

ANNUAL REPORT

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

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2000 to 2004
Annual Report
University of Nebraska Cooperative Extension
FY 2000 to 2004

INTRODUCTION

- A. PROGRAMS (5 FEDERAL GOAL AREAS)**
- B. STAKEHOLDER INPUT PROCESS**
- C. PROGRAM REVIEW PROCESS**
- D. EVALUATION OF THE SUCCESS OF MULTI AND JOINT ACTIVITIES**
- E. MULTISTATE EXTENSION ACTIVITIES**
- F. INTEGRATED RESEARCH AND EXTENSION ACTIVITIES**

APPENDIX I -- SUMMARY OF MULTI-STATE PROGRAMS AND ACTIVITIES BY FEDERAL GOAL AREAS

APPENDIX II -- IMPACTS 2001 REPORT

APPENDIX III -- "CONNECTIONS" AN ANNUAL PUBLICATION OF COOPERATIVE EXTENSION IMPACTS

APPENDIX IV -- "CONNECTS" A TRI-MONTHLY PUBLICATION OF COOPERATIVE EXTENSION IMPACTS

Annual Report

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 2000, 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: Community and Residential Environment; Community Resource Development; Enhancing Food Safety in the Food Chain; Health Care in Transition; Integrated Animal Systems Management; Integrated Crop Management; Leadership and Public Issues Education; Natural Resources and Environmental Management; Preventive Health and Wellness Education; Sustainable Families; and Youth and Family Responsibility.

In fiscal year 1999-2000, the University of Nebraska Cooperative Extension funding in support of the programs described in this plan totals \$35,306,493. Smith Lever Federal Formula Funds (3b & 3c) provided \$4,157,379 or 12 percent of this total. However, the reports included in this report represent all funding streams not just federal dollars.

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A. PROGRAMS (5 FEDERAL GOAL AREAS)

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

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

Agriculture production is the foundation of Nebraska's economy and is of particular importance to our rural communities. Nebraska Cooperative Extension's Integrated Crop Management (ICM) Action Team addresses the need for sustainable and profitable agricultural production systems and concerns about environmental stewardship. ICM 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 Team.

The livestock industry plays a significant role in Nebraska's agricultural economy accounting for approximately 60% of the total agricultural income. Livestock production offers producers an important means to add value to their grain and other crops. Nebraska has 23 million acres of rangeland and pastures, not counting the crop residues across the state that are used for livestock. Long-term sustainability requires that animal systems be economically viable, ecologically sound, and socially responsible. Cooperative Extension's Integrated Animal Systems Management (IASM) Action Team's educational programs encourages producers to manage their operations as holistic units rather than as a set of independent enterprises.

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 new Beginning Farmer program provided support for 180 producers evaluating transitions in their agricultural operation. The Soybean Management Field Days provide focused soybean production and marketing education for more than 540 participants that estimated the total potential value of the education at \$2.27 million. A good example of a local program is the Washington County Blair Area Farmers program that has provided an opportunity for a group of producers to interact in a learning cluster format. Seventy-five of the participants have indicated they had made or save money based on the information gained from their participation.

Since 1989, cooperative efforts of the University of Nebraska, University of Wyoming, Colorado State University, and South Dakota State University have been effective in providing education for cow-calf producers. In 2000, ninety-four percent of participants in the range cow symposium indicated they would change at least one practice in their operation; the major area of change was in the area of cow herd management. The Ranch Practicum program, an indepth program lasting seven days over a nine month period, has just completed its second year. Participants in the practicum impact 1,500,00 acres of rangeland, 1,500,00 head of cattle, and 1,630 producers through their ownership, management, educational, and consulting activities. Producers estimated the practicum's average value at \$28 per head of livestock based on the changes they intended to make as a result of the practicum. A group of cattle producers in a "Nutrient Requirements of Beef Cattle" program estimated could save \$5.11 per cow and \$6.08 per calf in mineral and feed costs based on the information gained. Additional impacts

of the ISAM team educational programs are identified in the following key theme narratives.

Nebraska Cooperative Extension has developed several home study courses to provide producers learning opportunities that allow learning on a flexible schedule. One example is the soils home study course. One group completing the home study estimated the knowledge gained helped them save between \$16 and \$20 per acre. Crop management and diagnostic clinics have been used to provide hands-on education for crop consultants, producers and agribusiness professionals. The 2000 clinics impacted an estimated 6,200,000 acres (28%) of Nebraska’s row crop acreage. The average estimated value of the education was \$6.13 per acre. Corn/Soybean Expos have been used to provide both production and marketing/risk management education. Seventy percent of the participants in 2000 reported they expected to forward price more grain as a result of what they learned at the workshop. The changes they proposed would have increased the farm revenue approximately \$1,000 per year in a marketing simulation based on the years 1982-1999.

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

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

FFY2000	Federal	State	Local	Other	Total
Funding*:	\$ 914,623	\$ 3,959,819	\$ 989,256	\$ 1,028,826	\$ 7,767,429
FTE**:					70.2

* FY1999-2000 Federal Formula Funds only (includes 3b & 3c)

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

Key Theme - Agricultural Profitability

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

- e) University of Nebraska Cooperative Extension launched the Beginning Farmer Program in late 1999. The program works with potential and retiring producers, as well as those carrying extreme financial burdens. During 2000, Beginning Farmer took calls from 180 producers. Of those receiving individual assistance, 22 were for retirement planning and 16 were for financial transition problems. Nearly 100 calls were from beginning farmers who received information financing and cash flow projections. Lenders and producers with father/son issues also sought assistance.
- f) Impact - Beginning Farmer personnel know some financing is available for beginning producers and understand the paperwork complexity. “There’s no other way for a young guy to get started on his own,” said on 30-year old central Nebraska producer, who has realized his dream of renting his own

farm and buying a cow herd, thanks to the program. Working through project expenses and receipts helps beginning producers see for themselves whether farming or ranching will be right financially for them. Assuring that family farms and ranches remain an important part of Nebraska's economy, culture and communities is the program's ultimate goal.

g) Scope of Impact - State Specific

Key Theme - Agricultural Profitability

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

e) NU Cooperative Extension teamed with the Nebraska Soybean Board and the United Soybean Board to offer four Soybean Management Field Days, hands-on workshops where producers learn the latest soybean production, marketing and risk management information for maximizing efficiency. In 2000, more than 540 people attended the field days offered at four locations in Nebraska's soybean-growing areas. During the one-day sessions, extension staff and industry consultants provide tips on everything from weed management technology to new marketing opportunities to enhance soybeans' value.

f) Impact - field day participants in 2000 farmed or managed a total of more than 200,000 Nebraska soybean acres. Those surveyed estimate the knowledge gained at the sessions was worth about \$11 per acre or a total of \$2.27 million, based on the 540-plus participants and the acres managed. About 90 percent of the participants surveyed said they expect to change their soybean field operations based on what they learned at the field days. "Hopefully, it will enhance my bottom line by putting more beans in the bin, reducing costs and improving marketing," on participant said.

g) Scope of Impact - State Specific

Key Theme - Agricultural Profitability

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

e) For the past 15 years, the University of Nebraska Cooperative Extension Washington County Office has facilitated and provided educational programs for farmers and agribusiness people in the Blair area. This loosely knit group meets each Tuesday at 7:00 AM during the winter months. The group formed during the farm crisis in the mid-eighties and has continued to meet each year since. The group meets at a local restaurant for breakfast and an information meeting regarding agriculture. Topics may range from a discussion of legislative issues by the state senator in this district to a discussion of the latest herbicides that are available to producers for the coming year. Speakers include Cooperative Extension Specialists along with speakers from private industry.

f) Impact - average participation in the past two years has been about 23 individuals at each of the 17 or 18 meetings held. In a survey sent to participants in the fall of 1999 regarding this program, 16 participants responded. One of the questions on this survey looked at how these individuals would rate the programs in the last three years. The average score was a 5.5 on a 7 point scale indicating that most participants felt that it was of value. A second question asked if the participants felt that they had saved money on one or more of these sessions. Seventy five percent felt that they had made or saved money based on the information that was gained from attending these sessions. One of the questions on the survey looked at the question "In what other ways have you benefitted by your attendance at

one or more of the Blair Area Farmers" meetings. Some comments on this question included: "Better informed on happenings in area - such as - crop insurance - farm programs- State Senator - new crop developments" Another comment said "It's about the only time I get to talk to many local farmers for ideas and questions." One other agribusiness individual said, "Being a member of the ag-related biz community, it's good to know what farmers are being exposed to and facing in their business."

g) Scope of Impact - State Specific

Key Theme - Agricultural Profitability

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

- e) Responding to producers' need for information on dryland corn production, livestock feeding and profitability assessment, University of Nebraska Cooperative Extension conducted intensive, one-day workshops in Alliance and Sidney. The goals of the workshops included increasing awareness of: weed, insect, and disease scouting and control techniques; improving crop diversity and yields through rotations; safe and effective livestock feeding methods, and profitable lease arrangements.
- f) Impact - a total of ninety-five producers attended the workshops; 58 responded to the evaluation questionnaire. Sixty-four percent said that they will determine yield and prices necessary for profitable production. Producers also said they learned about rotation comparisons, feeding low-test weight corn to livestock, and how to monitor input costs. Producers estimated that a total of 30,800 acres will be affected as a result of attending the workshop. Fifty percent of the respondents indicated that the workshop will potentially help them lower fertilizer or herbicide costs by an average of \$19.89 per acre. The new information will allow for corn, a major dryland alternative crop in the Panhandle, to be better managed. Dryland corn acreage in the Nebraska Panhandle has increased from 6,000 acres in 1990 to over 40,000 acres in 1999, and was expected to increase to over 100,000 acres in 2000.

