) to certified operators in Georgia. County agents who have been introduced to the LPES materials select the lessons to offer at local workshops for producers needing CEUs for about

60 swine producers. Next year this number should jump to about 280 producers when operators of regulated dairies and layer operations need CEUs). Future plans include making each module available online as a self-study guide. After reading the guide, producers would take an on-line exam for verification purposes and their exam scores would be sent to a Georgia Department of Agriculture representative who would record the CEUs.

Kentucky Team. A subcommittee of the Nutrient Management Focus Group of the Kentucky Environmental and Natural Resources Issues Task Force used the LPES curriculum materials to prepare a "basic" nutrient planning workbook for 60,000 Kentucky farmers whose small or moderate sized farms must meet the requirements of the Kentucky Agriculture Water Quality Act, which became effective in late 2001.

- c) Scope of Impact - National with State Specific Leadership
- d) Funding:
 - NU Cooperative Extension
 - Federal Formula Funds
 - Environmental Protection Agency

Key Theme – Natural Resources Management

(refers to Plan of Work Goals 4, Output Indicator 1, and Outcome Indicator 1)

- a) Nebraska Cooperative Extension provides leadership for more than 20 youth environmental festivals each year. One example is the program conducted at the Eastern Nebraska 4-H Center. More than 1700 fifth grade students from 150 Omaha metropolitan area public, parochial and private schools participated in the 14th annual “Water Works” Environmental Program. Attendance in 2003 reflected a 13% increase over 2002. In addition to Douglas/Sarpy Cooperative Extension, agencies who provided funding, staff, or both, included Educational Service Unit #3, Omaha Public Schools, Metropolitan Utilities District, Nebraska Game and Parks Commission, USDA Natural Resources Conservation Service, US Army Corps of Engineers, Papio-Missouri River Natural Resources District, and the Eastern Nebraska 4-H Center.
- b) The impacts of the program on developing habits of environmental stewardship and awareness are apparent both in teachers' evaluations of the program and students' comments. Of the teachers who returned surveys, 91 percent said their students' knowledge of issues related to the quality of their drinking water increased significantly. Sessions in which students learned about plants, animals, fish and river habitat also received positive response, with 70 percent of the teachers reporting their students' knowledge increase scoring “5” on a 1-to-5 scale. More than 99 percent said the knowledge their students gained would help them become “better stewards of the environment.” In addition to rating the program's impact on students' knowledge, several teachers wrote comments on their evaluation forms. Typical responses include: Great program. A benefit to all. Presenters seem to really believe in what they are doing. The presentations tied in significantly with the state standards for Nebraska. Good follow-up for what Omaha Public Schools and state require. The students liked the displays and being able to “touch” things.
- c) Scope of Impact – State Specific
- d) Funding:
 - NU Cooperative Extension
 - Federal Formula Funds
 - Local agencies

Key Theme – Natural Resources Management

(refers to Plan of Work Goal 4, Output Indicator 3, and Outcome Indicators 1 & 2)

- a) Backyard Farmer, in its 50th year of broadcast, was initiated to simply answer lawn and garden questions. Now, in 2003, the show serves to educate thousands of viewers and encourage adoption of sustainable landscaping principles. Sustainable landscaping practices conserve water, control pests through integrated pest management, reduce human pesticide exposure, protect the environment, prevent erosion, prevent groundwater contamination and maintain property values. In 2003, an additional program was produced and broadcast each week, called Backyard Farmer Extra. Backyard Farmer and Backyard Farmer Extra deliver research based information about sustainable horticulture to help consumers make informed landscape management decisions. These programs are broadcast each week, from April to September on the Nebraska Educational Television Network. Backyard Farmer is broadcast live each Thursday evening, while Backyard Farmer Extra is a taped program, which airs on Saturday mornings.
- b) To measure impact of the Backyard Farmer program, a comprehensive survey was conducted by Nebraska Educational Television. Seventy-three percent of Backyard Farmer viewers reported taking some type of action based on what they had seen on the program, including changing plant selection, a change in lawn and gardening cultural practice, visiting the Backyard Farmer website, and watching the Backyard Farmer Extra program. Overall, 44% of survey participants reported watching Backyard Farmer Extra. Thirty-four percent of Backyard Farmer Extra viewers reported taking action based on what they had seen on the program.
- c) Scope of Impact – Regional.
- d) Funding:
 - NU Cooperative Extension
 - Federal Formula Funds
 - Nebraska Educational Television

Key Theme – Water Quality

(refers to Plan of Work Goal 1, Output Indicator 3, and Outcome Indicator 2)

- a) The Johnson Lake area in south-central Nebraska is densely developed, with each dwelling being served by an on-site wastewater treatment system. Many systems are not functioning properly due to age, improper design and installation for current dwelling usage, and/or improper maintenance. Many systems do not meet current regulations in regard to tank design, tank size, drainfield design, drainfield size, separation distances, depth to groundwater, etc. Several systems have failed and others are at risk of failure. Considerable amounts of wastewater may not be properly treated, leading to potential degradation of both surface water and groundwater. Tests in 2001 caused DEQ to classify the lake as an impaired water body. Further deterioration of water quality in 2002 led to placement of the lake on DEQ's 303 watch list, a more serious designation. Failing on-site wastewater treatment systems are thought to be a contributing factor. After much research and debate, Johnson Lake residents have made a decision to move toward a centralized wastewater treatment system. Since it will take several years for a new system to become operational, residents must carefully operate and maintain current fragile systems in this vulnerable area to avoid system failure, environmental degradation, and possible waterborne disease outbreaks.

Nebraska Cooperative Extension developed and delivered an educational program to address the needs of residents at Johnson Lake. The focus is on how a traditional on-site wastewater treatment system works, as well as basic system operation and maintenance. Emphasis was put on ways to maintain systems to prolong their life long enough for a centralized system to be installed. The program was delivered four times, with 135 people attending.

- b) In a post-program survey, 98% of respondents of Johnson Lake on-site wastewater treatment programs indicated their knowledge increased as a result of the program. 88% reported they would change behavior to reduce environmental or human health risks associated with their on-site wastewater treatment system. Only 2% anticipated making no changes, with the rest being uncertain. Changes identified included having the tank pumped more frequently, using less water and spreading out water usage, and keeping potentially harmful products out of the system. Changes will help avoid system failure and environmental degradation. Comments included, "Thanks! Helpful to understand system better.", "Very informative.", "Learned a lot.", and "What a special meeting".

Tests to determine the quality of Johnson Lake's water have shown that bacteria levels have fallen in the past year. In comparing 2002 and 2003, Patrick O'Brien of DEQ said he believed the human element to be one factor in the improved water quality. "People may be doing things differently because of the education process," he said, "perhaps taking better care of their septic systems."

- c) Scope of Impact – State Specific.
- d) Funding:
NU Cooperative Extension
Federal Formula Funding
Nebraska Department of Environmental Quality

Key Theme - Nutrient Management

(Refers to Plan of Work Goal 1, Output Indicator 3, and Outcome Indicator 2)

- a) This program was initiated to educate Nebraska livestock producers and their advisors on the Best Management Practices for manure that protect ground and surface water quality, and teach them how to use the tools that meet this need and are available from the University of Nebraska Cooperative Extension. The Comprehensive Nutrient Management Planning (CNMP) team expanded this year to four specialists and 19 educators located across Nebraska. They utilized an educational program, including presentations, spreadsheets, and workbooks developed in 2001-2, to educate livestock producers and their advisors in most areas of Nebraska about manure nutrient management. This work is supported by a grant from the Nebraska Environmental Trust.

In December 2002, a two-day in-service class prepared 13 extension educators to help teach producer classes on manure management. In winter of 2003, 100 producers studied manure nutrient management in the three-afternoon series of CNMP classes held in Beatrice, Grand Island, Cozad, and Scottsbluff. Producers in the winter classes reported their one-time livestock capacity at more than 375,000 cattle, 2000 dairy cows, 65,000 swine, 7000 nursery pigs, and 200,000 poultry.

In addition, 98 ag professionals participated in one of three one-day CNMP classes which supported the NRCS Technical Service Provider program, and provided CCA credits. In late summer, 120 producers attended one of five Manure Value field days (Concord, Ithaca, Holdrege, North Platte, and Bridgeport). The classes and field days met the NDEQ Land Application Training requirement for livestock waste facility permit holders. With support from the Nebraska Environmental Trust, twenty manure calibration and sampling kits are now available in Extension offices across the state for farmers and consultants to use. These include 26 different items and supplies that livestock producers may need to calibrate their dry and liquid manure applicators and sample manure for testing. These were introduced to producers at the Manure Value field days. The purpose for these kits is to help livestock producers get full value from the nutrients in manure and to comply with regulations.

This year the CNMP team developed a website (<http://cnmp.unl.edu/>) to make its educational materials easily available and to provide updates to past class participants. The team also completed four publications: two “Nebraska’s CNMP Workbooks” (Manure Application, and Odor Management Plan, a third one is in press), a NebGuide “Calculating the Value of Manure for Crop Production” (G03-1519), and a slide chart “Manure Application Calibration Guide (EC03-182).

- b)** In the evaluation of the winter classes, most producers (99%) expect this program will improve their compliance with environmental regulations, most (66%) will be able to reduce fertilizer expenses, and 40% will save time. Nearly half will increase the number of acres used for manure application (reducing the application rate). None plan to reduce their acres of application.

When asked about eight skills taught in the class, between 88 and 98% of the participants indicated they could complete them, either alone or with some help. For example, 90% felt they could prepare a CNMP permit application, 96% could calculate nitrogen and phosphorus credit from manure, 88% could calculate the nutrients needed by a crop, and 98% could identify records needed for maintaining a permit.

When asked about implementing each of seven manure Best Management Practices, such as manure testing, between 20 and 40% indicated they plan to modify or expand their use of each practice, and from 10 to 25% plan to start doing one or more of them soon. Ninety five percent reported that the spreadsheets used in the class were either ‘very’ or ‘somewhat’ helpful in understanding the concepts of nutrient management.

When asked how this program will benefit them or their business, participants replied... “[It will] help our operation comply with DEQ regulations and use manure as a nutrient not a waste”, “Better understanding of how to use nutrients in my lagoons”, “Now I can do this program to help create an application for a permit”, “The forms will help in record keeping that DEQ will understand”, and “Improved awareness of what will be expected in coming years”.

At the end of the Technical Service Provider CNMP classes for ag professionals, between 20 and 70% reported they plan to improve their methods or start implementing when responding to each of the 10 manure Best Management Practices. As a result of attending the class 85% reported increased environmental awareness, 70% will improve their nutrient recommendations, 65% expect they will increase their business, and over 90% felt the class will help them improve their ability to serve their clients (all asked at one of the three locations). Most participants agreed that using spreadsheets in the CNMP class helped them understand the concepts (97%) and calculations (94%) needed to prepare permit applications or maintain permit compliance.

- c)** Scope - State Specific

- d)** Funding:
NU Cooperative Extension
Federal Formula Funds
Nebraska Environmental Trust

Key Theme - Forest Crops

(Refers to Plan of Work Goal 3, Output Indicator 2, Outcome Indicator 1 & 2)

- a) Many natural resource professionals across the Midwest are struggling to meet the increasing demand from Midwestern producers for more information on alternative crops and agricultural diversification. Specialty forest products (SFP) are one group of alternative crops that are derived from trees or shrubs, include products for the niche food, medicinal, decorative floral and handicraft markets, and can be profitably integrated into diverse agroforestry systems. As such, they effectively combine profitable production of commercial products with environmental protection. To address this need, a partnership of USDA-SARE, the National Arbor Day Foundation, UNL Cooperative Extension, and the USDA National Agroforestry Center organized a train-the-trainer workshop focusing on the production and marketing of specialty forest products at Arbor Day Farm in Nebraska City, NE. Filled to capacity, 75 extension educators and natural resource professionals from 12 states attended to learn more about the financial potential of specialty products. Participants came from Natural Resource Districts, various county state and federal agencies, state universities, Trees Forever, Illinois Farm Bureau, Rural Action Forestry, Headwaters Forestry Cooperative, Blue Earth River Basin, NR Adventure Camp, Farm Fest Ag Fair, Practical Farmers of Iowa, Kansas Chapter Black Walnut Council and Farm Services Agency. Participants were required to hold subsequent workshops in order to create a multiplier effect that maximized impacts.

The workshop examined growing, processing, and marketing of a wide range of specialty forest products including nuts, decorative woody floral stems, and medicinal crops. Participants were selected according to their ability to influence the maximum number of other people. Participants learned (through lectures and field tours) of ways to integrate such products into current farm or woodland operations, what is needed to process the crops, and the outlook for specialty product markets. Speakers were the top people in their respective fields, and were drawn from the private sector, non-profit organizations, agencies and universities.

- b) Materials developed for the workshop received national recognition, including the 2002 Gold Award for Short Publications from the Association of Natural Resource Extension Professionals. With a printing run of 70,000/publication, the brochures have been in high demand worldwide, with nearly all printed having already been distributed to nearly every state and many countries by the USDA National Agroforestry Center, the National Arbor Day Foundation, and the University of Nebraska-Lincoln. A feature article in the National Arbor Day Foundation's bimonthly publication, *Arbor Day*, which reaches nearly one million members nationwide, spread the word about the newly created publications and the workshop.

Pre and post knowledge assessments indicated that participants significantly increased their knowledge of SFPs as a result of this the two-day event. Prior to the workshop, most attendees indicated they had been exposed to the information for most of the topics, but could not express it. After the workshop, most attendees indicated they could express the knowledge without assistance from others, or could in fact instruct others – the goal of this train-the-trainer workshop. Subsequent to the workshop, at least 33 participant reports were submitted indicating that one or more regional specialty forest product workshops were conducted with 905 attendees (majority were full or part time producers). Many interagency partnerships formed to deliver regional workshops, generating a larger impact on a diverse group of individuals, and creating more sustainable links between and among organizations. The vast majority of the attendees indicated they used the information and materials given to them at the workshop in their own trainings. Participants in local workshops rated the usefulness of these materials and the information presented very highly.

- c) Scope of Impact - Regional

- d) Funding:
 - NU Cooperative Extension
 - Federal Formula Funds
 - Sustainable Agriculture Research and Education Program
 - Arbor Day Foundation

Key Theme - Forest Crops

(Refers to Plan of Work Goal 3, Output Indicator 2, and Outcome Indicator 1 & 2)

- a) Producers across the North American Great Plains and Midwest are searching for alternatives to current row crops and farming systems to improve profitability and system sustainability. Specialty forest products are one group of alternative crops that are derived from trees or shrubs, and include products for the niche food, medicinal, decorative floral and handicraft markets. Many species that produce these products can be integrated into agroforestry practices and systems such as windbreaks, living snow fences, alleycropping arrangements, or riparian forest buffers. These “intentional systems” can diversify landscapes on a large scale, conserve and protect natural resources, and generate income through the production of specialty forest products.

In 1999, the University of Nebraska’s School of Natural Resources and Cooperative Extension embarked on an integrated research and extension program to test the concept of “market-driven” or “productive” conservation. Woody plants that produce commercially valuable specialty products were integrated into agroforestry configurations such as windbreaks, riparian buffers, and hillside and flatland alleycropping arrangements. These replicated field trials that tested over 30 species and cultivars were established in 5 areas of the state. Expected specialty products included small fruits, nuts, woody decorative florals, and medicinals. Project leaders also conducted several local and regional market assessments to determine the nature and characteristics of the markets for each crop class.

Production and market data indicated that woody florals would provide exceptional financial returns (up to \$24/shrub/year for one cultivar). Beginning two growing seasons after establishment, woody floral stems (curly willow, pussy willow, scarlet curls willow, and red and yellow stemmed dogwoods) were harvested and sold to wholesale florists in Lincoln and Omaha, NE. acquiring real-world price, quality criteria, and local market data with each delivery. We also gave many woody floral stems to the Nebraska Florist Society, a professional organization of wholesale and retail florists. In return, we asked for and received valuable feedback on quality and packaging criteria, and market trends. Labor and associated costs required for production, harvesting, processing and marketing activities were recorded, enabling the development of enterprise budgets. Concurrent extension activities worked to rapidly transfer this knowledge, as it was acquired, to interested producers and natural resource professionals.

- b) The fully integrated research and extension program produced substantial impacts after three years of intense work. In conjunction with field research, market assessments and marketplace participation, a major extension program was launched to educate landowners of the value of integrating woody florals and other specialty woody crops into conservation plantings. From 1999-2002, more than 40 presentations, field days and day-long workshops on specialty forest products and their markets were conducted statewide for approximately 1,000 extension educators, tree care professionals, landowners and producers.

There was strong initial resistance to the idea. Despite nearly two years of intensive extension programming, it was not until we began to actually sell woody florals in the marketplace did any landowners adopt this practice. However, since early 2002, (when the first sales occurred), at least

20 landowners in Nebraska have integrated woody florals and other specialty products into their farming and land use systems, major investments independent of any federal or state subsidy programs. These landowners are now forming a Nebraska Woody Florals Grower Association to attain better prices for their products, to pool production to secure larger, longer term contracts, reduce risk, and to jointly explore other markets (e.g., dried/preserved woody florals, regional markets in Dallas and Chicago). The key to stimulating landowner adoption of this new approach to agroforestry was UNL's provision of a comprehensive package that directly addressed all major landowner concerns, and the unambiguous demonstration of woody floral profitability and marketability. This package contained practical, straightforward research-based information on species/cultivar selection, sources and prices of planting stock, production, harvesting, processing and packaging guidelines, labor requirements, and real-world cost, price and market information.

