

# **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 2004, 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 Production and Natural Resource Systems; Nutrition, Health and Food Safety; and 4-H and Youth Development.

In fiscal year 2003-2004, the University of Nebraska Cooperative Extension funding in support of the programs described in this plan totals \$42,699,660 of state, non-tax, and federal source expenditures. Smith Lever Federal Formula Funds (including regular E3bc, special needs, and CSRS retirement) provided \$4,297,259 or 10 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 education program in agriculture is delivered as a part of our Food Production and Natural Resources Systems Action Plan. The Action Plan has three primary program elements; integrated crop management, integrated animal systems management, and natural resources and environmental management. Many of the program efforts under this goal overlap with the efforts of the Goal 4 to achieve greater harmony between agriculture and the environment.

The Integrated Crop Management (ICM) work groups address 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) work groups. 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) work groups' 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 2004 with some areas of the state in their fourth and fifth year of being impacted by the drought conditions. Fortunately some of areas of the state did get some relief from the drought situation. Some of our educational efforts in the state continued to address the drought concerns. A Supreme Court settlement of water litigation between states and new state legislation addressing surface water and ground water conflicts has put new emphasis on irrigation water management. As a result many areas of the state are seeing the implementation of irrigation water restrictions. A number of workshops, web pages, satellite programming, and media releases addressed drought and water management issues from the perspective of the producer while recognizing the economic viability of the rural communities is dependent on agriculture. The drought has continued to impact both crop and livestock producers. The drought also continued to contribute to the infestation of grasshoppers on some of the state's rangeland; fortunately the infestation was not as severe in 2004. Cooperative Extension provided education and helped facilitate rancher organizations again in 2004 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 2004, 458 agribusiness professionals attended Crop Management and Diagnostic Clinics, representing 63 Nebraska counties and nine states attended these clinics. These individuals impacted approximately 50% of Nebraska’s row crop acres and participants valued the clinics equal to \$5.52/acre or if extrapolated to over 38.7 million dollars. Cooperative Extension also partnered with the Nebraska Soybean Board to present Soybean Management Field Days at four locations in 2004. The field day participants represented 687,000 acres of cropland farmed or managed. The average value placed on the knowledge gained and/or anticipated changes in practices was \$6.65 per acre with a potential aggregated impact of approximately \$4,570,000.

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 2004 post-conference survey indicated that participants represented 510 full-time and part-time employees. When asked if they would make a management change with respect to the various components of the workshop, 42 to 61% 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 work groups 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 work groups 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 Equivalents(FTE):**

<b>FFY2004</b>	<b>Federal*</b>	<b>State</b>	<b>Local</b>	<b>Other</b>	<b>Total</b>
<b>Funding:</b>	\$ 902,424	\$ 4,394,119	\$ 1,310,061	\$ 2,360,324	\$ 8,966,929
<b>FTE**:</b>					67

\* FY2003-2004 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 Goals 1 & 2, Output Indicators 1 & 3, and Outcome Indicators 1 & 2)*

- a) Most of the state of Nebraska has been categorized as being under moderate to severe drought conditions during the past three to five years. While eastern Nebraska returned to more normal conditions in 2004, much of the Nebraska Panhandle remains under drought conditions and water levels in reservoirs are critically low. Lack of rainfall, dwindling surface and ground water supplies, and intensity of irrigation identified several questions related to management of sprinkler and surface irrigation systems. Several Extension Specialists and Educators conducted a series of Irrigation Management During Drought workshop in four locations across Nebraska. The goal of

this educational opportunity was to provide irrigators with the latest information on how to manage irrigation systems to get the best return on their investment while minimizing the amount of water applied to the crop.

- b) Of the 180 participants filling out an evaluation form, 48 percent listed farming as their main source of income, 23 percent were state and federal agency personnel, and 29 percent were involved in agribusiness. Nearly 50 percent of the participants irrigated between 500 and 5000 acres of farmland. Post event surveys indicated that 62% would probably or definitely make changes in their irrigation management as a result of attending the program. Some respondents indicated that they would be better able to time irrigation water applications while others will purchase flow meters or change their set time and stream size to reduce water application depths. Approximately 45 percent felt that the knowledge gained would result in lowering production costs by an average of \$6.64 per acre.
- c) Scope of Impact - State Specific
- d) Funding:  
NU Cooperative Extension  
Federal Formula Funds

**Key Theme - Agricultural Profitability**

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

- a) The severe drought continued in the Nebraska Panhandle during 2004. The drought combined with extensive ground water irrigation well development has caused declining ground water levels in the area of Sidney, Nebraska. The community has been growing, in part due to the economic development resulting from the continued expansion of Cabela's, Inc. The competition for water between the City and agricultural water users has intensified. The Lower Platte South Natural Resources District has worked the Cooperative Extension to provide programs to help irrigators used less water. Cooperative Extension worked with farmers in the Sidney Draw that resulted in decisions to plant crops that use less water, convert irrigated acres to nonirrigated crops, and turn off the end guns on center-pivot irrigation systems.
- b) The South Platte Natural Resources District estimated this effort resulted in a savings of one billion gallons (3,069 acre-feet) of groundwater in one year. While the water levels in wells across the southern Panhandle continued to decline after another year of drought, groundwater levels in this valley west of Sidney rose about 4 inches this year.
- c) Scope of Impact - State Specific
- d) Funding:  
NU Cooperative Extension  
Federal Formula Funds

**Key Theme - Agricultural Profitability**

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

- a) Following several years of dry weather and with water restrictions looming as result of a Supreme Court settlement, getting the most from every inch of available water is a prime goal for many irrigators in southwest Nebraska. To help them succeed, the Republican River Basin Irrigation Management Project was initiated in this geographic area hit hard by recent lean water years. The program's primary focus is to demonstrate research-based irrigation management strategies in farmers' fields and providing "hands-on" practical information on how farmers and consultants can implement these practices. Six irrigation demonstration sites in farmer fields were developed in 2004. Three of the sites had line source sprinkler systems installed to allow demonstrating three irrigation strategies: fully watered, water miser and deficit irrigation. The three other sites had soil moisture monitoring equipment installed to track the soil moisture and allow the crop consultants to work with the equipment. A series of Irrigation Demonstration Project producer farm tours showcased the demonstration plots. Program presentations included year-around water-conserving ideas, how time of application and amount of water applied affects crop yield, soil moisture monitoring equipment, and yield affects of skip-row planted corn. Presentations from the local NRD managers were given on current issues and EQIP information was talked about by NRCS representative at some of the tours.
  
- b) Producers participating in the field days reported they managed an average of 1,534 acres of cropland and crop advisors attending the field days managed or influenced an average of 19,540 acres of irrigated land. The average reported potential water savings by applying information learned from the field days was 2.2 inches of water per acre per year, a 10 to 15 percent savings from the typical irrigation water use and conservatively would be a total of over 45,000 acre-feet/year. Field day participants estimated the knowledge gained by attending the field days will result in a cost savings of \$10.84/acre.
  
- c) Scope of Impact - State Specific
  
- d) Funding:
  - NU Cooperative Extension
  - Federal Formula Funds
  - USBR

**Key Theme - Agricultural Profitability**

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

- a) Most agricultural activities have many interactive components that are impossible to include comprehensively in one, or even a series, of educational events. Thus, topics selected for most formal extension workshops and lectures by instructors sometimes fail to provide the information most desired by producers. A series of coffee shop discussions were scheduled across the state to discuss forage issues. Forage production and use, including all harvested and grazed forages, may have more of these interactive components than most agricultural activities because it often involves interactions among at least four biological systems -- forage plants, consuming livestock, soil flora and fauna, and the producers themselves. To give producers an opportunity to guide program content of extension workshops, 33 informal forage coffee shop-like discussions were provided in communities throughout southern, eastern, and central Nebraska during January through March of 2004. The term 'coffee shop' was used because at most discussions, no formal agenda or structure was prepared, allowing discussion to proceed on any topic desired, similar to conversations in coffee shops. Producers were encouraged to attend with their questions about forages and grasslands for extension resource personnel to answer. Over 250 producers participated in these discussions with more than 190 of them completing a brief and simple

survey about its effectiveness.

- b) Participants liked the coffee shop format. They were asked how well they liked informal discussions using the coffee shop format compared to typical education events. On a scale of 1=terrible to 10=great, 87% rated the coffee shop format at 8 or higher and the average response was 8.64. Written comments about the format included "best chance ever to have my questions answered," "learned a lot from the other folks' experiences," and "I'm going to try some of these ideas next year." When asked if they would attend a formal meeting on this topic, only 51 percent answered yes although most others indicated they might attend. Topics discussed were extremely diverse, as expected. When asked what was the most valuable information received at the coffee shop, topics were as varied as weed control, variety and species selection, irrigated pasture, hay production, using corn stalks, interseeding, annual forages, fertilization, grazing management, supplements, and toxic compounds. Formal programming could not have addressed all these topics adequately, so the coffeeshop format fulfilled its mission.

Another benefit of the informal format was guidance received directly from producers on programming needs in forages and grasslands. Concerns about weed development in drought damaged grasslands were common. High interest was expressed in new or improved species and varieties for multiple uses as was use of annual forages to fill various needs. Several news and radio items were developed and released on these topics based on this guidance.

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

### **Key Theme - Agricultural Profitability**

*(refers to Plan of Work Goals 1 & 33, Output Indicators 1 & 3, and Outcome Indicators 1 & 2)*

- a) Improving their ability to compete in the pork production industry is critical, according to Nebraska's pork producers. Knowing what is needed to improve competitiveness ranked first out of 26 possible topics for program development. These results from an August 2002 a mail survey of over 2,700 Nebraskan pork producers and producer employees were used to determine educational and informational programming needs. As a result, during 2003 and spring 2004, Cooperative Extension offered a series of five seminars to help producers improve competitiveness. These full-day seminars were held from January 2003 through January 2004. Delivery methods included face-to-face meetings and satellite. The first session was designed to teach critical production check points that operations need to meet. The second session provided information on conventional marketing of hogs, including risk management strategies. The third session introduced producers to the processes that turn hogs into processed products, from fresh meat to heat-serve items. The fourth session dealt with marketing within the framework of supplying the needs of processors in a supply chain. The last session introduced the concept of a management team and helped producers look at managing the complexity of their operations. Eighty-two people attended from one to all five of the programs resulting in 161 contacts with pork producers. Participants represented operations that inventoried over 7,500 sows and marketed over 632,000 pigs per year.
- b) Post-seminar surveys showed:
- 78 percent of the respondents indicated that they planned to make changes in their operations as a result of attending the seminars.



- 81 percent expected to increase or maintain their levels of economic viability.

Knowledge in 18 subjects was improved an average of 35%. Also, participants revealed which topics they found most useful: feed cost control - 48%; precise marketing information - 76%; livestock handling issues - 80%; keeping records of actions taken in their operations - 92%; need to obtain management help - 50%. Interestingly, 50% also indicated just managing better with what they have available is important.

c) Scope of Impact - State Specific

d) Funding:  
 NU Cooperative Extension  
 Federal Formula Funds

**Key Theme - Agricultural Profitability**

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

- a) The focus of the 2004 Corn/Soybean Profitability Workshops, held at five locations in 2004, was making no-till systems work in the corn/soybean rotation. These workshops included a hands-on session on using and adjusting Variety Test Data. Other sessions included Combine Modification, Planting in Heavy Crop Residues, Nutrient and Weed Management, and Soil Structure Effects on Crop Water and Irrigation.
- b) The total acres managed by the 99 participants who responded in the evaluation was 178,662 acres. The estimated value of the program per acre by the participants was \$13.02 and the average attendee that reported had 1,805 acres or a benefit per attendee of \$23,501. The value per acre ranged from a high of \$23.60 at Grand Island to a low at Seward of \$8.47. The other three locations were Pender at \$15.25, Broken Bow at \$11.04, and Beatrice at \$9.75 per acre. Based on participant estimates the total estimated benefit of the workshops was \$2,326,179.

Following are a selected comments on best production ideas learned about or increased my knowledge from various participants: "The height of harvested wheat stubble and its impact on corn yield", "benefits of no-till", "combine and planter adjustments", "nitrogen and chemical rates", "benefits of early weed control", "soil structure", "corn stressed early doesn't affect yield", "how to evaluate hybrids for seed selection", "setting the corn head", and "variety selection".

The Variety Test Data session started with a pretest and post-test which includes three questions on variety selection. The first question asked participants to select the two hybrids from a list of four, that will give the best chance of optimizing genetic diversity and economic return. On the pretest 32% got the correct answer, while on the post-test 77%. A second question asked the difference in seed cost of planting high-yielding vs. low-yielding hybrids. On the pretest 63% got the correct answer, while 97% got the correct answer on the post-test. The third question asked about the use of least significant difference (L.S.D.). Thirty-six percent got the answer right on the pretest (the questions had four multiple choice answers), while 94% answered correctly on the post-test. Participants learned about the University of Nebraska Seed Guide and how to evaluate and use the information, including what and how to use L.S.D. As a learning exercise groups of about six are given yield results from a hypothetical farm, which included varieties in the testing books and others not in the books. It was explained how to adjust their yields to the yield in the Seed Guide. The groups were asked to select five corn hybrids or soybean varieties. Groups reported their choices and the reasons for selecting them.

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

**Key Theme - Agricultural Profitability**

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

- a) Small and medium sized farming operations often cannot afford to hire an accountant to keep their financial records. Never-the-less, they need an accurate and complete set of records in order to track profitability of the farming operation, to provide information about their financial situation to their lenders and in order to file an accurate income tax return. Four Nebraska Extension Educators working as a team developed the curriculum, wrote the handout materials, and presented the classroom instruction for a series of Computerized Financial Record Keeping workshops. The workshop was offered by this team of educators in four locations in 2003 and another four in 2004. While one Educator was presenting, the other team members served as mentors, providing personalized attention to participants. Participants from 100 farm operations attended the workshops over the two-year period. Most instruction was presented with participants sitting at computers working through the exercises as a group. Each topic was accompanied by a step-by-step handout for use in the classroom setting and for the participants to take home so they could review the instruction at their own pace. The sample data files used in the classroom were also given to the participants to facilitate reviewing the materials.
- b) All participants were sent a survey six weeks after attending the workshops. Thirty-eight percent of the surveys were completed and returned. Prior to the workshop, 39% of the respondents were keeping a set of financial records in an account book, 53% were using computerized recordkeeping software (18% were keeping records both in an account book and on the computer) 8% reported they had created their own system using a computerized spreadsheet program, and 18% were not keeping any financial records beyond balancing their checkbook.

When surveyed six weeks after the workshops, 100% of the participants who were not already using a commercial recordkeeping software program prior to attending the workshop had started keeping computerized records or indicated they were planning to start keeping computerized records within the next year. As a result of attending the workshop: 66% learned to keep a more complete set of financial records, 54% said they hire a tax consultant and expected to save money on tax preparation, 13% said they do their own taxes and expected to save time on tax preparation. 82% expected to keep a more accurate set of financial records in the future, and 66% said they had learned to create reports that will help them make better management decisions.

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

**Key Theme - Agricultural Profitability, Animal Production Efficiency and Rangeland/Pasture Management**

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

- a) Successful livestock and grazing operations require a holistic view and management of many interacting variables. The University of Nebraska Cooperative Extension's Ranch Practicum is a hands-on learning experience designed to emphasize a systems approach to livestock and natural resource management. The curriculum integrates animal, forage management and economic considerations to improve the ability of participants to make management decisions and monitor progress toward their goals. The practicum uses current systems research as a teaching tool and features an interdisciplinary team of instructors associated with the University's Gudmundsen Sandhills Laboratory. Each Practicum consists of eight days of classroom and hands-on instruction in North Platte and at the Gudmundsen Sandhills Laboratory, a 12,800-acre working ranch with research and education facilities. Sessions were held over an eight-month period beginning in June and ending in January to help participants better understand the seasonality of animal and plant cycle interactions and to give participants the opportunity to see and evaluate the outcome of different management decisions.

The 150 participants during the five years included ranch managers, veterinarians, extension educators, graduate students, agricultural lenders and appraisers, teachers, consultants and agency personnel. The \$600 fee covered most of the practicum cost. Natural Resource Districts and the Nebraska Grazing Lands Coalition provided scholarship support. The classroom instruction focuses on fundamental principles of monitoring and management processes. The field sessions gave participants a hands-on approach to the concepts of monitoring and evaluating management decisions of plant and animal interactions. Topics included grazing strategies, grazing systems, risk management, calving and weaning dates, livestock nutrition, nutrient content of grazed and harvested forages, ration formulation, cull cow management, and seasonal mineral supplements.

- b) From 1999 through 2003, practicum participants influenced decisions on more than 5 million acres of upland range, meadow and seeded hayland and cropland; nearly 1.8 million head of cattle and 2,620 people through their ownership, educational and consulting activities. Participating producers estimated the impact of the practicum at \$26.40 per head in their own herds. The average cow herd size per participating producer was 942 head, resulting in an average benefit of \$24,869 per ranch.

Skills to evaluate and monitor management, make decisions in range/beef systems and to be better stewards of natural resources are improved by participation in the practicum. Participants indicated that they gained new information in 20 identified areas of livestock, range and financial management. They also expressed intentions to change practices in monitoring cattle, rangeland and financial resources. A pre/post practicum evaluation verified the knowledge gained by the participants. Average class score improvement ranged from 13% to 29%. (pre-test score vs. post-test score). Eighty-one percent of the participants indicated they would probably or definitely make management changes as a result of taking the course. When asked what management changes will take place, participants responded with the following: "The biggest change that I will make in these areas are keeping records so that I can make sound decisions in the future." "I will do a better job calculating my cows nutritional needs and feeding to meet those needs." "The biggest change that I will make is coming up with a grazing plan that will meet our objectives." "I will track rainfall, plant composition, range vigor to help make more informed decisions." "More system wide evaluation and change allocation of resources based on my evaluation." "I will use grazing records to a greater extent in my rotational program." "By knowing the best time to graze the meadows and rangeland we will be able to change our rotational grazing to coincide with that." "I will examine calving dates and consider a change." "I will use deferred season of rotation more uniformly and watch the markets more closely." "I will consider now these management practices: delayed implanting, reduce replacement heifer weights, implement meadow grazing, feed supplemental protein to cows in winter, and avoid multiple summer grazing."

c) Scope of Interest - State Specific

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

**Key Theme - Agricultural Profitability, Plant Health, Precision Ag**

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

a) Agribusiness professionals need continuing training to have the necessary knowledge, expertise, and confidence to meet the demands of their agricultural customers and stay current with rapidly changing technologies. Integrated Crop Management Winter Programs are designed to keep agribusiness professionals on the "cutting edge" of knowledge. The area of focus for the 2004 Crop Management programs was to provide top producers and industry representatives with knowledge and skills in crop management and to increase the use of field-specific crop production and management practices. Nine sessions were held during November through March at four locations. The programs provided detailed instruction and were designed for those new to the field and experienced employees. Topics included improving crop production through soil microbiology, irrigation, soil water management, soil fertility basics (introductory and intermediate level), precision ag major components (intermediate level), precision ag data management (advanced level), pest management training, crop management training, and crop scouting for pest managers. Attending the workshops were 140 private industry agribusiness professionals and farm operators from 46 Nebraska counties and four states.

b) Conservatively, the workshops influenced crop management on more than one million acres of cropland. This impacted approximately 7% of Nebraska's corn, soybean, sorghum and alfalfa acres. The average estimated value of knowledge gained and/or anticipated practice changes on a per acre basis by participants was \$6 per acre, which indicates the potential estimated total impact could be more than \$6.5 million. Evaluations showed 84% of the participants indicated they "probably" or "definitely would" make changes in their business/operation based on what they learned.

c) Scope of Interest - Nebraska, Iowa, Missouri, Kansas

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

**Key Theme - Agricultural Profitability and Risk Management**

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

a) As margins to produce agricultural commodities have continually declined in recent years, the size of farms has increased to meet family living expenses. While larger farm sizes are often needed to generate efficiencies from scale economics, the larger capital requirements to initiate and maintain a viable agricultural operation have made entry into agricultural production challenging for new farmers and ranchers. Although prospective producers find it difficult or nearly impossible without substantial assistance from senior family members, the transition of labor, management, and ownership from senior to junior family members can be strained by the operation's financial

condition, personal relationships, and philosophical differences in management style. To aid in the successful transition of family farms to new generations of operators, University of Nebraska Cooperative Extension and the Department of Agricultural Economics has offered "Returning to the Farm" for the past 14 years. Through the intense and interactive course, multiple generations of family members study ways to transfer labor, management, and ownership of their operation to younger generations. The program emphasizes communication that insures each family member's input is reflected in the family's unique transfer plan that it constructs throughout the course.

"Returning to the Farm" is offered as a 2-day workshop, followed by another 2-day workshop one month later (4 days total). The program addresses key financial statements and analysis, goal setting, risk management, optimal size, beginning farmer programs, legal entities, and understanding personality differences. Delivery of the program topics is through interactive presentations using various media, stressing two-way interaction between instructors and participants and amongst participants. Instructors for the program included four Cooperative Extension farm management specialists, a farm business records/tax specialist, an agricultural law specialist, and a group dynamics/individual personality specialist. A featured educational component of the course is personalized financial assessment of the family's operation and personalized recommendations to accommodate new family members. Between the two 2-day workshops, participants gather specific financial information from their operation's records and work with the instructors to construct the farm's financial plan. The 2003 "Returning to the Farm" included 32 participants representing nine different operations. Each operation had two to three generations of family members involved in the operation represented throughout the program.