g) Scope of Impact - State Specific

Key Theme - Animal Health

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

- e) Johne's disease (bovine paratuberculosis) is an infectious disease of adult cattle and other ruminants characterized by an incurable diarrhea, weight loss and eventual death. The disease is economically important to cattle producers and may be important to public health. The purpose and design of the Nebraska Voluntary Johne's Disease Herd Status Program was introduced to Nebraska dairy farmers and other dairy industry personnel during the University of Nebraska, Cooperative Extension, Area Dairy Days meetings in York, Beatrice, West Point, Hartington, and O'Neill. The herd-testing strategy is being administered by the Nebraska Bureau of Animal Industry in cooperation with University of Nebraska Veterinary Extension and the Nebraska Veterinary Diagnostic Laboratory.
- f) Impact - during the meetings a questionnaire was distributed asking respondents to rate their level of knowledge on a 5 point scale (1 = "never heard of it", 5 = "very knowledgeable") both before and after the presentation on 5 subject areas. The difference between the level of knowledge indicated for a subject area by each respondent before and after the presentation was considered a measure of the gain in knowledge for that respondent for that subject area. Dairy farmers were also asked to indicate

possible actions that they might take as a result of the presentation. Fifty questionnaires were returned. By attending the program respondents increased their knowledge of Johne's disease and the Nebraska Johne's Disease Herd Status Program. Respondents indicated an average increase in knowledge of 1.2 points regarding the clinical signs and means of transmission of Johne's disease in cattle; an increase of 1.7 points regarding the possible risk to human health from the agent that causes Johne's disease; an increase of 1.4 points on the point that testing cattle at arrival will not prevent introducing Johne's disease into the herd; an increase of 1.3 points that cattle herds unlikely to be infected with Johne's disease can be accurately identified; and an increase of 2.5 points on the design and purpose of the Nebraska Johne's Disease Herd Status Program. Forty-four dairy producers responded to possible actions they might take as a result of the presentation. Eight producers (18%) indicated that they would make no changes to their operations. Twenty-eight dairy farmers (64%) indicated that they would be more concerned about the impact of Johne's disease in their herds; 26 (59%) would be more cautious about purchasing cattle from herds with unknown Johne's disease status; 24 (55%) indicated that they would ask for more information about the Nebraska Johne's Disease Herd Status Program; and 8 dairy farmers (18%) indicated that they intended to enroll in the program.

g) Scope of Impact - State Specific

Key Theme - Animal Production Efficiency

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

- e) A comprehensive website for the Nebraska dairy industry (Nebraskadairy.unl.edu) was developed in 2000 with these major functions: 1) submission of questions to specialists, 2) links to Nebraska dairy information, 3) links to state and national resources, 4) world wide dairy links, and 5) updates on hot topics and research.
- f) Impact - usage statistics for the web site indicate that since July, there has been an average of 2783 hits per month. For October, there were 109 hits per day with the following distribution: 33% US educational, 22% UNL, 18% US commercial, 10% international (30 countries), and 17% unknown. Forty-two percent of the top-10 users were university and 33% were lenders. Although we cannot determine specifically how the information gained from the web site has influenced the user, it is clear that the internet is an effective and well-used method of disseminating information and allowing communication with the dairy industry.

g) Scope of Impact - State Specific

Key Theme - Animal Production Efficiency

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

- e) The University of Nebraska Cooperative Extension's fifth Integrated Resource Management conference was held in Gering, Nebraska August 22 and 23, 2000. The target audience for this conference is cow/calf producers. The goal of the conference is to provide and challenge attendees to evaluate their land, people, and financial resources and design a management combination to increase their profit potential while improving these resources. Also, to provide a forum where participants can

learn from other producers, industry representatives, and University faculty.

- f) Impact - the eighty participants represented 13 different counties in Nebraska. The total number of cows represented was 14,818 head. The average herd size was 780 head with a range of 150 to 3,000 head of cows. The total number of yearling calves represented was 12,733 head. The average number of yearling was 1,158 head with a range of 400 to 3,000 head. The total number of finished cattle represented was 20,810 head. The average number of finished cattle was 726 head and ranged from 80 to 15,000 head. The total number of acres owned was 109,500 and the number of acres leased was 47,190. 95% of the participants were producers, managers, or ranch employees. Participants indicated that practices or management techniques that they learned at this conference that they would consider incorporating into their operations would decrease costs or increase profit potential by \$10 to \$15 per cow. If average herd size is 780 head, this would result in a savings or increase in profit potential of \$7,800 to \$11,700 per ranch.
- g) Scope of Impact - State Specific

Key Theme - Animal Production Efficiency

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

- e) The first range cow symposium was organized by beef specialists from Nebraska, Colorado, Wyoming and South Dakota and held in 1969 at Chadron, Nebraska. It has continued every other year since that time with tremendous success. The symposium provides a 2½ day educational program for cow-calf producers. Approximately 32-35 speakers from throughout the United States and Canada, but primarily from the four host states, present 30 minute topics. A complete and comprehensive proceedings is published for each symposium which has served as a valuable reference for many cattlemen and educational unit libraries. Many proceedings are sold to those that are unable to attend. The educational topics deal with current issues that are confronting cattlemen, nutrition, reproduction, human resources, genetics, management, health and marketing.
- f) Impact - since 1989, an average of 700 people, primarily producers, have registered and attended annually the symposiums. This past year in Greeley, Colorado over 850 attended as well as over 75 commercial booth displays. The displays varied from educational booths to live animals. When held in western Nebraska, the attendance was 724 representing 20 states and Canada. Twenty-nine veterinarians received 9.5 hours of CE credit when held in western Nebraska. Exit surveys are requested from all attendees. This past year 94.3% of the participants indicated they would change at least one practice in their operation. Fifty-seven percent of the respondents indicated that they would change two or more major areas in their operation. When asked where major changes would occur, the following areas (with percentages) show the relative emphasis of the topics presented: Management of the cow herd, 22.6%; Issues relating to cattle industry such as cattle handling and the future of quality based marketing, 14.5%; Nutrition, 12.9%; Range and Forage, 11.2%; Animal Health, 9.6%; Marketing, 8.1%; People and Personnel issues, 6.6%; Genetics, 6.5%; Environmental Management, 4.8%; and Reproduction, 3.2%. The following was contributed when asked where changes in the operation would be made, "I will change some animal health practices after hearing speakers this year; however, this isn't our first symposium, many of the biggest changes have already happened."
- g) Scope of Impact : Multi-State Extension with CO, WY and SD

Key Theme - Animal Production Efficiency

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

- e) University of Nebraska Cooperative Extension's Ranch Practicum offered 28 participants hands-on experience in integrated management of their operation's cattle, forage and economic resources. Participants included ranchers, veterinarians, nutritionists, conservationists and educators from Nebraska and other states, who enroll in the fee-based practicum taught by NU extension educators and specialists from June to January. They spend two days in a classroom setting in North Platte and five days performing laboratory activities at NU's Gudmundsen Sandhills Laboratory near Whitman. At home between sessions, they practice solving real-life problems such as calculating stocking rates for pastures.
- f) Impact - participants in the Practicum influenced decisions for about 1,545,00 acres of upland range, meadow, and seeded hayland or cropland; 1,518,700 head of cattle; and 1630 producers through their ownership, management, educational and consulting activities. Participating producers estimate the practicum's average value at \$28 per head in their own herds, or about \$21,000 average benefit for each participant based on an average cow herd of 751 head. More than 90 percent of participants surveyed said they expect their profitability to increase as a result of this training; more than 80 percent said it will improve their operation's sustainability.
- g) Scope of Impact - State Specific

Key Theme - Animal Production Efficiency

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

- e) Cooperative Extension conducts an annual Feedlot Roundtable targeting livestock feeders and the allied industry representatives. Roundtable topics presented and discussed included factors influencing beef quality and tenderness, forces influencing markets and beef trade, presence and control of food borne pathogens, and updates on feedlot health, nutrition and management. Speakers and panel members included representatives of all sectors of the industry, including producers, packers, USDA staff and research scientists, Cattlemen's Associations and numerous land grant institutions.
- f) Impact - during the last three annual meetings, the feedlot roundtable had an average attendance of 160 with producers and allied industry persons attending from Nebraska and all adjoining states. Producers attending represented nearly 750,000 head annually. The range in size of feedlot operations represented was from less than 500 head to over 75,000 head. In a survey of participants, producers indicated an economic impact to their operation after attending the roundtable averaged approximately \$4.00/head with an estimated total impact of \$2.8 million. Allied industry persons had an influence over 3 million head of cattle annually. These persons indicated the roundtable had an economic impact for producers of \$6.47/head or a total estimated impact of \$19.8 million. Economic impact is based upon improvements in production efficiency, animal health, and carcass quality.
- g) Scope of Impact - State Specific

Key Theme - Animal Production Efficiency

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

- e) In response to the new “Nutrient Requirements of Beef Cattle” published by the National Research Council (NRC) University of Nebraska Cooperative Extension conducted 13 educational meetings in the West Central and North East Extension Districts to discuss the new protein requirements, to discuss mineral nutrition, to demonstrate the NRC software and to meet individually with producers to analyze their feeding and mineral program.
- f) Impact - 111 producers attended the meetings. Fifty three participants responded to a post meeting survey. The producers who responded to the survey represented 20,335 cows (349/participant) and 8,035 calves (309/participant). As a result of the meeting they indicated they would save \$5.11 per cow and \$6.08 per calf per year in their mineral and feed costs. These figures translate to a savings of \$1,783.40 per participant or a total savings of \$103,893 for cows and a savings of \$1878.72 per participant and a total savings of \$48,850 for calves. Furthermore, 87% indicated that the information was quite or very helpful. Thirty-nine producers indicated they would like to purchase the NRC Manual and supporting software. Extrapolated data would indicate that the total savings for the thirteen meetings would translate to a total savings of \$247,272 for cows and \$208,537 for calves. Following one meeting a producer indicated that as a result of the information shared on minerals he would save 9 cents per head per day on mineral costs. In one group 42% of the participants said they would consider custom mixing their own mineral packages.
- g) Scope of Impact - State Specific