- c) Scope of Impact - State Specific
- d) Funding:
 - NU Cooperative Extension
 - Federal Formula Funds
 - Sustainable Agriculture Research and Education Program
 - Nebraska Department of Environmental Quality

Key Theme - Natural Resources Management

(Refers to Plan of Work Goal 1, Output Indicator 3, and Outcome Indicator 2)

- a) Four years of consecutive drought, dwindling ground water levels, a forecast for continued dry weather, and a draft proposal for rigid mandatory watering restrictions motivated producers in the Lodgepole Valley in Nebraska's panhandle to rethink their cropping plans in the Spring of 2003. After consultation with various agronomic, water, and legal experts at the University of Nebraska, a unique producer centered approach to managing water was created. The plan consisted of asking producers to voluntarily plant crops that consume less water, turn off center pivot end guns and reduce irrigated acres. Under the plan, water consumption was estimated to be 17 percent less than last year, amounting to an estimated savings of just over 1 billion gallons. Irrigated acres were also to be reduced by 657.8 acres. The plan, approved in April of 2003 as a "good faith" contract by the South Platte Natural Resources District (SPNRD), was seen as a very positive effort by the Board of the SPNRE. "I really applaud the work the (producer) committee is doing on this," Mike Davis, SPNRD Board member said. "If this can be solved by the farmers themselves, we don't want to go the directions of mandates and allocations."

The outcomes and impacts of the project are now clear. However, in the Spring of 2003, things were very different. It was a challenge for the producers and the SPNRD to try and develop a plan together that would reduce water use while still allowing for producer cropping flexibility. "That is where our partner, the University of Nebraska, really assisted the producers in the decision-making process." according to Rod Horn, manager of the SPNRD. "Good decisions were made based on the expertise of University faculty. The producers needed information on water law and policy, agronomic water use characteristics of plants and chemical input carryover data, cropping pattern and economic analysis, as well as basic hydrological information in making their decisions. Good decisions don't happen by accident", said Horn.

- b) The resulting success of the plan is best summarized in excerpts from a November 8th Omaha World-Herald article written by David Hendee and supporting editorial comment: "A billion-gallon gamble by a group of western Nebraska farmers may have paid its first dividend. While the water levels in wells across the southern Panhandle continue to decline after another year of drought,

groundwater levels in a dry valley west of Sidney climbed about 4 inches this year. Farmers in the Sidney Draw who planted crops that use less water, converted irrigated acres to nonirrigated crops, and turned off the end guns on center-pivot irrigation systems get the credit for the rebounding water level, said Ken Quandt, water resources coordinator for the South Platte Natural Resources District based in drought-worried Sidney. "Had everyone planted corn and alfalfa instead of converting many of those acres to wheat and oats, there's no doubt the levels would have fallen, not risen," Quandt said. To substantiate this fact, he noted that the Sidney Draw, the area with the voluntary producer controls, was the only area in the district to see an increase in groundwater levels this year. The changes saved an estimated 1 billion gallons of water from the more than 6 billion used in 2002, according to the NRD." Editorial comment excerpts, November 8th , Omaha World-Herald: "A group of forward-looking farmers west of Sidney, Neb., can teach their compatriots something about stewardship of land caught in the teeth of drought and declining water supply. What came from their good sense and restraint was a four-inch increase - yes, increase - in groundwater levels in the valley west of Sidney. The area was the only portion of the South Platte Natural Resources District where groundwater levels actually went up. Those farmers have proved that they are not helpless in the face of drought, that their livelihood and lifestyle can be sustained, and that there are workable alternatives to government control of groundwater. Natural resources districts and farmers across the state should pay attention.[end of article]

c) Scope of Impact - State Specific

d) Funding:
NU Cooperative Extension
Federal Formula Funds

Goal 5: To enhance economic opportunities and the quality of life among families and communities.

Overview: (includes sections a, b, c & d)

Multiple issues impact communities, families and youth in Nebraska. Economically some communities in Nebraska are strong and proactive while others struggle to remain viable. Those that struggle usually lack one or more of the following elements: well paying jobs, thriving main street businesses, adequate population bases, necessary technology and/or a leadership core to achieve viability in the 21st century. Families face their own challenges. Some are impacted by lack of resources such as time or money, while some parents work long hours to support their families. Some youth, because of lessening time with parents or other mentoring adults, are seeking positive role models and ways to positively use their out of school time.

There are multiple Cooperative Extension programs helping communities, families and youth make informed decisions:

The University of Nebraska recently launched an overarching major effort, called the Nebraska Rural Initiative, to help communities identify and build on local strengths to increase business startups, farm and ranch income and employment. The initiative taps the resources on all four NU campuses to address rural issues and Cooperative Extension plays a key role. Early initiative efforts include projects to help small businesses increase profits through technology; and coordinating a statewide training team for entrepreneurship and small business development. University students also get involved. Through summer internships in 2003, students from the University of Nebraska-Lincoln's JD Edwards Honors Program brought fresh ideas and technological expertise in rural communities; this internship program is being expanded.

Another example is how Cooperative Extension works with rural communities, counties and businesses to develop their information technology expertise and infrastructure and learn to harness it to keep them viable. For example, Dawes County (Extension is a contributing partner) is the hub of Web development training in northwest Nebraska. Thanks to what they have learned, the region's businesses are developing complementary Web sites that attract business and tourists. Statewide, Extension is working with the Nebraska Association of County Officials to explore how rural counties can provide more government services online. In Saline County, Extension worked with a local Internet company and several communities to place antennas on town water towers for broadband wireless service. In exchange for saving the cost of tower construction, the company provides free broadband service to some county and local government offices.

Eight hundred parents have learned to focus on the needs of their children (over 1000) during the divorce process by attending a parent education program, "Parents Forever." As a result of these classes, 2% remarriage has occurred, 2% divorces have been dropped and 100% of adults have recognized the effect of divorce on their children. Developing a parallel parenting plan assists the family move forward rather than being caught in custody battles. This also saves in legal fees and court time, a potential savings of \$1000 per family. Overwhelmingly, parents appreciate the class, learn new skills and change behaviors because of it. Children attending Kids Talk About Divorce find their problems are similar to those of other families.

Winnebago Tribe of Nebraska teens are learning about leadership, their culture and character development through a new program called Be Strong and Educate My Children. Nebraska Extension and Little Priest Tribal College at Winnebago partnered to launch the program. It integrates 4-H youth development efforts into culturally appropriate tribal youth programs. Career development, cultural awareness and leadership are emphasized through science, technology and governance programs. Thanks to the program, leaders report that teens are more motivated and interested in participating in activities beyond school and are interacting more with adults and teens from other schools. For example, in 2003 three Winnebago teens attended Unicameral Youth

Conference, a statewide 4-H program, and in September seventh-and eight-graders participated in the Native American Aviator and Aerospace program at Wayne State College.

e) Total Expenditures and Full-time Equivalents(FTE):

FFY2003	Federal*	State	Local	Other	Total
Funding:	\$ 1,907,404	\$ 9,032,269	\$ 2,733,035	\$ 4,673,829	\$ 18,346,537
FTE**:					142

* FY2002-2003 Federal Formula Funds (includes Smith-Lever regular E3bc, special needs, CSRS retirement)

** Includes both professional and para-professional funded from all sources

Key Theme - Child Care/Dependent Care

(refers to Plan of Work Goal 9, Output Indicator 11 and Outcome Indicator 12)

- a) Sixteen conferences were held throughout the state in the past year. These conferences reach a total of 2532 participants. Conferences are open to child care professionals, educators, foster parents and parents. Extension staff take on many roles in the implementation of conferences for child care professionals. They provide leadership to planning committees, organizational skills, and serve as teaching professionals providing workshops.
- b) As a result of child care conferences, a retrospective evaluation showed:
- Following the conference, 82% of the participants compared to 56% prior to the conference, always or most of the time, felt more confident that their interaction with the children in their care will be more appropriate to the child’s needs and ages. This is a 24% increase.
 - Following the conference, 81% of the participants compared to 59% prior to the conference, always or most of the time, can provide more stimulating environments and/or activities for the children in their care. This is a 22% increase.
 - Following the conference, 75% of the participants compared to 60% prior to the conference, always or most of the time, can improve relationships with parents for the children in their care. This is a 15% increase.
 - Following the conference, 86% of the participants compared to 66% prior to the conference, always or most of the time, felt more committed to the professional of child care. This is a 20% increase.
 - Following the conference, 82% of the participants compared to 72% prior to the conference, always or most of the time, use positive reinforcement to modify behavior of children. This is a 10% increase.

As a result of attending past conferences, participants indicated that they made changes in child guidance and discipline; hands-on activities for children; their perception of themselves as professionals; safety guidelines and practices at the child care facility; nutrition education; menu planning for snacks and lunches; and business practices for the child care facility.

In addition to conferences, 350 child care professionals participated in the satellite training series “Better Kid Care” originating from Penn State University. Other educational programs offered by Cooperative Extension served 440 child care professionals.

c) Scope of Impact - State Specific

- d) Funding**
 NU Cooperative Extension
 Federal Formula Funds

Key Theme - Children, Youth and Families at Risk

(refers to Plan of Work Goal 9, Output Indicator 11, Outcome Indicators 10 , 11 & 12)

- a) Nebraska Cooperative Extension is involved in seven juvenile diversion programs which educated 375 youth and/or adults. Extension staff involvement varies in the programs from teaching the entire program to working with a group of community agencies to provide the program. Various curriculums are used to teach the programs but all programs are tailored to the youth and/or parents and the goals of the program. All programs include multiple sessions. A sampling of topics covered includes: understanding and positively expressing feelings; understanding the differences in temperament; communication skills; conflict management; problem solving skills; alcohol/drug use and abuse; responsible choices and consequences; community service; and goal setting.
- b) One way programs are evaluated is by using success markers. Success markers are identifiable actions or behaviors which indicate successful accomplishment. They are listed as 'Expect to See' that must occur before there can be any successful outcomes. 'Like to See' are the more immediate behaviors or new practices as they start to apply new knowledge and skills, or alter attitudes or aspirations. 'Love to See' success markers are long term or higher order behavior changes that come after 'Like to See'. The adults, after three months in the program had reached an average of 86% for 'Expect to See', 76% for 'Like to See', and 67% for 'Love to See'. The success markers rates for the youth after three months in the program had reached an average of 81% for 'Expect to See', 74% for 'Like to See', and 63% for 'Love to See'.

Parents responded positively in post program evaluations about going through Juvenile Diversion rather than court. One parent wrote, "I feel that this program is better than putting a child on probation and making them pay a fine because at least this way they are being taught something that they will use forever. It also teaches them about the choices they make, respect, trustworthiness, drugs, and alcohol. The eight week program helps the parents see that we cannot mold our child into someone that they are not, that we have to learn to live with the person they are and work together in this world. I feel that if every child and parent had the chance to take these classes, kids would look at the law and crime in a different way. Kids have known that parents don't always make the right choices either and that no one is perfect. We all have to work together in raising kids in today's world. Kids need to know that we are not here to be against them, but to help them." In another program during an exit interview one parent stated, "My son and I understand each other better now."

In evaluations, youth were asked what they had learned that will help keep them from getting into trouble again. In response, several mentioned that they learned they needed to think before they acted. One response was, "make better decisions, have better communication skills, show respect for myself and others." One youth stated, "I won't lie to my mother, respect her decisions she makes, make better decisions for myself and the others around me." Another youth stated, "I learned to respect parents better, be more honest, and respect parent's decisions."

- c) Scope of Impact - State Specific
- d) Funding
NU Cooperative Extension
Federal Formula Funds

Key Theme - Communications Skills

(refers to Plan of Work Goal 5, Output Indicators 8 & 11 and Outcome Indicators 10, 11 & 12)

- a) All of life, whether at work or at home, is filled with relationships. Successful relationships require understanding others and oneself. Over 2000 people (1443 adults and 834 youth) have participated in Real Colors Matrixx programs throughout the past year. This adaptable program, with multiple activities to help participants understand personality styles, was presented to various groups including high school classes, youth leadership conferences, workforce readiness groups, teachers, librarians, school lunch staff and Family Community Education club members.
- b) Evaluations indicate increased communication skills:
- 97% have better understanding of people and personalities
 - 82% appreciate the differences in personalities of people
 - 80% increased understanding of how to communicate better with others

Key ideas learned:

- “This was a totally new concept for me. This explains why some kids are different in the way they do things.”
- “It definitely takes all kinds of colors - personalities - to make a successful group.”
- “There are various personalities to pull from and work together with.”
- “Reaffirming that people are different, but need to be to do different tasks, and work as a team.”
- “How differently people really think. You get stuck in your ‘comfort zone’ and think everyone is like you are, but they definitely aren’t!”
- “I liked real colors. It helps to understand yourself and others.”
- “‘Colors’ - personality traits are much easier to understand and communicate with than recognized for what/who they are.”
- “I learned that no one is exactly alike and you have to appreciate the people’s personalities.”
- “That everyone is different and we need to respect that.”
- “Real Colors training has made it easier for me to understand the decisions, motivations, stress levels, emotions and points of views of others.”
- “I didn’t realize people were characterized in these four groups. It’s good to know there are other people just like me.”

Behaviors they plan to change:

- “I plan to be more considerate of the ‘thinkers.’ I had previously had just considered them as uncooperative and problems.”
- (Youth) “This will help me decide on a career. I will try to help others with their work.”

Impact:

- In a 6-month follow-up evaluation with school faculty, the “Real Colors” materials, terminology and concepts were still being used in daily conversations.

- c) Scope of Impact - State Specific
- d) Funding
NU Cooperative Extension
Federal Formula Funds

Key Theme - Communication Skills

(refers to Plan of Work Goal 9, Output Indicator 11, Outcome Indicators 10, & 11)

- a) For more than 20 years, the research of John DeFrain and his colleagues at the University of Nebraska has focused on qualities that build strong families. The researchers' model of family strengths has six general qualities. One of the qualities which was consistently found present in strong families is spending time together. Thirteen Children's Festivals/Family Nights reached 4,904 youth and adults. Children's Festival/Family Nights are an opportunity for parents and their children to relax at the end of the day and enjoy activities as a family.
- b) Follow-up surveys for one festival indicated that the families have benefitted from the activities by:
1. expressing appreciation for family members more often than before the presentation, 2. exhibiting patience for other family members of the family more often than before the presentation, and 3. families have increased the amount of time they spend together in activities more often than before the presentation.

At another event, a co-chair added that the number of people who attended was very gratifying. "Schedules are so busy that it can be difficult to find time for fun family activities. It's so encouraging for a child to know that 'mom or dad enjoys spending time with me.' We're pleased that so many parents made it a priority to be at the Kids Fair. Evaluations from the businesses and organizations were very positive. Eighty-three percent of the evaluators felt that the Kids Fair was very successful in motivating families to spend time together. Families who attended were impressed with the information they learned about all of the resources and services available in our community. As a result of the day, parents have reported setting aside more time to do activities as a family. They were also surprised how much fun they had together. Parents were inspired to try new activities as a family that are more creative and educational.

- c) Scope of Impact - State Specific
- d) Funding
NU Cooperative Extension
Federal Formula Funds

Key Theme - Community Development

(refers to Plan of Work, Goals 4 & 9, Output Indicator 11 and Outcome Indicators 10 & 12)

- a, b) Nine Extension Staff are involved in Family Coalitions in their communities which reach out to 7,351 members of their collective communities. This year alone juvenile services plans have been written in 5 counties in Nebraska, which make the communities eligible for grant funds. One county was awarded over \$19,000 and was able to start a Community Service Coordinator position for juveniles that are referred through the court system, probation and juvenile diversion. Another county reported that 36 families have been assisted through a Community Wraparound Program, which serves families in crisis by helping the families develop a plan for their safety and resources needed.
- c) Scope of Impact - State Specific
- d) Funding
NU Cooperative Extension
Federal Formula Funds

Key Theme – Community Development

(refers to Plan of Work, Goal 2 , Output Indicator 2 and Outcome Indicator 3)

- a) The Southeast District 4-H Issues Action Team goal is to support civic engagement in promoting positive impacts to the community. During 2001-2002, 2,683 youth and adults in Butler, Cass, Cuming, Dodge, Gage, Jefferson, Nemaha, Pawnee, and Seward counties and Eastern Nebraska 4-H Center performed 28,297 community service hours. The dollar value of this volunteer time is \$466,900.50 (calculated by the figure determined by the Bureau of Labor Statistics). As part of this program emphasis, Learning and Serve Conferences were held.

More than 2800 youth and adults participated in a variety of service events including: conducting beautification projects, helping the needy, making educational presentations, working with the elderly, supporting community and holiday celebrations, collecting food and participating in various benefits, cabin mentoring, and camp counseling.

- b) Participants in the service projects shared:
- a. In selected beautification projects, Participants realized that littering on the highway hurts the community and the environment. They also learned about safety and wearing proper clothing when walking the road ditches.
 - b. Community activities make members feel like they are a part of the community.
 - c. Donating to the community taught members that without other organizations donating and helping, it is not possible to hold community events.