- b) Participants in "Returning to the Farm" indicate that the program provides useful information and insight tailored specifically to their farming operation. They also cite understanding the need for strategic planning and improved communication are key benefits derived from the program. Overall, participants rated their satisfaction with the most recent "Returning to the Farm" program an average of 1.33 on a five-point scale (1=very satisfied). Further, they ranked the content of the workshop and each topic covered at least 1.8 on a five-point scale (1=excellent). "Returning to the Farm" participants also indicated that the workshop increased their knowledge (1.04), improved their skills and abilities (1.29), and changed their attitude (1.46) (each rated on five-point scale, 1=best score). Participants identified a variety of changes they planned to make to their operation as a result of "Returning to the Farm." Thirty percent (30%) indicated that they planned to improve their recordkeeping and financial information or adopt computerized recordkeeping systems. Others indicated that they had identified new ways to reduce production costs that they would implement. Operations also made plans to improve communication through regular meetings, etc. One participant reported "Returning to the Farm" would help him/her be more assertive and confident in communicating with other family farm members. Each participating operation completed a plan to initiate transfer of labor, management, income, ownership, and family responsibilities. The long-run positive impact of "Returning to the Farm" is demonstrated by the recommendation of previous years' participants to the program and the adoption of the program by Cooperative Extension in other states.
- c) Scope of Impact - State Specific
- d) Funding:  
NU Cooperative Extension  
Federal Formula Funds

## **Key Theme - Agricultural Profitability and Risk Management**

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

- a) The continuing drought, South American agriculture, biotechnology, the threat of bioterrorism, high energy costs, unstable commodity prices, soybean rust, BSE, the future of the family farm or ranch. These are just a few of the issues are on the forefront of tomorrow's agriculture. In order to survive, Nebraska farmers and ranchers must be able to compete in a ever changing global market. Decisions regarding commodity marketing and risk management must expand beyond the border of their farms and ranches. To better serve the farmers and ranchers of Nebraska, the Farmers & Ranchers College continued to expand programming efforts regionally in 2003-2004. Over 775 farmers, ranchers and agricultural industry representatives participated in the seven 2003-2004 regional workshops. The workshops feature lecture type instruction of a very interactive nature, case scenarios and problem solving activities. The workshops centered on marketing and risk management and included the following topics: consolidation of food companies, profit vs. lifestyle, women's role in agriculture, splintering of the traditional family farm, the four cornerstones of financial positioning, global competitiveness, tax law changes, seasonal price trends and market outlook, the strategic planning process, personality types and marketing practices, understanding market strategies, utilizing crop insurance, developing a marketing plan and water conservation practices and research projects. The 2003-2004 expanded regional programming efforts were made possible by financial support from the Nebraska Department of Agriculture-Rural Rehabilitation Fund.
- b) Through Farmers & Ranchers educational opportunities, producers increase their marketing and risk management skills, develop and implement a marketing plan and gain additional confidence in making marketing and risk management decisions. Over 85% of workshop participants said they probably or definitely will make changes in their farm/ranch business. The producers attending this season's workshops manage over 450,000 acres of field crops. Survey results indicate that producers estimated the value of the workshops at \$10.69/acre annually, for a potential impact of almost \$5 million statewide.

In addition, a one month follow up survey (after the crop insurance sign-up deadline) was administered to those producers participating in the Strategies for Success: The Road Ahead for Managing Farm Risks workshop held on March 4, 2004 (Geneva) to determine the effectiveness of this workshop. A scale of 1 to 5 was used with 1 = not valuable at all, 3 = neutral, and 5 = very valuable. Sixty-six percent of the workshop participants responded to this survey. The questions, average answer, most common answer and range are listed below:

- Before you attended this program, rate your understanding of various crop insurance products: average = 3.2, most common = 3, range = 1-5
- After you attended this program, rate your understanding of various crop insurance products: average = 4.3, most common = 4, range = 3-5
- Before this program, rate your understanding of seasonal corn and soybean price trends: average = 3.4, most common = 3, range = 1-5
- After this program, rate your understanding of seasonal corn and soybean price trends: average = 4.4, most common = 4, range = 3-5
- Before this program, rate your understanding of how crop insurance strategies could be tied to pre harvest sales strategies for corn and soybeans in 2004: average = 3.2, most common = 2, range = 1-5
- After this program, rate your understanding of how crop insurance strategies could be tied to pre harvest sale strategies for corn and soybeans in 2004: average = 4.3, most common = 4, range = 3-5

The workshop participants also indicated a benefit of over \$6,400 per farm/ranch business operation because of their participation in this workshop that emphasized the implementation of risk management strategies using crop insurance.

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

### **Key Theme - Animal Health and Bioterrorism**

*(refers to Plan of Work Goals 1 & 2, Output Indicator 1, and Outcome Indicator 2)*

- a) Cuming County is Nebraska's leading beef-feedlot county and among the top beef- producers nationwide. A biosecurity threat could be economically devastating in a county where livestock represents more than 88 percent of agricultural income so farmers and officials alike need to be prepared. Cooperative Extension worked with local officials and livestock producers to better prepare the county for a possible biosecurity threat, whether from agroterrorism or an accidental outbreak of a contagious disease. Extension helped organize meetings with extension, county leaders, local emergency management staff, producer groups and veterinarians to discuss biosecurity preparedness issues and design response plans. The county was divided into territories and every livestock operation was identified to aid response. Statewide, extension is working with the Nebraska Department of Agriculture to provide up to 60 daylong emergency response training sessions to help counties develop biosecurity response plans. Cuming County's plan was outlined in these sessions.
- b) Quick response is critical to minimizing and controlling biosecurity threats. Thanks to the plan, Cuming County officials and livestock producers know what steps are needed if the unthinkable happens. Their preparedness plan should reduce economic losses to the county's \$525 million per year livestock industry. Nebraska's lieutenant governor, also the state director of homeland security in Nebraska, praised the coordinated, cooperative effort behind the plan. Nebraska's state veterinarian said such planning also is important for preventing and preparing for the spread of common diseases.
- c) Scope of Impact - State Specific
- d) Funding:
  - University of Nebraska Cooperative Extension
  - Federal Formula Funds

### **Key Theme - Animal Production Efficiency**

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

- a) The livestock industry plays a key role in the economy of Nebraska. Feed costs account for the single largest expense (60%) in the beef herds of Nebraska. The variation in profitability between our ranches is mainly due to feed costs. Extension Educators in North Central Nebraska have led an educational effort to bring new feedstuffs technology and utilization to reduce feed cost for area

beef producers. For the past 4 years workshops, seminars and individual consultations have been conducted with area ranchers, feed dealers and feed manufacturers on using corn byproducts such as corn gluten feed and distillers grains as a protein and energy source in beef cattle rations. As a direct result of these educational events, the Farmers and Ranchers Co-op in Ainsworth, Neb., working closely with the extension educator in Brown, Keya Paha and Rock counties, developed a range cube made of 60% distillers grain meal.

- b) As of Oct. 1, 2004, over 7,500 tons of this new supplement had been purchased by livestock producers in North Central Nebraska. This change to feeding the new distillers grain cube has resulted in a \$31 per ton savings. Between July 1 and Nov. 1, 2004, total savings amounted to \$232,500 for ranchers using the new cubes. It was estimated that by Dec. 31, 2004, the savings would amount to over \$400,000. This is a prime example of how the University of Nebraska and private industry has worked together for the economic well being of beef producers in North Central Nebraska. The savings will continue into the future as long as distiller grains are produced as a result of ethanol production.
- c) Scope of Impact - State Specific
- d) Funding:  
NU Cooperative Extension  
Federal Formula Funds

#### **Key Theme - Animal Production Efficiency**

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

- a) Reproduction is the single most important factor in beef production. Without beef females reproducing, we have no cow-calf, backgrounding, feedlot, or packing industry. New methods and technologies to control and improve reproductive success in beef cattle were the focus of the University of Nebraska Cooperative Extension's "Applied Reproductive Strategies in Beef Cattle Symposium" held September 1-2, 2004 in North Platte, NE. This program was organized as an educational opportunity to help people in the beef industry gain a greater understanding of the reproductive processes involved in both female and male beef cattle and provide management strategies to optimize reproductive efficiency. Continuing education credit (14 hours) was offered for veterinarian clientele. A Web site (<http://westcentral.unl.edu/beefrepro/>) was developed in May and received over 4,000 hits . All presentations were recorded by Market Journal and are available to the public for Web viewing. Colorado State University and the University of Illinois are using the lectures on the Web as part of their advanced reproduction classes. Symposium topics included estrous synchronization systems and costs, measuring breeding soundness, improving conception rates, nutrition and reproductive interactions, early pregnancy diagnosis, and more. The program also included panel discussions with producers and veterinarians and instruction on ultrasound, reproductive tract scoring, and semen quality assessment techniques. Two hundred and fifty-eight participants from 22 states attended. Clientele included veterinarians, commercial and purebred beef producers, AI company and pharmaceutical representatives, nutritionists, extension educators, livestock specialists and scientists.
- b) Participants were evaluated to determine the knowledge gained from each of the topics and value of the training. Participants who completed the evaluation (119) indicated:

They represent 1,680,832 beef cattle and 19,450 dairy cattle. 96 percent said the value of the training outweighed the cost of attending. 83 percent indicated as a result of attending the conference their profitability would be increased. 100 percent indicated they received new



information from the conference. Some example responses of participants when asked about anticipated changes in their use of reproduction technology included:

Consider the balances between cost and profitability. More interest in using CIDRs, more inspired to provide accurate up-to-date information to my clients and contemporaries. Use breeding soundness exams. Adjust my estrus synchronization programs. Upgrade ultrasound equipment, work with more confidence in recommending cow and heifer AI synchronization protocols. More use of synchronization protocols and ultrasound, apply some of the new synchronization protocols, semen testing. Change recommendations on synchronization systems for producers, new insights for demonstrations and applied research, improved bull assessment and management. Not overfeed bulls to ensure quality testicular development.

- c) Scope of Impact - Multiple states
- d) Funding:
  - NU Cooperative Extension
  - Federal Formula Funds
  - User fees

**Key Theme - Biotechnology**

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

- a) For the past three summers, the Department of Agricultural Leadership, Education and Communication in cooperation with the Nebraska Agriculture in the Classroom Program have offered to secondary teachers extensive “hands-on” workshops in Biotechnology. Geared primarily towards science teachers, these biotechnology workshops have involved examples from agriculture and natural resources that have demonstrated to teachers how these laboratory experiments can meet existing state standards in science education at the secondary level.

Teachers were enrolled in a weeklong workshop designed to take them systematically through nine biotechnology experiments. The nine experiments included: 1) What is DNA? 2) Building DNA, 3) DNA Extraction, 4) Mutations: Unscheduled Changes, 5) Gene Splicing in E. coli, 6) DNA Fingerprinting, 7) Biotechnology Tools: Use of the Micropipettes, 8) Biotechnology Tools: Use of Electrophoresis Gel, and 9) Discussion of Bioethics. Working in groups of two, teachers completed each experiment while recording specific notes and procedures on how they would integrate these learning experiences in their local curricula.

- b) As a result, teachers who participated in the summer workshops where required to integrate the biotechnology experiments into their existing curricula. While various components of DNA, cell morphology, and genetic engineering may take place at different times within a local school curriculum, teachers where asked to identify the specific biotechnology linkages within their local science education curriculum. The outcome of the project was to enhance their current standards in science education within applications in biotechnology and genetic engineering. Teachers who participated in the summer workshops were able to integrate biotechnology and the “hands-on” activities into their existing curricula to support state standards in science education in Nebraska.
- c) Scope of Impact - State specific
- d) Funding:
  - NU Cooperative Extension
  - Federal Formula Funds

User fees

**Key Theme - Rangeland/Pasture Management**

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

- a) Continued drought has created near perfect conditions for destructive grasshopper infestations on hundreds of thousands of acres of central and western Nebraska rangeland in recent years. Heavy infestations must be treated to protect scarce, much needed forage grass but conventional treatments are costly. Cooperative Extension educated producers about the Reduced Agent and Area Treatments System (RAATS). Under this system, insecticide is sprayed from planes at lower-than-conventional rates in 100-foot alternate swaths instead of spraying the entire area. Applications are timed to optimize residual control. Grasshoppers in the untreated swaths come in contact with the insecticide when they move to treated areas, making treatment nearly as effective as conventional approaches that cost far more and use more than twice as much insecticide. Extension staff promoted this approach through media, publications, educational meetings and individual consultations. RAATS was used on nearly 360,000 Nebraska acres in 2003. In 2004, only 200,000 acres were treated because grasshoppers were less widespread. Extension teamed with USDA's Animal Plant and Health Inspection Services, the Nebraska Department of Agriculture and landowners on this control effort.
- b) RAATS system uses less than half the insecticide of conventional grasshopper controls and far less fuel and time are needed to apply it. In Nebraska, this approach reduced treatment costs for landowners from \$5 to \$8 per acre to \$1.50 to \$2 per acre, a roughly 70 percent decrease on average. Treatment costs in 2003 were \$1.7 million less than in 2002. In 2004, this system saved nearly \$950,000 in treatment costs compared to conventional methods.
- c) Scope of Impact - State Specific
- d) Funding:
  - University of Nebraska Cooperative Extension
  - USDA Animal Plant and Health Inspection Service
  - Nebraska Department of Agriculture
  - Federal Formula Funds

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

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

Food safety is an on-going concern. As a livestock producing state dependent on income revenue from production there is a continual alert for food safety issues that will impact revenue generation. 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.

The response of Cuming County Nebraska is an example of how seriously Extension takes the threat to food safety. Cuming County's status as the top feedlot county in Nebraska and one of the top beef counties in the country puts it at risk for potential bioterrorism threats. A biosecurity problem would economically devastate the county, where more than 88 percent of the agricultural income comes from livestock. University of Nebraska Cooperative Extension worked with local officials and livestock producers on a biosecurity response plan. Quick, coordinated response is critical to minimizing any biosecurity problem. Thanks to this effort, emergency responders and producers know what to do if the unthinkable happens. Cuming County's plan earned praise from state officials. It offers a model for other counties that want to plan a response. Statewide, extension also is working with the Nebraska Department of Agriculture to train counties on how to develop emergency response plans. (See Goal 1 for specific program information.)

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. Educational 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.

Since 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 8,000 food service professionals have taken Serv Safe in Nebraska since the program was introduced in the mid-90's. Over 96% of these individuals have passed successfully the Serv Safe tests. This represents millions of safe meals served on a daily basis.

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.

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.

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

<b>FFY2004</b>	<b>Federal*</b>	<b>State</b>	<b>Local</b>	<b>Other</b>	<b>Total</b>
<b>Funding:</b>	\$ 257,836	\$ 1,255,463	\$ 374,303	\$ 674,378	\$ 2,561,980
<b>FTE**:</b>					19

\* FY2003-2004 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 Safety**

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

- a) 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 8000 food service professionals have taken Serv Safe in Nebraska since the program was introduced in the mid-90’s. Over 96% of these individuals have passed successfully the Serv Safe tests. This represents millions of safe meals served on a daily basis. As a result of ServSafe workshops, participants stated that they learned practical applications of proper time-temperature controls in food service operations and proper use of testing of sanitizing solutions.
  
- b) Several counties in Nebraska have large Hispanic population. The need for a Spanish food safety training was identified because some of the food service employees have limited English language and literacy skills. At the Lexington site, 11 out of 13 participants passed the certification test. The average score was 90.2 percent. Participants reported meals served were 2,605 - 2,775 per day. As a result of the training, participants plan to implement the following practices:
  - “Work better according to the food safety guidelines and take more care of the food.”
  - “Have more care in the general cleaning and in the thawing process of meats ... wash hands better.”
  - “ ... thaw the meat and fish in the refrigerator or in water in the range of the temperature.”
  - “Have more control in hygiene and pay more attention.”
  - “Watch all the mistakes or negative processes that I have been doing and improve to 100% in the client’s shoes and hope for exceptional service.”
  - “Improve my job, be cleaner, practice what I learned and explain what I have learned to my co-workers.”
  - “Emphasis in the control of food temperature, keep rigorous control of food, hygiene and

sanitation of employees, getting better and better each day in the service and quality of ingredients and all storage processes.”

- “This class went well for me. It is important and I think that you helped me a lot and answered a lot of the questions that I had.”
- Manager’s comment: “I had two ladies go to the ServSafe For Employees Spanish class. They both enjoyed it a lot and really seem to be applying the information.”

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, Output Indicator 1, Outcome Indicators 1 & 2)*

a) Young children and older adults are at greater risk for foodborne illness. It is essential that workers who prepare food for these segments of the population use good food safety practices. Specific University of Nebraska Cooperative Extension programs were developed and presented to two groups of foodservice personnel who prepare and serve food to higher-risk people.

b) Audience #1: Pre and post tests given to participants showed an average gain of twenty percent in food safety knowledge. Evaluations at the end of the programs indicated that participants identified problem situations in their facilities and made plans to implement safer food handling procedures to decrease the risk of foodborne illness.

Audience #2: Evaluations received at the end of the concurrent sessions and verbal comments indicated the information presented and handout materials given to participants would be well used for workers' training programs and would improve food handling practices.

Materials developed by the presenters were used for two different types of presentations: (1) training sessions for workers in schools, long-term care homes and senior centers and (2) concurrent sessions for foodservice managers attending state conferences. The 3-4 hour on-site training sessions used methods such as lecture, Powerpoint, experiments, hands-on activities and small-group discussions of appropriate scenarios. A different approach was used for the second audience because participants as managers already were trained in food safety. They received materials to train workers in their facilities -- six short lessons that could be given in 15 to 20 minutes. The lessons featured a number of activities and resources. A Powerpoint presentation was used to highlight the materials and many resources were displayed.

Participation at these programs presented in 2004 included: audience #1 - four training sessions (2 with school foodservice workers, 1 senior center group , 1 with long-term care home workers) 82 participants audience; audience #2, three concurrent sessions were given at two conferences (Nebraska School Foodservice Association and Nebraska Dietary Managers Association) - 130 participants.

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, Output Indicator 1, Outcome Indicator 1)*

- a) A week-long in-service was held for extension educators on food microbiology based on an upper level university course. Educators participated in lectures and laboratory exercises to increase their knowledge about food microbiology.
- b) As a result of the in-service, educators increased their knowledge about food microbiology by 43% and their knowledge about laboratory techniques by 50%. Participants stated that they learned new information about molds, prebiotics, laboratory techniques, classification of microbes, prion diseases, and viruses. Information that was reinforced and new information added includes sanitation, food preservation, pathogens, and hurdles technology. The educators received this training on the science base to support in-depth food safety educational programming.

“The lab time was very valuable in relating work from the classroom to scientific research that has been done to detect food borne organisms.”

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

### **Key Theme - Food Safety - Consumers**

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

- a) The potential market for irradiated meat products has expanded but manufacturers interested in using irradiation are slow to adopt the process due to the perception that few consumers are willing to purchase irradiated foods. The purpose of this research project was to educate consumers about food irradiation and determine their acceptance. Our educational program was conducted at three communities on a Saturday at grocery stores and a large community event.
- b) Consumers completed a survey consisting of food safety information and the acceptance and willingness to purchase irradiated meat. Beef Council Nutritionists and Extension Educators were available to interact with consumers. Educational components included a display explaining food irradiation and two brochures were available. Consumers were able to taste an irradiated ground beef sample and complete a taste test form. One-hundred fifty-six consumers participated in the survey and 293 participated in the taste test. Of those surveyed 79% believe ground beef is safe to eat when the exterior is brown. Approximately half (48%) of the participants were aware of irradiated meat but only 7% currently used the product. Of the participants, 71% were comfortable purchasing and using irradiated meat, 69% reported that irradiating food is an effective method for destroying harmful microorganisms in meat and 46% would choose an irradiated meat product over a comparable non-irradiated meat product. Of those who tasted the sample, 86.22% were willing to purchase irradiated meat. An educational program with a taste test increases consumer acceptance of irradiated meat.
- c) Scope of Impact- State Specific

- d) Funding:  
NU Cooperative Extension  
Federal Formula Funds

**Key Theme - Food Safety - Consumers**

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

- a) USDA-FSIS has developed educational materials to promote the use of thermometers with consumers to determine the proper doneness of foods. A thermometer educational display was developed with a 3 question survey for use at health fairs and other educational events to promote thermometer usage by consumers. The educational display contained pictures of different thermometers, pictures and directions for proper insertion of thermometers in food items and the FightBac™ message. The survey was developed by a group of extension educators. One question focused on types of food thermometers that the participants have in their homes. The second question focused on what food items the consumer uses a thermometer to determine doneness and the third question was a knowledge question. The educational display was used at two major events during the summer of 2004. To encourage participation, a drawing for a grill was held. Participants received a Thermy™ magnet as a reward for completing the survey.
- b) From these events, 862 participants completed the survey. Approximately half (50.3%) of the participants had candy thermometers, while 33.2% had refrigerator thermometers and only 18.1% had a dial thermometer. The food item that participants most often used a thermometer was turkey (24.2%) while 36.2% did not use a thermometer to determine doneness. Forty (40%) of the participants correctly answered the question on the proper temperature to cook hamburgers. The results of the survey indicate that more education of consumers is needed on the use of thermometers to determine doneness.
- c) Scope of Impact- State Specific
- d) Funding:  
NU Cooperative Extension  
Federal Formula Funds

**Key Theme - Food Safety - Game Meat Processing**

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

- a) An educational workshop, “On the Wild Side”, on game meat food safety was held for hunters and processors. Forty five participants attended the workshop. The workshop included field dressing of deer, diseases of deer and game birds, fabrication of a deer carcass, chronic wasting disease, cooking techniques, and canning of game meats.
- b) As a result of the workshop, participants increased their knowledge about 1) proper field dressing (91%), 2) diseased versus healthy game animals (90%), 3) game meat processing (84) and 4) proper cooking techniques (58%). Educators had a solid knowledge base in food safety prior to the program. As a result of this program, safe handling knowledge increased by 29%. “Excellent current information on chronic wasting disease was shared and the severeness of the issue was illustrated for us to share with hunters.”
- 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, Outcome Indicator 1)*

- a) A website with 5 biotechnology lessons on food biotechnology was developed for continuing education for professionals (<http://citnew.unl.edu/nutrition/>).
- b) 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.
- c) Scope of Impact- Nebraska
- d) Funding:  
NU Cooperative Extension  
Federal Formula Funds

**Key Theme - Food Safety - Technology**

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

- a) Using the Internet to help consumers learn about food safety offers several benefits. It is a timely and cost-efficient way to help unlimited numbers of people access the most recent food safety information and materials at whatever time of day (or night) they need it. The specific target audience for Internet-based food safety information was consumers and educators who teach consumer food safety. Working together with the local health department, several methods of educational delivery were used to reach this group: posters and table tents; an interactive quiz; two monthly newsletters (Food Reflections and Cook It Quick); targeted Web pages ("Food Safety for Home Cooking," "Home Food Preservation," and "Work and Community Site Food Safety"); and ready-to-use handouts on popular food safety topics. Some indicators of the success of using the Internet for educating consumers about food safety include:
- b)
- The FOOD Web site containing this food safety information receives around 80,000 hits monthly.
  - The handwashing poster has received over 36,000 hits since being posted in July 2002. During the flu season this year, one organization wrote: "We thought it was the best poster we had seen in our search and are eager to use it."
  - A bean bag game and related coloring sheet, Sink Those Germs," to promote handwashing among children had over 4,000 hits during its first 2 weeks on the Internet.
  - Data collection forms are included on several of the Web pages. Examples of the helpfulness of information include:
  - 98% of the 746 responses to the feedback section on Food Reflections e-mail newsletter this past year rated the articles as helpful to them.