Key Theme - Animal Production Efficiency

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

- e) The 4-State Beef Conference is an annual conference organized by University of Nebraska Cooperative Extension, University of Missouri, Iowa State University, and Kansas State University. The 2000 conference was the 16th year for the conference with 342 participants. The conference is designed to update producers on new techniques and management practices to increase profit potential in the beef cattle enterprise. The target audience is cow/calf producers and industry people with cattle interest.
- f) Impact - 70.5% of the participants indicated that because of the information presented at the conference that they were very likely or likely to make business or management changes this year. Producers estimated that the changes that they would make would reduce costs by an average of \$17.50 per cow, with a range of \$5.00 per cow to \$50.00 per cow. Because feed costs are the greatest costs in the cow/calf enterprise, most indicated they would decrease feed costs by reducing harvested forages fed and increase grazing opportunities. Seventy-six of the producers indicated that they had attended a 4-State Beef Conference in the past and 64.7% of the participants have the proceedings from past 4-State Beef on file and use the proceedings as a reference.
- g) Scope of Impact - Multistate Extension, with MO, KS, and IA

Key Theme - Animal Production Efficiency

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

- e) University of Nebraska Cooperative Extension offered four beef home study courses in 2000. The first beef home study course was introduced in 1993-94 on nutrition, forage utilization and economics, a second was added in 1995-96 on reproduction, genetics and selection, a third in 1996-97 on nutrition, health and management of growing calves, and a fourth in 1997-98 on "Beef as a Business" with emphasis on goal-setting, production and financial record-keeping and personnel management. Registrations to date have exceeded 4,500 from more than 40 states, with a large majority coming from Nebraska and surrounding states.
- f) Impact - based on evaluations returned, more than 95% of the participants say it is important for them to be able to schedule study when they have time, to work at home and not have to travel, and to better schedule personal and family activities. Evaluations allowed participants to indicate the numbers of acres and cows in their operations and to estimate the dollar impact in their operations as a result of taking a course. The average impact has been about \$15 per head, resulting in an overall benefit of about 8 million dollars for the number of cows reported.. One participant stated that the courses have taken a lot of the mystery out of beef production and presented common sense, easily grasped ideas in an easily understood and flexible format, and that the language of the courses is not so technical that a dictionary or reference book is required to understand the material. Another respondent said that " your home study courses are the best we've seen and the only one from the point of view of the rancher." Nearly all of the respondents indicated an interest in taking future home study courses. One respondent said that taking beef home study courses is an excellent way to improve management skills to increase beef production and reduce costs. Another said that " the single biggest benefit I see is that it gets a person to thinking about alternative ways of doing things that may be more efficient."
- g) Scope of Impact - State Specific, but with participation from 40 states.

Key Theme - Animal Production Efficiency

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

- e) The Beef Quality Assurance (BQA) program developed in Nebraska became the foundation for enrolling cattle in the Nebraska Corn Fed Beef Program (NCFB). The University of Nebraska Cooperative Extension staff played a vital role in developing and delivering the BQA certification training sessions required for participation in the NCFB program. The BQA program helps participants focus on management skills and science-based production techniques to avoid defects, improve beef quality and safety, encourage high standards throughout the industry and boost consumer confidence in beef. The program was delivered by practicing Nebraska veterinarians and Extension Educators that had completed the training program for trainers.
- f) Impact - approximately 3,000 Nebraska producers participated in a BQA training program, signed a personal contract to follow the BQA guidelines and are now BQA certified. These producers oversee the production management of over 40% of the fed cattle in Nebraska. Under contracts signed with meat packers for 2000, THE CONTRACT packer will pay about \$16 more per head for BQA-certified cattle than for non-certified cattle. That means BQA is meeting one of its main goals,

improving cattle profitability. Demand for BQA-certified cattle has tripled from 1998 to 2000. In 1998, 16,000 BQA-certified cattle in Nebraska were processed and sent to grocery stores and restaurants. In 2000, 52,000 head of cattle were expected to be BQA-certified. The BQA materials from Nebraska's program have been adopted as a whole or in part by 15 states and the program materials have been distributed, by request, to 30 states. In 1998, 16,000 NCFB cattle returned \$9.08 per carcass above market. Most of this return came from increased carcass yield. For 1998 this represents \$145,000 to NCFB participants. In 1999, the financial return for the 28,000 cattle marketed had an additional \$0.98/CWT carcass weight premium added. For an 800 pound carcass, this represents \$7.84 premium plus the approximate \$9.00 return for yield. For 1999 this represents over \$470,000 to producers who met the NCFB specifications. Similar impacts were expected for 2000.

g) Scope of Impact - State Specific, but materials adopted by 15 other states

Key Theme - Animal Production Efficiency

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

e) Cooperative Extension organized thirteen Low-Cost Cow-calf production meetings in North Central, Northeast, and South Central Nebraska in February 2000. Host sites selected 4 or 5 topics of most value to their local constituents from a list of 13 topics offered. Topic examples were cow longevity, beef production in Argentina, windrow grazing, legumes, leases, windbreaks, irrigated pastures, grass fattened beef, and cattle stress.

f) Impact - a total of 245 producers attended these meetings. These producers have over 29,000 beef cows that graze on 193,000 acres of pasture and rangeland in Nebraska. About 150 participants completed a follow-up survey and indicated they would make one or more changes. The combined surveys of all the meetings indicated the following: Twelve producers indicated they were going to add irrigated pastures to their operation. One producer said " I came to the meeting thinking irrigated pastures wasn't anything I would be interested in, but I am now considering it." Fourteen said they would practice better grazing techniques, while seven wanted to make more use of annual grasses and legumes in their grazing periods. Because of the high cost of developing heifers, 14 producers said they learned techniques that would let them keep their older cows in the herd for a longer time. Ten producers said they would use ideas learned at the meeting to improve their winter windbreaks. Three producers indicated they would change their thought process in beef production. This was emphasized by one comment that this was a very educational meeting to help the typical producer to think outside the current paradigm they are in today, and be willing to change. Two indicated they would follow the Cattle Cycles more closely when deciding to cull or expand their herds. One producer wrote "it reinforced what I believe we should be raising (in type of cattle)." Other impacts and changes identified included increasing rotation techniques (5), develop grass seeding into the operation (7), and considering the production of grass fattened beef (4).

g) Scope of Impact - State Specific

Key Theme - Animal Production Efficiency

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

- e) A shortcourse was delivered by the University of Nebraska Central IV Cooperative Extension Unit to provide both basic and applied information to beef cow operations that would facilitate decisions that could improve reproduction in beef herds. The shortcourse was delivered by satellite delivery by Animal Science faculty and on site presentations by faculty and representatives of private industry. The shortcourse was held on five consecutive nights beginning January 7, 2000. Topics covered in the course included: reproductive anatomy of the beef cow, estrual cycle of the beef cow, estrus synchronization in beef cattle, genetics of reproduction, embryo transfer, animal behavior, and artificial insemination update. During the satellite presentations which were included at each session, participants were able to ask questions via phone.
- f) Impact - the limit of 36 participants was reached two days after the class was advertised in December. Total requests for the class exceeded 50. Average attendance for the course was 34 for the five weeks. Each session was evaluated by participants answering ten questions. A final evaluation was also completed at the end of the course. A composite score for each was compiled, the scale being 1-5 with one being low and five high. Weekly composite evaluation scores were as follows: 4.2, 3.7, 4.2, 4.4, 3.9. The overall composite average for the entire course was 4.2. The average herd size for those in attendance was slightly over 200 head. This indicates that the potential for change in management practices involves over 7,000 cows. Following the completion of the course 88% of participants indicated that their overall knowledge of beef reproduction increased significantly. 71% of participants felt strongly that the course would help them make decisions of economic value to their operation. Post course evaluations indicated that 100% of the participants would attend another course utilizing satellite presentations.
- g) Scope of Impact - State Specific

Key Theme - Biotechnology

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

- e) Two workshops have been conducted teachers and Extension personnel interested in using a "Biotechnology Footlocker", developed for instructors by Dr. George Veomett from the University of Nebraska Lincoln (UNL) Biology Department. The biotechnology footlocker is two containers that include equipment that teachers need to conduct the biotechnology experiments included in the teaching materials they received at the teacher training. The approximate value of the footlocker is \$5,000 so it is equipment that most teachers cannot afford to purchase. Electrophoresis units, pipettors, chemical materials, power units and other scientific supplies are contained in the footlockers. Buffers, gels and DNA material also come with the footlocker. The footlockers are checked out by teachers that have attended the training. There are a number of experiments that can be conducted using the materials in the footlocker.
- f) Impact - a total of 20 teachers participated in the training. An evaluation was sent to the teachers following the training. On a five point scale with one being low and five high the teachers were asked how they would rate the training. Ten teachers returned the survey and they rated the training at 4.65. When teachers were asked if the workshop increased their understanding of DNA extraction again using the five point scale they rated the

workshop 4.8. When asked about increased knowledge of electrophoresis the rating was 4.9. The teachers were asked how likely they were to use biotechnology in their classroom and they responded with a 4.6 rating. The teachers also indicated an interest in using Science Experience & Resources for Informal Education Settings (SERIES) cross age teaching format with a 4.1. However when teachers were asked if they would like someone to help them start their biotechnology teaching project a rating of 2.5 indicated a lack of interest. A 3.2 also showed reluctance to expand the effort to a K-12 program with the teachers leading the way. When the teachers were asked if they would like to have an opportunity to bring students to campus for an educational tour a 3.75 showed mixed results. A 4.25 indicated a little more interest in having an educational tour to the Agriculture Research and Development Center near Mead, NE. The teachers felt they had a better understanding of biotechnology and how to use it in their classroom with a 4.8 rating. Three schools have implemented the biotechnology lessons in their classes and more will be developing lesson plans to utilize the biotechnology footlockers. One school has contacted their local school to work program and have secured funds to purchase biotechnology equipment for their school. Mead and Wahoo school systems have used the footlocker in their science classes.