87% of those attending the service conference indicated they learned something new and received a service idea they plan to use.

Eleven cabin mentors and 57 camp counselors were positive role models for 999 youth campers in the summer of 2002 at the Eastern Nebraska 4-H Center. As a result of their positive leadership, campers shared the following gains:

- 86% plan to share their camp experience with others.
- 75% want to be a counselor one day.
- 77% are more willing to do things for the community when they return home.

- c) Scope of Impact - State Specific

- d) Funding
Nebraska Department of Education Grant
NU Cooperative Extension
Federal Formula Funds

Key Theme – Community Development

(refers to Plan of Work, Goal 5 , Output Indicator 5 and Outcome Indicators 5 & 6)

- a) The **Nebraska Rural Institute** is a three-day educational program featuring educational seminars, technical direction, and important networking opportunities to build leadership skills. The main focus is to bring those working in the area of rural community development together to share ideas on how to keep rural communities alive. Approximately 150 people participated in the 2002 Nebraska Rural Institute that was held in Gering, Nebraska. Leading and Growing Your Community was the theme of this year's Institute. This year's Institute included three mobile workshops. Participants gave the mobile workshops high marks. Presenters, facilitators and panelists included many of Cooperative Extension's personnel.

- b) Over 900 people have participated in the Institute since 1998. Past participants have included individuals from South Africa and Australia. The 2002 Institute received an average rating of 3.5 on a scale of one to four (with four being excellent). The Testimonials by past participants best identify the success of the training.

"The program fosters new and intensive leadership for the future of rural areas. This is the best conference of its kind. It is geared specifically toward rural development as a result from community participation. No one will help (rural communities) unless we help ourselves."
County Development Alliance Member, Nebraska

"The Institute provides an excellent program for rural communities, throughout Nebraska, on ways for them to improve. I was very pleased with the results and brought back ideas to implement throughout the community. It's a great way to exchange ideas, see projects at work and get excited about new activities in communities." City Administrator, Nebraska

A post evaluation of the Institute was conducted in February 2003. Ninety-five percent of those responding felt it was worth their time to attend the Institute. The following was shared when participants were asked to share what they gained from the Institute:

- resource materials they could use (86%)
- names of other people to contact (81%)
- ideas they could try in their community/area (65%)

Respondents were asked how various items changed as result of attending the Institute. The Institute is most likely to influence participants' networking and their knowledge of how to respond to rural issues. The proportions saying each item increased were:

- knowledge of resources available in the area of rural development (82%)
- knowledge of ways to respond to rural issues (91%)
- understanding of rural Nebraska (77%)
- opportunities to meet others working in rural development (91%)
- leadership skills (59%).

When asked the extent to which the Institute did various items, the majority (82%) indicated they experienced the following to some extent: were stimulated to think, were motivated to want to learn more, were motivated to want to do something different in their community/area, and were taught new skills that would help them in their job.

The respondents were also asked if they did any actions since attending the Institute. Over one-half had shared information from the Institute with someone who was unable to attend (58%), used the knowledge gained at the Institute in a current program or project (58%), and partnered with someone they met at the Institute on a program or project (53%). In addition, 45% indicated they intend to (or have already done) something different as a result of the Institute.

- c) Scope of Impact: State Specific

- d) Funding:
Registration Fees
UN Cooperative Extension.
Partnership for Rural Nebraska
Federal Formula Funds

Key Theme – Community Development

(refers to Plan of Work, Goal 6 , Output Indicator 6 and Outcome Indicator 7)

- a) Since 1993, the Nebraska EDGE has assisted more than 1,700 individuals, new and existing entrepreneurs and their partners start and improve their businesses. Over 75 training courses have been held from Scottsbluff to Omaha, and in many communities in between. The results have been new business start-ups, business expansions, and local community and economic development.
- b) Impacts of the 2002-2003 training cycle year were:
- Seventy-four percent (74%) of the 169 participants completed their training course with a business plan written for their own business. Fifteen percent (15%) of the participants finished the course sessions but did not complete their business plan at the end of the course.
 - Overall Course satisfaction: 76% of the participants indicated they were “very satisfied with the course” and another 21% stated they were “more than satisfied”.
 - Overall value of course related to their business: 78% of the participant said the course was an “Excellent” value and 22% stated it was more than a good value relative to their business.
 - Ninety-six percent (96%) of participants indicated they would recommend the course to other business owners as they build their businesses. Comments included:
 - Essential for those looking at starting up a business to go through the planning section. Will help them avoid confusion about what they are to be about.
 - Failure is both common & costly. Taking this course increases the odds of success & we need every "edge" we can get!
 - Excellent information and knowledge you will use the rest of your life.
 - Seventy-two percent (72%) of the participants indicated changes have been made to their business as a result of the training course.
 - We got our bookwork in order and reviewed our business plan and readjusted in some areas.
 - Cost analysis & budget projections helped to decide our inventory levels.
 - I was able to hire a part-time manager and learned to work effectively with sales forecasting and budgeting.
 - Will likely add an employee this spring, also may add another employee by years' end.
 - I have learned to market, created an appropriate budget, increased my rates & learned about cash flows.
 - Financially reorganized our business and have a plan
 - We are in the 1st year of operation. We now have better focus and a much better handle on the financial aspects.
 - Forty-four (44) part-time and 28 full-time jobs were expected to be created within 12 months following the training course. (Results based on data from 47 business owners who responded to this question.)
 - Business owners who plan to start or expand their businesses will seek bank capital (73%) or use personal savings (58%) to finance their businesses.

What was the most useful thing you learned from this class?

- The financial aspects of running a business. Making you think of all the different aspects of your business. Writing a business plan creates a long-term plan that opens up all new ideas and numbers that tell you more what you can do and by a few changes the difference it can make.
- That you have to do your homework! I learned all the facets that it takes to plan and grow a business. I will use these skills for the rest of my life!
- Marketing - Who our customer base is and how to develop our market to better meet their needs.
- Think outside the box!!! Put good ideas to work for you - Make your business work for you, not you for it!

- c) Scope of Impact - State Specific
- d) Funding:
 NU Cooperative Extension
 Federal Formula Funds

Key Theme – Community Development

(refers to Plan of Work, Goal 6 , Output Indicator 7 and Outcome Indicator 7)

- a) The first Nebraska Food Market Tradeshow was held in 2003. All Nebraska food manufacturers were invited to exhibit their products . The show allowed buyers to view and sample goods from the 102 exhibitors that attended the first show. This was a closed show and only food industry buyers such as grocery store owners/directors, restaurants owners/chefs, school foodservice/institutional foodservice directors, specialty food store buyers and food distributors were invited to attend.

The Food Processing Center organized and sponsored the first ever Nebraska Food Market tradeshow for the food manufacturing industry. Many shows are conducted every year by private food distribution centers throughout Nebraska. The food manufactureres that are allowed to exhibit at these shows must be in the distribution warehouse. This can eliminate many smaller manufacturers that do not sell a large enough quantity of product to be accepted in the warehouse. Since approximately 2/3 of Nebraska manufacturers are considered small this selection process can create a hardship for these companies.

- b)
 - 66% of the exhibitors and 79% of the buyers indicated they would participate in event again
 - 93% of the exhibitors and 83% of the buyers indicated they would like the event held every year.

Comments shared by participants include:

- "The exposure is very good. We are introducing new products. I would exhibit again at this show." Allen Cetak-AJ Cetaks Meats in Ord
- "Lots of new account potential at this show. We're giving out new marketing for our products. Buyers are impressed." Bernie Jansa-Wimmers in West Point
- "I've met buyers from many grocery stores and distributors. The networking opportunity has been wonderful." Billie Lefler-Sandhills Ranch Products in Gordon
- "I am intrigued by the number of manufacturers in Nebraska. There is lots of creativity in Nebraska and it shows." David Slagle-Pegler Sysco in Lincoln
- "This type of show allows us to see more Nebraska products that we weren't aware of. In addition we made contacts with companies we are not currently doing business with." Tom Moore-Ideal Market in Lincoln

- c) Scope of Impact - State Specific
- d) Funding:
 NU Cooperative Extension
 Federal Formula Funds

Key Theme – Community Development

(refers to Plan of Work, Goal 7, Outcome Indicator 8)

- a) Education is the key to building technology skills for Nebraska citizens and businesses. In some communities, technology committees have met but have not accomplished what they set out to do.

In these communities, Cooperative Extension can provide information and training in setting a vision, identifying goals and objectives and helping create an action plan. By using tools to build capacity, Extension Educators are able to increase the level of participation in getting goals accomplished.

Cass county is an example of a technology task force working together to provide high speed internet opportunities to their communities. Announced by the Cass County Economic Development Council, Heartland inet has become the Internet Service Provider for the residents of Cass County.

- b) As a result, the Cass County Technology Task Force made a more attractive package for Internet companies to look at. On June 27th, a special project launch presentation was held in Plattsmouth to provide publicity on their success in contracting with a wireless ISP.

The group learned the importance of not only developing a plan, but carrying that plan out requires going through the process of looking at assets and needs, then developing steps to implement the plan.

- c) Scope of Impact - State Specific
- d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme – Community Development

(refers to Plan of Work, Goals 4 & 5, Output Indicator 5, and Outcome Indicators 5 & 6)

- a) Cooperative Extension has assisted the City of Seward in community planning since 1999. Extensions personnel help build capacity in these community leaders to develop a vision, identify important goals and develop the needed action plans to get them accomplished. The facilitation tools have varied some from year to year to provide a fresh approach to the planning process.
- b)
 - Allowed the council to see the value of doing both short-term and long-term planning.
 - Allowed city officials and council members an opportunity to put their heads together in a non-threatening atmosphere and develop a good plan for the community.
 - Many of the short term goals are now being completed and long term goals are revised each year.
 - By using an action planning process that forces participants to write down goals, dates, names and tasks to be done to complete the plan, it is much easier for participants to see the importance of communications so that the tasks in the action plan are completed on time.
 - City officials have been very pleased with this process and it has created a tremendous positive relationship between Cooperative Extension and council members and city officials.
 - As a result of these planning efforts, Cooperative Extension has also become a key player in the cities well-head protection plan development and technology planning for the city and the new library.
- c) Scope of Impact - State Specific
- d) Funding
NU Cooperative Extension
Federal Formula Funds

Key Theme – Community Development

(refers to Plan of Work, Goal 7, Output Indicator 9, and Outcome Indicator 8)

- a) The Master Navigator program, directed by the Connecting Nebraska Technology team, has been providing introductory Windows and Internet technology training to citizens of all ages and occupations since beginning in 1997. The program has trained over 1,400 people in rural Nebraska communities throughout the state. Many of these people have taken leadership in their communities to help bring learning centers, high speed Internet access, technology committees and community web pages to their communities. This past year a group of public librarians have taken part in the training program enabling them to provide local training and support in their own communities.
- b)
- In the year 2002, over 242 people were trained in the use of technology.
 - A Southeast Nebraska Library Association collaborative effort has allowed Cooperative Extension to provide Information Technology training to thirty-one Southeast Nebraska Librarians in December, 2001, February 2002 and April, 2002.
 - As a result of Information Technology training for librarians on searching the web, potential economic uses of the web for rural towns, computer protection, and e-mail training, twenty librarians made the decision to participate in additional training certifying them to teach the Master Navigator class in their library in their community. This collaborative effort has the potential of reaching people in at least 14 additional communities in southeast Nebraska with technology training.
 - Comments by some of the participants: “I hope they will continue with another class of the next level.” “I took the Master Navigator class because I believe that telecommunications is important to my community.” “I hope that by taking this class I can get more involved in helping my town get on-line with a web page.”
- c) Scope of Impact - State Specific
- d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme – Community Development

(refers to Plan of Work, Goal 7, Outcome Indicator 8)

- a) Information technology is transforming our economy and society. In order to participate in the emerging digital economies communities need to be thinking digitally – focusing on how information technology can be used to enhance economic and community development.

Extension educators who serve as members of the conNEcting Nebraska Technology Training Team and participate in the Technologies Across Nebraska partnership worked with Cheyenne County and West Point to conduct community and business information technology assessments. Working closely with the local information technology committees, Extension Educators Connie Hancock and Carroll Welte developed the assessment tools and supervised the data collection processes.

- b) Results of the assessments indicated that citizens and businesses in both communities use multiple telecommunication services daily.

On behalf of the Technologies Across Nebraska partnership a grant was submitted to the Nebraska Information Technology Commission to fund information technology planning in eight other communities. Each of these eight communities will receive \$2500 to put towards community

assessments or other planning costs. (This figure was derived based on the costs of implementing the community assessments in Cheyenne County and West Point.)

Cheyenne County is presently building a community information portal. West Point is leading a collaborative effort with the 12 communities served by its workforce development group to develop a regional information technology plan. Because of trainings on how to use the Internet, teleliteracy is increasing in both communities. Businesses are implementing e-commerce applications stimulating the economy. Both communities are working to develop an infrastructure that includes affordable high-speed Internet connectivity available to everyone.

c) Scope of Impact - State Specific

d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme – Community Development

(refers to Plan of Work, Goal 7, Output Indicator 8, and Outcome Indicator 8)

a) In visiting with Farmers, it was noted that most of them have computers, but farmwives and children used them most. The lack of use of the Internet for help in the farming operation was especially noted. Most farmers indicated that they didn't know where or how to look for Internet information that might be helpful to them on the farm. "Farming the Internet" and subsequent weekly "Farming the Internet" E-mail posts were developed and are an on-going effort to help farmers develop the experience they need on the Internet.

b) Participants attending the workshop indicated the following:

- 90% were very satisfied (highest rating available) with the quality of instruction.
- 92% were very satisfied with the content of the workshop.
- 89% were very satisfied with the value of the workshop with regard to the purpose.
- 100% of the participants receiving the weekly e-mail post and continue to review it.

Participants have been asked for comments, which include: "In enjoy the weekly e-mail." "The sites mentioned give me ideas of where I can look for information." "Although I don't always have time to check each site out, I keep the messages and plan to look at them." "Great workshop should be longer."

Once a month participants send site ideas back to the staff member. In at least five instances, more questions are referred back via e-mail and additional sites are explored and referred back to all participants

With information about market web sites provided by the workshop and the weekly e-mail post, three participants have indicated that they have given up their market data terminals and rely solely on the computer for their market and weather information. This is a savings of \$20 to \$50 per month depending on the level of their service.

c) Scope of Impact: State Specific

d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme – Community Development

(refers to Plan of Work, Goal 6, Output Indicators 7 & 8, and Outcome Indicator 7)

- a) Thirty-nine area entrepreneurs increased their business skills as a result of educational workshops held in Antelope County. Cooperative Extension personnel guided the group through their organizational processes, provides leadership, support, and education materials and resources to them. Participants learned how to create high quality business plans, the importance of having business plans, how to price products, and where to go for financial resources were topics presented during the workshop. 58% of the participants reported they learned skills which they will apply to their business. 95% of the participants rated the workshop excellent and requested additional workshops in the future.

Businesses owner and operator participants are more confident in pricing their products and they now understand how to price them at both the wholesale and retail level. They have improved their marketing and promotion methods and learned how to better showcase their products.

- b) Becoming more familiar with each other and their products and creating an awareness of them to the public has had an impact on their businesses.

As a result of this project, a committee was formed which has charged forward and formed their own local organization. They have emerged into an organization to help small entrepreneurs expand their businesses. Their goals are to form their own local REAP Association, create a brochure to showcase local entrepreneurs, create a website complete with resources, and provide future educational programs and shows.

This has been a success because of a team of forward-looking individuals who are not only interested in expanding their own business, but also have the drive to assist other local businesses and make an impact on their community.

An immediate goal was to host educational workshops and a "show" where they could showcase their products to the public. A two-day event was held with the first day being used to interact with various resource providers and participate in four educational workshops. This was followed by a one-day show where 300 local citizens came to view and purchase products from the 29 entrepreneur booths.

- c) Scope of Impact: State Specific

- d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme – Community Development

(refers to Plan of Work, Goal 4, Outcome Indicators 6 & 7)

- a) Begun in 1996, the Nebraska Rural Poll gathers the aggregated voice of rural Nebraskans and relays its findings to state lawmakers, ensuring the rural voice is heard. Its goal is to give local and state leaders a better understanding of the issues, challenges and concerns of Nebraska's rural citizens. The Rural Poll is an annual effort that focuses on such issues as community, government policy, well-being, and work. Core questions are included every year; over time these core questions will provide insight about trends and changes occurring in rural Nebraska. In addition, each year rural citizens and government officials form an advisory committee that identifies key issues or topics to include in the survey. The 2003 Rural Poll asked rural residents about

regionalism, taxes and personal safety. Poll findings are distributed to members of the Nebraska Legislature, staff members of the state's congressional delegation, and other state and local leaders to facilitate their decision-making.