Comments sent in by Web visitors indicated these materials helped them both personally and increased their effectiveness professionally. Sample comments include:



- "I'm teaching a Food Safety class for my staff next week and these are a great addition to my teaching materials and also great posters for my kitchens. Thanks so much!!!"
- "These are all GREAT!!! I'm using them as handouts in my classes for the Child and Adult Care Food Program. Thank you so much!"
- "I can give these materials to relatives and friends. As we all know, family are the hardest people to change."
- I work in an all too busy workplace as does everyone else and the ready made educational materials are very, very useful and eye-catching."

"Many of these people are probably looked to as good sources of valid health information by others ... Those people that receive this information then share that with others, either by using the material themselves, talking about its availability, or forwarding info on how to access it."

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

**Key Theme - Food Safety - Youth**

*(refers to Plan of Work Goal 4, Output Indicator 1, Outcome Indicator 1)*

- a) Frequent handwashing is one of the best ways to help prevent the spread of disease, according to the Centers for Disease Control and Prevention. Research has shown handwashing helps prevent absenteeism in schools. Health fairs, after-school programs and activities in childcare facilities, preschools and elementary schools are ideal settings to promote handwashing. The purpose of Nebraska Cooperative Extension's Sink Those Germs project was to develop an educational activity for educators to use with younger children in these locations. In the program, children "sink germs" by tossing bean bag "germs" into a container ("sink"). The game uses six bean bags, corresponding with six times to wash hands. The game materials include: 1) poster showing when to wash hands; 2) "Sink Those Germs" label for "sink;" and 3) take-home coloring sheet on handwashing. After incorporating suggestions from other educators and from using the activity with children, we notified educators on several listservs about downloading these materials from the Web.
- b) During the first three months, the "Sink Germs" homepage received 7,000+ hits. In an online evaluation, of 201 respondents -- 96% indicated the materials were helpful to them; 95.5% felt "inspired to try something new as a result of these materials."
- c) Scope of Impact- Nebraska
- d) Funding:  
NU Cooperative Extension  
Federal Formula Funds

**Key Theme - Food Quality - "Assuring Quality" Youth Livestock Quality Assurance Program**

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

- a) The "Assuring Quality" program was implemented to achieve the following primary goals: 1)

Help youth understand the responsibilities involved in raising livestock for food, 2) Help youth learn the technical knowledge of quality assurance, and 3) To change management practices of the youth and/or family members to be consistent with quality assurance practices. Secondary goals included: 1) Volunteer development, and 2) Enhancement of 4-H club programming, and 3) Reaching parents that otherwise would not participate in quality assurance training for adults.

The subject matter covered in “Assuring Quality” includes the basic principles that are part of the Beef Quality Assurance, Pork Quality Assurance, and Dairy Quality Assurance programs. Materials have been modified to be more appropriate for youth audiences. Related activities have been included to make the learning more interactive and experiential. Subject matter to be covered has been divided into a three year rotational program. Principles covered in the 2002 training included Livestock Daily Care and Management, and Prevention of Problems. The most often used activities were “Identification” (93% of all programs), “Reading Feed Labels” (83%), “Water Requirements” (79%) and worksheets on “Prevention” and “Caring for My Animals” (76% each).

Resources provided to county extension staff and volunteer leaders included a Leaders Guide which contained a scripted Powerpoint presentation and accompanying experiential learning activities, a video and a youth booklet. County extension staff and volunteer leaders were trained either in-person or via satellite on the subject matter, as well as on the philosophy and logistics of presenting the programs.

- b) Impact - Reactions of youth to the programs indicate that over 80% of the youth that attended training learned something about quality assurance practices. Approximately 90% of parents thought the programs were educational and that their children learned something important about quality assurance. The three primary goals were achieved as evidenced by these examples of practices that youth learned and/or their behavior changes:
- “Two of the older youth were able to help ear notch at our county swine weigh-in and were also instructing one of the parents on how to read ear notches” (Chase and Dundy Counties)
  - “One girl was concerned about the loading of hogs she saw at the State Fair because truckers were using hotshots, since we had talked about stress in pigs, PSE and the effects of using hot shots.” (Washington County)
  - A Holt County youth stated “This program made we want to learn more about my livestock projects. I didn’t realize giving my animals water everyday was so important.”
  - A Furnas County youth stated “I learned the importance of proper identification of my animals.”
  - “How a fat pig drinks a lot – I better fix the automatic waterers!” is how a Box Butte County youth responded to the training.
  - A parent from Cuming County reported “My children learned many things ... they now realize how much time and knowledge it takes to care for animals.”

The secondary goal of reaching parents was also achieved, as indicated by these comments:

- “I am glad I stayed. I really understand how this whole food safety issue works now.” (Gage County)
- “I even learned a few new things about quality assurance.” (Boone and Nance Counties)
- “More worthwhile program than I expected” (Lincoln -McPherson Counties)
- “This was MUCH better than what we expected. All of us learned a lot of good stuff ... very educational, even for us parents!” (Holt County)

The goals of volunteer development and enhancement of club programming are addressed by these comments:

- “I really enjoyed the training and I’m excited about doing this with my club.” (Cherry

- County)
- “Good programming, information that all 4-Hers showing livestock should know, makes great material for winter club meetings.” (Fillmore, Thayer and Nuckolls Counties)
- “I enjoyed the opportunity to teach this information in my club.” (Saunders County)
- “It is great that 4-H is educating youth again - this is what 4-H is all about.” (Adams County)
- “The lessons were fun to teach and the activities kept the kids interest. This is what 4-H is supposed to be all about.” (Buffalo County)

Activities for “Assuring Quality” greatly enhanced the acceptability of the program, as reactions from youth indicate that on a statewide basis, nearly 50% thought the program was fun and they learned something, and 58% of parents thought the program was fun and that their children learned something. Several units reported 80% or more of the youth and parents thought the program was both fun and educational.

With approximately 60% of the extension units in the state reporting, a total of 6,500 youth in the reporting units were trained in the first year of “Assuring Quality”. Of these, 92% or over 5300 youth, attended a training session. The other 8% were older (12 - 18) youth that “tested out” of the program by taking a test that covered all the principles of quality assurance.

In approximately half the units, volunteer leaders conducted some or all of the programs.

In 20% of counties, junior leaders assisted either extension staff or volunteers in conducting the programs.

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

**Key Theme - HACCP-Food Safety -Nebraska Beef 706 & 808**

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

- a) Nebraska Beef 706 was held March 23-25, 2004, with 39 attendees and Nebraska Beef 808 was held January 21-22, 2004, with 29 attendees. Nebraska Beef 706 included sessions on beef slaughter HACCP and antimicrobial interventions. Nebraska Beef 808 included and an update on E. coli O157:H7 research including new information in beef slaughter antimicrobial interventions and pre-harvest control, a session on BSE; slaughter plant controls and identification and control of SRM (specified risk material), and a session on animal identification and traceability. This year cattlemen and Extension Educators from North Carolina participated in Nebraska Beef 706. Eleven participants from North Carolina attended the course. The objectives for the Nebraska Beef 706 course were: a. Provide in-depth training on quality and consistency issues in the beef industry; b. Provide insight on value differences in beef cattle, beef carcasses, and beef primals due to quality variation in beef products; and c. Provide a framework whereby participants in all phases of beef cattle production can implement management and production changes to increase value through improvements in quality and consistency. The advanced course Nebraska Beef 808 focused on improving quality, consistency and value in beef for participants that had already attended a Nebraska Beef 706 course. Nebraska Beef 808 was developed to have continued contact with producers, to expose producers to more segments of the beef industry, and to place a stronger emphasis on safety, quality and consistency in the cull cow segment of the beef industry.

- b) Nebraska Beef 706 was evaluated by a pre-course test and post-course test designed to address changes in attitudes and knowledge about the quality and consistency of beef. The participants rated most of the factors on beef quality as important or very important. This indicates that the participants that came to the course were already concerned about the quality and consistency of beef. In the post-course test, each of the areas increased in importance or remained the same, indicating that the course increased the focus on safety, quality and consistency for the participants. Participants also indicated that the emphasis placed on increasing safety, quality and consistency of beef in their operations would be “a major emphasis” and the level of emphasis increased from a rating of 1.72 before the course to 1.27 after the course. Nebraska Beef 808 participants were asked to rate the importance of the program topics for use in their operation. Participants rated the topic areas on the higher side of the scale (1.5 to 2.3 on a 5 point scale), with most rated as very important or important.
- c) Scope of Impact- Nebraska, North Carolina
- d) Funding:  
 NU Cooperative Extension  
 Federal Formula Funds  
 Nebraska Beef Council

**Key Theme - HACCP -Implementing Your Company’s HACCP Plan**

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

- a) Five training courses were conducted for Implementing your Companies HACCP Plan. Implementing your Companies HACCP Plan, January 26-28, 2004, Animal Science, University of Nebraska, Lincoln, Nebraska Implementing your Companies HACCP Plan, May 11-13, 2004, Animal Science, University of Nebraska, Lincoln, Nebraska Implementing your Companies HACCP Plan, July 13-15, 2004, Best Western Raddison Redick Hotel, Omaha, Nebraska, Conducted by University of Nebraska, Lincoln, Nebraska Implementing your Companies HACCP Plan, September 11&25, 2004, Columbus, Nebraska, Conducted by University of Nebraska, Lincoln, Nebraska Implementing your Companies HACCP Plan, September 27-28, 2004, Double Tree Club Hotel, St. Louis, Missouri, Conducted by University of Nebraska, Lincoln, Nebraska. A total of 99 company personnel attended
- b) Impact: A pre and post workshop survey was conducted (IRB# 200-08-325 EX) to determine the change in attitudes and knowledge of workshop participants. The post workshop evaluations indicated that participants greatly increased their comfort level for working with the principles of HACCP in their facility as most indicators changed from an average or below average comfort level (1.8 to 2.6) to a very strong comfort level (3.9 to 4.5). In addition participants in the workshop would be more likely to discuss HACCP plans or assist with HACCP plan implementation with other employees in their business or business clients. Workshop participants also increased their knowledge level about HACCP during the workshop as the average test scores increased. Development of HACCP plans is important for the reduction of foodborne hazards and for compliance with USDA regulations.
- c) Scope of Impact- State Specific
- d) Funding:  
 NU Cooperative Extension  
 Federal Formula Funds

**Key Theme - HACCP - One-on-one assistance to Meat and Food Processors**

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

- a) Technical support services were used to assist meat and food processors with maintaining and improving HACCP plans and food safety programs. A HACCP extension assistant was hired in Nebraska and Kansas state to provide one-on-one assistance to meat and food processors. One HACCP specialist was hired in Nebraska to cover Nebraska and South Dakota and one was hired in Kansas to cover Kansas and Missouri. Assistance was provided to small meat and food processors that lacked the technical expertise to implement and maintain effective HACCP plans in their facility. Activities included assisting with HACCP plan development, answering technical questions for the implementation of HACCP in a small plant, researching the scientific supporting documentation for HACCP plans, scientific and technical assistance for responding to regulatory non-compliance reports, and verification of HACCP plans. In addition, toll free numbers have been established for the meat processors to call to receive the assistance with HACCP implementation.
- b) A survey of 50 meat and food processors in the four states was conducted to assess the effectiveness of one-on-one HACCP assistance. Thirty four processors were not operating under HACCP prior to assistance from the university and following assistance forty-four of the 50 processors were operating under HACCP. Processors indicated the assistance created changes in production and sanitation practices in their plant that increased food safety and augmented their HACCP plans. Processors also indicated that assistance increased their knowledge and awareness of HACCP and their understanding of the role of HACCP in producing safe products.
- c) Scope of Impact- Nebraska, South Dakota, Kansas, Missouri
- d) Funding:  
NU Cooperative Extension  
Federal Formula Funds  
CSREES

**Key Theme - HACCP -Validation of CCP's**

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

- a) FSIS is requiring the meat and poultry processing establishments to validate the critical control points (CCPs) identified in their HACCP plans. Validation assures that the CCP is working properly in reducing and/or eliminating the identified food safety hazard at the particular step in the meat or poultry production process. Most of the meat and poultry processors were able to develop HACCP plans for their products with assistance and training from UN-L food safety extension specialists. Validation of CCPs within HACCP plans requires thorough knowledge of risks associated with each of the products, behavior of foodborne pathogens in particular products and knowledge of the process itself. In many cases, the processors requested that these microbiological validation studies be conducted by UN-L extension personnel as a third-party activity as an independent assessment of the efficacy of the CCP in reducing and/or eliminating the food safety hazard. Lack of documentation and proper validation of the CCPs can have severe

consequences, and can result in withdrawal of FSIS inspection from the facility, resulting in shut-down of operations. University of Nebraska-Lincoln extension food safety specialists were able to work with the processors and validate the CCPs. In cases where the critical limits had to be adjusted, those recommendations were provided to the processors to reassess their HACCP plans and improve safety of their products. Examples of these processors include a small meat processing establishment in Omaha, where pickled products are produced to large meat and poultry processing operations across Nebraska.

Impact: This one-on-one validation assistance was timely and the UN-L food safety specialists assisted more than 15 meat and poultry processing establishments in Nebraska. This assistance was critical to the continued operation of these establishments and in assuring safety of their products.

- b) University of Nebraska-Lincoln extension food safety specialists were able to work with the processors and validate the CCPs. In cases where the critical limits had to be adjusted, those recommendations were provided to the processors to reassess their HACCP plans and improve safety of their products. Examples of these processors include a small meat processing establishment in Omaha, where pickled products are produced to large meat and poultry processing operations across Nebraska.

Impact: This one-on-one validation assistance was timely and the UN-L food safety specialists assisted more than 15 meat and poultry processing establishments in Nebraska. This assistance was critical to the continued operation of these establishments and in assuring safety of their products.

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

### **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 85,000 Nebraska families have participated in the EFNEP program since it began in 1969. Nearly 22,000 families in 28 counties have participated in the FSNEP program since it began in 1994.

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. Nearly all the homes in the older part of Omaha, NE were built before 1978, when lead paint was banned. In one older northeast neighborhood, 42 percent of children tested positive for lead from 1992 to 1998. University of Nebraska Cooperative Extension teaches classes in Omaha in English and Spanish on how to reduce lead poisoning through housekeeping, nutrition and landscaping, and during common home maintenance projects. In 2004, 75 families participated in eight classes taught in English and three in Spanish. Thanks to what they learned, 70 percent of the participants made changes to reduce the risk of lead poisoning to their children.

The Nebraska Behavioral Risk Factor Report shows 58 percent of Nebraska adults are obese and 29 percent don't participate in physical activity during their leisure time. University of Nebraska Cooperative Extension teamed with the Cornhusker State Games and Nebraska Health and Human Services System on the –Lighten Program to encourage youths and adults to exercise more and lose weight by forming teams and logging daily exercise. The program provides a web site and information about nutrition, exercise and health. In 2004, more than 750 teams representing nearly 6,000 people took the challenge to increase and track their activity in hopes of winning medals at the Cornhusker State Games in July. Participants in 2004 lost more than 16,500 collective pounds and logged more than 1.77 million physical activity miles. More than 80 percent said they planned to continue their exercise after the program.

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 Equivalent(FTE):**

<b>FFY2004</b>	<b>Federal*</b>	<b>State</b>	<b>Local</b>	<b>Other</b>	<b>Total</b>
<b>Funding:</b>	\$ 386,753	\$ 1,883,194	\$ 561,455	\$ 1,011,568	\$ 3,842,969
<b>FTE**:</b>					29

\* FY2003-2004 Federal Formula Funds (includes Smith-Lever regular E3bc, special needs, CSRS retirement)

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

**Key Theme - Farm Safety**

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

- a) Twenty-one farm safety camps were co-sponsored with *Progressive Farmer* in 2004 which reached 3000 youth and involved 1000 volunteers.

Safety events in schools and communities reached an additional 526 youth and their parents.

- b) A comprehensive evaluation of the farm safety day camps conducted by University of Alabama has indicated that 66% of the volunteers learned some new safety information and planned to make safety changes in the home. Mean knowledge scores of the campers increased from pre- to post-test with the increase in knowledge maintained at both 3-month and 11-month followup surveys.

Third and fourth grade participants in Jefferson County's farm safety day listed these specific behaviors they intended to change: 17% would begin wearing bike helmets; 15% would stay from power lines or trees with power lines in them. Other changes included staying away from anhydrous tanks, grain bins, PTO shafts, and wearing sunblock to protect themselves from too much sun.

Additional followup evaluations of the farm safety day camps have indicated that children have talked to their parents and others about farm safety messages that were learned, and new safety rules were adopted on some farms

Preliminary to changing behaviors is a change in awareness of farm safety issues. Extension helped to observe National Farm Safety and Health Week from September 19-25, 2004 with poster contests, awareness walks, school presentations, media reports, and inserts for business, agency and church newsletters.

One bicycle safety program in which County Extension has been a partner has resulted in more than 200 helmets given away to youth.

- 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) From October 1, 2003 to September 30, 2004, Nebraska's Food Stamp Nutrition Education Program (FSNEP) served a total of 2,569 enrolled families, with over 1,364 families being added to the program. In addition, 10,615 youth participated in some type of nutrition education programming. There were 8,791 direct teaching contacts and 605,634 indirect contacts through Nebraska's FSNEP program in the past fiscal year. The older adult portion continued to be an area of growth, with 215 seniors finishing the program.. Of the 734 graduates of the program (exit versus entry data), 46% improved food resource management practices, 25% improved their overall nutrition practices, 78% improved food safety practices and 17% improved in all three areas (food safety, food resource management and nutrition. Program graduates made positive changes from entry to exit in their iron, protein, calcium, Vitamin A, C and B-6 intakes. Overall, 53% had a mean adequacy nutrition ratio greater than 70 at entry and 68.4% had a score greater than 70 at exit, an indicator of improved dietary quality by the graduates.
- 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 reached a total of 21,688 adults and



youth. A variety of Nebraska audiences were reached including 3,114 at health fairs, 2,087 participants in ABCs for Good Health programs which include walking programs and nutrition classes, 4,511 enrolled in general community nutrition education lessons, and 415 individuals attending health conferences. The ABCs classes are focused on Aim for Fitness, Build a Healthy Base, and Choose Sensibly concepts of the Dietary Guidelines for Americans. An on-line nutrition website was accessed by 11,561 persons for newsletter information and a nutrition lesson.

- Of the 2,087 ABCs for Good Health participants, 345 of them were Nebraska women who were 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 a series of four 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 past year, 345 women were enrolled and participated in the classes; 82.9% Caucasian, 10.6% Hispanic; 4.3% African American, 1.6% Native American, and 0.6% Asian. Ninety-seven percent of EWM participants set nutrition and/or physical activity goals for each class session and 69% reported they had been able to reach their goal all or most of the time.
  - The general community nutrition education lessons that reached 4,511 individuals as a part of the University of Nebraska Extension health and wellness programs were focused on healthy snacking, improving chronic disease conditions such as osteoporosis and diabetes, planning and preparing meals in our contemporary, fast-paced society, and improving the nutritional well-being of senior adults. In “Nutrition for Seniors,” the followup evaluation showed that participants were reading food labels, reducing fat, increasing fruits and vegetables and practicing portion control. “Healthy Snacking” classes to elementary students resulted in healthier snack choices following the lesson. “Control Diabetes for Life” participants made significant changes in 20 traits tested, including planning for smart eating during holidays, modifying a family favorite recipe, and limiting serving size to limit sugar, sodium or fat intake. Participants in a community wellness series class, “Fast and Healthy One-Dish Dinners for 1, 2, 4 or More,” learned ideas for cooking healthier meals, and “Meals in Minutes” participants learned ways to pre-prepare foods and plan ahead for grocery shopping.
  - The 415 educators, health educators and other health professionals who participated in three health conferences hosted by University of Cooperative Extension (Nutrition and Food Update, Fit and Healthy Kids, and Women’s Health Conference) gained knowledge to assist in making their own behavior changes. The conferences were designed to assist professionals in gaining new knowledge about health issues, and learn new methods for facilitating behavior change, as well as make their own behavior changes. At the Women’s Health Conference, women expected to make changes in getting family members to appropriate health screenings, preparing foods to meet their health needs, becoming more physically active, identifying treatments for autoimmune disorders, and selecting an appropriate dietary approach to manage weight.
- b) Walking programs, as a part of the ABCs for Good Health program, had 1269 participants in the past fiscal year. Highlights of some of the efforts pertaining to this program included:
- A “Walk Across Nebraska” effort conducted in the Sandhills region has doubled the average miles walked per person in a 12-month program. Twenty-nine individuals reported losing a total of 268 pounds.
  - A western Nebraska program in Box Butte County with 38 participants identified that 43 percent reduced their blood pressure as a result of increased physical activity and choosing foods with less fat and sodium. Five of eight individuals who checked their blood cholesterol levels experienced an average reduction of 15 mg/dl in total serum cholesterol at 15 weeks following the program.