- g) Scope of Impact: State Specific

Key Theme - Biotechnology

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

- e) An educational program about genetically engineered crops, commonly referred to as GMO's, was delivered as a 6 part news series in the local, weekly newspaper (News Register) between December 1999 and February 2000. The news series was prepared by an Extension Educator and an Agronomy and Horticulture Department faculty member. The target audience was urban residents of Hamilton County.
- f) Impact - a follow-up survey was sent on March 16 to 200 names randomly selected from the county-wide phone book using only those persons with non-rural addresses. The survey was concluded on March 31 with no follow-up. The objective was to determine the effectiveness of the news column approach to educating about GMO's and to determine if there is a need for more programs on this topic.

Forty-six of the 200 surveys were returned. Fourteen people remembered reading the series and 9 were unsure. One man indicated he learned "quite a lot" from the articles and 13 said they "learned some from the articles." Forty-eight percent said they needed to know much more about the topic and 35% said they needed to know a little more. Women were less interested than men in learning more about GMO's, but women had greater concern about genetic engineering for input and output traits. Older and higher educated respondents tended to want more information. The survey showed that those who read the articles were more likely to answer questions about topics covered in the articles correctly (43% vs 33%). There was no age interaction with correctness of answers, but those with a

higher level of education tended to answer more correctly. In summary, it appears the news article series approach had some positive educational effect. The groups who knew the least about the topic are also those who are not interested in learning any more about GMO's.

g) Scope of Impact: State Specific

Key Theme - Home Lawn and Gardening

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

e) The eighth annual Festival of Color was held on September 16, 2000 at the University of Nebraska's Agricultural Research and Development Center. Festival of Color provides education for rural and urban residents on proper planning, planting, and maintenance techniques of home landscapes to protect water quality and reduce water use.

f) Impacts - in 2000, 6000 people attended Festival of Color. As the result of Festival of Color, attendees surveyed who had previously attended a Festival of Color had: 84 % improved plant selection skills by putting the right plant in the right place; 47% identified pests in the landscape; 52% used water more efficiently; 55% implemented water conserving landscaping techniques; and 36% used pesticides more efficiently. Those surveyed who attended the Festival of Color for the first time in 2000 learned to:

- 82% choose plants based on site and location requirements
- 41% identify at least one pest in the landscape
- 23% identify more than one pest in the landscape
- 47% use water more efficiently
- 26% use pesticides more efficiently
- 57% implement water conserving landscaping techniques\

g) Scope of Impact - State Specific

Key Theme - Plant Production Efficiency

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

e) In 1997 NU extension introduced the Nebraska Soils Home Study Course to teach soil composition, soil testing and nutrient management. Since then, more than 400 courses have been distributed to participants in Nebraska, Arizona, Colorado, Illinois, Kansas, Ohio, and South Dakota. Participants work through 10 lessons at their own pace and convenience. In late 1999, the course became available via the Internet, giving participants a choice in how they take the course. Although it was designed primarily for farmers, crop consultants and agribusiness professionals, others have participated, including horticulturists, engineering specialists and high school agricultural teachers.

f) Impact - sixteen course participants who were surveyed estimated the knowledge they gained helps them save between \$16 and \$20 per acre, for a total of \$274,00 based on the acreage they manage. One participant noted, "I can put things I learned to immediate use." The Nebraska Fertilizer and Agricultural Chemical Institute now uses the course to provide 19 Certified Crop Advisor (CCA) credits to their Certified Crop Consultants. The Institute also recommends it as a resource for those

studying for the CCA exam.

- g) Scope of Impact - State Specific

Key Theme - Plant Production Efficiency

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

- e) The 2000 Crop Management Workshop Focus on Wheat was a two-day hands-on workshop conducted at the High Plains Ag Laboratory near Sidney to teach the management of wheat production, including the diagnosis of wheat production problems in the central Great Plains. Workshop participants earned 12.5 Nebraska CCA credits for completing the workshop. The wheat focus attracted 25 participants from Colorado, Kansas, Nebraska, and Texas. Participants learned about wheat growth and development, staging plants, varieties, planting dates, planting rates, seed selection, herbicide injury and weed management, disease management and identification, insect management and identification, irrigation management, calibration of sprayers and seeders, nutrient management, environmental injury to wheat and management options, and critically evaluating wheat seeders.
- f) Impact: - on a scale of 1 to 5, with 1 being very successful and 5 being not successful, 55% of the participants rated the Workshop a 1 and 35% rated it a 2. All participants said the topics covered at the Workshop met their needs. Ninety-five percent of the participants said they would use the information learned at the workshop in their recommendations to growers. Participants indicated they would impact a median value of 6,000 acres of wheat. A median value of \$4.50 per acre was placed on the knowledge learned at the workshop. Using the 150,000 acres impacted (6,000 acres x 25 participants) and the \$4.50 value of knowledge gained per acre, would place the value of information at \$675,000, as estimated by the participants. Participants improved their knowledge base by 96% based on pre- and post- tests. Two participants improved knowledge by over 200%.
- g) Scope of Impact - State Specific (Participation from CO, KS and TX)

Key Theme - Plant Production Efficiency

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

- e) Each year University of Nebraska Cooperative Extension conducts a series of Crop Management and Diagnostic Clinics at the Agricultural Research and Development Center near Mead, Nebraska. In 2000, there were five one-day clinics and one two-day clinic for the public and private industry. The clinics are conducted at field site and provide hands-on training for crop consultants, producers and agribusiness professionals.
- f) Impact - the total participation in the six clinics was 450. The clinics influenced crop management on at least 6,200,000 acres of cropland or about 28% of Nebraska's row crop acres. The estimated value of the knowledge gained and/or changes on a per acre basis was \$6.13 per acre or a total value of approximately \$38,000,000. Sixty-six percent of the participants indicated they "probably would" make changes to their business/operation based on what they learned.

- g) Scope of Impact - State Specific

Key Theme - Plant Production Efficiency

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

- e) Corn/Soybean Expos were held at eight locations in 2000. The objectives were: 1. Provide latest information on crop production, and 2. Provide opportunity for commodity boards to inform producers of their activities.
- f) Impact - 268 individuals participated in the Expos. The audience was 69% farmers, 8% consultants, 6% dealers, 8% other ag business, 2% UNL staff and 27% applicators and 5% did not indicate their profession. On the 77 completed evaluations returned which completed both the acres you grow, manage or consult on in 1999 and asked to estimate the value of this program to you in \$/acre the results were as follows:
- Corn & Soybean acres = 288,496
 - Value of program in \$/acre = \$22.86
 - Total value = \$6,502,541
- c) Scope of Impact - State Specific

Key Theme - Risk Management

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

- c) The mission of the Farmers & Ranchers College is to provide high quality continuing education to farmers and ranchers in a rapidly changing global agricultural environment. Furthermore, the Farmers & Ranchers College will provide the tools necessary so that agricultural producers will be able to respond positively to these changes using a profitable decision making process. The Farmers & Ranchers College Committee hosted a Risk Assessed Marketing seminar featuring Dr. Art Barnaby of Kansas State University in which 55 agriculture producers, crop insurance agents, lenders, and Extension Educators participated.
- d) Impact - we surveyed participants to determine the usefulness of the knowledge gained from the seminar. A scale of 1 to 9 was used with 1 = not useful, 5 = fairly useful, and 9 = extremely useful. The questions, average answer, most common answer and range follow:
- Overall usefulness of the seminar:
ave. = 8.1, most common = 8-9, range = 5-9
 - Usefulness of the presentation that explained the principles of Combined Risk Management:
ave. = 7.9, most common = 8, range = 4-9
 - Usefulness of the session that introduced marketing tools and price enhancement:
ave. = 7.7, most common = 8, range = 5-9
 - Usefulness of the "case farm" exercise:
ave. = 8.3, most common = 9, range = 7-9
- c) Scope of Impact - State Specific

Key Theme - Risk Management

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

- c) Day-long Corn/Soybean Expo Marketing-Risk Management workshops were held in 8 locations across the state in February 2000. Participants were asked to make decisions for insuring and marketing corn for a hypothetical farm situation. The decision making was presented in a simulation game format. The primary objectives of the workshops were to help producers: 1. recognize seasonal corn and soybean price patterns, and 2. evaluate their insurance coverage and forward pricing plans in view of their risk management needs and the expected gains from forward pricing.

- d) Impact - seventy percent of the participants reported they expect to forward price more grain as a result of what they learned at the workshop. Nearly 40% of those participants reported they had not previously forward contracted more than 10% of their expected production. The participants expecting to increase their forward contracting as a result of the workshop indicated they plan to increase forward contracting from roughly 25%, on the average, to 50% of their expected production. These changes would have increased the average revenue for a representative group of the participants approximately \$1,000 per farm per year over the period 1982-99. Twenty percent of the workshop participants indicated the workshop did not influence them to increase their forward pricing; however, they reported they had already been forward pricing an average of 40-50% of their expected production. Over fifty percent of the participants indicated they plan to meet with their insurance agent to consider changes to their crop insurance coverage as a result of what they learned at the workshop. Approximately 45% of the participants indicated they had their previous crop insurance plans confirmed as a result of attending the workshops. The workshops registered a total of 280 participants. The average size of farm among the farmer participants was 885 acres.

- e) Scope of Impact - State Specific

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

Overview:

Nebraskans are concerned about food safety. Food borne illness outbreaks in Nebraska have brought this to the forefront for consumers, food processors, retailers, and farmers/ranchers. Nebraska during the past few years has seen illness and hospitalization of individuals, the closing of a meat packing plant, restaurants sued as a result of breakdowns in the food safety chain.