- b) The Rural Poll allows the voice of rural Nebraskans to be heard on various policy issues. Results from the Rural Poll have been included in testimony before several legislative committees. It also provides local and state leaders information about rural Nebraskans' opinions on various issues. Nebraska Governor Mike Johanns stated, "As Governor, I believe it is vital to stay in touch with the issues important to citizens in all parts of the state. The information compiled in the Nebraska Rural Poll will be a very useful tool as we make decisions which will affect rural Nebraska." Pat McGrane from USDA NRCS stated, "Our Resource Conservation & Development offices across the state have found the survey results useful. They have used the data locally with their councils to develop local programs/solutions to meet the identified needs of Nebraska citizens." The Center for Rural Affairs adds, "The Nebraska Rural Poll has been invaluable in our work with state and federal policymakers and in helping to shape our public policy positions. We used the Rural Poll results extensively in building the case for rural small business development and value-added agriculture initiatives in the 2002 Farm Bill."
- c) Scope of Impact: State Specific.
- d) Funding:
NU Cooperative Extension
Federal Formula Funds

Key Theme – Community Development

(refers to Plan of Work, Goal 4, Outcome Indicators 5 & 7)

- a) In the Spring Semester, 2003, Professor and Extension Educator N. Brito Mutunayagam, and a group of 10 students undertook a regional planning study involving communities, public agencies and concerned citizens from a 11 county region in the Nebraska Panhandle (Population 90,410). The objective of the study was to conduct an assessment of needs and contemporary issues facing communities in the 11 country region and formulate research proposals that could be submitted to an appropriate grant funding agency. Professor Mutunayagam partnered with Cheryl Burkhart Kriesel for the conduct of this study. Nine research proposals emerged as the final outcome of this project and were presented at a public "town hall" meeting at the University Panhandle Research and Extension Station in Scottsbluff on April 11, 2003.

The theme of one of the proposals was "Sense of Place". "Sense of place" has many definitions but one of them which explains the concept is "A feeling of attachment and belonging to a particular place or environment having a special character and familiarity" (Source: The Mid-America regional council in Kansas City). The goal of the research was to enhance tourism by articulating and applying "Sense of Place" concepts in selected communities in the Nebraska Panhandle region.

- b) The study completed by Professor Mutunayagam and Laura Manning is a pilot model for the design, development and application of "Sense of Place" concepts in small rural communities in Western Nebraska. The PowerPoint presentation contains material which has been acknowledged for its insight and to educate community residents about the various elements and principles that need to be considered and applied to develop a "sense of place" in a rural community. The response obtained from the stakeholders meeting at Bridgeport suggests that these concepts are very likely to be implemented at the three pilot communities after:

1. the suggested alternatives are reviewed by community residents;
2. concepts and principles are interpreted and internalized for application;
3. suggested alternative designs are adapted to match each community's expectations of its own "sense of place".

The PowerPoint presentation also was acknowledged by the Panhandle RC & D as a vehicle to secure funding from the Scenic Byways Program in Nebraska which may be used by any rural community in Western Nebraska (including Broadwater, Lisco and Oshkosh) to create "sense of place" in the respective communities and gradually serve as an attraction to draw tourists into these communities, in the long run.

One of the proposals that had been a part of an earlier planning effort caught the attention of the Panhandle R C & D who contacted Professor Mutunayagam and awarded an internship to Laura Manning, the author of the proposal. Cheryl Burkhart-Krisel was instrumental in facilitating the grant award to fund the internship through the Panhandle R C & D board.

The study was conducted by the student intern, Manning, under the supervision of Professor Mutunayagam during the Summer of 2003. After the preliminary literature search and back ground research, to secure a better understanding of the theories, principles, concepts and potential applications of "Sense of Place" by Laura Manning, Professor Mutunayagam, Laura Manning and Ron Moore of the Panhandle RC & D inspected several sites and conducted multiple interviews with several individuals before three communities were selected as pilot sites located along Highway 26. These were Broadwater, Lisco and Oshkosh. In addition, one additional site was selected between Lisco and Oshkosh as a potential site for the development of a Scenic Lookout and interpretive center.

- c) Scope of Impact: State Specific
- d) Funding:
 NU Cooperative Extension
 Federal Formula Funds

Key Theme – Community Development

(refers to Plan of Work, Goal 4, Outcome Indicators 5 & 7)

- a) The Consumer Preference Study is a program that was developed to explore factors that affect local consumers' shopping decisions and help reduce economic leakage from Nebraska communities. Local consumers describe their preferences, offer opinions about business strengths, and make suggestions for improvement. These consumers also provide impressions of the general shopping environment that have an impact on economic leakage.
- b) One hundred thirty seven business owners or managers in six communities attended individual business consultation meetings where strengths and weaknesses of their businesses, concerns from their customers, and possible strategies to improve their business competitiveness were discussed. All but two of the participating business owners indicated that the study was very beneficial, and over two thirds have made or are in the process of making changes in their business to improve profitability.

In Burwell, Mike Svoboda who owns the Surfine grocery store said that "participating in the Consumer Preference Study was the best dollars he has ever invested in his business". Amy Brunken of Burwell Insurance indicated that "the report was great - wonderful job, we were very impressed", and went on to say that they were making changes in their business and expected to increase business profits as a result of the study. Mike Gokie of the Minden Courier also

indicated that the Courier will be making changes as a result of the study, and along with twenty additional Minden businesses said that the business report was terrific, and that it was well worth the time and expense.

Many of the business owners in the participating communities indicated that they use the study findings for employee training, product selection, and for developing or altering marketing strategies. Business impacts shown from post project surveys indicate that most businesses would recommend the project to others. Several merchants have used results in training sales staff, realigning their marketing to improve their image, change displays or the presentation of merchandise, and draw attention to weaknesses in plans of parent firms. Some businesses have expanded or started additional enterprises.

Through collaboration with several entities including the Nebraska Lied Mainstreet program, studies will be conducted in four additional communities during the next year, bringing the total to thirty communities.

Community presentations concerning general shopping and community views by consumers have taken place in five of the six communities where studies were completed during FY2003. Over 300 business owners and community leaders attended these sessions and in all communities, these business owners and community leaders asked questions concerning study results for nearly an hour following the forty five minute presentation. In Minden, consumers expressed various desires which have since been addressed with the addition of several local events and products or services added to the community. Community leaders have reported a great success with these new events.

During FY2002, a youth component was added to the Consumer Preference Study. The Future Business Leaders of America club at Minden High School became involved in the local study, leading to a survey of high school juniors and seniors. This survey sought to reveal aspects of the community and businesses from the viewpoint of these younger consumers. We also explored the factors that may influence these juniors and seniors to remain in or return to Minden following their education. The FBLA students were involved in recording, analyzing, and reporting the findings of the study to the community. In addition to providing valuable information to the community, it provides a positive, educational experience to those in the FBLA chapter. This youth component will be continued with in all future community studies. Following the youth survey presentation in Minden, three local businesses have contacted the FBLA to determine ways to enhance their service to these high school students and will be working closely with this group in the future. Also, the Minden Chamber has become involved with the local FBLA chapter, and three different members will attend the Chamber meeting each month. Similar successes have been accomplished with the youth population in additional communities during FY 2003.

Consumer education is also a part of the study, and each of the local consumers involved learned about locally available products and services that they were unaware of prior to the study. In addition, numerous consumers that have been involved in these studies have indicated that they were reminded of the importance of supporting local businesses, and are more likely to shop locally as a result of the study. A general survey mailed to each of the participating consumers provides communities with information including where local dollars are being spent for specific goods and services, and products and services to add in order to retain those dollars locally. Over sixty-five percent of the surveys mailed out have been completed and returned.

This study relies on consumers familiar with the community and participating businesses. Business owners or managers identify five consumer groups important to their businesses. Then every participating owner or manager is invited to nominate four customers for each consumer group.

These consumers' shopping preferences are explored through a mail survey and subsequent small group discussions. The mail survey asks all nominees about their shopping patterns, the identity of competing businesses & communities, strengths, & improvements important to area consumers. Five focus group interviews are organized by randomly recruiting consumers among mail survey respondents. These focus group members compare each business with competitors who offer the same goods and services. Then they discuss the business strengths, concerns, and suggestions that underlie those comparisons.

Participating merchants and sponsoring organization leaders receive a description of community results at public meeting. At that time, private consultations are arranged with each owner or manager to review their confidential business report. Each report covers complaints, suggestions and general impressions consumer group members associate with each business. These consultations are designed to clarify consumers concerns, their compliments, and alternatives with potential to improve business competitiveness.

During 2003, Consumer Preference Studies were completed in Plattsmouth, Burwell, and Ord, Nebraska, and in Holyoke, Haxtun, and Steamboat Springs, Colorado. These six studies have involved one hundred forty businesses, and over twelve hundred consumers.

Since 1997, studies have completed in twenty six communities across Nebraska and Colorado, and included over 565 businesses, and 5,800 consumers.

- c) Scope of Impact: NE, CO
- d) Funding:
 - NU Cooperative Extension
 - Federal Formula Funds
 - Nebraska Lied Main Street

Key Theme - Family Resource Management

(refers to Plan of Work Goals 8 & 9, Output Indicators 10 & 11, Outcome Indicators 9, 10, 11, & 12)

- a) Building Nebraska Families (BNF) is focused on educating the hard to employ, rural clients of Nebraska's HHSS welfare to work program. By learning necessary family management and life skills, families will be more successful in transitioning from welfare to work while maintaining their families.
- b) In the 2002-2003 reporting period, 43 (13%) BNF participants completed or graduated from BNF. Upon reviewing their entry versus exit behavior checklists, notable changes were seen in 8 of the 20 behaviors measured. Significant differences (moving in a positive or negative direction as appropriate) were reported on the following statements: I feel positive about my life, I can set goals for myself, I exercise to work off stress, I can pay my bills (in full) on time, I plan how I will spend or save my money each payday, I keep a record of how I spend my money, I am hopeful about the future, I feel depressed. More significant changes were found in behaviors measured in the statistical analysis than in the past. The mean monthly income for this group upon entering BNF is significantly different (\$408) than the mean income upon exiting (\$750).

At least 6 months after completing BNF, graduates are contacted for a followup. The followup showed that graduates continue to improve their family and life skills after graduating from BNF. They continue to be positive about their life, can cope with change, set goals for themselves, solve problems on their own, use better financial management skills, are hopeful about the future and feel less depressed. Some of the mean scores for these behaviors have actually increased since graduation. This suggests that BNF is accomplishing its goals of helping families develop and use

these skills once they leave the program. Of the 69 possible followup contacts, 41 graduates were located. Thirty-nine (39) of the 41 located are self-sufficient and no longer receive a TANF grant.

From October 1, 2002-September 30, 2003, 322 participants received at least one educational contact for a total of 3899 teaching contacts. Educational contacts reached a total of 944 individuals which includes 622 children. A total of 311 hours were volunteered in the community. In addition, those completing BNF reported a total of 673 assignment hours. The BNF families are not typically those who complete assignments or volunteer in their communities so this is a significant accomplishment.

- c) Scope of Impact - State Specific
- d) Funding
NU Cooperative Extension
Nebraska Department of Health and Human Sciences

Key Theme - Family Resource Management

(refers to Plan of Work Goal 8, Output Indicator 10, Outcome Indicator 9)

- a) Credit Card Blues at 22 was developed after teachers, students, college students, and parents were interviewed and results of these interviews indicated that credit card use, over use, and even abuse was one of the greatest concerns for clientele. Twenty percent of college graduates have amassed \$20,000 in credit card debt in addition to their college loans.
- b) Credit Card Blues at 22 was presented to over 900 high school seniors in the Nebraska High School System. The evaluation of more than 665 high school seniors across Nebraska showed students experienced a statistically significant change in their knowledge at a ($p < .05$) level in the following categories.

Students were better able to:

- Define credit;
- Identify factors to consider when shopping for a credit card;
- Identify sound practices for managing credit card debt, especially with reference to:
 - paying in full each month;
 - having a low credit limit or a credit limit that is compatible with income/budget; and
- Identify sound practices to protect their personal identity, especially with reference to:
 - locking doors; and
 - notifying credit card companies immediately when cards are lost or misplaced.

A booklet entitled College Spending 101 was developed and distributed to seniors that wanted the extra information. It was also put on the University of Nebraska website for college students to access. Information was given to freshmen at Red Letter Day (Recruitment Days) at UNL, and information was also taught to recruitment and housing staff to share with students. Some of the staff that teaches the introduction to UNL are using the Credit Cards Blues at 22 in their classes.

- c) Scope of Impact - State Specific
- d) Funding
NU Cooperative Extension
Federal Formula Funds

Key Theme - Family Resource Management

(refers to Plan of Work Goal 8, Output Indicator 10, Outcome Indicator 9)

- a, b) With renewed emphasis on training by Cooperative Extension for the High School Financial Education Program developed by the National Endowment for Financial Education, the 2002-2003 school year found 88 Nebraska schools and 3953 students reached, an increase in student of 41%. Ninety percent of the schools participating in the program in 2002/2003 school year were repeat schools indicating the importance of high school financial planning and support for the materials in HSFPP. The NEFE HSFPP impact survey from 1998 shows significant positive difference in the personal financial: a) knowledge of teens. Nearly half (47%) knew more about credit cost and nearly two-fifths (38%) knew more about investments after completing the program, b) behavior of teens. Nearly two-fifths (37%) improved skills for tracking spending, and nearly half (45%) started saving or began saving more, c) confidence of teens. Nearly two-fifths (38%) felt more confident about managing their money.
- c) Scope of Impact - State Specific
- d) Funding
NU Cooperative Extension
Federal Formula Funds

Key Theme - Family Resource Management

(refers to Plan of Work Goal 8, Outcome Indicator 10, Outcome Indicator 9)

- a) In this year, 315 participants from across the state have experienced what it might be like to be part of a typical limited-resource family trying to survive from month to month through participation in the simulation, Living in a State of Poverty.
- b) Impact of the simulations has been significant and includes the following: 1. Participants rated the simulation experience 7.8 on 10 point likert scale with 10 being highest. 2. 87% of those participating indicated that they were encouraged to take action as a result of the simulation. Comments that were made were "Become more understanding and sympathetic", "I'll encourage my staff to do more planning with clients on how to help themselves and where resources are".
- c) Scope of Impact – State Specific
- d) Funding:
NU Cooperative Extension
Federal Formula Funds
Nebraska Lied Mainstreet Program

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 4, Output Indicator 4, Outcome Indicator 5)

- a) Customized Employee Leadership Development Program. The need to "grow your own employees" is a well known fact in today's business community. Panhandle Cooperative Association, Inc., a diversified agri-business with over 12 locations in the Wyo-braska area, recognized the need in 1999 to develop a comprehensive internal leadership program for their associates. An internal design team, working in conjunction with the University of Nebraska Panhandle Learning Center, designed a mix of workshops targeted at improving the understanding of the internal business components of the organization and as well as highlighting key leadership issues.

According to Human Resources Director, Kim Ferguson, " We have given our supervisors the tools. They are more comfortable doing their job so they stay. We've also found a better way to interact with the rank and file employee so they stay. The really valuable part about the process for such a diverse company as ours was, it has brought us together. We are a more empathetic organization. We don't just think about our separate business divisions. We are all now pulling for the same company - that improvement is 100% PCLD (Panhandle Coop Leadership Development)."

- b) Post-then-pre evaluations were administered following every external workshop to identify changes in understanding and awareness on key objectives. Of the 16 workshops that have been focused on leadership issues, the groups have averaged an increase in knowledge of .78 on a three point scale (1 = low, 2 = medium, 3 = high level). Each of the four groups have showed an increase in understanding on 100% of the learning objectives. One topic, performance coaching, has consistently showed the greatest increase in knowledge each year with a 1.1 change. This is approximately a 33% increase in the participant's level of understanding.

Since 1999, a leadership team of approximately 20 individuals have been identified each fall for the training. Internal topics, presented by Panhandle Coop department managers, range from budgeting and accounting practices to better understanding the various components of the corporate organization. External, or leadership topics, presented by the Learning Center, have included such subjects as coaching for performance, conflict management, personality assessment, team building, skills for the new supervisor, marketing strategies, personal selling, and strategic thinking. Each year four internal and four external topics were identified for the eight day program held from October through March.

- c) Scope of Impact – State Specific
- d) Funding:
 - NU Cooperative Extension
 - Federal Formula Funds
 - Nebraska Worker Training Program Grant

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 4, Output Indicator 4, Outcome Indicator 5)

- a) Transitioning From Management to Leadership . ORCOM Solutions, a utility customer service and billing services provider headquartered in Bend, Oregon, wanted to increase employee satisfaction through effective leadership. ORCOM hoped to achieve this goal by providing its management with a comprehensive and broad-based leadership curriculum that would help the supervisors and managers become good leaders who could create a positive environment for their staffs. ORCOM contacted the University of Nebraska Panhandle Learning Center to develop a leadership development training program for its supervisors and managers in Scottsbluff, Nebraska, and Denver, Colorado.

ORCOM supervisors and managers gave positive feedback on the training, saying it had helped them develop their leadership skills. Participants were given projects between training sessions in which they had to apply what they had learned in the workshops to their jobs. Said billing supervisor Linda MacKichan, One of the best things we learned is how to get away from managing to become a leader. You can learn a lot from the people you supervise when you are leading a team instead of managing your staff.?