- Senior adults in northeast Nebraska committed themselves to a walking program that they have found to be fun and challenging. Participating individuals reported they were successful in maintaining their increased level of walking and expressed appreciation for the group support.
- University of Nebraska Extension was a partner with Cornhusker State Games, Nebraska Health and Human Services System, and Tiger Coaching to offer N-Lighten Nebraska, a team wellness program, from February through June, 2004. There were 5,799 participants representing 87 of Nebraska's 93 counties. There were 478 adult weight loss teams, 636 adult accumulated physical activity teams, and 12 youth activity teams. During the program, the overall weight lost by participants in the program was 16,500 pounds (average 2.8 pounds) with a total of 1.77 million physical activity miles logged (average 305 miles per participant). Nebraska Extension offered its own internal competition in the accumulated activity division with 293 participants walking an average 535 miles per participant over the four month period. Eighty-three percent of the participants planned to continue their physical activity program in the future
- A "Sisters Together: Move More, Eat Better" program conducted in Lincoln for 24 African American women since 2001 has shown weight losses in some women ranging from 2 to 11 pounds. Mean systolic and diastolic blood pressure has decreased by 4% and 2%, respectively. Serum triglycerides decreased by 2.5%, total cholesterol by 5%, and LDL cholesterol by 2%. This program has encouraged the participants to experiment with and improve cooking skills, eat more fruits and vegetables, change types of cooking fat, reduce fat and salt in food preparation, and control 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 Internet Course for Early Childhood Professionals has increased from 13 to 15 training hours. The new topics are Water: in Your Food and You and Feeding the Children - Safely. Approximately 400 training hours were accomplished from individuals in NE, MA, NC, CO, IL, LA, MI, MN, CA, ME, IA, AK, OH, TN. Impact includes education and empowerment of child care providers in implementing the Dietary Guidelines to lessen the risk factors for chronic diseases; safer facilities for children; and the reduction of educational costs by interagency and interdepartmental collaboration.

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) 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 1, Output Indicator 2, Outcome Indicator 2)*

- a) Over 2,625 youth were involved in hands-on activities related to tobacco in health fairs and day camps and school enrichment.

Over 250 students have used an interactive website developed by Cooperative Extension Staff. They learned about the dangers of smoke and smokeless tobacco and second hand smoke; how advertising influences what they buy, and the overall cost of using the product.

Fifteen FCS teachers have been trained on smoking materials, including a website, made available by cooperative extension. These teachers will provide education for over 400 students.

- b) Nebraska 4-H was awarded \$14,750 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 to 3 hours of educational programs focused on the ills of tobacco, their health and impacting tobacco policy.

- Of the students involved in tobacco education at one day camp, 89.3% had an increase in tobacco awareness with a score of 3.57 on a scale of 1 to 4.
- As a result of a tobacco education program, 83% of the students knew "chew" causes cancer; 90% knew second hand smoke was bad for your lungs; and 100% could identify the "smoke smell" on their clothes and hands.
- As a result of a Fun and Fitness Fair, after one year students were indicating that they were using what they learned and 92% reported a positive change. Students stated, "I tell mom and dad to go outside to smoke because I don't want to." and "I told them (my family) how bad it was for your heart to smoke. My grandpa has now stopped smoking."

- 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 15 to 20 water/environment festivals, many of which target 4th and 5th grade students. An example of two 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 2003 and previous years continued into 2004 putting 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 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 Natural Resources and Environment, Integrated Crop Management, Integrated Animal Systems Management, and Community and Residential Environment Action work groups. One of the challenges the work groups have is the documentation of impact. The work groups 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 Equivalent(FTE):**

<b>FFY2004</b>	<b>Federal*</b>	<b>State</b>	<b>Local</b>	<b>Other</b>	<b>Total</b>
<b>Funding:</b>	\$ 644,589	\$ 3,138,656	\$ 935,758	\$ 1,685,946	\$ 6,404,949
<b>FTE**:</b>					49

\* FY2003-2004 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, and Outcome Indicator 2)*

- a) Manure can be an ideal fertilizer or a troublesome waste. If properly managed, it provides phosphorus and nitrogen crops can use, and organic matter that improves soil quality and reduces chances that nutrients will pollute groundwater and surface water. A team of 20 University of Nebraska Cooperative Extension specialists and educators teaches livestock managers to comply with state and federal manure environmental regulations. Program participants learn how to apply for federally required Waste Control Facility Permits and to implement state Comprehensive Nutrient Management Plans when using manure to fertilize crops. Extension provides workbooks, spreadsheets, software and kits, and teaches how to calibrate equipment and take samples. Nearly 400 producers who studied manure management with extension between 2001 and 2004 managed hundreds of thousands of cattle, pigs and poultry. About 165 crop and livestock consultants and agency personnel participated in manure management training in 2003-04.
  
- b) Nebraska is a leading livestock-producing state so proper manure management has environmental and economic benefits. According to extension figures, the nitrogen and phosphorus produced annually from 1,000 head of cattle or 1,000 head of hogs is worth \$18,000 and \$6,500, respectively. Participants in this training report that they are better able to use manure as a resource while protecting water quality. One feedlot manager said the program "makes our planning very simple" and that the biggest benefit was learning the proper amounts of liquid manure to apply through center pivots for crop use.
  
- c) Scope of Impact - State Specific
  
- d) Funding:
  - NU Cooperative Extension
  - Federal Formula Funds
  - CSREES Water Quality Grant program
  - Nebraska Environmental Trust Fund
  - National Pork Board

### **Key Theme - Drought Prevention and Mitigation**

*(Refers to Plan of Work Goals 1 & 4, Output Indicator 2, and Outcome Indicators 1 & 2)*

- a) The landscaping industry significantly enhances individual and community lives, supports environmental sustainability, and provides a strong and diverse economic job base for Nebraska. Nebraska Cooperative Extension's annual Lawn and Landscape Update provides research based education to green industry professionals about best management practices. Best management practices include wise use of fertilizers and pesticides; selection of adapted plants for Nebraska; and the use of landscape care practices that conserve natural resources, save homeowners money, and promote economic development through green industry and greenspace enhancement. The educational focus of the 2004 Update was drought-triggered tree diseases and insects, fertilizer calibration, and herbaceous perennials for Nebraska landscapes. 75 people participated and 68

completed an evaluation. Participants included owners/employees of garden centers and lawn and tree care services, grounds maintenance personnel from schools, towns and golf courses, and Master Gardeners.

- b) Most participants plan to use what they learned to make changes on the job. A post- update evaluation showed the percentage of learners who said they definitely will make the following change on their job (in parentheses is the percentage who said they probably will make a change):
- Begin to calibrate equipment before applying pesticides and fertilizer - 39% (49%)
  - Better recognize drought related tree problems - 38% (62%)
  - Plant more reliable plants for Nebraska - 46% (50%)
  - Add a new plant to those sold at my business - 35% (57%)
  - Increase my sale of perennials - 26% (61%)
  - Change a pest control method I've been using to a more effective method - 19% (65%)
  - Change a tree care practice I currently use - 49% (41%)
  - Change a recommendation I am currently making to customers - 33% (58%)
  - Change a practice I am currently using on my job - 26% (63%)

When asked what changes they planned to make or how they would use the information, evaluation respondents said:

- Change calibration method by experimentation on 1000 square feet.
- Look for more drought tolerant, hardy plant materials. Mulch and water appropriately.
- Carry more grasses and perennials to sell, especially some of the natives that look good.
- We will now offer micro injections as one of our services.
- Great information given that we will be able to pass onto the customer.
- Stop pruning branches flush with the trunk. Be more aware of depth when planting a tree. Be more conscious of calibration and consistent application of fertilizer.
- Attention to tree stress, color, etc. to define problems and treat. Usage of proper chemicals and applications.
- Check amount fertilizer being applied.
- Plant more reliable trees for Nebraska

c) Scope of Impact State Specific

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

### **Key Theme - Integrated Pest Management**

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

- a) The University of Nebraska-Lincoln received \$40,000 from the US Environmental Protection Agency (EPA) and the Nebraska Department of Agriculture (NDA) to create learning modules for use at in-service training programs for integrated pest management in K-12 schools. Objectives were to develop learning modules and conduct IPM training programs for school staff, pest management professionals, and extension personnel.

Fourteen learning modules were created for a variety of subjects, including the management of head lice, stinging insects, mice and rats, turf and landscape, ground squirrels, moles and gophers, cockroaches, ants, silverfish and firebrats, flies, pantry pests and mold. Additional modules were IPM concepts, indoor air quality, and assessment, monitoring, and detection of pests. University of Nebraska Cooperative Extension IPM in Schools team members provided in-service training and distributed copies of "Integrated Pest Management In Schools: A How-to Guide" to more than 400 extension faculty, pest management professionals, school nurses, school custodians, maintenance

workers and supervisors, food service workers, grounds keepers, and other school officials at 10 conferences and workshops across Nebraska during 2003-04.

- b) Workshop participants said they learned new information about:
- 93% learned new information about IPM.
  - 91% learned new information about timing/placement of pesticides to achieve best control.
  - 89% learned new information about preventing/excluding pests.
  - 82% learned new information about inspecting and monitoring for pest activity.
  - 77% learned new information about recording and mapping pest observations.

Workshop participants indicated strong positive behavioral changes:

- 82% said they would always identify and eliminate conditions conducive to pests.
- 77% would always use less hazardous control tactics.
- 73% would always use less disruptive control tactics.
- 70% would always use more non-toxic control tactics.
- 66% would always reduce their overall pesticide use.

- c) Scope of Impact State Specific

- d) Funding:
- NU Cooperative Extension
  - Federal Formula Funds
  - Environmental Protection Agency
  - Nebraska Department of Agriculture

### **Key Theme - Integrated Pest Management**

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

- a) The 12th Annual Nebraska Urban Pest Management Conference (UPM) was developed and implemented to meet educational needs of BMPs involved in structural pest management, wood destroying insects, wildlife damage management, public health pest management, grain fumigation, stored food products, food manufacturing and processing, sanitation, and other closely related areas. This interdisciplinary conference was co-sponsored by the University of Nebraska-Cooperative Extension Division, the Nebraska Department of Agriculture, and the Nebraska Health and Human Services System (NHHSS). It was supported by the Nebraska Environmental Health Association (NEHA), the Nebraska Grain and Feed Association (NGFA), and Dealers and Manufacturers of Pest Management Products. Total attendance was 179. Of the attendees representing 80 pest management companies, 89% companies were based in Nebraska. This conference attracted pest management professionals from 11 states including NE, CA, DC, IA, IN, KS, MN, MO, MS, SD and WI.
- b) Overall, 95% of the participants had indicated that the Nebraska UPM conference had positive impact in terms of gaining additional knowledge on pest biology and pesticide uses, and to operate their businesses efficiently. When responding to meeting educational needs, 95% of respondents were very satisfied with speakers and topics.

Use of Information by Participants, and Change in Practices, Behaviors, Attitudes and Use of resources: Those responding to benefits of this educational conference indicated that 97% had improved their pest management knowledge, 74% improved their work efficiency, 37% generated more profit, 77% recognized IPM practices, 46% improved their pesticide use practices, 81% followed pesticide safety procedures, 54% used non-chemical methods, 91% improved their knowledge of pests, 90% gained more knowledge on pesticide laws/regulations, and 60% felt confident to meet certification standards.

- c) Scope of Impact Regional.



- d) Funding
  - NU Cooperative Extension
  - Federal Formula Funds
  - CSREES IPM
  - User fees

**Key Theme - Natural Resource Management**

*(Refers to Plan of Work Goal 4, Output Indicator 1, and Outcome Indicator 1)*

- a) The Western Nebraska Children's Groundwater Festival is a hands-on water education program for fourth grade students from the South Panhandle. The Festival is held in Sidney in April. This was the fourteenth Festival with 205 students from Cheyenne, Kimball, Deuel and Garden counties attending. Twenty-seven presenters from 17 different local and state agencies and businesses gave presentations on the importance of ground and surface water to our area, our livelihood and our standard of living. The Western Nebraska Children's Groundwater Festival is a joint project of the South Platte Natural Resources District, University of Nebraska Cooperative Extension in Cheyenne County, and the Natural Resources Conservation Service. Topics presented to students included: where drinking water comes from for most towns in Nebraska, how the water cycle works, how nitrates and other contaminants get into groundwater, how surface water and groundwater are related, how to conserve water in the home, how much of the Earth is water, how wells work, properties of water, reducing groundwater contamination in landfills, and point source pollution.
- b) Fifty students from four schools were given a pre- and post- test to determine whether or not they increased their knowledge about groundwater by attending the Festival. Test results from before and after the Festival indicated the students increased their knowledge by 34% by attending the Festival. Comments from teachers from the Festival include: "The kids enjoy the (resources) and it made for a great discussion. I was amazed at what the students learned at the festival." and " It was a great day. I will refer to the sessions as I teach the rest of my water unit."

Comments from students from the Festival include:

- Thank you! I learned a lot about water because I had no clue how precious it is to me. Water is like liquid gold. It is important to people and animals. You or I could not live without water. I learned about aquifers and how they hold and get water. - Kailin
  - Thank you so much for your time and lining everything up. It was a lot of fun. I learned a lot of things too. I know that our body is 66 percent of water and that we will be very careful with water. I now know that I will not waste water because I need it to survive. I also know that our Ogallala Aquifer goes to Texas. - Morgan
  - Thank you for letting all 205+ of us come to your water festival. Thank you for setting it up so we could learn about water. I learned that it is very important not to waste water. I also learned to cap old wells or do something about them so they don't pollute the water. My favorite station was the Groundwater Model. I was amazed about how big the Ogallala Aquifer was. - John
- c) Scope of Impact - State Specific
  - d) Funding:
    - NU Cooperative Extension
    - Federal Formula Funds

## **Key Theme - Natural Resource Management**

*(Refers to Plan of Work Goal 4, Output Indicator 1, and Outcome Indicator 1)*

- a) On May 5, 2004, 285 5th and 6th graders from 11 area schools came to Czechland Lake just North of Prague Nebraska, for a day of fun, hands-on activities designed to teach them about the importance of conserving natural resources. The students rotated through eight 25-minute sessions focusing on a variety of topics including tree planting, Lake ecosystems, GPS/GIS Technology, Migration, Fishing, Birds & Worms, Water and Bubble-ology. More than 4,000 students have attended the Spring Conservation Sensation since its inception in 1991. The event is open to schools from Butler, Saunders, Platte, Colfax, and Dodge counties.

The event was sponsored by the Lower Platte North Natural Resources District and University of Nebraska in Saunders County. Additional presenters came from the Natural Resources Conservation Service, the Farm Service Agency, the Lower Platte South NRD, the Nebraska Association of Resources Districts and the Lower Platte River Corridor Alliance. High school students from Mead served as group leaders and activity assistants. In-kind services were provided by the Nebraska Game and Parks Commission.

- b) Teachers and students filled out evaluations for this year's festival. The teachers rated the activities at a combined 4.5, on a five point scale with 5 being the highest. They also included comments such as "All of the presentations do a great job of keeping the students involved and giving them good information." "Thanks for a wonderful day, the students and myself learned a lot!" Finally one teacher wrote "Several of my students said this is the best field trip they ever had! I also want to thank the people working in each activity they were knowledgeable, patient and very kid friendly" When students were asked "What was the most interesting fact you learned at the Spring Conservation Sensation?" their replies included "That bubbles could be used to learn about science." "I learned that most of the water pollution comes from the soil." "I learned that 24 satellites are used to control GPS units." "That there are more dams in the United States than any other country." "That very few birds survive one migration."
- c) Scope of Impact: State Specific
- d) Funding:  
NU Cooperative Extension  
Federal Formula Funds  
Nebraska Department of Environmental Quality  
EPA Region VII

## **Key Theme - Natural Resource Management**

*(Refers to Plan of Work Goal 4, Output Indicator 1, and Outcome Indicator 1)*

- a) Garbology is a 4-H and youth school enrichment program addressing a major environmental issue of our society-solid waste management. Participants learn to be environmental stewards for today and the future. Activities are designed to inspire action and commitment from the students. The first Garbology curriculum and kit was developed in 1990 by University of Nebraska Cooperative Extension in Lancaster County, City of Lincoln Recycling Division, Lincoln Center Kawanis Club and the Solid Waste Management, Inc. of Lincoln. In 2003, the Garbology program was established as a core subject in the second grade science curriculum of the Lincoln Public Schools. As a core subject the activities had to meet the Nebraska and National Standards of Excellence. To meet the educational standards, University of Nebraska Cooperative Extension in Lancaster County developed a revised curriculum and 16 new activities and accompanying teachers guide. The Cooperative Extension office in Lancaster County developed 50 new

Garbology kits which included all materials needed for all activities. Four sessions of Garbology were taught to 120 LPS teachers. In 2003, 2,983 second grade students were taught in 136 classrooms.

- b) Lois Mayo, science curriculum specialist at Lincoln Public Schools, said: "The 4-H school enrichment program is a tremendous asset to the Lincoln Public Schools science curriculum. Students truly benefit from and enjoy using the materials." Parents report their children are teaching their families to recycle. "Reducing, reusing, recycling has become a family project." says Georgia Ross. "We recycle aluminum, paper, plastic and cans. We've learned how to prepare plastic for recycling and so have the neighbors."

According to Gene Hanlon, City of Lincoln Recycling Coordinator: "During the past 15 years the Lancaster County per capita recycling rate has increased from 531 pounds per person per year to 1,585 pounds per person per year. This increase was significantly influenced by the Garbology school enrichment program."

- c) Scope of Impact State Specific

- d) Funding:  
NU Cooperative Extension  
Federal Formula Funds  
City of Lincoln

### **Key Theme - Natural Resources Management**

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

- a) Depletion of natural resources and the quality of the environment is important to the citizens of Lancaster County and Nebraska. Minimizing natural resource consumption and deterioration of the environment can be accomplished through improved waste management. Grass clippings, leaves and brush take up lots of precious landfill space. To extend the useful life of the local landfill, the City of Lincoln and University of Nebraska Cooperative Extension teamed up to improve waste management and recycle landscape waste. Each year the City of Lincoln recycles 20,000 tons of grass, leaves, and brush. The grass, leaves and wood chips are mixed and composted. The composting process takes from 9 to 12 months to complete. The finished compost is available to the public as LinGro Compost.

To enhance this recycling program, the City of Lincoln contracted with Nebraska Cooperative Extension in Lancaster County to develop and deliver an education program designed to encourage composting and the "on site" utilization of landscape wastes. Through public education people become aware of the benefits and uses of organic wastes and how to produce and use them on their own property. The Be Yard Smart program teaches participants how to use organic wastes from the landfill or how to compost and use their own materials on their property. Since the program began in 1995, 1,400 citizens have participated in the composting education classes and learned about the benefits of using organic wastes. Participants also are encouraged to reduce and recycle yard waste through mulching and leaving grass clippings on lawns. Commercial turf management firms also are encouraging their clients to recycle clippings.

During the growing season a special four page insert is added to the Lancaster County Cooperative Extension "Nepline" newsletter. The insert highlights the production and use of compost, the use of organic mulches, ideas for student science projects, grasscycling, use of mulching mowers, and city recycling projects. The insert is distributed through the Nepline to over 10,000 households. In 2004, the "Be Yard Smart" insert was sent through the Journal Star newspaper to 83,000 households in Lancaster County.

- b) Surveys conducted with participants of the composting classes showed positive impact with this program:
- 92 percent indicated they are currently using a compost bin
  - 97 percent say they plan to use it in following years.
  - 35 percent of the participants said they helped a friend or neighbor start composting indicating a multiplier effect.
  - 98 percent of the participants felt the composting instructions at the program were helpful.
- c) Scope of Impact State Specific
- d) Funding:  
 NU Cooperative Extension  
 Federal Formula Funds  
 City of Lincoln

**Key Theme - Pesticide Application**

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

- a) Pesticides help protect Nebraska's crops, trees, turf and properties from insects, weeds, diseases and other pests. Proper use of pesticides ensures their effectiveness as an important pest management tool. Proper handling, application, storage and disposal of pesticides by commercial and noncommercial applicators is essential to preservation of public health, applicator safety and a clean environment. Many pesticide applicators that use pesticides commercially or in public areas are required to become certified and licensed by the Nebraska Department of Agriculture (NDA).

University of Nebraska Cooperative Extension's Pesticide Safety Education Program provides education, including hands-on training, for commercial and noncommercial pesticide applicators. The Pesticide Safety Education Program (PSEP) helps applicators prepare for certification examinations by offering training sessions in 15 categories and subcategories. PSEP also offers recertification training sessions in 11 categories and subcategories. Extension educators, assistants and specialists develop the training and teach these sessions, that includes on-site training and instruction on videotape. In the last three years alone, this educational effort has trained more than 4,600 Nebraska pesticide applicators, or about 53 percent of the state's licensed commercial/noncommercial applicators.

- b) To assess the program's effectiveness and to determine ways to improve the sessions, applicators were surveyed about three months after the training. Three years of survey results indicate that participation in PSEP training sessions results in better trained applicators that often save money, reduce their pesticide use and better serve their customers. Responses were received in 2002, 2003 and 2004 from 581 newly trained and 841 recertified applicators.

Respondents said they learned new information, saved money, improved service to their customers and were better prepared for certification examinations, thanks to the training:

- \$2,566 was the average amount saved per applicator resulting from changes made after training.
  - 66% said knowledge gained better prepared them for certification examinations.
  - 57% said knowledge gained improved service to their customers.
  - 23% to 51% (depending on the specific topic) said they learned new information.
- Surveys indicated significant behavior changes as a result of the training. For example:
- 67% will always calibrate equipment and calculate application rates.
  - 67% will always use personal protective equipment.

- 58% will always check their spray equipment and nozzles for wear before using them.
- 43% will always use non-toxic control methods when appropriate.
- 40% will always use lower toxic products.

- c) Scope of Impact State Specific
- d) Funding:  
 NU Cooperative Extension  
 Federal Formula Funds  
 CSREES - EPA  
 Nebraska Department of Agriculture  
 User fees

### **Key Theme - Water Quality**

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

- a) The Shell Creek Watershed drains approximately 300,000 acres in parts of Boone, Colfax, Madison and Platte counties, and has nearly 1,700 landowners/operators. The topography is typical of northeast Nebraska, with rolling hills and farmland primarily in a corn/soybean rotation. Soil erosion is a significant water quality concern. Shell Creek has a history of flooding, which has frequently caused damage along its length, including the towns of Newman Grove, Lindsay, and Platte Center. In late 1999, about 20 concerned individuals formed the Shell Creek Watershed Improvement Group (SCWIG) with goals that included reduced flooding and improved water quality. University of Nebraska Cooperative Extension began working closely with this group in October 2002 as part of a USDA-CSREES funded project to promote the installation of conservation buffers in Northeast Nebraska. One facet of this project was a peer-to-peer contact program called "FarmLink", in which local farmers/landowners (who were also residents of the watershed and members of the SCWIG) were hired part-time to contact their neighbors to explain the need for and benefits of buffers and other conservation practices.