- a) More than 5300 food managers/food handlers have been trained in ServSafe by more than 30 Extension staff trained in food safety in the past five years. Over 4600 Nebraskans have participated in educational activities with a project that targets consumers. A three-day training on HACCP was delivered to more than 400 meat and food processors. Cooperative Extension conducted a series of 21 Pork Quality Assurance (PQA) Level III educational seminars attended by over 750 pork producers. A PQA educational video was developed and broadcast to 30 downlink sites with 506 participants in Nebraska and 13 sites and more than 100 participants in south Dakota. Thirty five hundred HACCP videos were distributed to food processors at sites across the United States.
- b) A recent survey of Nebraska food service managers indicated that ServSafe participants were twice as likely to know the correct answers about common food safety questions and practices (5300 trained) in the past five years. In a Greeley county Nebraska school 83 students related a “Microbes in Food” project to their homes. Sixty-two percent of the students said they learned at least two new safe food handling procedures through this project. Processors attending a 3 day training on HACCP had an increased comfort level in working with HACCP and 72% of the processors requested further assistance on HACCP and food safety from Cooperative Extension. A HACCP video at the request of USDA was produced for use in meat processing facilities to train employees and English, Spanish, Korean, Vietnamese and Chinese versions were produced and distributed to small meat processors across the country. Participants in Beef Quality Assurance workshops indicated they gained information about increasing the quality of beef and 70% to 80% would increase the use of the neck as an injection site.
- c) Since 1991 the injection site damage to the top sirloin butt has decreased from 22% to 6% through the use of Beef Quality Assurance workshops. September was declared “Food Safety Month” by the Nebraska Governor through Farm to Table Food Safety work.
- d) The faculty of Nebraska Cooperative Extension are committed to a food safety program that meets the needs of residents of the state. Their commitment, and rewards of their commitments, are evident in the decreased incidences of food borne illness and the compliments they receive from partnering entities. One Department of Agriculture food inspector credits the ServSafe program with improved ratings of food establishments checked.

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

FFY2000	Federal	State	Local	Other	Total
Funding*:	\$ 166,295	\$ 719,967	\$ 224,798	\$ 301,200	\$ 1,412,260

FTE**:			13.2
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*FY1999-2000 Federal Formula Funds only (includes 3b & 3c)

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

Key Theme - Food Quality

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

- a) Approximately 3,000 Nebraska producers participated in a BQA training program, signed a personal contact to follow the BQA guidelines and are now BQA certified. The program was delivered by practicing Nebraska veterinarians and Extension Educators that had completed the training program for trainers. These producers oversee the production management of over 40% of the fed cattle in Nebraska.

Under contracts signed with meat packers for 2000, THE CONTRACT packer will pay about \$16 more per head for BQA-certified cattle than for non-certified cattle. That means BQA is meeting one of its main goals, improving cattle profitability.

Demand for BQA-certified cattle has tripled from 1998 to 2000. In 1998, 16,000 BQA-certified cattle in Nebraska were processed and sent to grocery stores and restaurants. In 2000, 52,000 head of cattle are expected to be BQA-certified. The demand for cattle of this type and quality was so high last year that approximately half of the of the cattle meeting the specifications demanded in the program were sold in premium programs other than the NCFB program.

The BQA materials from Nebraska program have been adopted as a whole or in part by 15 states and the program materials have been distributed, by request, to 30 states.

During the last year all of the materials have been updated and converted to a Compact Disc format. This format reduced cost and improved the ease of program use. 1,000 CDs have been distributed and 3,000 more CDs have been ordered. All the materials can found on the national BQA Internet site (<http://www.bqa.org>) at the Nebraska link. The national BQA web site is hosted by the University of Nebraska.

- b) Impact - in 1998, 16,000 Nebraska corn fed beef cattle returned \$9.08 per carcass above market. Most of this return came from increase carcass yield. For 1998 this represents \$145,000 to NCFB participants.

In 1999, the financial return for the 28,000 cattle marketed had an additional \$0.98/CWT carcass weight premium added. For an 800 pound carcass, this represents \$7.84 premium plus the approximate \$9.00 return for yield. For 1999 this represents over \$470,000 to producers who met the NCFB specifications.

The goal for 2000 is 52,000 cattle that meet NCFB specifications.

- c) Scope of Impact - State Specific

Key Theme - Food Quality

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

- a) Pork Quality assurance education was a major emphasis of the 1999 Nebraska 4-H livestock program because of the desire to place more emphasis on: 1.) "Farm to table" food safety education; 2.) Management and production skills, 3.) Role of consumers in the livestock industry, and 4.) Ethical decision-making skills. Using materials designed to provide interactive teaching and hands-on learning experiences, county and state extension staff certified over 3500 youth in Pork Quality Assurance.
- b) Impact - significant changes in attitudes were seen between pre- and post-training. Results of post-tests for youth ages 12 and over were as follows:
- 97%, strongly agreed with the statement "Consumers have a right to expect a safe and wholesome food supply"
 - 95%, strongly agreed with the statement "It is the responsibility of every hog producer and exhibitor to produce a safe and wholesome pork product"
 - 80%, an increase (from pre-tests) of 29%, strongly agreed with a statement about the irresponsibility of forgetting to record a drug injection
 - 64%, an increase of 27%, strongly disagreed with the statement "Most consumers don't care about how pigs are treated and handled"
 - 58%, an increase of 25%, strongly disagreed with a statement indicating extra-label drug use on show animals was an acceptable practice.

There were also significant changes in youth's knowledge of quality assurance practices. Some changes and overall results in the 12 and over age group included:

- A 32% reduction in those who thought the ham was an acceptable injection site
- A 49% increase in those who knew withdrawal times should be included in medication records combined with a 24% increase in those who knew the animal ID should be included
- An 18% increase in those who identified the appropriate size of needle to use
- A 20% increase in those who realized youth shows and youth themselves may develop bad reputations for irresponsibility and misuse of drugs as a result of extra-label drug use
- Over 90% recognized the dosage, withdrawal time and date given were all items that should be included in animal health records
- 82% recognized that negative media reports of drug misuse in livestock will result in consumers having less confidence in the safety of the meat supply
- Over 90% recognized the wide variety of responsibilities they have as livestock producers, including care of the animals, proper handling and a responsibility to consumers.

Changes and overall results in the 8 to 11 age group were equally as positive and included:

- A 27% decrease in those who thought the ham was an acceptable injection site
- A 43% increase in those who recognized withdrawal times should be included in records
- An 18% increase in those who recognized using sorting panels as a proper handling procedure, combined with a 10% reduction in those who viewed slapping on the ham as proper handling
- A 15% increase in those that recognized providing consumers with pork that is safe to eat as one of their responsibilities as a livestock producer
- 99.8% recognized the neck as a proper injection site
- 96% could identify the correct needle to use in a given situation
- Over 80% recognized the animal ID, dosage, withdrawal time and date given were all items that

- should be included in animal health records
- Over 60% recognized numerous consequences of forgetting to keep medication records
- Over 90% recognized their responsibilities as livestock producers

c) Scope of Impact - State Specific

Key Theme - Food Safety

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

- a) Six food safety presentations, "Food Safety for Everyone," were given with the goal to impact individual behavior and public consciousness related to food safety awareness and nutrition. These educational programs were attended by 88 adults and 69 youth. Eight to ten months later, surveys were completed by adult participants.
- b) Impact - the respondents said:
- 100% think about food safety more now than before. Since the presentation: "I am aware of cross contamination when using knives in cutting meats and using different ones to cut vegetables." "I've always been careful but I'm much more thorough than before."
 - Over 93% wash their hands more often before preparing food. "Seeing bacteria on hands from black light was scary - after washing. Also, an eye-opener. Thanks."
 - 85% wash fruits and vegetables before preparation as a result of these presentations. Since the presentation, "(I'm) Becoming more aware of the potential hazards of food in the way it is prepared, stored, and cooked."
 - 86% are more careful cooking, cooling and reheating foods than before. "I reheat foods longer." "I let hot foods cool before putting them in the frig."
 - 75% notice food safety issues more than before the sessions. Since the presentation, "I am careful how I thaw meat before use." "I pay more attention to the dates and quality of perishable foods. I listen when they discuss food issues on radio and T.V."

The potential impact is thousands of dollars saved in medical bills and law suits, as well as, much less food borne illness. "(I'm) Just realizing the importance of it more (changing my habits for greater food safety) since opening daycare." "I am more careful how I handle food."

Pre- and post-tests revealed that all of the students in the food production class increased their knowledge of food borne illness by at least 35%. Fifty percent of the students increased their knowledge by at least 65%. "I wash hands and food utensils more often during preparation to prevent cross-contamination," commented one student.

c) Scope of Impact - State Specific

Key Theme - Food Safety

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

- a) Food Safety for Churches, Caterers and Organizations, was a program taught by an Extension

Educator and held in West Point and Tekamah was attended by 79 caterers, food service staff and members of organizations who serve food. Personally, the Educator has observed changes made at a Wisner, Nebraska church. For their 1998 bazaar, the ladies canned 360 pints of jellies, jams and salsa, hot water processing all of them in proper canning jars for the first time. Also at funeral dinners, they are very careful – all workers wear plastic gloves, all dishes are rinsed in a sanitizing solution before drying, and NO spoons are moved from one dish to another without first being washed. In fact, one member is vocal about the way foods are served in public settings encouraging those in charge to take the proper precautions and serve foods safely.