- b) Based on evaluations measuring subject understanding and awareness before and after training, participants increased their understanding of leadership principles and practices 36%. More specifically, on basic leadership principles, participants increased their subject understanding 43%. In the area of coaching, understanding increased 22%. For group dynamics and team development, topic understanding increased 33%. Finally, in the areas of leading change and strategic thinking and planning, understanding increased 46%.
- c) Scope of Impact – State Specific
- d) Funding:
 NU Cooperative Extension
 Federal Formula Funds
 Nebraska Worker Training Grant

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 4, Output Indicator 4, Outcome Indicator 5)

- a) 4-H Youth Leadership Focus Retreat .Today more research illustrates that youth involvement and youth-adult partnerships have positive effects for young people as well as for adults, organizations, and communities. Through involvement in decision-making, young people increase their understanding of their communities, learn skills that range from problem solving to public speaking, develop social skills, build confidence and gain a greater sense of their place in community life. According to the Innovation Center’s study of youth decision-making, “the mutual contributions of youth and adults can result in a synergy, a new power and energy that propels decision-making groups to greater innovation and productivity.”¹ In addition, youth development experts point out that youth engagement not only has positive effects on the youth and adults involved but also strengthens the communities in which all people—young and old—live, work, and play.
- b) 84% said they have a better understanding of how to conduct a meeting using parliamentary procedure; 70 % said they are now able to conduct a meeting using parliamentary procedure; 63 % increased their understanding of how to work with adults; 93% now have a better appreciation of differences in cultures; 83% said they made new friends.The 4-H Youth Leadership Focus Retreat reached more than 60 youth, ages 13 to 18 in the West Central district.
- c) Scope of Impact – State Specific
- d) Funding:
 NU Cooperative Extension
 Federal Formula Funds

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 1, Output Indicator 1, Outcome Indicators 1 & 2)

- a) VISTA and Character Education. Two VISTA workers were assigned to Holt County to provide in depth programming on Character Counts and Leadership for the Chambers and Atkinson schools/communities. The VISTA workers went into the school system and worked with youth within their classroom. They brought the Character Counts classroom within the community and got the community involved in Character Counts education. After 9-11 the Atkinson school youth wrote to Captain Lisa from the New York Fire Department. The school youth kept in contact with her for several months. Captain Lisa visited Atkinson to say thank you for their support. The town and individuals provided funds and resources for Captain Lisa to come and speak to the school and community.

- b) About 430 youth varying from ages 3-18 and their parents have been contacted several times a month on character education and leadership. 95% of the students report they now stop and think about how their actions impact other people and they are more willing and able to stand up to peer pressure and come to the defense of other students. A teacher reported that they think that character education is a powerful tool and were pleased with the program and the results they are seeing in the students. Teachers surveyed on students performance said 78% were more truthful, 44% less cheating, 78% were better at keeping promises, 89 % were making a better effort to carry through with what they had said they would do. 50 youth have taken on the role of mentoring younger youth on a weekly basis.
- c) Scope of Impact - State Specific
- d) Funding
 NU Cooperative Extension
 Federal Formula Funds
 VISTA grant

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 4, Output Indicator 4, Outcome Indicator 5)

- a) Sandhills Leadership I – V. Creating a positive outlook for rural communities in the Sandhills of Nebraska depends in part on the knowledge, experience and positive involvement of its local citizens. The ability of citizens to make decisions and solve local issues while encouraging and embracing diverse perspectives is vital to the survival of Nebraska's rural communities. Developing community leaders must be a first step in strengthening rural Nebraska. Sandhills Leadership was first offered in the fall of 1997 with the help of a \$8,000 grant from the Nebraska Forest Service. The objectives of Sandhills Leadership is to 1.) Develop community action. 2.) Improve personal leadership skills. 3.) Increase awareness of local issues and 4.) Improve character of class participants through the Character Counts program.
- b) Sixty five residents representing seven north central Nebraska counties have graduated from a Sandhills Leadership class. Forty three participants have been high school students representing seven area high schools with one student being home schooled. Participants were asked to complete a post training survey. Surveys from the five years indicates the participants were better able to accept other viewpoints, better able to help groups come to an agreement, better able to express ideas more clearly, and it helped them better identify their strengths as a leader. They also indicated that they have an increased interest in local issues and are more willing to accept leadership roles within their community. 90% reported that Sandhills Leadership has made a positive difference in their lives.
- c) Scope of Impact - State Specific
- d) Funding
 NU Cooperative Extension
 Federal Formula Funds

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 4, Output Indicator 4, Outcome Indicator 5)

- a) Sidney Area Leadership Tomorrow Program. (SALT) is a Cheyenne County leadership development program. It is a program for adults to enhance their leadership skills and encourage personal commitment to fulfilling positions of responsibility.

- b) An evaluation at the conclusion of the program was conducted. As a result of participating in the SALT program: 29% of the participants indicated they are already taking on new leadership roles; 100% of the participants rated their understanding of the roles of the following community sectors as good, excellent or superior after completing the SALT program: education; local government and law; health and human services; economic development, business and industry; technology; agriculture, environment and energy; and state government. One year following the completion of the SALT program, four members serve on the Board of Directors for SALT , several are involved in Toastmasters and other community leadership roles. Ten participants enrolled in the nine-month program in 2001-2002. Participants were actively involved in learning where leadership skills are needed within their community.
- c) Scope of Impact - State Specific
- d) Funding
 NU Cooperative Extension
 Federal Formula Funds

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 4, Output Indicator 4, Outcome Indicator 5)

- a) Group Dynamics and Communication Skills. first of four in-depth leadership seminars conducted for the Nebraska Health Care Association during 2002. This association is comprised of all of the long term health care facilities in Nebraska (nursing homes, assisted living centers). The topic was chosen by their personnel due to the amount of work that is done in small group settings and in teams within these settings - from accomplishing tasks within a department (dietary, nursing, etc.) to meeting with families to coordinate long term care plans for a loved one.
- b) Evaluations showed that participants were able to make these changes immediately in their work environments as a result of the workshop information: 1) Knowledge and appreciation of different leadership styles within the groups they work with and how each style brings something important to the task rather than criticizing those differences; 2) Encouraging the team to work together so that goals can be accomplished better. Participants learned how some techniques of the group block active accomplishment of the team goal; 3) Communication techniques were employed to listen more intently to ideas of everyone on the team.

500 individuals were trained through these workshops. They included department heads within long term care facilities (nursing, dietary, activities, social service and administrators). This number also includes front line individuals at the Good Samaritan facility.

- c) Scope of Impact - State Specific
- d) Funding
 NU Cooperative Extension
 Federal Formula Funds
 Nebraska Health Care Association

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 4, Output Indicator 4, Outcome Indicator 5)

- a) University of Nebraska Cooperative Extension is collaborating with the Northeast Nebraska Library organization during 2003 in providing in-depth leadership education to rural librarians. In February 2003, 37 librarians in three different settings in Northeast Nebraska were led through a five hour workshop entitled "How Do You Lead When You Have No Authority?" Participants experienced

the REAL COLOR personality profile which helped them understand their own temperaments as well as their clientele that they serve. Knowing these temperaments, strategies were then discussed on best and most useful ways to influence others - specifically policy makers and funding partners that govern library operations.

- b) Evaluations of this workshop showed a 9.0 on a scale of 1 (low) to 10 (outstanding). In response to the question "Do you think anything will change in your life, now that you have had this experience? What?", written comments included: -"Yes, I will be more aware of different personalities rather than conflicts. Hopefully I will learn to make more of a difference when I learn how to deal with each personality the way I should" ;"Yes. I think I can approach the city fathers with much more confidence when I ask for favors" ;"I think I will be more receptive to the value of difference, the effectiveness of it" ;"I think now I won't be so judgmental with people. I think I understand a little better why we do what we do" ;-"Yes, I do see many of the different color personalities in the library board and also the city council members and am sure it will be easier working with everyone"

When asked two months after this workshop what changes they had made, responses included:"I want to be looked at as a leader both in the library and personal life. I want to do this by changing my style of interaction with people so they look at me as a leader" ;"I am more patient with trying to understand why my co-workers and board members do things the way they do. This is all just a part of their personalities" ;-"I am now asking for different inputs on different things and when forming committees and such, it is easier to try and get similar personalities working together" -"I have learned to listen more to our customers plus how to interact with individuals I have previously been uncomfortable with" ;"Our goal is to sell the library to a bigger part of our community. We are starting new groups or social activities to bring in a broader base of people"

- c) Scope of Impact - State Specific
- d) Funding
NU Cooperative Extension
Federal Formula Funds

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 4, Output Indicator 4, Outcome Indicator 5)

- a) Leadership Academy 2002, 2003. The Academy was started to implement phase II of the Leadership Certification process. In addition, the Academy addresses the need for in-depth leadership development training for community and organizational leaders. The three-day experience rested heavily upon the following leadership theories: Transformational leadership, leadership power, servant leadership, leadership without authority. Academy participants were assigned to an Academy staff person for individual consultations for a six month period. In addition monthly group follow-up sessions were scheduled. The selected small groups of participants represented leaders from local communities, private business owners, government employees, and cooperative extension staff.
- b) Participants in the Academy were required to develop an individual action plan to address leadership behaviors to develop or emphasize in the near term and throughout the year. Participants (12 in 2002 and 10 in 2003) were asked what they will do when they get home as a result of the Academy experience. Some examples: "Recognize daily how my attitude effects others, smile, greet, more conversations with others"; "follow my plan, keep reading"; "Make a more serious effort to work on the leadership qualities I need to improve upon"; "start immediately by working on my action plan"; "make future plans to collaborate with Academy leaders, look to the information learned and make application to personal and volunteer life". Individual participants

who were in the first Academy took the following actions: hired a personal coach to help with leadership issues; more confident; took a stand on a major community issue and got results; ran for public office; developed a 4 session library/community Academy for NE Nebraska; applied for leadership certification; felt more confident, and entered the ALEC Masters program in leadership, another entered the Leadership Studies doctoral program.

c) Scope of Impact - State Specific

d) Funding

NU Cooperative Extension

Federal Formula Funds

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 4, Output Indicator 4, Outcome Indicator 5)

a) 2002 Youth Leadership Conference. Conference: "Tomorrow's Leaders Today" addresses the need of youth development education. The need was first identified in the 1992 Northeast District's program review and reaffirmed by the Northeast District's Initiative Teams---Strengthening Nebraska's Communities and Youth at Risk/Youth Development. The vitality of our communities is dependent upon the leadership skills and commitment of today's high school students. The target audience for the conference is freshmen and sophomore students, with juniors and seniors being selected to serve on the youth leadership team.

b) Among the 2002 student accomplishments are: O'Neill High School: initiated a park clean-up; including painting bathrooms and equipment; Boone Central Students held a game night for both high school and third/fourth grade students. Sixty-five 65 elementary and 70 high school students were at the respective events; Columbus Lakeview High School: After 9-11 the students created and distributed "American Flag Pins" as part of a way to show patriotism throughout the community. The long term impact of this program, Two of the original teen leaders have returned as keynote speakers for the conference. The spoke about how knowing and using good leadership skills have impacted their lives. Research shows that when youth are involved in their communities as young people, they will continue to be leaders/volunteers in their communities as adults. Over the course of the program, Youth Leaders have conducted workshops on topics such as Mentoring, Decision Making, Communication, Character Counts!TM Team Building and the American Promise - dealing with tough issues in communities. In the past eight years, 1455 youth plus 132 youth leaders from 44 schools in northeast Nebraska have participated in the Youth Leadership Conference.

c) Scope of Impact - State Specific

d) Funding

NU Cooperative Extension

Federal Formula Funds

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 4, Output Indicator 4, Outcome Indicator 5)

a) Leadership Quest Enhances Leadership Skills in Central Nebraska. Enhancing leadership skills and encouraging personal commitment to fulfilling positions of responsibility in our communities is what sparked the idea for Leadership Quest. This class was implemented to build self awareness and confidence, enhance career opportunities, apply negotiation, communication and diplomacy skills, transform vision into action and ultimately help participants to become active in the future of

their communities. Leadership Quest was designed by the Valley County Economic Development Board and the Leadership Quest Task Force. It is a nine-month program in which participants meet once a month for the entire day. Some of the topics covered at the meetings include personality types, community vision, leadership styles, power, influence, philanthropy, entrepreneurship, attitude and much more! Another aspect very important to the participants of Leadership Quest is the relationships and networks that are formed.

- b) Participants in Leadership Quest completed a survey five months after the class ended. As a result of Leadership Quest: 80% have more confidence in their skills as a leader 73% are able to work more effectively as a part of a team 93% are able to recognize the leadership styles of others 80% learned skills which can be used to help bring about consensus 87% have renewed enthusiasm for being involved in their community. In addition to the above impact, students felt they have gained a cohort they can use as a resource and for support; they also felt they could express their opinions and ideas more easily. Many of the participants listed additional benefits from Leadership Quest including:

One participant stated: "Leadership Quest has been an overwhelming educational and growth experience. It has provided me with new knowledge to apply in my personal life, in new civic opportunities and in my professional leadership. The information learned will be useful for a lifetime." Jayma Brown, Director of Nursing, Valley County Hospital.

In 2002, 21 participants graduated from the program. Five of the participants were students. Other people attending the class were lawyers, business owners, nurses, a pharmacist, a counselor and other community members. The 2003 class has 24 participants, seven of whom are high-school students. A mentoring program has been implemented for Leadership Quest in which each of the 2002 participants serves as a mentor for one or more of the 2003 participants.

- c) Scope of Impact - State Specific

- d) Funding
NU Cooperative Extension
Federal Formula Funds

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 4, Output Indicator 4, Outcome Indicator 5)

- a) **The Courage to Create Change.** In 2002 the Nebraska Head Start Association contracted with Cooperative Extension to conduct a leadership program for the Advocacy and Outreach committee over a 9 month period. The program was designed to help members of the Nebraska Head Start Association Advocacy and Outreach Committee and their partners to: Develop leadership competencies that would empower them in decision-making situations, create a sense of confidence in being able provide leadership for groups, deal effectively with people and decision-making entities, access the public policy and political process, become an influence in the community, influence the issues affecting children and families, & build community capacity to influence the issues impacting children and families.
- b) To evaluate the program a focus group/interview technique was used at the end of nine months to determine knowledge gained and behavioral changes. The group was given 9 questions to respond to. The following results reflect the changes experienced by all the participants.
- Question 1-What skills/knowledge did you gain as part of your involvement in Leadership: The Courage to Create Change? Facilitating meetings effectively, Parliamentary Procedure, Understanding personality temperaments, Group Process, Becoming a more active listener, Issue Analysis, Ethical leadership, conflict resolution.
 - Question 2-How have the skills/knowledge that you have gained helped you in your job? Color Matrix- Better understanding of others- Increased patience; Conflict Resolution, Ice Breakers,

- Confidence to voice opinions, Thinking “outside of the box”, Facilitation of meetings.
- Question 3-How have the skills/knowledge that you have gained helped you in your personal life? Stand up for myself, Help in my husbands business, Not afraid to make my voice heard, Prioritize my work and family for a better balance, More positive, Mentor, Open to change, Confidence.
- Question 4-What has changed in your life as a result of your involvement in this program? Leadership role in my center and agency, president of parent and policy council, volunteer in my church as teacher, more responsibility, more open to change.
- Question 5-Has participation in this program lead you to new leadership roles? Confidence in taking leadership “risks”, implementation of ethical leadership styles/decisions, clear vision of goals/objectives, expanded participation within current and new leadership roles, more confidence in talking with policy makers, mentor ideas, strategies to implement program plans.
- Question 6-How have the skills/knowledge that you have gained helped provide leadership for NeHSA? Understanding others and how each personality temperament contributes to the group, thinking outside the box, empowerment, challenged the leaders, learned how to empower others within the Association.
- Question 7-Did your involvement in the program lead to any changes in NeHSA? Legislative issues, fundraisers- marketing, divided committee into sub-committees, some parallel impact on the Parent Focus groups, hiring process for Executive Director, parliamentary procedure, understanding need for marketing plans.
- Question 8- Did your involvement in the program lead to any changes in business practices, policy or procedures in your business or agency? More networking/committee work outside of Advisory Council meetings, prioritizing and clarifying goals, better documentation, committee leadership more effective.
- Question 9-How has your involvement in your community and other community organizations changed? Community networking, effective advocacy skills, strong educator role, strong leadership presence within the community

c) Scope of Impact - State Specific

d) Funding

NU Cooperative Extension

Federal Formula Funds

Nebraska Headstart Association

Region VII Headstart Office - Kansas City, KS

Nebraska Department of Education

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 4, Output Indicator 4, Outcome Indicator 5)

- a) University of Nebraska Cooperative Extension is collaborating with the Northeast Nebraska Library organization during 2003 in providing in-depth leadership education to rural librarians. This particular workshop was the second of the year long series. The concept of Servant Leadership was selected to help the librarians understand their role of serving their particular communities and to begin the process of putting together a customer service plan.
- b) Evaluations at the conclusion of the training showed that the servant leadership concepts presented provided a new way of thinking about how the librarians could lead their staff and patrons while providing better service to their communities. Comments such as these led to this conclusion:
- Yes-we need to get out among the people in town and bring them in to our library. We want to make their experience at the library a good one.
 - I'll take a new look at "the buck stops here". I will be more responsive to staff and seek

- "outside" input to a greater extent.
- I am going to ask my board to form groups to make decisions.
- Group discussions on how to take risk in discussing various things with the board. And acting the various rolls as a servant leader.
- Looking at ourselves as "equals" to people normally seen as "superiors"
- Taking the self assessment shows that perhaps I like having power too much
- Letting go of control
- The materials and presentation forced me to think along a different line
- That people in my community will take down the walls between the groups/organizations and learn to work together
- I can follow through and enable my staff, trustees and city council to be a part of empowerment.