During these one-on-one contact sessions, it became quite apparent that: 1) many farmers and landowners were not at all familiar with the many USDA, NRD, and other programs that are currently available to assist with the adoption and installation of conservation practices; and 2) people seemed to like the personal touch of someone coming out to talk directly to them, pointing out specific areas on their land where conservation practices could best be implemented, discussing compensation programs available for taking land out of production, and management changes needed to help ensure practice success.

Following up on the initial successes and findings, Pheasants Forever, Lower Platte North NRD, the SCWIG, and Cooperative Extension teamed up to further promote conservation practices in a small (21,000 acre) sub-watershed of Shell Creek in Boone County. Pheasants Forever provided a grant of approximately \$2,500, administered by the Lower Platte North NRD, to Cooperative Extension for a short-term educational project. In this case, the extension project coordinator made the one-on-one contacts with landowners in the target area.

- b) Forty-two Shell Creek landowners were contacted, leading to 11 contracts specifying the establishment of conservation buffers on more than 60 acres of farmland in the watershed. These included just over 20 acres of grassed waterways that filter and control the runoff from about 215 acres of cropland, and 41 acres of stream-side buffers that help trap and filter the runoff from nearly 2000 acres and physically protect approximately 2.5 miles of stream bank.

Contacts, each lasting from 1 1/2 to 2 1/2 hours, were made with 28 individuals in the sub-watershed, representing ownership of approximately 12,000 acres. Of these, 21 signed a form indicating their interest in adopting one or more conservation practices, and 16 contacted the local

NRCS office for more specific program details. To date, 10 landowners have contracted for 13 conservation practices. Seven of these contracts are under the Environmental Quality Incentives Program (EQIP) and Lower Platte North NRD No-till Incentive Program for the adoption of no-till planting systems on a total of 986 acres. It is estimated that this change in tillage practices will result in an annual soil loss reduction of approximately 3,000 tons, and a \$49,300 influx of direct payments over the 5-year contract period. There are two contracts each for grassed waterways and sediment basins, and one contract for a shallow water area for wildlife. Total land area committed to these practices will be about 10 acres, which will filter and control the runoff from about 150 acres of cropland. Direct payments over the 10-year life of these contracts will be about \$11,000. The final contract is for lot reconfiguration and a livestock waste control structure to contain the runoff from a 2,000 head cattle feedlot that previously essentially drained directly into Shell Creek.

- c) Scope of Impact - State Specific
- d) Funding:  
NU Cooperative Extension  
CSREES Water Quality  
Pheasants Forever

### **Key Theme - Water Quality**

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

- a) Small acreage owners are increasing in the area around Scottsbluff and other Panhandle communities. The owners are well educated but usually did not grow up on a farm and lack skills and knowledge associated with farming and ranching. Workshops were conducted in 2004 to aid them in increasing their knowledge and changing their management skills in the selected areas. Attendance at the workshops ranged from 34 to 38 participants per evening activity. The themes for the three nights of workshops were Equine, Landscape Design, and Water Issues. Subject matter for the equine series was pasture management, horse health, getting started, nutrition, fence and corral, and pasture weeds. The Landscape Design night's topics were wildflowers, trees and shrubs, grassway establishment, birds and wildlife, grapes and fruit, and noxious weeds. The last of the series was Water Issues and the presentations were xeriscape, aquatic weeds, septic systems, pond construction, ground water, and water quality.
- b) Participants were asked if gained new knowledge and if they anticipated changing a management practice with the knowledge gained. They rated those questions on a scale of 1 to 3; 1- yes they gained new information, 2- maybe and 3- no they did not gain any new information. Seventy-one percent of the participants returned an evaluation for the Equine workshop. The average response for all presentations that evening for knowledge gained was 1.1 and forty-six percent of the respondents anticipated they would change how they managed a practice. Sixty-six percent of the participants at the Landscape design workshop returned the evaluation with a knowledge gained of 1.1 and thirty-nine percent anticipated change. At the final workshop on water issues sixty-five percent of the participants returned the evaluation and rated the knowledge gained as 1.2 and twenty-nine percent anticipated change. The participants were also asked what methods they would prefer to use to get information, eighty-nine percent said meeting or workshops, forty-seven percent tours, twenty-seven percent Internet and twenty-five percent written materials.
- c) Scope of Impact - State Specific
- d) Funding:  
NU Cooperative Extension  
Federal Formula Funds

### **Key Theme - Water Quality**

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

- a) Erosion and runoff aren't just rural issues. Exposed soil around new construction sites in urban areas is especially vulnerable to erosion. Sediment that runs off such sites pollutes lakes, streams and rivers. University of Nebraska Cooperative Extension coordinates educational seminars to help the building industry better understand how to reduce urban soil erosion and sediment pollution, and to comply with new federal storm water management regulations. Seminars are offered in the Omaha area, Nebraska's largest metro area, where the issue is especially important because of extensive new construction, its proximity to the Missouri River and housing developments around several lakes. Seminars in 2003 and 2004 taught architects, engineers, contractors and others about storm water management requirements and best management practices such as ground cover and erosion control dams to prevent soil around construction sites from washing into surface waters. Seminars drew more than 140 people each year.
- b) An average of 94 percent of building industry professionals surveyed in both years said they would apply the knowledge they gained at the seminar to better control urban erosion. In the long run, better erosion control will reduce the costs and problems associated with cleaning sediment and pollution from lakes and streams.
- c) Scope of Impact - State Specific
- d) Funding:  
NU Cooperative Extension  
Federal Formula Funds  
Nebraska Department of Environmental Quality

### **Key Theme - Water Quality**

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

- a) Poorly designed and maintained wells and septic systems near rivers and lakes pollute surface water and groundwater. This contamination poses environmental and health risks to people and animals. University of Nebraska Cooperative Extension offered a series of Water Wellness educational programs and other training opportunities to help residents around Johnson Lake in central Nebraska and in the Lower Platte River Corridor in eastern Nebraska better understand and manage their private drinking water and septic systems. Residents learned how traditional septic systems work and the importance of proper maintenance. Johnson Lake is on the Nebraska Department of Environmental Quality's serious "watch list," partly because of the threat to water quality from failing septic systems serving lake homes and cabins. In the Lower Platte River area, extension provided a series of education programs to help residents better understand and manage their drinking water and septic systems with an eye toward preventing pollution in this area with shallow aquifers, sandy soils and a growing population.
- b) Extension education helped Johnson Lake residents maintain their fragile septic systems to avoid failure, environmental degradation and possible waterborne disease outbreaks. Bacteria levels at Johnson Lake decreased in the year following extension and other educational programs for residents. In the Lower Platte River area, all of the water wellness program participants indicated they would change their behavior to protect human health and the environment. That's especially important in the Lower Platte, which supplies drinking water for more than half of Nebraska's population.

- c) Scope of Impact - State Specific
- d) Funding:
  - NU Cooperative Extension
  - Federal Formula Funds
  - Lower Platte River Corridor Alliance
  - Nebraska Department of Environmental Quality

**Key Theme - Water Quality**

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

- a) Most people living in a town or city rely on a public water system for their source of water. These water supplies are regulated by the Environmental Protection Agency (EPA) and the Nebraska Health and Human Services System (NHHSS). When urbanites move to an acreage, most rely on private wells as their source of water, which are not regulated by either EPA or NHHSS. Users are responsible for operating, maintaining, and ensuring the safety of their water supply. Yet, most must do so with no prior experience or training. Poor operation and maintenance can lead to unsafe drinking water.

The University of Nebraska Cooperative Extension presented a series of educational programs, entitled Acreage Insights Rural Living Clinics, targeting acreage owners near urban Nebraska areas with rapid acreage growth. Programs were designed to provide acreage residents with knowledge and skills to better manage their rural living environment. The "Private Drinking Water Systems" programs were offered in Omaha and Lincoln in July 2004. Information on basic drinking water well design and installation, wellhead protection, water quality, water testing, and water treatment was provided.

- b) Impact - In an end-of-program evaluation, 100% of program participants completing a survey indicated 1) their knowledge increased as a result of attending, and 2) the information would be useful as they managed their private drinking water system. Two-thirds indicated they would change behavior to reduce human health risks associated with their drinking water system. The change identified most often was having their water tested annually. Other changes included implementing wellhead protection and using appropriate water treatment.

- c) Scope of Impact State Specific

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

**Key Theme - Water Quality**

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

- a) In the 2000 Nebraska Water Quality Report (Nebraska Department of Environmental Quality), Zorinsky Lake was identified as impaired and only partially supporting its identified beneficial uses. Sediment and nutrients from nonpoint sources were identified as the primary pollutants impairing the lake. NDEQ has identified the watershed above the lake as a high priority area to implement surface water nonpoint source management projects.

Research has shown that significant amounts of nutrients can be generated from suburban homes. Nutrient runoff from lawns can cause rapid plant growth in lakes. Reducing phosphorus runoff from lawns and yards will decrease the potential phosphorus loading in the lake. Nutrients and



other pollutants can also reach the lake through stormwater drains. Informing and educating watershed residents about not dumping in the stormwater drains will help to reduce the threat of pollutants reaching the lake.

Nebraska Cooperative Extension teamed with other partners on an educational project to provide runoff pollution prevention information to residents in neighborhoods near the Omaha metropolitan area lake. Educational materials provided practical ways for residents to reduce runoff pollution from their property. Stormwater drains were marked with no dumping messages as easy reminders that only stormwater should be entering the stormwater drains. The project began in April 2003 and concluded in September 2004.

- b) Over 4,000 residences received runoff pollution prevention educational materials. Over 800 stormwater drains located within the housing subdivisions were marked with no dumping messages. A survey of 750 watershed residents after the educational effort showed that:
  - 76% of the surveyed residents believe that runoff pollution is a threat to Zorinsky Lake
  - 74% said that activities around their home and yard impact the lake.
  - 96% said they have or will implement best management practices as a result of the educational project. Best management practices included no dumping in stormwater drains, disposing of household chemicals/paints properly, applying lawn fertilizer and pesticides according to label directions, proper watering of lawns and recycling grass clippings.
- c) Scope of Impact State Specific.
- d) Funding:
  - NU Cooperative Extension
  - Federal Formula Funds
  - Nebraska Department of Environmental Quality
  - City of Omaha
  - Papio-Missouri River NRD

### **Key Theme - Water Quality**

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

- a) The Lower Platte River, which runs from Columbus to near Plattsmouth, is an important region in the state for a variety of reasons, including serving as a source of drinking water for municipalities and individuals, fish and wildlife habitat, recreational opportunities, industry, residential development and scenic qualities. Omaha and Lincoln have well fields in the valley and nearly 50 percent of the state's population gets its drinking water from the Lower Platte River area. The river and its watershed provide important habitat for a variety of wildlife and fish species including several threatened and endangered species such as the piping plover, the least tern, and the pallid sturgeon.

The high percentage of sandy soils, shallow water tables, and increasing population in the Lower Platte River Valley make it an area of high risk for both ground water and surface water contamination. Contaminated groundwater and surface water pose environmental and health risks to residents, visitors, and water users of the Lower Platte River Corridor. Poorly designed, located, constructed, and maintained wells and septic systems located in the corridor can contribute to the problem. The majority of residents in the corridor have individual septic systems and nearly two-thirds use a noncased sandpoint well for drinking water supplies. For their own health, and to protect the region's resources, it is important that corridor residents manage their septic systems and wells to reduce risk. University of Nebraska Cooperative Extension held a series of water wellness educational programs to help residents better understand and manage

their drinking water and septic systems

- b)** In an end-of-program evaluation, 100% of participants indicated 1) their knowledge increased, and 2) the information would be useful as they managed their Corridor property. All but 2 percent indicated they were certain they would change behavior to protect human health and the environment as a result of attending. Participants were given the opportunity to make a written, personal commitment to implement changes they personally identified as ones they would like to make in how they manage their systems. Personal commitments were completely confidential. A follow-up evaluation two months later indicated most changes identified in personal commitments had been made. Many no-cost behavior changes had been implemented by 100 percent of those participants making a commitment to do so. Practices implemented at the 100 percent rate included: use less water and/or spread out over time, keep hazardous products out of the septic tank, reduce solids put in the septic tank, and take precautions to not compact the septic drainfield. Eighty percent who personally committed to develop and implement a wellhead protection plan ("protect drinking water well from possible contaminants") had done so.

Many behavior changes requiring the assistance of others and/or involving a cost had been implemented by at least 50 percent and as many as 75 percent of those participants making a commitment to do so. Those not implementing practices indicated they still planned to do so. Practices that required money or assistance that had been implemented included locate septic tank, locate septic drainfield, have septic tank checked and pumped, keep clean water away from septic drainfield, have drinking water tested for nitrate, have drinking water tested for bacteria, and have drinking water tested for other contaminants.

- c)** Scope of Impact State Specific.
- d)** Funding  
NU Cooperative Extension  
Federal Formula Funds  
Lower Platte River Corridor Alliance

## **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, children 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 21<sup>st</sup> 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. Seventy percent of young children are not provided nurturing child care in community or private setting.

There are multiple Cooperative Extension programs helping communities and 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 2004, 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.

Cooperative Extension's consumer preference and economic leakage program is strengthening small town economies by working with retailers to identify ways to keep customers shopping locally. Extension works closely with local businesses on the program that includes a consumer preference survey, analysis and discussions that small businesses understand what consumers want and identify ways to improve their operations. Since 1997, more than 600 small businesses and 6,000 consumers have participated in this extension effort in nearly 30 Nebraska and Colorado towns. Business owners use survey findings to improve their businesses, including employee training, product selection and marketing strategies. One western Nebraska community formed a committee to address concerns and improve the downtown shopping environment. Several businesses have expanded or opened additional enterprises thanks to this information. Extension collaborates with the university's Nebraska Rural Initiative on this program to reduce economic leakage in rural communities.

The future of Nebraska's rural communities depend on developing a new generation of leaders. The 4-H Building Nebraska's Future With Youth-Adult Partnerships program through University of Nebraska Cooperative Extension encourages young people to become future leaders through partnerships and participation in community organizations and local government. Youth-adult participation teams in Stromsburg, Hayes Center, Hartington, and Wakefield paired young people with local leaders in fundraising and hands-on community projects. Projects such as refurbishing a park in Hartington encouraged young people to participate in community leadership and instilled a new sense of ownership. The projects will serve as models as Extension expands the program to serve other rural communities. Additionally teenagers are learning leadership skills and are assuming leadership roles on city and county committees, i.e. park board, city council, 4-H councils.

Chilling statistics document the impact that methamphetamine is having on Nebraskans. The

2003 Nebraska Health and Human Services Youth Risk Behavior Survey showed that 6 percent of Nebraska high school students had tried meth. An Office of National Drug Control Policy report also said meth was a major drug of concern for Nebraska law enforcement, and that it is available in almost every city and town in the state. “Drug use in a town impedes economic development. Meth labs in communities create law enforcement issues, limit job pools and can lead to child abuse and other problems” said one of the Extension Educators, Suzie Brown, Hastings, NE who is co-leading Extension educational effort to help communities learn about and eliminate methamphetamine usage. See the web site on the University of Nebraska Cooperative Extension home page that describes the materials that are available for organizations and community groups to use in developing a strategic response to reduce the production and use of meth. The demand for this program is very high in Nebraska. The Extension Educators leading this program have over 50 educational programs on the calendar to be delivered this spring. They are training additional individuals to help deliver the program. The web address is: <http://extension.unl.edu/Meth/index.html>

Use of credit by young people is at an all time high increasing emphasis on resource management. College students on average have four credit cards and a debt of \$3,000 to \$7,000 besides college loans. University of Nebraska Cooperative Extension educators developed Preventing Credit Card Blues at 22, a classroom-based educational program for high school seniors to teach students to use credit wisely and protect their credit identity. The program uses real-life scenarios to teach key concepts of responsible credit management. In 2004, 2,500 Nebraska students completed the course. After the training, students were better able to define credit, identify factors to consider when choosing a credit card, identify sound practices for managing credit card debt and knew how to protect personal identity. One high school principal told his students that the course could save each \$50,000 or more over their lifetime.

Options to quality care for children 0-5 is essential. A high percentage of mothers are employed outside the home causing a shortage of quality, nurturing child care.

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

<b>FFY2004</b>	<b>Federal*</b>	<b>State</b>	<b>Local</b>	<b>Other</b>	<b>Total</b>
<b>Funding:</b>	\$ 2,105,657	\$ 10,252,944	\$ 3,056,809	\$ 5,507,423	\$ 20,922,833
<b>FTE**:</b>					155

\* FY2003-2004 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 Indicators 10, 11,12)*

**a, b)** Current information for families to encourage them to strengthen their family relationships is distributed through newsletters, news columns and the UNL for Families website. This year, nearly 10,000 newsletters were sent to families with young children. A new newspaper column was started for parents, “TIPS to Improve Parenting Skills.” Educators shared the writing responsibilities, with each article focusing on a single topic and including questions to discuss or an activity to do to apply the information. Well over 18,000 have been reached through these newspaper columns. Many individuals in these communities have commented to educators that they read the columns and find them useful. These articles were also posted in the UNL for Families website. The total site received 54,681 hits in FY 2004, with 3255 hits on the TIPS columns. Included on the website is a place for people to send responses. One family became

aware of the danger of exposing their children to second hand smoke. Another response from the website gives an indication of the needs people are facing: "I was rejected by my father and brothers and sisters as a child. I now have a problem with achieving as I feel I have no permission to achieve. I am not good enough and don't deserve to achieve. I sabotage myself constantly subconsciously. How can I get past this?"

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

### **Key Theme - Child Care/Dependent Care**

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

**a, b)** A team of Extension Educators, in cooperation with Dean Marjorie Kostelnik, College of Education & Human Sciences, UNL, wrote a training program for early childhood educators on "Helping Children Resolve Conflict." Four NebFacts were developed along with a leaders guide to facilitate the one to three-hour training program. The key to reducing children's aggressive behavior and conflict is to help them internalize values and methods of interacting that encourage assertiveness, communication skills, self respect, and kindness. By participating in this program, learners are able to:

1. list reasons that children in their care fight
2. identify four types of aggression
3. understand the model for handling conflict with children
4. list the steps in the conflict mediation model
5. identify appropriate and inappropriate times when mediation is used with children
6. understand the pitfalls to avoid when implementing conflict mediation
7. practice using and modeling the conflict mediation model
8. implement the conflict mediation model in their work with children.

600 providers participated in "Helping Children Resolve Conflict" educational workshops this year. Retrospective evaluations of the program found a significant increase in providers ability to implement the conflict mediation model in their work with children. Other significant increases were found in the child care professionals feeling more confident that their interaction with the children in their care will be more appropriate to the children's need and ages, and the early childhood professionals feel more committed to the profession of child care.

Comments from the participant evaluations included: do not solve the problem for the children; be very consistent and help children use their words; try very hard to let the children solve their problems; I should mediate not mandate; empower children to come to their own solutions; and be more understanding of the children's ideas of solving problems and listen to the children's needs.

Sixteen early childhood education conferences were held throughout the state in the past year. These conferences reach a total of 2550 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.

As a result of these conferences, a retrospective evaluation showed:

Following the conference, 88% of the participants compared to 67% 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 24% increase.

Following the conference, 88% of the participants compared to 67% 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, 90% of the participants compared to 73% 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, 92% of the participants compared to 77% 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, 91% of the participants compared to 64% 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; interaction with parents; their perception of themselves as professionals; and daily learning activities for children.

In addition to the above listed conferences, 436 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 338 child care professionals.

c) Scope of Impact - State Specific

d) Funding  
NU Cooperative Extension  
Federal Formula Funds

### **Key Theme - Child Care/Dependent Care**

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

**a, b) Guardianship training** is a new partnership between Cooperative Extension, the Nebraska Supreme Court and the Nebraska State Bar Association. Over 2000 guardians/conservators are appointed annually in the State of Nebraska. Being a guardian is not like being a parent. Guardianship is important because it allows a responsible person to substitute judgement for someone who cannot make or communicate decision.

The training is currently offered quarterly in seven counties. The seven locations and educators include: Adams County - Susan Brown, Cass County - Mary Ann Holland, Clay County - Cindy Strasheim, Gage County - Dianne Swanson, York County - Eileen Krumbach, Dakota/Dixon/Wayne Counties - Sandy Preston, Lincoln County - Deanna Peterson.

As a result of this training, learners will be able to:

- Understand what Guardianship is
- Understand the responsibilities to the court
- Understand the responsibilities to the Ward
- Implement good decision making practices

- Identify financial responsibilities.

The most important thing that participants have learned include: "I understand my responsibilities to the Court;" "I now know not to con-mingle money;" "The most helpful thing is knowing where to go to get answers." Currently there a proposed bill written as follow up to this training in legislative committee which will require an educational training session for all guardian appointed by the court system.

- 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 6, Outcome Indicator 8)*

- a) The University of Nebraska Cooperative Extension worked with the Department of Labor to provide training for employees of rural businesses in information technology. The funding opportunity for the e-Business Project was part of a larger grant, found in part by an extension educator, awarded to the Northern Great Plains Rural Development Commission to build an e-business ready workforce in Nebraska, Iowa, Minnesota, North Dakota and South Dakota.
- b) Through two, 3-day e-business trainings, participants were able to take advantage of both a basic and advanced Web page design class; a class on networking small business computers. An e-business center in the computer lab of the West Point public library serves the purpose of to help local organizations and civic groups build Web sites for a Web-based community information network.
- c) Scope of Impact - Regional
- d) Funding
  - NU Cooperative Extension
  - Federal Formula Funds
  - Department of Labor

**Key Theme - Community Development**

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

- a) 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. 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 6, Output Indicators 6, 7 & 8, Outcome Indicator 7)*

- a) The UNL Cooperative Extension developed the Consumer Preference Study, which 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.

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.

- b) 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. 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.
- 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 6, Outcome Indicator 7)*

- a) The Food Entrepreneur Assistance (FEAP) was created in 1989 to provide comprehensive assistance to these individuals. This is the only program in the U.S. that provides this level of assistance to entrepreneurs. FEAP participants learn about the issues that must be considered in deciding to start a food business. In addition they receive individual assistance in developing their own business and products. This assistance educated them about the food industry and starting a business. It also assisted them in utilizing their resources in the most effective manor.