- b) Impact - 1,660 people are impacted daily, with safer food served in schools, hospitals and rest homes in our area, as a result of the food service staff who attended.
- 33% of the participants responded to the six month retrospective pre- and post-test indicating that they made statistically significant changes in knowledge/behaviors (at the p.05 level) including:
 - monitoring temperatures of foods,
 - causes of food borne illnesses,
 - storage of food practices,
 - personal hygiene practices
 - and the preparation and processing of foods.
 - Participants listed that the greatest changes in behaviors were related to sanitation, hand-washing, monitoring temperatures of foods, use of sanitizing solutions, wearing plastic gloves when serving and handling foods and preparing and processing foods safely. The one third of the participants responding have used the knowledge they gained at 119 events in the six months since the workshop.
- c) Scope of Impact - State Specific

Key Theme - Food Safety

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

- a) Since 1994, University of Nebraska Cooperative Extension has offered ServSafe training to an estimated 6,000 food service managers in Nebraska. Extension teams with the state departments of agriculture and health and human services, as well as the Nebraska Restaurant Association to offer the program statewide to teach participants safe food handling procedures. ServSafe's success prompted extension to coordinate new training for cooks and wait staff beginning in 1998. In one set of counties alone, 100 people representing full-service steakhouses to take-out pizza parlors took the training.
- b) Impact - statewide, at least 95 percent of ServSafe participants pass a national certification test following training. Managers report increasing their knowledge of safe food handling techniques that can reduce the risk of food borne illness by an estimated 33 percent. Managers report more conscientiousness about food temperature, cleaning and hand-washing. Each manager, in turn, is estimated to teach the food safety information to another 15 people, greatly extending extension's efforts.

c) Scope of Impact - State Specific

Key Theme - Food borne Illness

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

- a) An average, Americans eat over 40 percent of our meals away from home. A commercial food safety mishap can affect many people's health. An E. coli outbreak often makes front page, radio and television news. An outbreak in Kearney, Nebraska, was no different, with 65 primary cases of food borne-illness and 1 young girl hospitalized. As people started looking for answers local extension office telephones started ringing.

Two restaurants contacted Buffalo County Extension Office for hand-washing posters to be displayed at hand-washing sinks. Hand-washing is one of the most important ways to prevent surface/food product cross-contamination.

Two ServSafe classes were requested and presented to 4 local food service businesses. One hundred percent of attendees passed the National Restaurant Association's Certification Test. Each participant trains an average 15 additional employees, and is responsible for an average of 200 meals per day. Testing results and follow-up surveys and comments from the Department of Agriculture food inspectors indicate ServSafe makes a positive difference in food safety practices.

- b) Impact - to provide the public with factual E. coli information and to help prevent secondary cases, three E. coli handouts were prepared and distributed to 23 Well Workplace businesses in Kearney, who employ 5,000 workers. An additional 2,500 handouts were distributed during food safety programs in the Kearney area. Clientele responses included: "...appreciated the E. coli handouts - the information was very informative," "We distributed the handouts to all of our employees," "It was reassuring to receive factual information on E. coli." Only 7 secondary cases were reported.

c) Scope of Impact - State Specific

Key Theme - Food borne Pathogen Protection

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

- a) Institute of Agriculture and Natural Resources Research and Extension food and veterinary scientists have compared MBA's air-chilled broilers with those from an undisclosed immersion-chilling plant. Preliminary findings show both sets had roughly similar counts of non-disease-causing bacteria, but that the air-chilled broilers had less Salmonella and Campylobacter, bacteria that can cause illness. Air-chilled broilers also had significantly fewer psychrotrophs, bacteria that grow at refrigeration temperature and cause spoilage.
- b) Impact - these findings, while still preliminary, indicate air-chilling may produce a broiler less susceptible to disease-causing bacteria, and one with a longer shelf life. The research also is helping a Nebraska business carve out a marketing niche. The research is part of a broader farm-to-table

research and extension effort, including study of chicken farms over several growing seasons, aimed at taking safer chicken to market by pinpointing factors throughout the production process that influence safety. This research ultimately could yield new guidelines and recommendations for handling broilers.

Chilling poultry carcasses is a key step in processing that inhibits bacterial growth. MBA Poultry in Tecumseh, Neb., opened in 1998 as the Nation's only federally inspected air-chilled poultry plant; all others use immersion chilling, in which the birds are given a cool-water bath. University of Nebraska scientists comparing broilers processed with these two methods have found that while both sets had roughly similar counts of non-disease-causing bacteria, the air-chilled broilers had less Salmonella and Campylobacter, bacteria that can cause illness. Air-chilled broilers also had significantly fewer psychrotrophs, bacteria that grow at refrigeration temperature and cause spoilage. This work is part of broader Institute of Agriculture and Natural Resources farm-to-table research aimed at taking safer chicken to market by pinpointing factors throughout the production process that influence safety. It ultimately could yield new guidelines and recommendations for handling broilers.

c) Scope of Impact - Integrated Research and Extension

Key Theme - HACCP

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

- a) University of Nebraska Cooperative Extension works with the meat and poultry industries on training to assure the quality and safety of Nebraska's meat products. During 2000, NU and Kansas State University extension specialists teamed to offer Good Manufacturing Process and Sanitation workshops in Nebraska, Kansas, South Dakota and Missouri to teach food processing company managers food safety concepts. NU also provides Hazard Analysis and Critical Control Points (HACCP) training to help processors meet federal safety standards by identifying critical production points where food contamination can occur and adopting improved product-handling controls. An NU-developed HACCP video, translated into four languages, is distributed to all very small USDA-inspected meat and poultry processors in the United States and Puerto Rico.
- b) Impact - in 2000, this training helped many Nebraska processors meet federal HACCP standards, assuring the quality and safety of meat products from local "mom and pop" processors. The program has helped many very small Nebraska processors meet these higher safety assurance levels rather than seeking an exemption, which is a national trend. The Nebraska-produced HACCP video, provided to more than 3,600 companies, saved each firm about \$1,000 for in-house training for line workers or \$100 to \$500 per employee for outside training.

NU Cooperative Extension training is helping to ensure the quality and safety of meat products from local "mom and pop" processors in the Beef State. NU has helped many very small Nebraska processors meet higher federal food safety standards. During 2000, NU and Kansas State University extension specialists teamed to present sanitation workshops in Nebraska and three other states that teach food processing company managers food safety concepts. A Nebraska-produced video on federal procedures was provided to more than 3,600 companies including all very small USDA-inspected meat and poultry processors in the United States and Puerto Rico. This video saved each

firm about \$1,000 for in-house training for line workers or \$100 to \$500 per employee for outside training.

c) Scope of Impact - Multistate Integrated Research and Extension (NE, SD, KS, MO)

Goal 3: A Healthy Well-Nourished Population

Overview:

- a) Helping Nebraskans make informed healthy lifestyle choices leading to an improved quality of life is a role for Cooperative Extension programming. What follows is a collage of program reports illustrating Cooperative Extension's work to help Nebraskans build healthy lifestyles. Some of Nebraska's most needy participate in Nutrition Education Programs led by Cooperative Extension. Temporary Assistance to Needy Families (TANF) and Employment First Programs (welfare to work) programs look to the Nutrition Education Program (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 underway is expected to show that a significant number of health care dollars are saved for each dollar put into the Nutrition Education Program. This past year 7363 families (25,821 individuals) participated in the NEP program. Additionally 1,472 students participated in a TEAM Nutrition program to learn to eat a well balanced meal.

One hundred twenty-five hispanic families attended a Hispanic Health Fair co-sponsored by Cooperative Extension, which featured educational program presented in Spanish on Baby Bottle syndrome and Diabetes. Diabetes screenings were conducted on 134 people with three referrals. Twenty-five children were screened for lead poisoning and 57 children received a free dental screening focusing on baby bottle syndrome.

- b) Using the behavior checklist and conducting entry/exit 24-hour recalls on our graduates, the NEP program continues to help our families improve their nutrition, food safety and food resource management practices. Of the current 111 graduates of the program (exit versus entry date), 52% improved in food resource management practices, 41% improved their overall nutritional practices, 74% improved in food safety practices and 29% improved in all three areas (food safety, food resource management and nutrition). Seventy-five percent of the participants improved in at least one food resource management area, 78% in one or more nutrition practice, and 60% in one or more food safety practice. When examining the entry and exit food recalls, there was marked improvement. Eighty-nine percent of the graduates showed improvement in their exit recall when compared to their entry recall. There was also an improvement in the number of servings per day from the food pyramid groups (25% at entry versus 45% at exit).
- c) Youth programming has also demonstrated an impact. A total of 3,367 youth have participated in NEP youth programs. Most of our youth programming is done in groups. Out of the 3,367 youth, 1,741 participated in programs on eating a variety of foods and the importance of good nutrition. Over 76% of the youth demonstrated an increase in knowledge on why nutrition is important to good health. In the 1,806 youth that participated in food safety/food resource management programs, 82% improved practices in food preparation and safety and increased their ability to select low-cost, nutritious foods.

A sample of some of our Food Stamp Nutrition Educator success stories are as follows:

- I was referred to a family whose child was two and still drinking out of a bottle. Her teeth were showing signs of severe decay. When I began working with this family, Kool-aid was "juice", her teeth had never been brushed nor wiped with a cloth. The child was eating high sugared foods and very little nutritious foods and rarely ate on a schedule. After educating the parents on the effects of sugar on the teeth, the lack of certain foods in the child's diet and the importance of eating

regularly, the family has taken the initiative to attempt to alter their child's eating habits. She is not offered cookies and candies for breakfast any longer. Instead, fruit is given. Mom has tried different ways of preparing foods other than frying and the child likes it. Best of all, they are brushing her teeth.