Five months after this workshop, the librarians were asked how they have used the Servant Leadership concepts that were presented and what difference has this information made to you and your library? Responses included:

- Had staff members make professional development goals that I will help them with.
- We have used it in serving our patrons - the needs of our customers come first and we are there to help them. It made me aware of these things, I passed the information on to the staff.
- With library staff and board members. Both are easier to get along with (as well as myself). All are taking share of responsibilities and dealing with them. More cooperation.
- Have discussed information with library board and has been helpful in how we work together. Makes things work better.
- Yes, from me I have had to use patience. Am trying to incorporate 3 committees into the library (lateral leadership). There is some foot dragging, but we'll get there! A total of 45 librarians were presented the information.

c) Scope of Impact - State Specific

d) Funding

NU Cooperative Extension
Federal Formula Funds
Nebraska Library Association

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 4, Output Indicator 4, Outcome Indicator 5)

- a) Community Strengths and Weaknesses Identified in Focus Groups. Focus group sessions were held Bancroft, Lyons and Oakland in April of 2003. The purpose of the focus groups was to identify and understand the concerns and values of people living in the three communities. These were held in conjunction with Project HOPE, sponsored by the Center for Rural Affairs in Walthill.
- b) The focus groups were comprised of two people from each of five age cohorts. The approximate age range of the participants was 20 to 77 years old. The discussions centered around issues facing the communities, youth, strengths and weaknesses of the communities, as well as things considered attractive about the communities.

The themes and values were similar in each town with the exception of one. Community concerns and roadblocks to community progress surfaced. Some participants in that particular focus group felt that their community possesses a strong resistance to change. The group also felt that the town has an inability to communicate. It was conveyed that the citizens of this particular community think there is a lack of interest in the community.

The theme of concern over employment and business development was the overall biggest concern in all three towns. Concern about over-employment and how it affects families and civic involvement was brought up. The participants strongly agreed, jobs that support families are needed.

All three towns expressed concern over safety issues. Demographics are changing in the towns, people without any former connection to the area are moving into the rural towns. These "outsiders" cause concern for some citizens. Some of the people moving into the three towns in this study are of a different ethnic background. Having a different background causes stress and worry in some citizens of these rural towns.

c) Scope of Impact - State Specific

d) Funding
NU Cooperative Extension
Federal Formula Funds
Center for Rural Affairs
Nebraska Rural Initiative
EPA funded HOPE project

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 4, Output Indicator 4, Outcome Indicator 5)

a) Latino Voices of Nebraska. In discussion with the Human Resources Director for EXCEL in Schuyler, we recognized that meat packing employees could become more assimilated into the community and able to more actively assume leadership roles by attending a leadership training workshop, provided in Spanish. A two-day training was paid for by EXCEL and offered in March, 2001 and 15 employees volunteered to attend. Employees were expected to attend the Friday session and still be paid by the plant, and then attend the Saturday session as a voluntary act. It was expected that this training would lead to more active community involvement.

b) As a result of the leadership training, the "Latino Voices of Nebraska" group was organized with officers selected, and meetings approximately once a month on the only available date for meat packing employees to meet (Sunday morning). The organization has had roughly 15 - 20 persons in attendance at most meetings. Participants discussed the issues that they felt could be addressed by the group and prioritized their concerns. These included a) affordable and available child care; b) translators to help in transactions; c) traffic signals; d) transportation between communities to the plant; e) bi-lingual police officers. The group decided to begin work on the police issue because of the upcoming election, and thus started a community effort to register Hispanic voters. Approximately 70 voters were newly registered. The group invited in representatives from various other community groups to present information, so that Latino Voices members could become more involved in the community. For example, the Colfax County Comprehensive Juvenile Services Plan Development group presented concerns about gaining more Hispanic representation, and two Latino Voices members began attending the Comprehensive Plan meetings. The 15 active group members are meat packing employees, who have worked at the EXCEL plant in Schuyler with some being there from ten to twelve years.

c) Scope of Impact - State Specific

d) Funding
NU Cooperative Extension
Federal Formula Funds
EXCEL Meat Packing

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 4, Output Indicator 4, Outcome Indicator 5)

- a) The HOPE project (Hope and Opportunity for People and the Environment) was initiated in 2000 as a result of an EPA grant. Communities in the project opted to join based on their needs. The leadership development component of the project ranged from personality differences; transactional, transformational leadership styles; leadership without authority; influence styles; through leading change. The method of delivery over the 3 year period was usually a 3 hour workshop held in the evenings or early mornings in each community.
- b) At the end of the final year(2003), 20 participants from different communities were surveyed by the project evaluator to elicit results. Fifteen persons responded.

The overall impact was summarized by the evaluator in two parts: 1. Great personal growth from the leadership development phase, it has positively impacted community social structures (equity), which in turn created secondary impacts on economic and environmental changes. 2. Overall the participants are very appreciative of the impact HOPE has had on their communities.

Some individual responses: Two individuals found that they were more empowered after training than before and are valued as a leader (formally and informally) they are now willing to take the risk to lead.

An individual in Bloomfield stepped forward to take on a very controversial issue with the school board that was causing division in the community. Past experience cost him business, but he went ahead anyway. He now had new leadership skills and a different commitment to community. He was able to manage controversy, mobilize people around the issue and gain respect.

A woman is now seen as a leader by others. She is pleased that those who have formal leadership roles, now see her as community minded, and are more likely to involve her. This has helped her create new partnerships both local and regional.

All but one of the 6 communities voiced their appreciation that because of project HOPE, they are experiencing networking with a larger area than just their local communities.

The clientele were local citizens from each community, some elected but most had no formal authority. The groups ranged from 15-35. Over the life of the project more than 100 different persons participated.

- c) Scope of Impact - State Specific
- d) Funding
 - NU Cooperative Extension
 - Federal Formula Funds
 - Center for Rural Affairs
 - EPA project HOPE

Key Theme - Parenting

(refers to Plan of Work Goal 5, Output Indicator 11, Outcome Indicators 10, 11 & 12)

- a) Over 3500 have participated in a variety of parenting classes and programming to develop strong families. Specific emphasis this year was on Building Family Strengths, based on John DeFraim's research of characteristics of strong families.

- b) After taking a parenting class, these results were reported:
- 40% more parents praise their child for positive behavior
 - 26% more parents let their children know they care for them
 - 20% more parents have a better time together

Key ideas learned:

- “What the family strengths were and how to have a stronger family.”
- “What areas my family needs to work on.”
- “Families can be changed (for the better).”
- “Stress happens to all people; stress can be handled.”
- “How to discipline.”
- “The difference between discipline and punishment.”

Behaviors they plan to change:

- “I will consider children’s roles equally in the family.”
- “Help my family work through change that is coming.”
- “Spend more time with family”
- “Communicate more”
- “Will start having family meetings.”
- “Watch for signs of stress better.”
- “Communicate more with spouse.”

One participant, following a program on stress management, had this observation: “This workshop should be taught more. I think that one of the top reasons for smoking more, being lazy, not eating, etc. is stress and this information can be used to everyone’s advantage.”

In addition, the Building Strong Families team continues to add information to the NU for Families website. They are also writing ideas for activities to strengthen families to be published in book form this next year. Family strengths, particularly the importance of eating together, was emphasized at a Husker Harvest Day booth. Staff (both Extension and other agencies who work with families) have been trained to use the Building Strong Families curriculum, multiplying the number of people who can be reached with the family strengths information.

c) Scope of Impact - State Specific

d) Funding
NU Cooperative Extension
Federal Formula Funds

Key Theme - Parenting

(refers to Plan of Work Goal 9, Output Indicator 11, Outcome Indicators 10, 11, & 12)

- a) Eight hundred parents across Nebraska have learned to focus on the needs of their children during the divorce process as a result of Parents Forever, a parent education program for divorcing families offered by University of Nebraska Cooperative Extension since 1999.

More than one thousand children are experiencing the impact of these divorces. Some of these children are from the immediately dissolving marriages and some are experiencing a second or third divorce.

- b) One couple had reconciled after taking the class and gave credit to the class for this. They had taken the easy way out and found that with a little communication they could actually succeed as a couple. The biggest winner is their 5-year old daughter. In a second case, the father at the final

hearing who alone took the class felt that he learned much from class and that it would help him as a father and ex-spouse. Good job!

As a result: 2% remarriage has occurred, 2% divorces have been dropped, 100% adults have recognized the affect of divorce on their children, 100% adults are exposed to parenting skills they may never have learned. The use of the parallel parenting plan has shortened the length of time fighting custody and financial issues. Judges have seen a reduction in the number of families in court after the divorce with custodial issues. A minimum of \$1,000 savings per family would be saved if the suggestions of the class are followed and the parallel parenting plan is used. With numbers of families already educated by this program, at least one half million dollars or more saved may have been saved for priority family needs. Courts will also be able to report a savings in the number of cases of the docket for modifications.

Judges also note a reduction in the number of parents who drag the cases out in court making it easier for the family to move forward with the needs of their children instead of trapping them in the middle of bitter custody battles. A financial impact for the family and the court system is noted saving thousands of dollars in legal fees and for the families and clearing the court docket for other cases. Results of initial, as well as follow up evaluations, from Lancaster County mirror the findings in the other districts. Overwhelmingly parents appreciate, learn from and change some behaviors as a result of the class. A request was made from the Hastings Middle School to present a series for 7th grade students who had experienced or were currently experiencing a divorce. The results were well-documented at the middle school with changed behaviors of the youth. Once, they found out their problems were similar to others, new friendships and peer support systems were formed. One young man shared that he intended to run away until he took the class and learned some ways that he could manage to survive the divorce. Another young lady living in a foster home for behavior, learned some skills so she could be reunited with her parents—even if they lived in two homes.

The concepts covered in Kids Talk About Divorce include: the grief cycle, positive communication, identifying feelings, “I” messages, age-appropriate expression of feelings, and ways to stay out of the middle of conflict. ParentsForever covers these same topics and also, teaches parents to develop a parallel-parenting plan to help arrange for time, events and unforeseen situations that occur when rearing children in two different homes.

- c) Scope of Impact - State Specific
- d) Funding
NU Cooperative Extension
Federal Formula Funds

Key Theme - Workforce Preparation - Youth and Adult

(refers to Plan of Work Goals 2 & 3, Output Indicators 2 & 3, Outcome Indicator 4)

- a) Youth-Adult partnerships help youth develop social skills, group processing skills, communication skills, and problem solving skills. It also prepares them for leadership roles in their communities. The 4-H Youth Adult Partnership team’s role is to help youth develop skills that will help them become productive citizens in their communities. By providing youth-adult partnerships 4-H will have significant impact on the effectiveness of youth in community leadership roles. The first goal of the plan was to train staff to include youth as full participates in leadership roles in 4-H. To help staff and volunteers meet this goal the youth adult partnership team conducted two trainings.
- b) Staff completed an evaluation that identified the level at which they were currently working as well as the level they wished to achieve with the youth. Evaluation results indicated:

- A survey showed 65% of the participants prior to the training operated at the assigned or informed level on the ladder of participation (beginning levels).
- The survey indicated 96% (following the training) desired to work with youth at the Consulted and Informed level and above. This would include youth in decision making roles in the 4-H program.
- The survey also showed 87% of the participants who completed their plan changed how they worked with youth and have involved youth in decision-making at the higher levels.

A survey of 4-H Volunteer Leader indicated:

- 60% to involve youth in decision making in their 4-H club.
- 70% will encourage youth to assume leadership responsibilities.

4-H leadership events included: 4-H Junior Leader Club, 4-H Council membership, Special Youth Activity Days, Interstate Exchanges, LifeSmarts, Youth Leadership conference, Camp Counselor Training, Life Challenge and County Fairs. Several County 4-H Council constitution were changed to include equal numbers of youth and adults.

The involvement and participation of youth has a positive impact on the youth by providing opportunities to practice working in groups, shared decision-making and developing leadership skills. Through continued focus on youth-adult partnerships the 4-H program will experience positive and productive impact.

A Youth in Governance grant allowed for development of programs at 4 sites, including Butler County, Central Sandhills, Scotts Bluff County and the Winnebago Tribal Council - Winnebago Reservation. Sites are working with local governments at the city, tribal and county levels to build partnerships with youth for the betterment of the community.

- c) Scope of Impact – State Specific
- d) Funding:
UN Cooperative Extension
Federal Formula Funds

Key Theme - Youth Development/4-H

(refers to Plan of Work Goals 1 & 2, Output Indicators 1 & 3, Outcome Indicator 4)

- a) Out of School time involvement in meaningful activities has an effect on positive youth development. Nebraska 4-H conducted a study to analyze relationships between students, level of out-of-school involvement and the development of positive developmental assets. Specifically, this study focused on those students participating in 4-H Youth Development and how they compare to other students. Findings showed that youth involved in 4-H or a mix of activities including 4-H demonstrated assets of empowerment, self confidence, positive identity, social competency and learned skills. This finding indicates the power of involvement of some kind of out-of-school activity in developing these assets.
- b) Out-of-school programs were conducted across the state.
 - As a partner with the 21st Century Community Learning Center Grant in Chadron and Sidney, 4-H and schools offered safe, fun, educational programs for youth during the two hours immediately following school. More than 685 youth participated in these programs offered daily throughout the year. Of the 685 students, 75% were Caucasian and 25% were Native American or Hispanic.

- Wonderwise curriculum programs were offered to youth ages 8-12 in Chase, Dundy, Hayes, Hitchcock, Red Willow and Garfield Counties. The objective of the program was to target youth, during out of school time, to provide a science based learning opportunity.
- Spy Camp was conducted in Pierce, Madison, antelope and Stanton counties. The children learned a variety of life and science based lessons. The curriculum was designed to encourage/teach children to learn to think critically, solve problems and work together.
- The 4-H camping program underwent an external review process. The theme of one camp program, three locations has been instituted. Camps were lengthened to enable more comprehensive programs to be conducted. Marketing brochures that include all camps have been developed.
- Educational water days were conducted throughout the state in cooperation with other conservation agencies.
- Character on the Job educational programs were conducted for high school students. The program incorporated the six pillars of character, ethical decision making and workplace dilemmas. Evaluations so the program indicated participating students reported gains in: interest in ethics in the workplace, information and/or skills to be used as an employee or job seeker, understanding the nature of ethics and character in the workplace, understanding the variety of ethical dilemmas and decisions in the workplace and knowing the principles and concepts that must be employed when making ethical decisions.
- 4-H is transitioning the responsibility of character education to the Department of Education.

c) Scope of Impact – State Specific

d) Funding:
 NU Cooperative Extension
 Federal Formula Funds

B. STAKEHOLDER INPUT PROCESS

A. Actions taken to seek stakeholder input

A key part of Nebraska Cooperative Extension's stakeholder input process in 2003 was participation in the Institute of Agriculture and Natural Resources (IANR) strategic planning input process. Cooperative Extension is a division of IANR. IANR conducted over 30 listening sessions with approximately 700 Nebraskans in 2003. Extension faculty representing the Extension Action Teams were present at each of the listening sessions to provide feedback to the Action Teams.

In our transition to six Action Plans in 2003 the Action Team stakeholder input process was not as formal as it has been in previous years. Cooperative Extension's eleven action teams (Building Strong Families; Community and Residential Environment; Community Resource Development; Food Safety; Health Care Policies and Education; Health and Wellness Education; Integrated Animal Systems Management; Integrated Crop Management; Leadership and Public Issues Education; Natural Resources and Environmental Management; 4-H Youth Development) have been required to involve a minimum of five key stakeholders (determined to represent a significant population, organization or be a key political leader) for program input on an annual basis. This stakeholder input is achieved in a variety of ways including face-to-face meetings and telephone or written surveys. In addition, a number of advisory committees associated with Departments and our Research and Extension Centers provide excellent stakeholder input to both our Extension programming and the program of the Agricultural Research Division.

The Action Teams are asked to visit with stakeholders about the following questions:

1. Does the action plan address "real world issues"
2. Does the action plan represent work which is complementary, but not duplicative, of work of other educational entities
3. Are the goals clearly written, complete and appropriate
4. Are the outcomes to be achieved stated in measurable terms
5. Is there an element of risk included
6. Are there potential collaborators
7. Can the proposed action plan be accomplished with the constraints of resources
8. Are you aware of potential sources of grant/contract funding
9. Are there program elements that should be identified for reduction or elimination

Additionally, some action teams asked stakeholders to become members of their Cooperative Extension action team. At least three of the action teams, Leadership and Public Issues Education, 4-H Youth Development and Community Resource Development added external stakeholders as team members through this request.

B. Brief statement of the process used by the recipient institution to identify individuals and groups who are stakeholders and to collect input from them.

For each of the IANR listening sessions the host Extension Educators were asked to identify key stakeholders in their communities to be invited to the listening session. In addition, many of the listening sessions issued a general invitation for individuals to participate. The listening sessions had a diverse representation of stakeholders.

Several venues are used to identify individuals and groups who give input to the programming process.