FEAP is divided into two phases. "From Recipe to Reality" is a one-day seminar designed to give an overview of all the issues involved in starting a food business. Topics include: market research and selection, product development, food safety, labeling regulations, package design, legal issues, costs, distribution and promotional tools.

At the conclusion of the seminar participants can decide if they want to enter the second phase of the program, "From Product to Profit". During this phase participants receive individualized assistance in developing their product and business and introducing product to the marketplace. This phase takes most participants approximately one year to complete.

- b) In 2003, eight percent of the 138 companies in representation continued to the "From Product to Profit" phase. In addition 6 companies completed the program and entered the marketplace in 2003.
- 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 6 & 7, Outcome Indicator 7)*

- a) At the invitation of Nebraska City Tourism & Events, Cooperative Extension faculty members conducted a survey of visitors to the Nebraska City area in June and September of 2003. The September survey included visitors to Nebraska City's annual Apple Jack Festival. Supported cooperatively by Nebraska City Tourism & Events, the Kimmel Learning Center and the University of Nebraska Center for Applied Rural Innovation, the survey was designed to assist community leaders and the local hospitality industry in better understanding who visits their community, why they choose Nebraska City as a destination, what they do and how much they spend while visiting, and how they perceive the quality and value of the attractions and hospitality services found in the area.
- b) Results from the survey provided information that has proven useful in designing marketing strategies and identifying development opportunities for Nebraska City and the area hospitality industry. Two downtown development committees have formed around the survey results, and Nebraska City Tourism & Events has reevaluated and made changes to their overall marketing strategy based on those results. Data from the surveys were analyzed by the Center for Applied Rural Innovation, and reported to the community at a public meeting in November, 2003, with 40 business and civic leaders in attendance. Additional presentations have been made to smaller groups during the following months.

- c) Scope of Impact - State Specific
- d) Funding
  - NU Cooperative Extension
  - Federal Formula Funds
  - Nebraska City Tourism & Events
  - Kimmel Learning Center

**Key Theme - Community Development**

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

- a) University of Nebraska Cooperative Extension Educators has provided e-Commerce training to more than 600 businesses across the state through the Nebraska Electronic Main Street program.
- b) When surveyed, fifty-one percent of the businesses that participated in the program have a Web presence and 49 percent are learning how to develop a Web presence. However, 96 percent indicate they will make changes to their existing web site, while 93 percent will increase their efforts to incorporate their web site into their business based on participation in the Nebraska Electronic Main Street Program. Over 80 percent of the participants reported increased knowledge in the following areas of e-commerce: learning new information available on the Web, the e-commerce industry, locating information on Web businesses, finding new information on the Web, becoming more familiar with the Web, using the Web for business, developing and promoting a Web site, learning about competition via the Web, and impact of Web presence.
- 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 Indicators 4 & 5, Outcome Indicators 5 & 6)*

- a) Neighborhood Builders is a leadership-training program in Omaha, held every Saturday in February. Professionals from throughout the city educate neighborhood leaders about building community assets, identifying community resources, planning and problem solving. Extension plays many roles including leadership to the planning and evaluation of the event. Cooperative extension faculty members also facilitate a portion of the educational sessions.
- b) Approximately 75 residents attended the sessions. Participants of the sessions indicated the following:
  - 61% rated the content of the sessions as excellent (the highest rating); another 35% rated the content very good
  - 55% rated the sessions successful based upon their level of learning as excellent; another 39% rated them very good
  - 83% of participants indicated that the sessions increased their knowledge of existing cooperative extension programs, many of which they had been using but did not previously associate with extension.
  - 100% stated they had identified new resources, which would benefit their leadership efforts in their neighborhoods.

The participants were from all areas of Omaha and its suburbs. Three percent of the participants were Hispanic. African-Americans accounted for 29% of those in attendance.

- c) Scope of Impact - State Specific
- d) Funding
  - NU Cooperative Extension
  - Federal Formula Funds
  - Neighborhood Center for Greater Omaha

### **Key Theme - Community Development**

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

- a) Omaha's city prosecutors filed approximately 700 prostitution charges in 2003. Nearly 75% of Omaha's prostitution arrests are made in the Omaha Police Department Southeast Precinct. Long perceived as "a victimless crime?" prostitution in truth is far from victimless. The women who participate in sex trade activities are often victims of many forms of abuse, which serve both as their entry into prostitution and the means of keeping them trapped in that lifestyle. The residents of neighborhoods in which prostitution occur are subject to increased drug trafficking, verbal abuse on their sidewalks, and unsafe environments, such as prophylactics and drug paraphernalia in their yards.

The residents of Ford Birthsite Neighborhood Association have chosen several avenues for their battle to rid their neighborhood of prostitution. One of the means they have selected is education. They received a grant from the Mayor's office to conduct a symposium educating others about the problem in Omaha, and striving to establish collaborations to work together to eliminate its effects in their neighborhood and city.

- b) Nearly 200 participants, representing social service, criminal justice, drug treatment counselors, faith-based organizations and concerned citizens from Nebraska and Iowa were in attendance, and almost 100 additional enrollees had to be refused due to facility limitations.

Participants were asked to rate each session of the day based upon its usefulness to them in their dealings with those affiliated with prostitution. A five-point Likkert scale was used, with 1 representing completely useless and 5 very useful. Responses for the individual sessions ranged between 4.03 and 4.68, and the mean rating for all sessions was 4.48.

Respondents were also asked to provide examples of ways they could incorporate their learning from the day into their role/agency/position. Testimonials included: "Spurring me to get more involved in neighborhood activities", "I now know where to get more information about and help our clients involved with prostitution", "I can educate parents and high school students about the topic", "Live in rural NE- see it happening...will make people aware and start prevention measures."

- c) Scope of Impact: Nebraska and Iowa
- d) Funding
  - NU Cooperative Extension
  - Federal Formula Funds
  - City of Omaha, Mayor's Grant

### **Key Theme - Community Development**

*(refers to Plan of Work Goals 4 & 8, Output Indicators 3 & 10, Outcome Indicator 9)*

- a) Over 50,000 people in Douglas and Sarpy Counties currently live below the poverty level. Programs to provide food and help those people understand the importance of healthy eating and budgeting their food dollars are of the utmost importance.

The Growing H.O.P.E. Hunger Prevention Project was implemented to maximize the educational outreach of Cooperative Extension while at the same time addressing needs of area citizens.

The program was completed through a collaborative effort. Master Gardeners trained by Cooperative Extension provided a majority of the volunteer hours and expertise needed to plan, maintain and harvest the garden. As was previously mentioned, NEP staff utilized the produce in educating individuals, families and youth about using vegetables in their lives. The urban program of Cooperative Extension was responsible for creating the partnerships which facilitated the garden, including Faithful Shepherd Presbyterian Church, various food pantries, United Way volunteers and publicity efforts.

- b) Nearly two tons of produce including: tomatoes, zucchini, cucumbers, green beans, okra and peppers was produced during the 2004 growing season. The value of the vegetables was almost \$10,000. The Douglas and Sarpy Counties Nutrition Education Program (NEP) staff utilized a portion of those vegetables to teach at a variety of locations, including WIC, Salvation Army, Juan Diego Center, and Urban Indian Health Center. The staff taught over 300 limited resource individuals about utilizing fresh vegetables as a way to supplement their food budget dollars and provide healthy snacks and meals for their families. Nearly all participants were provided additional produce to feed their families. The remainder of the vegetables was donated to food pantries throughout Omaha.
- 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, Output Indicator 4, Outcome Indicator 5)*

- a) The Nonprofit Association of the Midlands, headquartered in Omaha, expressed to Cooperative Extension a need for educational in-service education among its members. A partnership was formed with ISU Extension to provide a Nonprofit Management Academy in the Omaha/Council Bluffs area. The academy is a series of workshops designed to enhance the management and leadership skills of anyone serving nonprofit human services groups, hospitals, government agencies, churches, private schools, arts organizations, environmental groups and others in the nonprofit sector.

The following sessions were offered during 2004; Effective Supervision, Legal Issues, Marketing, and Fund Raising Methods and Strategies. Sessions will continue into 2005.

- b) During 2004, approximately 60 people attended sessions of the Nonprofit Management Academy. Participants were asked if the sessions have provided relevant information that will benefit your professional or personal life. 90% of respondents have rated the programs either good or excellent.
- c) Scope of Impact: Nebraska and Iowa

- d) Funding  
 NU Cooperative Extension  
 Federal Formula Funds

**Key Theme - Community Development - Technology**

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

- a) The Roving Computer Lab is a traveling computer lab in Northeast Nebraska to provide hands-on instruction. There have been 1172 class participants yielding 2551 hours of instruction. Both numbers of hours of instruction and fees generated have already exceeded the amount anticipated at the awarding of the grant. Classes have included: Basic Computer, Windows 95 and advanced Windows Classes, Word Processing, Spreadsheets, Data Basis, Farm and Household Financial Records, and Internet Classes. This project was made possible by a technology grant from the Department of Economic Development which allowed the purchase of six laptop computers. Internet connection has been provided free of charge by Internet Providers. Classes have also been held at the schools, utilizing their computers. Computers have been used for training specific audiences, including library staff and NRCS secretarial staff. Youth were involved in trainings developed around webpage development, posters, and design elements.
- b) Evaluations of classes are extremely positive. Almost all of the participants are positive about the class and the instruction. They also indicate they are more knowledgeable at the end of the program than at the beginning. Locations that have used the computers, want to schedule them in the future. The program has generated small business opportunities for several instructors. Many of the participants are utilizing the knowledge in a work situation. Several are using it to enhance their job skills for seeking employment.
- c) Scope of Impact - State Specific
- d) Funding  
 NU Cooperative Extension  
 Federal Formula Funds

**Key Theme - Community Development - Technology**

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

- a) Using the Nebraska Information Technology Commission's *Community Information Technology and Assessment Workbook*, community e-readiness assessments were conducted in Bancroft, Oakland, Scribner and West Point. Based on the information gathered from the assessments, a regional information technology plan was written for the West Point Workforce Development Area which includes the communities of West Point, Wisner, Beemer, Bancroft, Dodge, Scribner, Snyder, Oakland, Lyons, and Pender. The regional plan addresses three areas deemed high priorities by the regional information technology committee: 1.) telecommunications infrastructure, 2.) economic development and e-commerce, and 3.) local government and community services. Also, several goals were made by communities, such goals included: to increase availability of high speed internet access, strengthen e-commerce education, and improve information technology for small businesses.
- b) As an outcome, two communities were able to develop information technology committees. The West Point Area Telecommunications Committee and the regional information technology planning group are working with Cooperative Extension to purchase an interactive video/audio conferencing system for University of Nebraska Cooperative Extension Cuming County. This will provide

additional opportunities for training from experts located throughout the state and nation. As a result of the initial meeting with the community representatives, a Cooperative Extension educator was asked for input regarding the creation of a fixed wireless broadband company. Using information provided by the extension educator a Cuming County cattle feeder and a group of local investors from Pender and Thurston formed a simple LLC and started a non-profit business to provide fixed wireless broadband service in that area. The information provided helped them figure start-up costs and a break-even point. The educator was also asked to speak about the importance of broadband for rural areas at two meetings sponsored by the group. According to the cattle feeder, the primary equipment (wireless head end transceiver and T1 connection) has been installed and they are in the process of installing customer premise equipment.

c) Scope of Impact - State Specific

d) Funding  
NU Cooperative Extension  
Federal Formula Funds

**Key Theme - Community Development - Technology**

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

a) The goal of the project was to stimulate and support information based economic development through the creation and delivery of accessible information technology training to residents of rural communities. The project recognized that to sustain rural communities and remain economically viable, they would need to raise the level of individual information technology skills to a competency commensurate with the leading technology of the 21<sup>st</sup> Century. This project was undertaken to teach computer and internet skills to a rural workforce by a community partnership of University of Nebraska Cooperative Extension - Phelps/Gosper Counties, Central Community College - Holdrege Center, and Franklin Chamber of Commerce. This initiative made available in rural communities a wide variety of information technology training programs that met the needs of hospitals, agriculture, public safety, and manufacturers in the area that require a well-trained workforce. To accomplish this task, the co-partners requested funding from Nebraska Information Technology Commission to provide an instructor and ten laptop computers, fully equipped with current software application, with the mobile capability to deliver training within Phelps, Gosper, Kearney, Franklin, Harlan, and Furnas Counties.

b) Results from this project include new labor group, upgraded workforce, and support information based economic development. In addition, individuals in work transition (i.e. off farm income seekers, single parents, senior citizens) acquired new skills allowing them an increased job opportunity. Seventy-eight individuals participated in a variety of classes that taught basic computer skills and internet skills. These classes included Master Navigator, ECommerce, Introduction to Windows, Excel, Introduction to Word and Introduction to Scanners and Digital Cameras. Participants used new skills in order to make their business and private everyday operations easier and more efficient.

c) Scope of Impact - State Specific

d) Funding  
NU Cooperative Extension  
Federal Formula Funds

**Key Theme - Community Development - Technology**

*(refers to Plan of Work Goal 7, Output Indicator 6, Outcome Indicator 8)*

- a) Seeing how the internet is becoming such a significant tool in our daily lives, it is no surprise that businesses find it essential to expand their markets to the World Wide Web. In March, 104 participants learned how to organize and launch their business websites. Electronic Retailing - Selling on the Internet was a one day workshop presented at four different locations across the State of Nebraska - Alliance, Cozad, York, and Tilden. Topics included e-Tailing Strategy, What does the e-Customer want?, Making the Web Store Run, Web Design Analysis, and You can Build It - But will they come? - Web Site Marketing.
- b) Participants found the workshop very practical and useful for their businesses. Many participants were able to identify business gaps in their organization and were able to develop new plans on how to correct them. Others gained knowledge of internet literacy and tools to use it. The most beneficial part for many was how to create and maintain a web page for their businesses.
- 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 Indicators 4 & 5)*

- a, b) Statewide ten Poverty Simulations were held in 2004 for approximately 620 adults and 30 high school students to help give them a better understanding of poverty and sensitize them to this reality. At the conclusion, participants indicated that their attitude about poverty had changed with over one-third stating it had changed a great deal. A total of 92 percent said they had at least some change in their attitude. These changes happened because the simulation helped them better understand why those in poverty get frustrated, why they are so negative, get angry and even give up. "I see why it's hard to get out of the poverty cycle" stated one adult participant. Almost two-thirds of those participating indicated they would take action to help those in need. Volunteering more at a shelter, donating items such as food or clothing, encouraging a school system to start a school breakfast program and learning about available community resources were just a few actions planned. Youth participants implied that they would be more concerned about their education. Several youth as well as adults felt assistance with budgeting and managing money so they would not end up in poverty might be a good idea. This is an eye opening experience for all who participate.
- 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 Indicators 9, 10, 11 & 12)*

- a, b) "Preventing Credit Card Blues at 22" was taught to high school seniors across Nebraska. An evaluation of more than 2,500 high school seniors showed statistically significant change on seven of the ten questions evaluated. As a result of this program, 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 on time; properly handling the disposal of unwanted credit cards; and identifying the best way to build a credit history;
- identify sound practices to protect personal identity, especially with reference to: keeping personal information properly secured; and properly reporting lost or stolen credit cards.

One teen shared that, “he would never get more than one card and plans to pay it off each month, he didn’t want to be paying off credit card debt for 20 or more years”. Programs were given to Wayne State freshman students and parents, senior centers, adult classes, UNL alumni association and civic organizations to educate the need to understand credit cards.

Five-hundred and fifty youth learned money management by Money Camps, Money Simulations, or other financial classes. Seventy percent of the youth plan to track expenses, continue or start a savings plan, and develop a spending plan. They learned money doesn’t go very far; credit can be expensive; careers they prepare for are important; and how to budget money is very important.

Three hundred adults learned about financial management of their family by looking at credit, investments, budgeting, savings, financial planning and will/estate planning. After the programs adults shared that they would contribute to their savings/investments 30% more of the time since they took the class; they would keep track of their spending 28% more of the time since they took the class; and they would plan how to spend their money 28% more of the time since they took the class.

c) Scope of Impact - State Specific

d) Funding  
 NU Cooperative Extension  
 Federal Formula Funds

**Key Theme - Family Resource Management**

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

**a, b)** Building Nebraska Families provides education for the hard-to-employ rural clients of Nebraska’s Health and Human Services System welfare to work program. By learning necessary family management and life skills, families are better able to manage family resources and maintain their family while securing and sustaining employment, and can more effectively utilize a community network. During the past year, 42 (13%) of the participants completed the program, meaning they are self-sufficient and not receiving welfare to work monies. Upon comparing entry and exit behaviors, significant changes were seen in 12 of the 20 behaviors measured. The graduates reported that they felt more positive about their life, were setting goals and paying bills on time and in full, were keeping a record on how they spent their money, have a plan on how they will spend or save their money each payday, use exercise to work off stress, are hopeful about the future and feel less depressed. Nebraska Health and Human Services has renewed the contract with Extension until September 2007 for a total of \$2.2 million. Under this agreement, ten (10) educators work with clients in over 50 rural Nebraska counties. This program is currently under study by Mathematica, Inc. To determine applicability for implementation in other rural areas across the U.S.

c) Scope of Impact - State Specific

d) Funding



**Key Theme - Leadership Training and Development**

*(refers to Plan of Work Goals 3 & 4, Output Indicator 3, Outcome Indicator 5)*

- a, b)** Adults and youth are taught to use positive communication skills to strengthen relationships in the community through the “Real Colors Matrixx” program. Nearly 2200 youth and adults participated during the past year. The impact of this program is seen in the improvements indicated on evaluations. Before the program, only 30% of youth participants felt they understand people and personality temperaments most or all of the time. That number improved to 100% as a result of the program. For adults, their understanding increased from 76 to 94%. Before the program, 34% of adults reported they could almost always effectively communicate with others; that number increased to 84% as a result of the program. For youth, their improvement was from 0 - 53%.

Comments from youth indicating the impact of these programs include: “I am going to think about people before I criticize them; I will try harder to work with people that I don’t like.” “Other kids need to do this workshop!” “I will understand the people in my work group and why they act that way; I understand more about myself.”

Adult comments include: “(I learned) why some kids are hard to work with and why my husband gets so mad at me!” “I knew people have different communication styles but it gave me a better understanding. Learning those differences and trying to apply it in different situations has been helpful dealing with people in many situations.” “I now understand my co-workers and learned how to work with them better.” “(I learned to be) more accepting of others, less judgmental.” “Our differences as people are what help to make us efficient as a team!” “(I will) continue to consider how my personality traits are used in working or interacting with others.”

- 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 Leadership Academy 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.

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".

- b) Followup with individual participants who were in the first Academy found they 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 northeast Nebraska; applied for leadership certification; felt more confident, and entered the ALEC Masters program in leadership, another entered the Leadership Studies doctoral program.

The subject matter used in this 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.

- 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) Because self awareness and understanding of others are strong components of effective leadership, the Nebraska LEAD Program made the decision in 1997 to implement the Matrixx System (REAL COLORS) workshop into the "Leadership Through Communications" Seminar. Each year, the seminar is held in November at the University of Nebraska at Kearney. The two-hour Matrixx System workshop provides the first-year Nebraska LEAD Fellows with knowledge of different personalities and learning styles, including giving them the opportunity for self-assessment.
- b) Followup surveys indicate: fifty percent of participants in the program from 1997-2002 were randomly selected and responded to a questionnaire. The findings generally reflected: a better understanding of each individual's personality temperaments, a higher tolerance and understanding of other people's personality styles, and more efficient communication was gained from the workshop. Other people were able to report changes in their behavior through improvements in their own communication, leadership styles, and dealing with other 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 3, Output Indicator 3, Outcome Indicator 4)*

- a) The Youth Leadership Conference: "Tomorrow's Leaders Today" is an educational program that was developed to enhance the leadership skills of 100 to 150 Northeast Nebraska high school

students annually by inviting them to participate in a one (1) day conference in October in Norfolk. Prior to the Conference, a Youth Leadership team is selected to help plan and conduct the conference. The youth selected for the Leadership Team attend a day long training in July. During the summer training, teens learn how to introduce presenters, plan opening and closing programs, work on publicity for the conference and receive training on subject matter that they will teach to their peers during the conference.

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) 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.

Following the conference, school teams have the opportunity to apply for mini grants to help them apply the knowledge and the leadership skills learned during the conference to benefit their school and community.

In the past eight years, 1455 youth plus 132 youth leaders from 44 schools in northeast Nebraska have participated in the Youth Leadership Conference. Fifteen of the 16 counties in the district have been represented. Twenty-nine mini grants were awarded totaling \$6500. Each mini grant was between \$150 to \$300 dollars and required a cash match. Many more projects have been conducted by school youth teams who did not apply for a grant.

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

### **Key Theme - Leadership Development and Training**

*(refers to Plan of Work Goal 5, Output Indicators 4 & 5 , Outcome Indicators 5 & 6)*

- a) 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 Nebraska Head Start Association, Region VII Head Start Office-Kansas City, and the Head Start – State Collaboration Office-Nebraska Department of Education, jointly funded the program. 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 following results reflect the changes experienced by all the participants. Participants reported many benefits from the experience including a better understanding of parliamentary procedure, personality temperaments, and conflict resolution. Others noted improvements in themselves through higher self-esteem, confidence, more openness to change, and better understanding of other people and their actions.

- c) Scope of Impact - Regional
- d) Funding
  - NU Cooperative Extension
  - Federal Formula Funds
  - Nebraska Head Start Association
  - Region VII Head Start Office-Kansas City
  - Head Start– State Collaboration Office-Nebraska Department of Education

**Key Theme - Leadership Development and Training**

*(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 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. This was a five hour workshop presented in three different locations in Northeast Nebraska. A total of 45 librarians were presented the information.

Concepts presented included: 1) Definition of Servant Leadership and how the theory evolved 2) Examples of Servant Leadership 3) Differences between Servant leaders and non-servants, self assessment of personal servant leader characteristics 4) The library as a servant leader entity in the community- how to work towards that goal.

- b) Five months after the workshop, librarians reported several improvements including: the construction of professional development goals, more cooperation with staff and board members, and more efficient teamwork. Librarians generally feel that they are better able to serve their communities and contribute to the development of many individuals.