- I first met Carmen at a local Housing Authority get-together. She had diabetes due to obesity. She was also having troubles getting around due to her weight and the problems caused to her knees from the excess pressure. She opted to have nutrition lessons via phone. Over the course of nine months, Carmen has lost 35 pounds. Her blood sugar level has evened out and she is able to get out and about on her own. Not only has she learned to eat properly, she is shopping more wisely with her food dollars, comparing prices and labels for sugar and salt and also exercising. She participates in the local SHARE program and finds different ways to prepare the food offered.
- Jerry is one of my referrals from Health and Human Services, he had been mandated to receive help for budgeting through the Nutrition Education Program. Many agencies that he had received help from were concerned that he may be spending his money unwisely and that was why he was in need of the local Food Pantries services as well as being a regular at the Soup Kitchen. Jerry receives \$480 in Social Security benefits a month and that is his only income along with \$50 he receives in Food Stamps. Jerry was very willing to meet with me and really wanted to learn some money management skills. When we finally met, Jerry had everything down on paper, I was amazed at how well he kept track of things. When we met the second time he had already saved \$150 and started his first savings account which he had already deposited \$25. For Jerry, he just needed someone to set down with him and take the time to work through a simple budget. He knew he needed to pay his bills, but had trouble knowing when to pay and getting the checks there on time. We also discussed some simple low-cost recipes. He was very concerned that he would run short on food which was understandable will only \$50 in Food Stamps and a very limited income. He said that just knowing what foods to buy and meals that could be made from certain inexpensive food items has helped lower his food bill considerably.

On December 28, 2000 the Box Butte General Hospital (Alliance, NE, a town of 9000) treated its first dialysis patient. Now (2 months later) at least nine individuals will not have to travel 120 miles three times per week for dialysis. Cooperative was one of the partners leading a community development effort which raised over \$120,000 dollars for two dialysis chairs to make this health need a reality.

- a) Cooperative Extension is pleased with the focus of health related programs in Nebraska. The programs represent efforts at the individual, family focused level of education as well as at the community level. Examples above of programs, their outcomes and impacts represent both ends of this continuum of family to community.

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

FFY2000	Federal	State	Local	Other	Total
Funding*:	\$457,312	\$1,979,909	\$618,193	\$828,300	\$3,883,714
FTE**:					34.2

* FY1999-2000 Federal Formula Funds only (includes 3b & 3c)

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

Key Theme - Health Care

(refers to Plan of Work Goal 3, Output Indicator's 5,6 & 7, and Outcome Indicator's 7)

- a) Since 1970, University of Nebraska Cooperative Extension in Gage County has worked with the Beatrice Community Hospital and Health Center and Nebraska Health and Human Services to provide free immunization clinics to children ranging from newborns to age 19. The walk-in clinics, offered three times a month, are available to any family. Currently, Extension constituent groups in the county provide and train volunteers to help with registration and screening of children at each clinic. Volunteer nurses give the immunizations. Monthly immunization reports are sent to family physicians and the schools. The clinic has been recognized as a nationwide model for delivering immunizations to children.
- b) Impact - since 1988, the immunization clinics have saved families \$1.7 million by giving 47,377 immunizations to 11,499 children. The average savings of \$101 per child is particularly significant because many family health insurance policies don't cover immunizations. In 2000, a special program targeting middle and high school youth in three communities resulted in an additional 579 immunizations valued at \$38,126. The clinic has become so well-known that only a few area doctors give immunizations in their offices. Most send their patients and their own children to the clinic.

Children who don't receive immunizations may suffer lifelong health problems and even death, but the cost and accessibility of vaccinations can keep some families from getting timely childhood vaccinations. Since 1970, University of Nebraska Cooperative Extension in Gage County has worked with the Beatrice Community Hospital and Health Center and Nebraska Health and Human Services to provide free immunization clinics. From 1988-2000, the clinic has saved families \$1.7 million by giving 47,377 immunizations to 11,499 children. The average savings of \$101 per child is significant because many family health insurance policies don't cover immunizations.

- c) Scope of Impact - State Specific

Key Theme - Health Care

(refers to Plan of Work Goal 3, Output Indicator 5 and Outcome Indicator's 5,6 & 7)

- a) Of the 321 respondents to the evaluation of the medical records lesson, 140 indicated they learned new information about the information needed in their medical record; 149 indicated they learned new information about the importance of keeping personal records with regard to a philosophy of preventive health care
- b) Impact - a lesson addressing medical records was produced and offered in 1999, *Maintaining a Treasure Chest: Your Health Record*. A companion NebGuide was also developed, *Medical Record Privacy*. The lesson addressed historical family health information, health records relative to payment, and privacy issues. The NebGuide, Internet version, received an average of 185 hits per

month during 2000. Over 3000 printed copies of the medical records lesson was distributed. Of those who participated in the lesson, 321 usable evaluations were received. Of these persons, 53% were responsible for medical records for 2 persons; 24% of the respondents were responsible for three to five medical records in their household.

Of the respondents to the evaluation, 54% indicated they learned about building a "family medical tree"; 52.7% learned how to protect their medical record privacy; 49.7% learned about timely issues regarding health records such as adoption and genetic testing; 48% learned the information needed about one's extended family.

To continue to meet needs in the area of understanding changes and to make more informed decisions, specific instruction has been developed over time. Web-based instruction on long-term care options has been piloted and will be offered in May, September, and November 2001. This supports the printed study lesson "Long Term Care: Options, Costs, and Preparation." Dr. Marlene Stum, Extension Specialist, University of Minnesota will co-teach by participating in the discussion thread portion of the lesson. Web-based instruction on reading one's health insurance policy is being developed and will be available in summer 2001. It offers the potential to partner with the University benefits office.

The NebFact address improving communication with one's provider has been reviewed by outside reviewers and is currently in press. Therefore, hit information will not be available until the next report.

c) Scope of Impact - State Specific

Key Theme - Health Care

(refers to Plan of Work Goal 3, Output Indicator 6 and Outcome Indicator's 5,6 & 7)

- a) Five students who were selected to review the student benefits package at the University of Nebraska were provided a back ground of health insurance in early 2000. Both students and Health Services leadership were appreciative of the information received

The NebGuide, Health Care Costs in Financially Troubled Times, focused on the high cost of health insurance relative to the farm economic situation. This publication has been accessed on a monthly basis of 72.1 times per month over the last year.

An extension module relative to health insurance will address this issue and be offered in summer 2001. More data will be available in the fall of 2001.

- b) Impact - in 1997, a lesson focused on Managed Care was offered. EARS report with numbers is available at: <http://extension.unl.edu/EARS/DATA.SKP/ca/merid198.htm>. Over 4500 lessons were distributed. Four hundred fifteen persons responded to the evaluation. As a result of the lesson, 53.3% indicated that the most important new information learned was important questions to ask medical personnel; 48.9% indicated that knowledge of managed care options was the most important new information gained; 44.7% indicated that the most important information acquired was improved understanding of their own health care coverage.

The overall focus of Extension publications has taken a focus of empowering consumers to be the full partner they are expected to be in a health care decision making process. This focus includes information about managed care, medical records, selecting mental health care, and improving communication with one's provider. In association with the Nebraska Health Care Association, a media campaign is being planned to better inform rural consumers of the changes occurring, impacts on local health care systems, and what they can do as consumers.

A Stakeholders meeting was held April 10, 2000. Over 21 Stakeholders provided input and critique of the health Care in Transition Action plan efforts to date. Stakeholders have suggested we focus on access to care issues as well as health insurance issues over the next four years.

c) Scope of Impact - State Specific

Key Theme - Health Care

(refers to Plan of Work Goal 3, Output Indicator 7 and Outcome Indicator's 5,6 & 7)

- a) From the information on team members' counties and the Southeast Health Policy Initiative information above, 69 communities are currently involved in some form of studying health care access issues.
- b) Impact - upon request of a local hospital administrator in Geneva, NE and in partnership with the Association of Nebraska Hospital and Health Care Systems, a NebFact was developed focusing on critical access hospitals, a designation established under the Balanced Budget Act of 1997. The NebFact, NF00-48, *Critical Access Hospitals: An Opportunity for Rural Nebraska*, averaged over 75 hits a month in its first three months of distribution via the Extension publication web site. "Hard copies" of the NebFact were distributed to various partner group meetings.

In partnership with the Nebraska Office of Rural Health in the Nebraska health and Human Service System and the Nebraska Community Foundation, a pilot project was planned during 2000. Implementation began on January 18, 2001. The pilot is entitled, The Nebraska Health Policy Initiative. The goal is to empower emerging community leaders to participate in local health care discussions or to speak from a consumer voice in Unicameral committee meetings. Counties participating include: Richardson, Otoe, Pawnee, Johnson, and Nemaha. Local hospital administrators who agreed to participate in the project provide food at each session and a health care facility to tour. Over 256 persons have attended each of the two sessions held to date. University of Nebraska-Cooperative Extension is responsible for the curriculum development and evaluation components of the pilot. The pilot has the attention of the National Rural health Association as a potential national model.

Team members are involved in local coalitions addressing preventive health as well as access issues. The North Central Community Coalition (Carol Plate) has received approximately \$724,000 in grant funding to support their mission and goals. They have completed assessments of the 40 communities in their nine county area. The grant funds are supporting (1) putting a school nurse program back in place in their schools and (2) hiring an Executive Director to oversee their continuing efforts.

In Fillmore County, the Interagency group of 30 persons invited the chair of the York county coalition

to present information about the evolution of their coalition.

The York county coalition involving participants from 7 communities is focused on bringing community resources together to enable their county to be a healthier place to live, work and do business. The coalition is made up of approximately 60 to 80 members and meets quarterly. The coalition brought in the Farm Alarm dramatic program from Minnesota to draw attention to the mental health issues around the farm economic situation. Approximately 200 persons attended. A county health department has begun as a result of the coalition's work. The department's current efforts focus on smell and run off from Ethanol plant

In Custer County, 20 people who attended an initial coalition meeting represented six communities. The group is focusing on opening the lines of communication between providers of care and potentially spreading the impact of health dollars expended. Two issues of concern raised at the meeting included health insurance for small businesses and transportation for seniors to access care.