- Each of the action teams are asked to have input to revise their plans on an annual basis to reflect the input of key stakeholders. It is the responsibility of the teams to identify at least five external stakeholders that are familiar with the subject matter and the related issues impacting citizens of the state. Generally these stakeholders are representatives of organizations/agencies that partner with Cooperative Extension. Stakeholders typically represent over eighty different agencies/organizations with whom Cooperative Extension works. As an example, the Community Resource Development (CRD) action team included the following stakeholders in their 2003 program decision making process:

Nebraska Department of Economic Development
 President of Diode Communications (telecommunications company)
 City Administrator
 NMPP (Nebraska Municipal Public Power)
 USDA Rural Development
 Community volunteer
 City/County Planning Director
 Central Nebraska Community Service

- Another example of the range of input of stakeholders is provided by the Community and Residential Environment (CRE) focus area. The CRE focus area, through its four program emphasis area work groups, closely interacts with a variety of clientele groups representing a broad range of curriculum and priority issues input. This input, in addition to the impact survey information that is regularly solicited directly from stakeholders or stakeholder clientele, further strengthens the usefulness and value of stakeholder needs and points-of-view.

The following listings highlight present key relationships that provide integral involvement between industry and Cooperative Extension:

- Environmental Horticulture – Nebraska Turfgrass Association, Nebraska Turfgrass Foundation, Nebraska Professional Lawn care Association, Nebraska Nursery and Landscape Association, and the Nebraska Arborists Association;
- Water Supply and Waste Management – Nebraska On-Site Wastewater Treatment Task Force (both as individual entities and as a group; included are the Nebraska Department of Environmental Quality, Nebraska Health and Human Services, various county planning and building departments, and county health departments);
- Community Integrated Pest Management – Nebraska State Pest Control Association, Nebraska Farm Bureau Federation, Nebraska Agribusiness Association, Nebraska Turfgrass Foundation, Nebraska Turfgrass Association, Nebraska Weed Control Association, Nebraska Department of Agriculture, and Nebraska Department of Environmental Quality; and
- Healthy Homes – Lincoln/Lancaster Health Department

In addition, industry representatives from nursery, greenhouse, landscape design/maintenance and other commercial and institutional enterprises have been appointed to an advisory group charged with providing extension, teaching and research input to the Department of Agronomy and Horticulture. The committee meets on a regular basis and represents the official collective industry sounding board for support of or concerns with extension goals and objectives that pertain to turf and ornamental programs.

- Cooperative Extension Action teams plans and department action plans are routinely compared to insure congruence. It is our expectation that action team leadership dialogue routinely with department heads/faculty to insure integration of program goals.
- It is estimated that approximately 10% of the 80+ individuals representing organization, agencies or businesses were minority.

C. How collected input was utilized

Minutes of meetings and reports submitted by the action teams continue to indicate that while generally seen as on track, modifications were made to make the plans of work more inclusive of similar goals of other agencies. The general tone of comments of stakeholders was that action teams were focused on high priority issues. Cooperative Extension was requested to not duplicate programming of other entities. Response to the Community Development team plan encouraged the team to look at ways to partner with various organizations across the state that assist communities. The team should use these entities to help advertise programs as well as help identify gaps and needs in communities. (Action teams are working to insure that they partner as appropriate to avoid duplication of effort). This confirmation by stakeholders of high priority issues being addressed, verifies that the “continuously listening” model of Nebraska Cooperative Extension is working.

Stakeholder suggestions included additional marketing of educational programs and involving stakeholder organizations as partners in the delivery of educational programs.

Additional themes heard from stakeholders that are being utilized in the delivery of action plans:

- Cooperative Extension needs to be able to respond rapidly. Extension needs to be able to provide educational opportunities as the needs change.
- Train the public to use newest technology. Extension needs to use more of its technology to bring programs and information to small rural communities (many technology programs have been added)
- Deliver more programs through technology (more distance education being used through satellite, polycoms, internet)
- Increase the number of partnerships to deliver programs
- Increase the speed with which research data is distributed through Extension channels

D. Is the Stakeholder Input Process Useful

Nebraska deems the stakeholder process useful because:

- Over 80 Nebraska entities learned more about Cooperative Extension’s plan of work ensuring that public awareness of programs continues to be built
- Input substantiates the future trajectory that programs are taking
- Co-sponsorship of programs with other entities becomes more likely as agencies/organizations learn about programs
- Collaborating organizations become program participants as they learn about programming and enroll their staff for education events
- Collaborating organizations serve as a source of matching funds to deliver programs

The IANR listening sessions in 2003 were particularly helpful to identify priority issues to be considered in program planning. Throughout all the listening sessions, two overriding issues emerged. Those two issues will draw special focus in IANR and Cooperative Extension in the next several years. The issues are:

- 1) economic development and community vitality
- 2) water

Cooperative Extension has already responded to the economic development and community vitality issue by partnering with the University’s Rural Initiative to focus seven Extension Educators full-time to provide education directly to selected communities that enables them to be vital communities of the future.

C. PROGRAM REVIEW PROCESS

During 2003 the eleven action teams merged their educational goals into six action teams. These six action teams and work groups within each action plan are required to update their plans on an annual basis using the input of stakeholders and the evaluation results from programs delivered.

D. EVALUATION OF THE SUCCESS OF MULTI AND JOINT ACTIVITIES

A. Did the planned programs address the critical issues of strategic importance, including those identified by the stakeholders

Input received from over 80 stakeholders who were involved in a review of action team plans and the over 700 participating involved in the IANR listening sessions verify that the critical issues impacting Nebraskans are being addressed. Nebraska uses a “continuous listening” process for its planning effort. This system insures that the plan of work is reviewed and updated regularly. The accuracy of the action plans is verified by:

- Action teams meet face to face at least twice annually
- Several action teams use monthly phone bridge calls to insure that they are on track
- Action team leaders dialogue with subject matter department administrators annually to insure that the goals of the action teams are in congruence with research and extension goals of the University departments
- Action teams meet with their stakeholders
- Action teams refine programs to be delivered to insure that content goals support needs identified by stakeholders and demographic trends.

B. Did the planned programs address the needs of under-served and under-represented populations of the state

Below are examples of programs initiated through input of stakeholders to address needs of under-served and under-represented populations.

- University of Nebraska Cooperative Extension has built a strong partnership with Little Priest Tribal College and during 2002 an Extension Assistant was hired to work with Native American youth and is housed at Little Priest. Because of this partnership teens in Winnebago Public School have gotten more involved in outside activities and are interacting with other youth and adults outside their school thanks to this program. Program leaders say teens are more motivated and more interested in learning about activities. In 2003 three Winnebago teens attended Unicameral Youth Conference, a statewide 4-H program, and in September seventh- and eighth-graders participated in the Native American Aviator and Aerospace program at Wayne State College, where they met a Native American astronaut and participated in presentations and activities.
- An Extension Assistant in Dawson county continues to work with hispanic youth as a target effort to increase hispanic youth participation. The goals for the group included developing leadership skills, providing activities for Hispanic teens to participate in, and to become more involved in the community. Two Hispanic teens attended the 4-H ExpoVisions career development conference as a first step in their involvement in Extension programs. When they returned home they decided to start the leadership group. They recruited other teens to be involved. The group has been operating for three years and has had over 30 youth be involved.
- The Preventive Health and Wellness Education action team exemplifies the work that is being done to impact under-served and under-represented populations. Through input from Department of Health and Human Services stakeholders, who are case managers for welfare to work families, a program was implemented in 1999 to educate welfare to work families,

primarily single mothers. This welfare to work program, called Building Nebraska Families (BNF), works one-on-one with the most difficult of the families moving off of the welfare roles. Eleven FTE of Extension Educators have been hired through a contract with the Nebraska Department of Health and Human Services to work with these families. BNF is one of three programs nationally being studied by Mathematica as the best addressing the needs of welfare to work families. The request of Mathematica is to continue this study through 2007 insuring long-term data. Program graduates say that, thanks to the program, they feel better about themselves, improved their time management and problem solving skills and are able to earn more money at their jobs. For example, one graduate said the program gave her a chance to learn and get her life settled. "Without your program and my will to make it succeed, I would be nowhere," she said. "I don't know how I could ever repay you for the knowledge and courage you have helped me find in myself." Additionally the Preventive Health and Wellness Education action team met with stakeholders interested in issues related to aging of the state's population. The aged person, and the community infrastructure to support them will be the target for increased programming as a result of stakeholders indicating the need for a program emphasis in this area. A six month study has been completed by an Extension Specialist to determine how Nebraska Extension can best respond to the need of aging populations. A work group is determining how the six action teams can implement recommendations about aging.

C. Did the planned programs describe the expected outcomes and impacts

Goals identified in the five year plan of work submitted in 2000 which includes output and outcome indicators, as well as proposed impacts, are used as planning tools. At least three times during the year, the action teams were reminded that they were to collect impact data based upon the indicators identified. Some of the action teams are embarking on a process to collect this data through their web sites. It is generally felt that planned programs addressed the expected outcomes. Action teams are growing in their ability to use technology and teaching tools though learning web sites that are available 24-7, i.e. <http://lancaster.unl.edu/food/> , <http://beef.unl.edu/> . Polycoms and WebEx is also being utilized as teaching mediums.

D. Did the planned programs result in improved program effectiveness and/or efficiency

Documentation of program impacts reinforce the effectiveness of Nebraska's Cooperative Extension program. Several impact reports (Connect and Connections) developed for stakeholders are included with this document to substantiate the difference that Extension programs are making.

Efficiency is seen in the increasing number of multi-action team, multi-department and multi-state educational programs that are being delivered. Efficiency is exhibited by the Educators and Specialists as they continually work to develop programs that can be delivered in multiple sites, using multi mediums. The aggressive efforts of faculty to use electronic media to deliver educational programs is helping achieve efficiency, but more importantly is allowing program clientele to participate in programming on their own time and in their own space. Nebraska Cooperative Extension has implemented a plan to have Educators focus their program efforts in one or two subject matter areas.

This focus of Nebraska's educational work resulted in an agreement of administration and faculty that the eleven action plans utilized from 2000-2003 no longer represent the best practice therefore six action teams have emerged and goals of the previous 11 action teams have been reconfigured. Duplication is being avoided and programming relationships among specialists and educators are beginning to strengthen. An output of the new focused education concept is in the increase in relationships with departments and colleges external to traditional extension partners: i.e. College of Architecture, College of Fine and Performing Arts, and Admissions.

E. MULTISTATE EXTENSION ACTIVITIES

**U.S. Department of Agriculture
Cooperative State Research, Education, and Extension Service
Supplement to the Annual Report of Accomplishments and Results
Multistate Extension Activities and Integrated Activities
(Attach Brief Summaries)**

Institution: **University of Nebraska Cooperative Extension**
State: **Nebraska**

Check one: Multistate Extension Activities
 Integrated Activities (Hatch Act Funds)
 Integrated Activities (Smith-Lever Act Funds)

Estimated Costs

Title of Planned Program/Activity	FY 2000	FY 2001	FY 2002	FY 2003	FY2004
Goal 1:	<u>\$ 608,074</u>	<u>\$ 660,074</u>	<u>\$ 516,418</u>	<u>\$ 783,475</u>	<u>\$ 783,475</u>
Integrated Crop Management					
Integrated Livestock Systems Management					
Integrated Pest Management					
Sustainable Agricultural Production Systems					
Goal 2:	<u>\$ 123,641</u>	<u>\$ 128,587</u>	<u>\$ 154,977</u>	<u>\$ 82,715</u>	<u>\$ 82,715</u>
Pre and Post Harvest Plant and Animal Food Safety					
Food Processing and Food Service Management Food Safety					
Goal 3:	<u>\$ 10,131</u>	<u>\$ 10,536</u>	<u>\$ 13,499</u>	<u>\$ 107,232</u>	<u>\$ 107,232</u>
Human Nutrition, Health and Safety Health Care					
Goal 4:	<u>\$ 100,679</u>	<u>\$ 104,706</u>	<u>\$ 460,998</u>	<u>\$ 488,982</u>	<u>\$ 488,982</u>
Natural Resources Management and Protection					
Environmental Protection					
Environmental and Natural Resources Policy					
Goal 5:	<u>\$ 284,675</u>	<u>\$ 296,062</u>	<u>\$ 368,873</u>	<u>\$ 337,675</u>	<u>\$ 337,675</u>
Family Strengths					
Telecommunications for Rural Areas					
Community Strengths					
Total	<u>\$1,127,200</u>	<u>\$1,179,200</u>	<u>\$1,514,765</u>	<u>\$1,799,990</u>	<u>\$1,799,990</u>

Elbert C. Dickey
Dean and Director

April 1, 2004
Date

E. MULTISTATE EXTENSION ACTIVITIES

Goal 1

Most of the multistate activities outlined in the Plan of Work to support the Integrated Crop Management, Integrated Livestock Systems Management, Integrated Pest Management, and Sustainable Agricultural Production Systems are continuing. Some highlights include:

- Cropping systems program coordination among Extension faculty in Kansas, Nebraska, South Dakota, and North Dakota. A joint inservice training was conducted in 2002 and 2003.
- The four state commercial horticultural workshop continues to be held at St. Joseph, MO for producers in Nebraska, Kansas, Iowa, and Missouri.
- The 2003 Central Plains Irrigation Shortcourse was hosted by Nebraska, Kansas and Colorado State University.
- Nebraska continues to provide leadership for the Livestock and Poultry Environmental Stewardship curriculum project. Fifteen states are involved in this national education program. The program team has provided training since 2001 for state teams.
- The 19th annual Four State Beef Conference was held in 2003. Nebraska, Missouri, Kansas, and Iowa cooperate to plan, conduct and host this event.
- Nebraska took a leadership role in the Five State Dairy conference during 2002 with support from Illinois, Iowa, Minnesota, North and South Dakota.
- Nebraska has been instrumental in the planning for Integrating Forage and Livestock workshops with Illinois, Iowa, Indiana, Kansas, Missouri, North and South Dakota, and Ohio.
- Nebraska continues to provide leadership for a Four State Sugarbeet-Bean Group consisting of teams from Colorado, Montana, Nebraska and Wyoming.
- Nebraska serves as the host institution for the North Central Sustainable Agriculture Research and Education (SARE) program. The interaction among the twelve North Central states' extension programs in carrying out the SARE Professional Development Program adds value to each of the individual state programs.

Goal 2

Most of the multi-state activities outlined in the Plan of Work to support the Pre and Post Harvest Plant and Animal Food Safety, Food Processing and Food Service Management are continuing. Some highlights include:

- Nebraska continues to provide leadership in HACCP and Food Safety programming by developing videos for use in meat processing facilities to train employees. English, Spanish, Korean, Vietnamese and Chinese versions were produced and distributed to all small meat processors in the United States.
- Cooperation since 1993 between Kansas and Nebraska Food Safety faculty members has delivered workshops to Kansas and Nebraska Processors. A special emphasis has been placed on providing low cost workshops for small and very small meat and poultry operations (less than 500 employees.) To meet this need, Cooperative Extension recently organized a team of faculty at Nebraska and Kansas State to obtain funding to expand HACCP training and to include Cooperative Extension in Missouri and South Dakota in these programming efforts.
- Nebraska has been instrumental in inservice education of consumer food safety and food irradiation along with Arkansas, California, Florida, Kansas, Minnesota, Pennsylvania and Texas.

Goal 3

Most of the multi-state activities outlined in the Plan of Work to support the Human Nutrition, Health and Safety and Health Care are continuing. Some highlights include:

- Extension specialists working in air quality have developed and maintained a multi state program between Kansas State and Nebraska.
- In service education for Nebraska, Kansas, South Dakota and North Dakota have focused on learning skills for evaluation of programs. Approximately twenty-five Extension faculty members participated in an annual inservice education program sharing skills and program resources.
- An Extension specialist serves as editor of the ten states mountain region for the development and distribution of an annual report for the Food Stamp Nutrition Education program.

Goal 4

Many environmental issues are not state specific and require that educational programs be multi state based. Nebraska continues to be active in multi state programming. Some key examples are:

- The atrazine education program in the Blue River Basin of Nebraska and Kansas is continuing. The upper Blue River Basin is in Nebraska and the drainage flows into Kansas. Atrazine levels in the lower basin are an issue because the water is used for drinking water supplies. Kansas State University and the University of Nebraska continue joint research and extension programs to address the issue. Inservice education has been provided for extension educators and workshops and tours targeting producers have been conducted.
- The University of Nebraska, University of Missouri, Kansas State University, and Iowa State University cooperated to prepare a regional water quality coordination proposal for to CSREES in 2003.
- Nebraska has taken the lead in drought mitigation education working with Colorado and Wyoming.
- The 9th annual North Platte River Basin Water Policy Conference was held in 2003. The conference was organized by the University of Nebraska and co-sponsored by the University of Wyoming and irrigation districts in Nebraska and Wyoming. The conference has continued to address issues associated with the Platte River Cooperative Agreement proposals. Key issues are water supply and critical habitat for endangered species.
- The “Prevention and Control of Wildlife” handbook was edited by faculty members from the University of Nebraska and University of California and a USDA-APHIS staff member. The handbook continues to be used as a major resource to address wildlife damage management throughout the United States, Canada, Mexico and other countries.
- With the issue of prairie dog infestations across the country the Interagency Prairie Dog Coordinating Committee has been conducting inservice training, presentations and producing publications and guides. Committee members represent Arizona, Colorado, Kansas, Montana, Nebraska, North and South Dakota, New Mexico, Oklahoma, Texas and Utah.
- Four states (Iowa, Nebraska, North and South Dakota) are involved with enhancing natural resources education for Tribal Colleges. You will see this effort increasing over the next few years.
- Nebraska hosted the 6th Annual Winery and Grape Growers Forum partnering with Colorado, Illinois, Iowa, Kansas, Missouri, South Dakota, Wisconsin and Wyoming.