- c) Scope of Impact - State Specific

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

**Key Theme - Leadership Development and Training**

*(refers to Plan of Work Goal 5, Output Indicator 5, Outcome Indicator 6)*

- a) The EXCEL plant in Schuyler offered a two session leadership training opportunity, in Spanish, for meat packing plant employees. It was recognized that these employees would more likely be assimilated into the community and take on more leadership roles. Fifteen employees attended and were expected to attend the Friday session and still be paid by the plant, and then attend the Saturday session as a voluntary act.
- 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. Another example is the efforts made by two Latino Voices members to start attending the local school board meetings and then to actively work with the action group on attempting to get a bond issue passed in Schuyler. At one point in the meetings, the Extension Specialist asked if there were other resources that the group could use. The answer was that the group members would like to visit the UNL campus and bring their families. A study tour was arranged with 18 members and their families visiting the Animal Science Complex, Morrill Hall, and the Food Science and Technology facility. Only one individual out of the 18 had ever been on a college campus. Several members have teen-age children who are beginning to explore college opportunities. Two members of the group indicated that they would be taking a computer class at the community college in Norfolk and have continued to ask for mentoring advice on obtaining additional schooling.

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

#### **Key Theme - Leadership Development and Training**

*(refers to Plan of Work Goals 4 & 6, Output Indicator 8, Outcome Indicator 7)*

- a) These hands-on conferences focused on women involved in agriculture and agribusiness. The conferences were located in Sioux Falls, SD and Normal, Illinois. They covered the twelve states of the North Central Region. These states include: North Dakota, South Dakota, Nebraska, Kansas, Missouri, Iowa, Minnesota, Wisconsin, Illinois, Indiana, Michigan and Ohio. Two conferences were implemented as a result of a grant received from the North Central Risk Management Education Center. The conferences were designed for all women who want to learn more about farm and ranch management, women who are involved in day-to-day business and family decisions and women land owners. As a result of attending this conference, women validated the roles they play on their operations and they received confidence and encouragement to continue. The Regional Women In Agriculture Conferences helped them to recognize their strengths and cope with their challenges, and how to handle many of the challenges in agriculture with new knowledge and tools.
- b) Women who participated in the conference were able to gain valuable knowledge about dealing with the struggles of living and working around agriculture. Participants said they became better prepared for the future and got a better understanding of the business of the day-to-day life.
- c) Scope of Impact - State Specific
- d) Funding  
NU Cooperative Extension  
Federal Formula Funds

#### **Key Theme - Leadership Development and Training**

*(refers to Plan of Work Goal 5, Output Indicator 5, Outcome Indicator 6)*

- a) Four colleges and universities and seven public school districts joined forces to increase the number of minority, bilingual, and English as a Second Language (ESL) endorsed teachers in northeast Nebraska using collaboration and a distance delivered undergraduate degree program. The Career Ladder project is extremely challenging for the students involved. They are enrolled as full-time students and as such take 12 credit hours per semester. They continue to work more than 30 hours per week as para educators. And as adult students, they continue to have family and community responsibilities. Distance learning technologies enable the students to manage the load by delivering courses in their communities and in their homes. Courses are provided by Northeast Community College, Central Community College, Wayne State College, and the University of Nebraska-Lincoln. Partner school districts are Norfolk, Madison, Columbus Public, Columbus Lakeview, Schuyler, Wakefield, and South Sioux City.
- b) Because of the program, participants feel that they are better prepared and empowered to take on more responsibility and more challenging tasks. Participants discovered that they were able to take on the tasks of college level classes. Not only changes in their work were noticeable, but it was reported that positive changes with their families also occurred.
- c) Scope of Impact - State Specific
- d) Funding  
 NU Cooperative Extension  
 Federal Formula Funds  
 U.S. Department of Education Grant

**Key Theme - Leadership Development and Training**

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

- a) Sidney Area Leadership Tomorrow (SALT) is a Cheyenne County program to help adults enhance their leadership skills and encourage them to fulfill positions of responsibility in their communities. A community-based Board of Directors oversees the program and facilitates the learning sessions. Cooperative Extension educators teach sessions on personality assessment and agriculture and coordinate the program.
- b) Many participants indicated that by the end of the program, they were already accepting new leadership roles in their communities. Everyone indicated that they received a much better understanding of community sectors and their responsibilities such as education, local government, and economic development. Two members of the SALT class who recently completed the program have joined the SALT Board of Directors. One participant has become active in the Cheyenne County Chamber of Commerce. Others have accepted more responsibility at work.
- c) Scope of Impact - State Specific
- d) Funding  
 NU Cooperative Extension  
 Federal Formula Funds

**Key Theme - Leadership Development and Training**

*(refers to Plan of Work Goals 4 & 6, Output Indicators 4 & 8, Outcome Indicators 5, 6 & 7)*

- a) The University of Nebraska Panhandle Learning Center in Scottsbluff implemented the NU Skills online seminar program ([nuskills.unl.edu](http://nuskills.unl.edu)) to make high-value business educational programs

more accessible and more convenient for all Nebraska businesses and individuals, so they can successfully compete. NU Skills delivers live, interactive Internet-based events generally lasting one or one-and-a-half hours. Participants can view slide presentations and documents, work in applications, view web sites, take polls and participate in chat or audio discussions. Participants need a standard web browser and a phone for audio. There is no special hardware or software required.

- b) Participants were able to gain much knowledge about working online and a majority indicated that they were now able to make changes in their operations to better their business. Many also indicated that they would use the new knowledge that they gained in their next presentations.
- c) Scope of Impact - State Specific
- d) Funding  
NU Cooperative Extension  
Federal Formula Funds  
Platte Valley Companies  
Regional West Medical Center.

### **Key Theme - Leadership Development and Training**

*(refers to Plan of Work Goal 7, Output Indicator 7, Outcome Indicator 5)*

- a) University of Nebraska Cooperative Extension, University of Nebraska Rural Initiative and the Center for Applied Rural Innovation implemented computer training sessions for county elected officials and courthouse staffs. Anticipated impact is the development of Web sites that will allow citizens to transact business on customer-centered and user-friendly local government web portals. Approximately 220 participants from Antelope, Boone, Burt, Clay, Cuming, Fillmore, Harlan, Jefferson, Kimball, Nuckolls, Seward, Sioux, Stanton and Thayer have completed the training.
- b) Pre-post training tests show a significant increase of skills has been gained following training. Participants felt that they gained skills specific to their work and would be better able to contribute to the workplace. Every county indicated that they would be either updating or setting up a web page for the county.
- c) Scope of Impact - State Specific
- d) Funding  
NU Cooperative Extension  
Federal Formula Funds

### **Key Theme - Leadership Development and Training**

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

- a) One way to educate the state's non-farm population about significant agricultural issues is to incorporate ag related examples into the secondary school science, business, and social studies curricula and to encourage high school students to pursue careers in agriculture-related industries. To do that teachers must be knowledgeable about ag issues and aware of resources which can be incorporated into their daily lesson plans. UNL's Haskell Agricultural Laboratory (HAL) in Concord, Neb., hosted a graduate level continuing education course offered through UNL's

Agricultural Leadership, Education, and Communication Department. Thirteen secondary teachers of agriculture, science, and social studies participated in the course during summer 2004. Agricultural researchers stationed at HAL shared information about their work including their research focus and design, the economic impact of their work on producers, and the social, political, and environmental issues surrounding their segment of the ag industry. Areas of specific focus included weed management, soil fertility, entomology, water quality and irrigation management, swine production, feedlot beef production, forestry, and conservation buffers.

- b) Educators that participated in the program found the material pertinent to capable of being integrated into their curriculum. Participants were enlightened to new proposals, problems, and other issues that can be incorporated into high school science and social studies course criteria.
- c) Scope of Impact - State Specific
- d) Funding  
NU Cooperative Extension  
Federal Formula Funds  
CSREES Secondary Challenge Grant

### **Key Theme - Parenting**

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

- a, b) Over 600 people participated in a variety of parenting classes. Evaluations indicated an improvement from 78 to 89 % of the participants who would almost always praise their children for positive behavior as a result of the class. Having a good time together improved from 43 to 60%. Those who were able to talk to their children about important things improved from 69 to 100%.

Comments made by parents include: "I learned about developmental stages of children and that they are not little adults." "I now know how to be a parent and can accept that responsibility." "I will try not to get stressed when dealing with children." "I will let my children know they are loved."

Positive communication is one topic taught in parenting programs. Participants indicate plans to put these skills into practice. "This week, I plan to using reflective listening while my husband and I review our budget." "I will try talking more to my family about things that are bothering me." Another said, "I will make dinner and shut the TV off and we will discuss our day together during dinner."

Parents Forever (a class for divorcing parents who have minor children) was attended by 567 individuals. 158 youth attended Kids Talk About Divorce. A follow-up survey of 83 participants who attended *Parents Forever* classes within the past 6-18 months were contacted via a telephone interview. 56.6% gained skill in communicating with "I" messages, 75.9% could talk more favorably about other parent and 50.6% had worked on a parallel parenting plan. One participant stated, "The most beneficial thing was not putting him (the child) in the middle and let him make his own decisions. I have to be the parent instead of him being an equal parent. I had to be the parent, so I had to learn to communicate differently with him...."

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



**Key Theme - Youth Development/4-H**

*(refers to Plan of Work Goals 2,3 & 5, Output Indicators 2 & 3, Outcome Indicators 3 & 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.

Eight sites established youth in governance projects. Sites worked with local government at the city, tribal and county levels to build partnerships with youth for the betterment of the community.

Comprehensive staff training in Youth Adult Partnerships will be conducted in 2005. Goals are:

- 100 youth and 100 adults will be involved in programs to develop leadership skills for youth adult partnerships.
- 75% of youth participating in programs, will develop leadership skills for youth-adult partnerships will serve on a local, county or regional decision making board or council.

- b) The Youth and Adult Partnership baseline survey was returned by 75 of the 93 counties or 81% of the counties in Nebraska. The follow up was returned by 58 of those 75 counties or 77 %.

Initial results in the baseline survey showed that 64 of the 75 counties or 84% of the counties had youth who served on the councils. The baseline survey also showed that youth have leadership roles other than the 4-H Council some of these roles include: Fair Superintendent in 41 % of the counties, youth as organizational leaders in 26% of the counties as compared to 57 % project leaders, 59 of the counties had youth on various 4-H planning committees and 29 % of the counties involved them as chairpersons for 4-H events.

The Fall 2004 survey revealed a statewide sample of changes and advantages for having youth on the 4-H councils and decision-making boards:

- This was the first year youth were involved in this council, they were actively involved in the decision making.
- Youth give a new perspective; adults listen to the youth, really listen, and they take their advise. It is great to watch. This year has been so positive, the council members are slowly changing-good things are happening with some training and lots of patience.
- Energy levels for the council are boosted.
- Youth bring different perspectives and provide insight to things that adults either take too seriously or make too difficult. Youth serve an important role in that they can be extremely influential and focused when they have an invested interest in the topic.
- Meetings stay on schedule and youth are more willing to take leadership roles when they have been part of the decision making.
- Constitutions of the councils were rewritten to include youth. Youth attendance at these 3 councils is almost 90% of the time. The youth we have on the councils talk, they are all good about expressing their opinions and ideas.
- Increased number of youth on council by three members.
- Youth bring new and better ideas and encourage other youth to join in.
- Youth energy rejuvenates adults.

- Keeps adults “in tune” with youth.
- Develop leadership for youth and mentoring opportunities with adults.
- Youth feel more a part of the program when they are involved in the decision making process.
- Youth were added to all superintendent committees in the animal area.
- Youth are able to enhance their leadership development, communication skills, intergenerational group dynamics.
- The county rewrote their bylaws to include more youth on the council. They also have an adult and youth hold each office. One month the youth conduct the meeting the next the adults conduct the meeting. An educational component has been shared each month from the Youth and Adult Partnerships Training CD that was distributed in the January 2004 4-H Training.

c) Scope of Impact - State Specific

d) Funding  
 NU Cooperative Extension  
 Federal Formula Funds

**Key Theme - Youth Development/4-H**

*(refers to Plan of Work Goals 2,3 & 5, Output Indicators 2 & 3, Outcome Indicators 3 & 4)*

a) Nebraska was one of four states to receive a Youth in Governance grant from the National 4-H Council and the Land O Lakes Foundation. The project was implemented in four rural communities in Polk, Wayne, Hayes and Cedar counties.

- The Hayes Center LEAP group received training, developed leadership skills, surveyed the community for a service project, and examined possible solutions. The group successfully planned and implemented a major community improvement project that involved replacing a retaining wall, adding and repairing benches and picnic tables, trimming and shaping trees and shrubs, and planting ornamental grasses and perennial flowers.
- The LEAP group in Wakefield worked with an after-school program to coordinate and reinvigorate the Summer Reading Program at the Wakefield Library. The reading program was in jeopardy of not being conducted due to lack of funding. The LEAP group identified the problem and was eager to get involved.
- The Hartington LEAP focused on developing an infrastructure and sustainable mechanisms for youth involvement in civic governance. Both the local Chamber of Commerce and Economic Development Council were approached by the LEAP group to examine how youth could be given more meaningful roles in the community. Both of these organizations are now in the final stages of adopting by-laws changes that will allow youth to serve as voting members of their governing boards. The LEAP youth have identified their preferences for the boards on which they would like to serve, and interviews are planned to select the youth who will serve on these boards.

In Stromsburg, the LEAP group focused on making improvements to Buckley Park and improving the basketball courts. They met with the City Council and City Park Board for approval and support for this plan.

b) **Impacts of the Grant Project on Youth**

- Youth developed leadership skills while addressing local issues.
- Youth have opportunities to develop leadership, decision-making, and problem-solving skills.
- Youth become motivated to secure permanent civic governance roles within their communities.
- Youth feel empowered to take action within their communities.
- Youth gained experience by working with adults in equal partnership to accomplish goals.
- Increased ability to make a difference in their communities.
- Increased sense of confidence.
- Increased sense of connectedness to the community.
- Improved relationships and understanding of adults.
- Improved attitude among young people about their role in civic governance.

#### **Impacts of the Grant Project on Adults**

- Adults see youth as resources.
- Adults engage youth in decision-making in order to involve them in the future of their communities. Adults have opportunities to witness the contributions to their communities that youth can make.
- Adults recognize the value of youth involvement in civic governance as projects are undertaken and accomplished.
- Adults enhance their own repertoire of decision-making, action planning and community development skills while engaged in youth/adult partnership projects.
- Adults experience a stronger appreciation and understanding of youth.
- Adults develop a renewed sense of community connectedness through the eyes of youth.

#### **Impacts of the Grant Project on Communities**

- Communities were bolstered by a renewed sense of interest by youth to remain in their hometowns.
- Communities see youth involvement in civic governance as crucial to their economic vitality.
- Communities recognize the value youth bring to community improvement in terms of infusing new ideas and energy.
- Communities benefit by having much-needed improvement projects completed by youth-adult teams.

c) Scope of Impact - State Specific

d) Funding  
 NU Cooperative Extension  
 Federal Formula Funds  
 Land O Lakes Foundation

#### **Key Theme - Youth Development/4-H**

*(refers to Plan of Work Goals 1,3 & 5, Output Indicators 1 & 3, Outcome Indicators 1 & 2)*

a, b) Out of School - Education for children/youth during at risk hours.

The *Hours of Opportunity Conference* was held May 18 & 19 at Gretna Nebraska. There were over 100 people in attendance. Twenty-six workshop sessions were included in the educational program and twenty-four different organizations were represented. As a result of the positive

feedback from the conference attendees there are other organizations and agencies who contacted us to be members of the planning team for the 2005 conference. This opportunity to share resources and partner has been of value for 4-H as we go forward with programs to support youth in out of school educational settings. This is an opportunity to make others aware of the research based curricula available through the 4-H program. The 2005 dates have been set for May 10 & 11.

#### Cyfar grant

- Platte Co. - Increased to 3 elementary schools conducting 4-H After-school programs
- Madison Co. - Conducted Out-of-School programs with families to incorporate a multi cultural focus. Develop a welcome marketing piece to promote opportunities in the community.

Increased 2004 Summer Camp enrollment numbers to 7,000 user days totaling a 10% increase from 2003. The Columbus site is up to 3 schools operating with 90 youth enrolled. Madison is expanding program subject matter and is working with the school to make advances for youth programming. The adults are very supportive and will help promote and work with the programs.

#### Camping

The marketing video/dvd was developed and utilized for marketing purposes. Additional photos are available for county use. Marketing ideas were developed and utilized through the media and also through 4-H newsletters.

Expand use of camp staff in county day camp programming. – Kearney hosted a day camp and the camp staff provided the program content and leadership for the camp.

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

#### **Key Theme - Youth Development/4-H**

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

##### **a) 4-H Military**

The children of America's servicemen and women also make sacrifices for our nation. Their families go through permanent changes in station (PCS), which result in the youth moving often and going through the transitions of new schools, leaving friends, etc. The United States Army and Air Force have established a partnership with the United States Department of Agriculture, to establish 4-H clubs on installations and bases across the world to help ease those transitions. University of Nebraska Cooperative Extension 4-H has helped children with parents stationed at Offutt Air Force Base near Omaha learn life skills and foster friendships to deal successfully with their unique challenges. The youth participate in 4-H activities, both on and off the Base. The existence of a 4-H program provides continuity for youth arriving from other bases and for youth who leave Offutt and arrive at new homes.

- b) Over 150 youth from Offutt Youth Center were enrolled in 4-H in Douglas/Sarpy during 2004. Those youth participated in 4-H activities and completed 4-H projects such as cooking, home environment, woodworking, and aerospace. Approximately 40 of those youth also participated in a variety of 4-H learning experiences during the summer months. Evaluation of the program revealed:

- 75% of the youth participating recognize 4-H as a fun and challenging activity, none of the youth knew of 4-H prior to the programs inception.
- A mean score of 8.18 (10-point scale) was given when youth were asked to reflect upon their learning as a result of participation in 4-H activities.
- 44% attribute their participation in 4-H directly to the learning of new skills.
  - 33% listed project skills
  - 33% 33% listed self-reliance
  - 33% 27% listed teamwork
  - 33% 13% listed challenging one's self
  - 33% 13% listed the ability to teach others
  - 33% 75% said they will seek out a 4-H program in their new home following a PCS.

c) Scope of Impact - State Specific

d) Funding  
 NU Cooperative Extension  
 Federal Formula Funds  
 USDA Military 4-H Club Grants

**Key Theme - Youth Development/4-H**

*(refers to Plan of Work Goals 3, 4 & 7, Output Indicator 3, Outcome Indicators 3 & 8)*

a) In today's high-tech world, gaining technical knowledge can give students a leg up. And small towns are hungry for help with technical challenges.

University of Nebraska Cooperative Extension 4-H in 1999 started the Tech Team for high school students who want to learn about technology and share their knowledge to help others. About 50 students have participated. Once a year the university's Rural Initiative and 4-H sponsor a weekend workshop for high school students which expands their tech skills and teaches them to share those skills to promote rural economic and community development. As a result, the team members are volunteering to help their communities in a variety of ways.

b) Students are learning marketable skills while Nebraska towns are tapping their expertise for community enhancement. Some students have been able to take leadership positions in their schools and counties. One member said she used the knowledge gained through the tech team to teach members of her community. She organized and taught an Internet class to senior citizens and also used her skills to promote 4-H and the use of technology in her area.

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**

The six Action Plan teams of Nebraska Cooperative Extension are required to seek program input from a minimum of five key stakeholders annually (determined to represent a significant population, organization or be a key political leader). 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 University of Nebraska Departments and Research and Extension Centers provide excellent input to both our Extension programming and the research projects of the Agricultural Research Division.

Action teams when meeting with stakeholders are requested to seek the following information:

1. Are the educational goals of this action plan of the highest priority?
2. Does the action plan represent work which is complementary, but not duplicative, of work of educational entities?
3. Are there potential collaborators for these educational goals of action plans?
4. Are you as stakeholder aware of potential sources of grant/contract funding?
5. Are there educational goals of this action plan that should be targeted for elimination or hand-off to other entities?

Another key part of Nebraska Cooperative Extension's stakeholder input process in 2004 was participation in the Institute of Agriculture and Natural Resources (IANR) strategic planning input process. Cooperative Extension as a division of IANR had representatives present, and received resulting data, from the listening sessions held in 2004. Feedback from these listening sessions was shared with the action plan teams of Cooperative Extension.

Our institution considers itself fortunate that faculty (Specialists, Educators and Researchers) are engaged in one-on-one working relationships with many of the governmental, educational and business leaders of the state. This engagement provides access to information about trends and issues that impact Nebraska citizens.

### **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.**

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

- 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 residents of the state. Generally these stakeholders are representatives of organizations/agencies that partner with Cooperative Extension. Stakeholders represent over eighty different agencies/organizations with whom Extension works. As an example, the Water Supply and Waste Management work group (a part of the Community and Residential Environment Action team) identified the following stakeholders who provided input to the planning of their educational programming:

Nebraska On-Site Wastewater Treatment Task Force (including the Nebraska Department of Environmental Quality, Nebraska Health and Human Services, county planning and building departments, and county health departments)

Nebraska On-Site Waste Water Association

Nebraska Health and Human Services System Water Resources section

Federal Emergency Management Agency

Red Cross  
American Water Works Association  
Water Quality Association  
Nebraska Natural Resources Districts (four districts)  
Central Nebraska Public Power and Irrigation District

- 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 to the public to attend.
- Representatives from commodity groups, the green industry, and related industrial entities are part of the advisory committees of departments of the Institute of Agriculture and Natural Resources. These advisory groups provide input to the departmental and extension/research programmatic goals.
- Cooperative Extension Action Plans and departmental action plans are compared to insure congruence. This happens through group discussions between departmental and extension/research administrators, and departmental administrative attendance as a part of the Extension Action Plan team meetings. Extension Action Plan team meetings held in the fall, 2004, included research/extension faculty and department heads in planning meetings for 2005. Additionally several of the Action Plan teams hold regular communication through telephone bridge calls or face to face meetings.

### **C. How collected input was analyzed**

Meetings and reports submitted by the Extension Action Plan teams indicate that while their goals are generally seen by stakeholders as in alignment with the needs of Nebraskans, modifications need to be ongoing to insure that the Plan of Work goals are positioned to have Extension partner with other educational entities. The general tone of stakeholder reviewers is that the educational goals of Action Plan teams are focused on high priority issues. Encouragement from stakeholders to not duplicate, but partner with other educational entities remains a key item as does the need to market and promote educational efforts that are undertaken.

Additional themes that remain consistent are:

- Cooperative Extension needs to be able to respond more rapidly
- Bring other partners to the 'table' for planning and implementation
- Get better acquainted with other entities delivering education in various program areas
- Continue to utilize technology for program delivery

### **D. Is the Stakeholder Input Process Useful**

Nebraska Cooperative Extension believes that stakeholder input is essential to the implementation and delivery of educational programs that are on target. Through the involvement of stakeholders:

- Nebraska Cooperative Extension programs are better marketed across the state
- Co-sponsorship of programs with other entities becomes more likely as others learn about programs
- Collaborating entities become program participants
- Collaborating entities become sources of matching funds to deliver educational programs

The IANR listening sessions continue to be helpful in identifying priority issues to be incorporated into educational programs. Throughout all the listening sessions held in 2003 and



2004 the two issues of highest priority for educational programming are economic development and community vitality and water (quality and quantity).

Cooperative Extension continues to respond 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 geographic regions 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 entities 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 Nebraska Indian Community College. Because of these partnerships teens have gotten more involved in outside activities and are interacting with other youth and adults outside their schools. Program leaders say teens are more motivated and more interested in learning about 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 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.

- Four colleges and universities and seven public school districts joined forces to increase the number of minority, bilingual, and English as a Second Language (ESL) endorsed teachers in northeast Nebraska using collaboration and a distance delivered undergraduate degree program.

### **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. As an example this year a 4-H Volunteer Educator program was down linked to 50 sites. Additionally, 4-H Youth Development uses the WebEx format to deliver inservice education to faculty and staff on a monthly basis. 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, Admissions, Journalism and Computer Science.

**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)

**Actual Costs**

<b>Title of Planned Program/Activity</b>	<b>FY 2000</b>	<b>FY 2001</b>	<b>FY 2002</b>	<b>FY 2003</b>	<b>FY2004</b>
<b>Goal 1:</b>	<u>\$ 608,074</u>	<u>\$ 660,074</u>	<u>\$ 516,418</u>	<u>\$ 783,475</u>	<u>\$ 436,047</u>
Integrated Crop Management					
Integrated Livestock Systems Management					
Integrated Pest Management					
Sustainable Agricultural Production Systems					
<b>Goal 2:</b>	<u>\$ 123,641</u>	<u>\$ 128,587</u>	<u>\$ 154,977</u>	<u>\$ 82,715</u>	<u>\$ 36,056</u>
Pre and Post Harvest Plant and Animal Food Safety					
Food Processing and Food Service Management Food Safety					
<b>Goal 3:</b>	<u>\$ 10,131</u>	<u>\$ 10,536</u>	<u>\$ 13,499</u>	<u>\$ 107,232</u>	<u>\$ 65,738</u>
Human Nutrition, Health and Safety Health Care					
<b>Goal 4:</b>	<u>\$ 100,679</u>	<u>\$ 104,706</u>	<u>\$ 460,998</u>	<u>\$ 488,982</u>	<u>\$ 453,962</u>
Natural Resources Management and Protection					
Environmental Protection Environmental and Natural Resources Policy					
<b>Goal 5:</b>	<u>\$ 284,675</u>	<u>\$ 296,062</u>	<u>\$ 368,873</u>	<u>\$ 337,675</u>	<u>\$ 257,579</u>
Family Strengths Telecommunications for Rural Areas Community Strengths					
<b>Total</b>	<u>\$1,127,200</u>	<u>\$1,179,200</u>	<u>\$1,514,765</u>	<u>\$1,799,990</u>	<u>\$1,249,383</u>

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Elbert C. Dickey  
**Dean and Director**

\_\_\_\_\_  
April 1, 2005  
**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 2003 and 2004.
- New methods and technologies to control and improve reproductive success in beef cattle were the focus of the University of Nebraska Cooperative Extension's "Applied Reproductive Strategies in Beef Cattle Symposium" held September 1-2, 2004 in North Platte, NE. This program was organized as an educational opportunity to help people in the beef industry gain a greater understanding of the reproductive processes involved in both female and male beef cattle and provide management strategies to optimize reproductive efficiency. There were 22 states that attended and Colorado State University and the University of Illinois are using the lectures on the web as part of their advanced reproduction classes.
- The four state commercial horticultural workshop continues to be held at St. Joseph, MO for producers in Nebraska, Kansas, Iowa, and Missouri.
- The 2004 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 20<sup>th</sup> annual Four State Beef Conference was held in 2004. 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 2004.
- Nebraska has taken the lead in drought mitigation education working with Colorado and Wyoming.
- The 10<sup>th</sup> annual North Platte River Basin Water Policy Conference was held in 2004 in Wyoming. 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 7<sup>th</sup> 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.
- 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 2004.
- 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 three new projects were introduced in 2004.
- 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](http://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  
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)

**Actual Costs**

<b>Title of Planned Program/Activity</b>	<b>FY 2000</b>	<b>FY 2001</b>	<b>FY 2002</b>	<b>FY 2003</b>	<b>FY2004</b>
<b>Goal 1:</b>	<u>\$ 618,461</u>	<u>\$ 608,898</u>	<u>\$ 612,025</u>	<u>\$ 641,210</u>	<u>\$ 585,375</u>
Integrated Crop Management					
Integrated Livestock Systems Management					
Integrated Pest Management					
Sustainable Agricultural Production Systems					
<b>Goal 2:</b>	<u>\$ 74,509</u>	<u>\$ 70,992</u>	<u>\$ 51,236</u>	<u>\$ 72,805</u>	<u>\$ 63,885</u>
Pre and Post Harvest Plant and Animal Food Safety					
Food Processing and Food Service Management Food Safety					
<b>Goal 3:</b>	<u>\$ 24,910</u>	<u>\$ 23,700</u>	<u>\$ 23,123</u>	<u>\$ 24,268</u>	<u>\$ 20,760</u>
Human Nutrition, Health and Safety Health Care					
<b>Goal 4:</b>	<u>\$ 345,005</u>	<u>\$ 321,092</u>	<u>\$ 322,006</u>	<u>\$ 309,301</u>	<u>\$ 370,480</u>
Natural Resources Management and Protection					
Environmental Protection					
Environmental and Natural Resources Policy					
<b>Goal 5:</b>	<u>\$ 175,680</u>	<u>\$ 198,440</u>	<u>\$ 188,895</u>	<u>\$ 188,376</u>	<u>\$ 201,533</u>
Family Strengths					
Telecommunications for Rural Areas					
Community Strengths					
<b>Total</b>	<u>\$1,238,565</u>	<u>\$1,223,122</u>	<u>\$1,197,285</u>	<u>\$1,235,960</u>	<u>1,242,033</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**

Accurately dropping seeds into a row may seem routine but seeds can go astray in even the best planters. Improving the seed placement accuracy is critical to maximize yields and quality for most crops. University of Nebraska biological systems engineers are working to improve planter accuracy by identifying which planter components most affect seed placement. Using a sophisticated seed sensor one of the researchers invented, they found that wear on sugar beet planter seed tubes can cause seeds to hesitate, bounce or scatter, significantly altering seed placement. They found seed coatings can affect seed placement. They also used the sensor at Cooperative Extension clinics to measure accuracy and performance of sugar beet planters brought in by producers. This research has improved planter accuracy, which should improve yields and sugar beet quality. At extension clinics, the sensor showed that more than 90 percent of individual planter rows required replacement parts to achieve original seed spacing performance. Seed spacing accuracy was improved 19 percent on 69 planters tested and repaired in 2003. It is estimated this accuracy improved yields and reduced harvest loss by 1 ton per acre, resulting in an estimated \$1.5 million additional income for growers in Nebraska, Colorado and Wyoming. The Extension education program using the research information has continued.

#### **Activity: Integrated Livestock Management**

Concerns over livestock odors are growing. Disputes often pit livestock producers against neighbors and sometimes divide communities. Finding science-based solutions to help minimize odors and conflicts is especially important in Nebraska, a leading livestock producing state. University of Nebraska biological systems engineers are developing a computer tool to predict how often there will be annoying odors in areas surrounding a livestock facility. Called the Nebraska Odor Footprint Tool, this software illustrates how far a livestock operation needs to be from neighbors in different directions to avoid odor-related conflicts. It incorporates weather records and livestock operation characteristics specific to Nebraska along with site-specific information. This tool will be used primarily to advise producers planning to expand existing facilities or build new ones. Cooperative Extension worked with livestock producers to test a prototype of the new tool at 2004 workshops. Researchers continue to enhance the tool and make it easier to use. The tool also will help planners and communities make more informed decisions about the placement of livestock operations. Researchers will test it in a rural community in the summer of 2005. The target is to make the tool available for general use by individuals in 2006. This tool should replace some of the emotion and guesswork often associated with decisions about where to locate livestock facilities with research-based information based on Nebraska and site-specific information. Better-informed choices about the location of livestock operations should reduce conflicts and improve environmental quality.

#### **Activity: Integrated Pest Management**

The soybean aphid arrived in the United States in 2000 and University of Nebraska entomologists began to prepare for its occurrence in Nebraska with research and education to help Nebraska producers respond to this new insect pest. Since the soybean aphid was new to North America and experience managing the insect was limited it was important to respond with an integrated research and extension education program. Research at the Haskell Ag Laboratory has helped to refine and develop management recommendations for Nebraska conditions. The Nebraska Soybean Board provided funding for the soybean aphid research and the development of educational materials including a 2004 Cooperative

Extension NebFact on Soybean Aphid Management in Nebraska. The research effort began in 2000 with surveys to provide early detection if the aphid occurred in Nebraska, fortunately none were detected. The surveys continued in 2001 and 2002 to document the aphid's distribution and possible spread. These surveys were critical in documenting the aphid's first occurrence in Nebraska in 2002. This overall survey effort and early warning program identified regions in Nebraska with the early season aphid colonization of soybean, established survey circuits in Eastern Nebraska for aphids on overwintering hosts and soybean fields, alerted farmers upon the earliest appearance of the aphid, and disseminate the most recent aphid biology and management information. Other research in collaboration with the University of Minnesota addressed the physiological responses of soybean to aphid injury; this information is instrumental to the development of improved economic thresholds and aphid management strategies. Producers were provided up-to-date information on the occurrence of the aphid, scouting recommendations, economic threshold information, and recommended management strategies using a variety of tools. Key newsletters like "Crop Watch" and the "Northeast Integrated Pest Management and Cropland Production Newsletter" along with numerous news releases to the media kept producers informed. Information was also provided in numerous summer field days and winter education programs for both producers and agri-business professionals. The proactive research and education program has prevented wide spread economic damage to Nebraska's soybean crop in 2003 and 2004.

**Activity: Sustainable Agriculture Production Systems**

Alternative, higher-value crops can broaden crop options for farmers and bolster regional economies, but new crops also are risky. Farmers need information about producing unfamiliar crops under local conditions as well as their market potential. University of Nebraska agricultural scientists and Cooperative Extension staff have identified and are educating producers about promising alternative crops for the Nebraska Panhandle's arid high plains climate. The effort focuses on alternatives with higher value potential for growers and the region's economy. Studies have revealed how best to plant, manage and harvest several new crops. Scientists identify existing varieties best suited to local growing conditions or breed new varieties for the region and explore a new crop's market potential. New crops being grown in the Panhandle as a result of these efforts include: proso and foxtail millet and sunflowers for birdseed; chickpeas for human food; turf and forage grass seed, and chicory. Brown mustard and canola for environmentally friendly biodiesel production are among the latest crops being studied. New crops have expanded farmers' production options and added millions of dollars to the region's economy. Birdseed crops now grow on 250,000 Panhandle acres and birdseed production is a \$20 million a year industry, including several processing plants that extension staff helped attract to the region. Panhandle growers produce about 1,500 acres of grass seed valued at \$1 million annually. The region's 900 acres of chicory, valued at \$1 million annually, are processed at the nation's only chicory processing plant at Scottsbluff, which opened in 2001. The Panhandle now produces 10,000 acres of chickpeas and with 80 percent of U.S. chickpeas imported, there's room to grow.

**Goal 2**

**Activity: Food Processing and Food Service Management Food Safety**

For the 6 million to 7 million Americans with food allergies, grocery shopping can be time-consuming and a bit scary. To avoid potentially deadly allergic reactions, they must scrutinize food labels. Even that sometimes isn't enough. Foods manufactured on shared equipment sometimes inadvertently contain ingredients that aren't on the label. Research by food toxicologists in the University of Nebraska's internationally recognized Food Allergy Research and Resource Program produced fast, simple, accurate tests food processors can use to check for traces of allergenic foods on food or equipment. The Nebraska-developed tests for peanut, eggs, almonds and milk are commercially available; others are in the works. The team provides extension education for food manufacturers on broad food allergy issues, including labeling laws, recalls, allergen controls and using test kits. Two-day sessions attract industry

representatives from across North America and also have been offered internationally. 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. The Nebraska-developed tests and training are helping the food industry protect allergic consumers and reduce product recalls. The 30-minute tests replace procedures that took days to complete in a laboratory. Companies that use the tests can be confident that their products contain only the ingredients listed on the label. Training sessions also pay off. Thanks to what they learned at one session, 100 industry representatives changed a manufacturing practice and estimated avoiding potential recall costs averaging \$500,000 each.

### **Goal 3**

#### **Activities: Human Nutrition, Health and Safety and Health Care**

##### Fruit and Vegetable Connection Project

Nebraska is participating as one of ten states in a multi-state research and extension project that was funded by USDA. Over the course of two years, three rounds of interviews were conducted with 1200 low-income young adults between 18 and 24 (198 young adults in Nebraska). Approximately half of the group received phone calls and educational materials that were tailored to their readiness for making changes in fruit and vegetable intake. The other half received a standard pamphlet and no personal phone contact. Results have indicated that the tailored group progressed in their ability to eat more servings of fruits and vegetables in a day. In each state, including Nebraska, extension personnel were trained in recruiting techniques and making the educational phone calls. A cost analysis of reaching audiences via educational phone call versus individual or group face-to-face contact is being conducted. In addition a satisfaction survey with the educators who conducted the educational phone calls has been conducted and results are being compiled. Both procedures will allow some determinations about the implications for the applicability of this educational delivery method for additional extension programs.

##### Wellness for Women

Nebraska Cooperative Extension is cooperating with the University of Nebraska Medical Center on a nutrition and physical activity behavior change research project that targets 50-69 year old women living in rural parts of the state. The project was funded by National Institutes of Health/National Institute of Nursing Research. Two hundred twenty-five women were recruited for the study beginning in September 2002. Half of the women received tailored newsletters based on their responses to eating and physical activity questionnaires and physical measures. The other half received generic messages about nutrition and physical activity. Nebraska Extension personnel participated in the development of the educational messages for the nutrition content and in the analysis of nutrition/eating behavior results. The project has been able to highlight implications for reaching rural, harder-to-reach audiences with health information that will assist them in making behavior changes. Additional work is being proposed to determine effectiveness for reaching the audiences using tailored messages that are delivered electronically rather than mailed format.

### **Goal 4**

#### **Activity: Natural Resources Management and Protection**

Everyone loves a lush lawn but traditional turfgrass usually requires lots of water, chemicals and maintenance. Two decades of University of Nebraska turf science research has transformed buffalograss, a tough, drought-tolerant prairie grass, into improved water-thrifty grass well-suited for lawns, golf courses, parks and other turf. Nebraska is the nation's leader in turf buffalograss research and improvement. Since 1990, nine turf buffalograsses developed by Institute of Agriculture and Natural Resources scientists have been commercialized. Buffalograss requires up to 50 percent less water than

Kentucky bluegrass and far less mowing and fertilizer and pesticide application. The Extension turf work group has provided education for homeowners and professional turf grass managers on the use and management of buffalograss in Nebraska's environment. This effort has included publications on selection, planting and maintenance of buffalograss. Demand for these grasses is growing nationwide, but especially in areas hardest hit by drought and water shortages. The improved varieties of buffalograss not only help protect the environment and use less of limited water supplies, but also are also more aesthetically pleasing.

**Activity: Environmental Protection**

On-the-go Sensors for Precision Ag

The more farmers know about their soil, the better for their profits and the environment. Precision agriculture tools can provide site-specific information farmers need to better match crop nutrient needs to varying soil conditions. University of Nebraska biological systems engineers are developing and testing soil sensors to help farmers better assess physical and chemical characteristics of soil across a given field. The sensors are being designed to detect and map soil properties on-the-go, as they are pulled across fields. These new sensors provide more precise information and should cost less than conventional methods of gathering this information, such as extensive soil sampling of fields. Some of this technology already has been patented and commercialized. Information on the existing technology and updates on the research have been part of Extension educational programs on precision agriculture delivered by the Extension precision agriculture work group. On-the-go sensors will more accurately detect physical and chemical soil characteristics across a field and provide cheaper, more accurate information than traditional soil sampling. Farmers can use this information to make better crop and soil management decisions. Ultimately, farmers will be able to more precisely match crop needs to varying local conditions, which should result in more effective use of agricultural chemicals and protection of the environment, particularly water quality protection.

**Activity: Environmental and Natural Resources Policy**

New U.S. Environmental Protection Agency limits reduce the amount of arsenic allowed in public drinking water supplies from 50 to 10 parts per billion. More than 80 small public water systems across Nebraska could have trouble complying with this new federal requirement by the 2006 deadline because traditional cleanup methods are expensive. In addition, many private water supplies with wells in the same aquifers as the small communities will also have elevated arsenic levels. University of Nebraska-Lincoln water scientists are evaluating the occurrence of arsenic in the water supplies of small Nebraska communities to find ways to reduce arsenic in groundwater that cost less than drilling new wells or traditional approaches to removing the contaminant. Arsenic occurs naturally and is linked to some cancers and other health problems. One method scientists are considering is removing arsenic within the aquifer before pumping the water. This approach uses iron oxides, similar to rust, to attract and bond with the arsenic to remove it from the water. Researchers also are helping communities improve their well water sampling procedures to better assess arsenic levels in their water. The goal is to develop recommendations to help public water supplies meet the 2006 deadline. The survey of arsenic levels that has been part of the research has provided input to the development of an Extension publication that provides information for both individuals using water from a public water supply or a private supply. The publication provides basic background information, potential health effects, sampling and testing, interpretation of test results, and options if desired arsenic levels are exceeded. Cooperative Extension has cooperated with the University of Nebraska Public Policy Center in a project working with a small community to develop options to respond to arsenic levels above the EPA maximum contaminant level. It's estimated that complying with the new EPA standard could easily total more than \$120 million for small community water systems statewide if they use conventional methods to reduce arsenic levels. This Nebraska research and education program should provide practical recommendations that could save small water systems and individuals well owners thousands of dollars on arsenic cleanup costs.

## Goal 5

### Activity: Family Strengths

#### Quality Interventions for Early Childhood Education (QUINCE): A Collaborative Consultation Model

The University of Nebraska-Lincoln is one of five partners (North Carolina, Iowa, Minnesota, and California) in the Quality Interventions for Early Childhood Education (QUINCE) research project. The focus of this project is to use a quantitative methodology to test the effectiveness of the Partners for Inclusion model (a collaborative consultation method) for improving the quality of child care.

Nebraska Cooperative Extension staff are working with researchers and other Extension staff from the five partnering states to collect pre- and post-test data, provide intervention and analyze results. Following baseline data collection, trained Cooperative Extension staff work directly with at-home child care providers to complete the Family Day Care Rating Scale (FDCRS), and discuss their ratings. The FDCRS is used as a tool to further evaluate the strengths, needs, and resources of the program. When the provider feels that the goals on the action plan have been accomplished, the consultant and provider re-evaluate the program and the consultant prepares a final report for the provider that celebrates the successes. Post-test surveys are used to assess differences in the quality of the child care environment as a result of the intervention. Forty child providers participated in 2004-2005. Beginning in August, 2005, a second group of eighty providers will be recruited to participate.

#### Business Networks and Rural Community Economic Vitality, a USDA Fund for Rural America project

Researchers from Iowa State University, and the University of Nebraska-Lincoln studied 29 enduring and non-enduring business networks to determine what characteristics are associated with enduring networks. Additionally, representative members of each of the networks (n=1122) were surveyed to determine characteristics of those who belong to networks. A second phase of this project was to form five new business networks in Iowa, Nebraska and Ohio. In Nebraska, the research and extension members of the team visited all women's specialty stores in the state located in communities between 2,500 and 10,000 population. During initial visits, the concept of a specialty store network was discussed with store owners. Subsequently, twelve store owners from across the state indicated an interest in forming a new network. Owners of six of the twelve stores have met three times in Kearney, Nebraska, at a time coinciding with the Kearney Apparel Mart. (Although other store owners are interested in the network, they do not go to Kearney for market, and therefore did not attend any of the meetings.) The six stores have formed a new association, the Nebraska Apparel Store Association. University of Nebraska faculty (members of the research/extension team) have facilitated each of the meetings, provided educational sessions for the meetings and oversee a graduate student who is in charge of the association's newsletter. A final stage is the creation of train-the-trainer modules which will provide in-depth instruction in network development based on research findings and the experience of network creation.

### Activity: Community Strengths

#### Retailing Pull Factors

Although larger urban areas continue to pull dollars away from Nebraska's small town retailers, collective and niche marketing can help smaller communities hold on to more dollars, according to IANR agricultural economic research. Researchers have analyzed pull factors, which measure the relative strength of a community's retail sector, for 15 years and concluded that some rural communities could enhance their retail sector by building strong leadership and maintaining a critical mass of businesses that are willing to work together and promote niche products. Communities can use these findings to better understand local retail strengths and weaknesses relative to other communities and to decide which strengths or qualities to emphasize through future marketing and investment.

Cooperative Extension builds on the pull factor research with its Consumer Preference and Economic Leverage program with surveys and education to explore factors that influence consumer preferences and

shopping decisions. Most participating business owners indicate that these studies are very beneficial. As a result of participating, many have made or are in the process of making changes in their business to improve profitability. The Consumer Preference part of the program explores factors that affect local consumers' shopping decisions. 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. Since 1997, studies and education programs have been completed in 28 communities across Nebraska and Colorado, including over 600 businesses and 600 consumers.