Goal 5

Most of the multi-state activities outlined in the Plan of Work to support Family Strengths, Family Housing, Telecommunications for Rural Areas and Community Strengths are continuing. Some highlights include:

- Nebraska led in the development and production of Weathering Tough Times inservice training satellite conferences for families and communities dealing with the stress of drought conditions in a coordinated effort with Iowa and Kansas.
- An Extension housing program including Nebraska, Kansas and Iowa is focused on helping clientele receive immediate responses to housing questions. A 800 number telephone response program is organized by Extension faculty in these states to save time answering questions.
- Efforts began in 2000 on the Initiative for Future Agriculture and Food Systems project titled “North Central Initiative for Small Farm Profitability.” This effort will be conducting research and education aimed at improving the profitability and competitiveness of small and mid-sized farms and ranches. Producer clusters will be formed in the participating states of Nebraska, Iowa, Missouri, and Wisconsin to put research results into action in the cluster communities.
- An Extension faculty member serves as a member of the leadership team for the North Central Extension Leadership Development program.
- An Extension faculty member and an Extension faculty member at the University of California Davis produce a monthly newsletter that is distributed electronically and in hard copy. The newsletter, “The Ups & Downs of Parenting Adolescents,” continues to gain national visibility.
- The NxLevel course, “Tilling the Soil of Opportunity,” was introduced in 2000 as a curriculum for agriculturally based entrepreneurs. The curriculum is specifically designed for the producer searching for innovative ideas and enhance marketing opportunities. Direction for the development of the curriculum was provided by the University of Nebraska’s Center for Applied Rural Innovation and the University of Colorado at Denver’s Colorado Center for Community Development. Inservice training for faculty in interested states started in 2000 and continues through 2003.
- Nebraska Cooperative Extension continues to partnered with the University of Nebraska State Museum to develop the Wonderwise 4-H project, a series of informal science education modules that focus on bringing engaging science activities to youth, especially those in rural communities. The project were piloted in eleven states (Nebraska, Kansas, Oklahoma, Wyoming, Montana, North Dakota, South Dakota, Michigan, Minnesota, Illinois, and Iowa) reaching an out-of-school audience of over 284,000 youth enrolled in 4-H camps, clubs, and special programs. The goals of the Wonderwise 4-H project are 1) To motivate 8- to 12-year old youth, particularly girls, to pursue an interest in and awareness of scientific activities and careers, 2) To create a positive image of women and minority scientists for youth participating in 4-H, 3) To improve the diversity and quality of 4-H’s out-of-school science materials by offering materials that are inquiry-based, multicultural, and tie science activities to the work of real scientists, 4) To help youth make connections between agricultural topics and their underlying scientific principles, and 5) To instill in youth a better appreciation of empirically-based knowledge and enhance children’s ability to use scientific reasoning. Each Wonderwise 4-H project module focuses on one woman scientist and one science topic, and includes an activity book package, a video, and a CD-ROM. The project started in May, 2000 and six new projects were introduced in 2003.
- In a unique coordinating effort between Nebraska, New Mexico, North Carolina, and Minnesota youth from around the country can participate in a virtual 4-H camping experience through goCybercamp.org. This adventure allows youth from all 50 states to participate in various 4-H camp activities right from their own home or school, meet new friends, share a virtual cabin and project interests while learning about nature, natural resources, nutrition, safety, along with many other camping experiences.

F. INTEGRATED RESEARCH AND EXTENSION ACTIVITIES

**U.S. Department of Agriculture
Cooperative State Research, Education, and Extension Service
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Multistate Extension Activities and Integrated Activities
(Attach Brief Summaries)**

Institution: **University of Nebraska Cooperative Extension**
State: **Nebraska**

Check one: Multistate Extension Activities
 Integrated Activities (Hatch Act Funds)
 Integrated Activities (Smith-Lever Act Funds)

Estimated Costs

Title of Planned Program/Activity	FY 2000	FY 2001	FY 2002	FY 2003	FY2004
Goal 1:	<u>\$ 550,116</u>	<u>\$ 549,514</u>	<u>\$ 612,025</u>	<u>\$ 641,210</u>	<u>\$ 641,210</u>
Integrated Crop Management					
Integrated Livestock Systems Management					
Integrated Pest Management					
Sustainable Agricultural Production Systems					
Goal 2:	<u>\$ 66,244</u>	<u>\$ 64,264</u>	<u>\$ 51,236</u>	<u>\$ 72,805</u>	<u>\$ 72,805</u>
Pre and Post Harvest Plant and Animal Food Safety					
Food Processing and Food Service Management Food Safety					
Goal 3:	<u>\$ 22,139</u>	<u>\$ 21,450</u>	<u>\$ 23,123</u>	<u>\$ 24,268</u>	<u>\$ 24,268</u>
Human Nutrition, Health and Safety Health Care					
Goal 4:	<u>\$ 307,018</u>	<u>\$ 289,356</u>	<u>\$ 322,006</u>	<u>\$ 309,301</u>	<u>\$ 309,301</u>
Natural Resources Management and Protection					
Environmental Protection Environmental and Natural Resources Policy					
Goal 5:	<u>\$ 156,006</u>	<u>\$ 178,748</u>	<u>\$ 188,895</u>	<u>\$ 188,376</u>	<u>\$ 188,376</u>
Family Strengths Telecommunications for Rural Areas Community Strengths					
Total	<u>\$1,101,523</u>	<u>\$1,103,332</u>	<u>\$1,197,285</u>	<u>\$1,235,960</u>	<u>1,235,960</u>

Elbert C. Dickey
Dean and Director

April 1, 2004
Date

F. INTEGRATED RESEARCH AND EXTENSION ACTIVITIES

Below are a few examples of integrated Research and Extension activities.

Goal 1

Activity: Integrated Crop Management

Broad leaf weeds such as western ragweed (*Ambrosia psilostachya*), hoary vervain (*Verbena stricta*), and smooth sumac (*Rhus glabra*) are becoming an increasing problem in Nebraska rangeland and pastures. They compete with pasture grasses for light and nutrients, which reduces grass stand and forage production, especially during drought years. Presence of these weed species also lowers rental rates, or sale prices of infested grassland. In response to a large number of questions on how to manage those weeds, we (Knezevic et al. 2001-2003) field studies were conducted on mechanical and chemical control methods. These sites were also used for demonstrations and workshops. Data from a survey from 2003 indicated that the 87% of the participants in the 2002 workshop made changes to their business/operation based on what they learned from the 2002 workshop. In addition, 83% of participants of the 2003 workshop indicated that they will make changes to their business/operation based on what they learned from the 2003 workshop. Objective of these field workshops was to improve knowledge of various landowners about the principles of integrated weed management and how to apply them to control western ragweed, hoary vervain and smooth sumac in their pastures.

Activity: Integrated Livestock Management

Calf scours, or diarrhea, is a leading cause of death and sickness in beef calves but ranchers have a new tool to combat this costly threat. University of Nebraska Institute of Agriculture and Natural Resources veterinary research and extension scientists designed and successfully tested a calving system that greatly reduces scours outbreaks by managing cow-calf pairs and pregnant cows to minimize calf contact with scours-causing germs. Since few calves get sick, this system also greatly reduces the need for antibiotics. It also greatly reduces labor needed to treat sick calves. The owner of a 900-head herd estimates savings of up to \$50,000 annually since implementing the calving system because of improved calf performance, greatly reduced treatment costs and having more calves to sell.

Activity: Integrated Pest Management

Deciding how, when or whether to treat weeds in crops is challenging. WeedSOFT, weed management decision support software developed by University of Nebraska research/extension agronomists, helps growers and others make better decisions. This comprehensive weed management tool includes economic, environmental and regulatory considerations for all common Nebraska crops. WeedSOFT helps producers reduce crop herbicide use and associated costs, improve weed management and reduce weed-related yield losses. A survey of WeedSOFT users indicated this software is responsible for about \$13 million annually in cost savings and increased earnings for crop producers. Adapted versions of WeedSOFT also now are used in six other states. A central Nebraska crop consultant said the program "is easy to use and offers unbiased information. It is a well-rounded program and it's worth its weight in gold."

Activity: Sustainable Agriculture Production Systems

Some Nebraska farmers may soon raise a new type of "stock" in unused hog barns or other farm buildings. University of Nebraska research shows freshwater prawns can be relatively easily raised in indoor tanks that could be located in empty farm buildings. The university is patenting some specialized equipment researchers devised for indoor prawn production, and Cooperative Extension is developing educational programs. Raising prawns might provide additional or alternative income for some farmers. University researchers estimate farmers could raise 10 to 12 pounds of prawns per 1,000 gallons of water annually in vacant livestock buildings. Prawns bring \$6 to \$10 per pound, depending on size and market prices.

Goal 2

Activity: Pre and Post Harvest Plant and Animal Food Safety

University of Nebraska research and extension is providing information about how best to control *E. coli* O157:H7 in cattle before slaughter to reduce chances the dangerous foodborne illness culprit reaches consumers. The latest findings show that a new vaccine and a beneficial bacterial feed additive each significantly reduced the bacteria in feedlot cattle, and that using both may offer added protection. In two years of feedlot trials, a vaccine being developed in Canada proved most effective, reducing *E. coli* prevalence an average 59 percent, compared with unvaccinated steers. Feeding a commercially available *Lactobacillus acidophilus* feed additive reduced prevalence an average of 35 percent. These findings provide objective information for the beef industry and for those developing these new tools.

Activity: Pre and Post Harvest Plant and Animal Food Safety

Awareness and caution are among the best defenses against intentional or accidental livestock disease threats. Nebraska Cooperative Extension and Agricultural Research is heading a biosecurity training effort to safeguard the state's \$6 billion livestock industry. This program, which also includes Kansas and Iowa, teaches veterinarians, producers, youth and others how to prevent or contain disease outbreaks spread accidentally or through bioterrorism. A new Web site at <http://farmandranchbiosecurity.com>, meetings and publications are part of the effort. Institute of Agriculture and Natural Resource's training programs for food processors also emphasize biosecurity and preventative measures to minimize risks to the food supply. This training has helped more than 1,500 Nebraska livestock producers and food processors guard against intentional or accidental biosecurity treats and is expanding the number of people on the lookout for such problems.

Activity: Food Processing and Food Service Management Food Safety

Food allergies are a worldwide concern and cause as many as 200 deaths and countless allergic reactions annually in the United States. Research and training by toxicologists in the University of Nebraska's internationally recognized Food Allergy Research and Resource Program are helping the food industry protect the nation's 6-7 million allergic consumers. The food industry uses the team's fast, accurate tests to detect traces of allergenic foods on food or equipment. The IANR research and extension team also trains food manufacturers nationwide on broad food allergy issues. At one training session, 100 industry representatives changed a manufacturing practice and estimated avoiding potential recall costs of \$500,000 each.

Food irradiation is a technology to reduce food borne pathogens and has been available for 50 years. The educational/survey research program was conducted in five grocery stores in two Nebraska communities during the time frame that grocery stores have in-store demos and free samples. About twenty-five percent perceived a difference in the taste of the irradiated meat sample. Sixty-five percent said they either liked or liked very much the irradiated meat; thirty-two percent stated that they neither liked or disliked the irradiated meat. Only four percent stated that they either disliked or disliked very much the irradiated meat sample. When asked if they would purchase irradiated meat if it was available, eighty-two percent responded either definitely yes or probably yes.

Goal 3

Activities: Human Nutrition, Health and Safety and Health Care

A University of Nebraska nutrition researcher is collaborating with Extension Specialists and Educators on an 11-state study to understand why young adults eat so few fruits and veggies and how to change these behaviors. Her preliminary research identified the best methods for reaching young adults with nutrition information. Researchers used these findings to develop new, customized approaches to encourage young adults to improve their habits. Extension is supporting this effort by helping to develop newsletters, manuals and other information tailored to different stages of readiness to change and are testing them nationwide. Extension also plays a role in the recruitment of subjects for this project. This research will be the foundation for a broader national nutrition campaign targeting other groups and individuals.

Goal 4

Activity: Natural Resources Management and Protection

Interseeding legumes in eastern Nebraska's predominantly smooth bromegrass pastures increased productivity, feed availability and forage quality, University of Nebraska research shows. Institute of Agriculture and Natural Resources research showed that interseeding alfalfa, birdsfoot trefoil and kura clover improved pastures from July through September when brome performance typically drops. This is part of ongoing Institute of Agriculture and Natural Resources research to help livestock producers make the best of pastures all season long. Interseeding legumes in bromegrass pastures improved beef gains by an average 25 to 40 pounds per acre. That translates into about \$10 to \$20 an acre of additional income. Research continues but scientists have documented about a \$7 million economic benefit for 1,600 producers who participated in Nebraska Cooperative Extension workshops based on this research.

Activity: Environmental Protection

Vegetative buffer strips between crop fields and streams filter sediment and chemical runoff to protect water quality. Buffer strips are key to many surface water protection efforts, yet there has been no practical way to measure their performance under real-world conditions. Institute of Agriculture and Natural Resources research and extension engineers have devised a simple, accurate tool to evaluate buffer strips effectiveness in the field. Their device takes a tiny but representative water sample that is analyzed to learn how well the buffer strip is performing. This device is designed for use by researchers. A simpler version is being developed for natural resources and conservation agencies. Both will help more accurately evaluate buffer strip design and construction, which should lead to better buffer designs.

Activity: Environmental and Natural Resources Policy

In 1999, the University of Nebraska's School of Natural Resources and Cooperative Extension embarked on an integrated research and extension program to test the concept of "market-driven" or "productive" conservation. Woody plants that produce commercially valuable specialty products were integrated into agroforestry configurations such as windbreaks, riparian buffers, and hillside and flatland alleycropping arrangements. In conjunction with field research, market assessments and marketplace participation, a major extension program was launched to educate landowners of the value of integrating woody florals and other specialty woody crops into conservation plantings. From 1999-2002, more than 40 presentations, field days and day-long workshops on specialty forest products and their markets were conducted statewide for approximately 1,000 extension educators, tree care professionals, landowners and producers. Since early 2002, (when the first sales occurred), at least 20 landowners in Nebraska have integrated woody florals and other specialty products into their farming and land use systems, major investments independent of any federal or state subsidy programs. The key to stimulating landowner adoption of this new approach to agroforestry was UNL's provision of a comprehensive package that directly addressed all major landowner concerns, and the unambiguous demonstration of woody floral profitability and marketability. This package contained practical, straightforward research-based information on species/cultivar selection, sources and prices of planting stock, production, harvesting, processing and packaging guidelines, labor requirements, and real-world cost, price and market information. This program will provide input to Natural Resources District environmental policy decisions regarding the use of Environmental Quality Incentive Program and other cost share funding.

Goal 5

Activity: Family Strengths

The research and extension program activity in Family Strengths is an ongoing effort with the leadership provided by members of the Building Strong Families Action Team. This team which coordinates programming has faculty with joint research and extension appointments in areas related to families. These programs built on research of Dr.'s DeFrain and Stinnett: Strengths of Families. NU for Families' team is also writing a book of family related activities for public sale from activities built around Strengths of Families.

Activity: Family Housing

Lead poisoning causes serious physical and mental health problems in children, particularly those under age 6. Lead paint is a leading cause of childhood lead poisoning, and all the homes east of 72nd Street in Omaha were built before 1978, when lead paint was banned. In one older northeast Omaha neighborhood, 42 percent of children tested positive for lead from 1992 to 1998, and the U.S. Environmental Protection Agency designated the area as a potential Superfund cleanup site due to lead-contaminated soil. University of Nebraska extension and research faculty teach classes in Omaha on how to reduce lead contamination through housekeeping, nutrition and landscaping, and during common maintenance projects. Thanks to what they learned, most participants made changes to reduce the risk of lead poisoning in their homes. For example, a 2-year-old boy's lead levels declined after his mom took the classes and changed her housekeeping and food preparation methods.

Activity: Telecommunications for Rural Areas

The Nebraska Rural Initiative, a University of Nebraska systemwide effort, aims to help rural communities improve economic development and income opportunities. The initiative taps the research and outreach capable resources of all four NU campuses to address rural issues with Cooperative Extension playing a key role. Early initiative efforts have included projects to help small businesses increase profits through technology; training northwest Nebraska businesses how to expand hunting and outdoor recreation tourism markets; and coordinating a statewide training team for entrepreneurship and small business development. Thus linking individuals with faculty of NU who can provide information resources to strengthen community and/or business goals.

Activity: Community Strengths

Policy-makers and community leaders have a better understanding of rural Nebraska concerns and opinions, thanks to the Nebraska Rural Poll. Launched in 1996 by a University of Nebraska Institute of Agriculture and Natural Resources research and extension's rural sociologist, the annual poll asks rural people's views on work, community, quality of life and public policy issues. Researchers quickly analyze and share results widely with state and federal lawmakers, decision-makers, the public and communities. This poll helps track trends and changes in rural Nebraska and provides a rural perspective for policy discussions. Decision-makers say this objective information helps them make better informed policy choices.