The Buffalo County Health Partners coalition is entering Phase 2 of their project by reassessing their goals. To accomplish this focus, they have surveyed their 5 communities and carried on focus groups.

c) Scope of Impact - State Specific

Key Theme - Human Nutrition

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

- a) Local programs such as Food Stamp Nutrition Education and other nutrition education programs delivered to community groups, senior nutrition sites, schools, and youth programs reached 11,459 individuals on concepts related to increasing fruits and vegetables, decreasing sodium, eating a variety of foods, trimming the fat. Over 5,402 subscribers to a web newsletter receive information on nutrition and food preparation with 3,673 (68%) indicating they are saving the information for future use, and 2,215 (41%) reporting that the newsletter helps them increase their commitment to nutrition/food safety practices.
- b) Impact - cardiovascular health is not measurable at this point. The following adoption of dietary guidelines from participation in nutrition education programs has occurred:
 - 190 graduates of the food stamp nutrition education program (52%) improved their overall nutrition practices and 310 (85%) improved in at least one nutrition practice.
 - Total fruit and vegetable purchases increased at five urban farmers' markets that reached approximately 1000 people. Followup qualitative information indicated that fruit and vegetable consumption increased.
 - Seventy-two students (74%) who completed a teen nutrition program taught through the schools increased the number of food groups they were eating, and were limiting the fat, salt and sugar in their diets.
 - 1,472 students (76%) participating in a TEAM Nutrition program changed their eating behaviors, increasing their consumption of vegetables, according to a two month follow-up plate study reported by school food service staff.
- c) Scope of Impact - State Specific

Key Theme - Human Nutrition

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

- a) Extension nutrition programs teach everything from good budgeting and meal planning to food safety and nutrition to help families become more self-sufficient. During 2000, extension nutrition programs served families from Bosnia, Russia, Vietnam, Turkey, Sudan and Iraq, as well as long-time Nebraskans. For the fiscal year ending Sept. 30, 2000, more than 7,300 families, 7,200 youth and 1,100 older adults participated in extension nutrition programs. Extension teams with federal programs such as the Women, Infants and Children program (WIC) and Head Start, the Nebraska Department of Health and Human Services, Employment First programs, local food pantries and food banks, family resource centers, public schools and faith-based social service organizations to offer nutrition programs that help low-resource Nebraskans. The state's program was one of three nationwide to receive a National Food Stamp Program/USDA Excellence in Nutrition Education Award in 2000.
- b) Impact - nutrition program participants say these programs have helped their families eat healthier and better use their limited food budgets, and program facilitators report seeing other improvements in clients' lives. For example, a 30-year old father of three eagerly improved the basic cooking skills he learned from his late grandmother so he could prepare a family meal, such as a casserole. This former gang member also enrolled in parenting classes and expressed a desire to seek joint custody of his children.
- c) Scope of Impact - State Specific

Key Theme - Human Nutrition

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

- a) The Nutrition Education Program has been working with the Early Head Start program since January 1999. Through home visits, monthly newsletters and group teaching, nutrition information has reached over 100 families. Food safety, nutrition and budgeting lessons help clients save money, improve health and save medical costs. Beth is a mother who has participated in home visits and group meetings. When she joined the program she knew very little about how to feed her 2 young sons. Corn dogs, cookies, prepared gelatin cups, soda pop, donuts and sugared cereal were staples in their diet.
- b) Impact - a diet analysis revealed that before intervention, the recommended dietary allowances (RDA's) were met only for protein. After participation, RDA's were met for protein, iron, calcium, vitamin A, vitamin B6 and Fiber.
 - Beth has learned to save forty dollars a month by planning a weekly menu and using a shopping list. "She has said how much easier it is to do grocery shopping. It saves her time," states an Early Head Start Family Advocate.
 - Since gaining confidence in cooking skills, the family tries one new food each week. Each day the children eat breakfast and get 7 additional servings from the Food Guide Pyramid. Salt is used more sparingly and frozen food is thawed in the refrigerator instead of on the kitchen counter.
 - A case worker from Transfiguration reinforces the skills the family has learned. She comments, "I am very proud of Beth's accomplishments. She is very serious about providing the best for her children."
 - Beth's family eats more safe and healthy meals for less money. Beth says, "I have more energy than I used to. My oldest son pays better attention in school." She is confident the improvement in their diet will help her children grow as they should. Her older son is really enjoying the variety of

foods, especially his favorite: applesauce.

- c) Scope of Impact - State Specific

Key Theme - Human Nutrition

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

- a) NU extension teamed with other groups to help City Sprouts, a non-profit urban garden group, obtain a USDA grant to launch a farmers market in North Omaha. Six markets in 2000 brought an array of fresh fruits and vegetables to the community and attracted about 200 people each. About 400 people attended a family food fun festival held during one market. NU extension staff provided nutrition information, recipes and samples that showed first-hand how to use fruits and vegetables to create healthy, tasty and culturally familiar foods such as collard and mustard greens, marinated tomatoes and green beans, salsa and sweet potato cookies. Interest in the market is growing. More than a dozen vendors are slated for markets in 2001 and 2002, where Food Stamps and Women, Infants and Children vouchers will be accepted.
- b) Impact - the markets' fruit and vegetable sales and residents' comments indicate produce consumption increased among market-goers. Even a seasonal increase in produce consumption should help decrease the community's risk of diet-related diseases. Several market-goers said they discovered healthier, lower-fat ways to prepare traditional foods. One market-goer said: "I thought you had to put meat in greens to make the taste good. Do you mind if I use this recipe in my barbecue catering business?" The markets also are credited with enhancing neighborhood pride and sense of community.

Fresh produce consumption among North Omaha residents has been lower than recommended for a healthy diet, partly because the community lacks access to affordable, appealing produce. To change this, University of Nebraska Cooperative Extension teamed with City Sprouts, a non-profit urban garden organization, and other groups to obtain a USDA grant to launch seasonal farmer's markets in the community that provide abundant, fresh produce. Extension provided nutrition information, recipes and samples to show residents how to use fruits and vegetables to create healthy, tasty and culturally familiar foods. Fruit and vegetable sales at the markets and market-goers' comments indicate produce consumption increased among participants. Even a seasonal increase in produce consumption should help decrease the community's risk of diet-related diseases. Several market-goers said they discovered healthier, lower-fat ways to prepare traditional foods.

- c) Scope of Impact - State Specific

Key Theme - Human Health

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

- a) Approximately 2,277 youth participated in health fairs and school enrichment activities that discussed the dangers to the body when people use smoke and smokeless tobacco.
- b) Impact - 110 youth indicated they would not continue with tobacco use after they took a class on use of tobacco products and what it does to the body.

- c) Scope of Impact - State Specific

Key Theme - Human Health

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

- a) Seventy-five teachers and child care providers were taught how to properly apply sunscreen and use other methods to keep children out of the sun's harmful rays. Over 1,160 youth have been taught through school enrichment and camps how to properly apply sunscreen and when to wear protective articles of clothing to keep out of the sun.

- b) Impact - approximately 338 children under 12 years indicated through a post survey that they would increase the amount of sun screen they wear in the sun.

- c) Scope of Impact - State Specific

Key Theme - Human Health

(refers to Plan of Work Goal 3)

- a) University of Nebraska Cooperative Extension teamed with Lincoln Public Schools, the Nebraska Department of Health and Human Services and the Lincoln/Lancaster County Health Department to provide education to health care and school professionals and the public on effective head lice treatments. Working as a part of the Lincoln Public Schools Head Lice Task Force, extension developed easy-to-understand fact sheets, a short video and a Powerpoint presentation covering all aspects of head lice management. The materials were distributed locally, regionally and nationally through presentations to public health personnel, school nurses, social workers, childcare providers, elementary school principals, physicians and nurses. In turn, these people educate colleagues and the public. In Lincoln, fact sheets are sent home with elementary school children. One was translated into Spanish. The video has aired on Lincoln, Fremont and Scottsbluff cable access channels and Nebraska Educable, and other states have purchased them for use in their educational programs. The video and other materials also are available on the Internet.

- b) Impact - as a result of this educational effort, Lincoln Public Schools changed its head lice policies. LPS adopted a "no nit" policy that prohibits children from attending school if they have live lice or nits in their hair, thus reducing the spread of the problem. LPS nurses now screen students the first week of school and after winter break and recommend only products labeled for head lice control. One year after instituting these changes, LPS reported a 70 percent reduction in head lice cases. Lincoln/Lancaster County Health Department saw nearly 60 percent fewer cases reported, and public health nurses made 60 percent fewer home visits. More than 800 videos have been sold in Nebraska and nearly 200 to 28 other states and one to England. The head lice web site receives more than 5,000 hits monthly.

- c) Scope of Impact - State Specific

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 percent is crop land. Agriculture's economic strength is due in part to irrigation, which accounts for over 50% of crop production. Responsible management of surface water and ground water resources is required to sustain the irrigation 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 a number of water/environment festivals, many of which target 4th and 5th grade students. In 2000, thirteen festivals reported educating over 10,600 youth. 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.

Considerable effort has been devoted to education addressing water quality issues. This effort has addressed both ground water and surface water issues. The efforts targeting ground water have focused on fertilizer and irrigation management to help prevent nitrate contamination. Surface water quality programs have particularly addressed herbicide contamination. An integrated research-extension multi state program has targeted atrazine management in the Blue River Basin. Surveys in 1997 and 2000 in a sub-watershed of the basin indicated that: 1) 15 percent of the acreage no longer received atrazine application, 2) 20 percent of the producers had adopted banding application, 3) ridge-till had increased from 37 percent of the acres to 59 percent, and 4) crop rotation had increased from 42 percent of the acres to 62 percent.

Nebraska Tree Care Workshops have targeted maintenance of the urban "forest" in Nebraska. Since 1996 1,579 tree care professionals and others interested in tree care have participated in these workshops. Over 62 percent of the participants have used the information learned to train others in tree care. Eighty-six percent thought the condition of the trees under their care had improved. Participants in an acreage owner workshop in 2000 reported an economic impact that averaged \$361 as a result of their participation.

Agricultural waste management, particularly livestock manure management, is a major concern in the state. A multitude of Cooperative Extension educational programs are addressing this issue. A workshop on phosphorous and animal production was held for key leaders in commodity groups, agricultural organizations, agribusiness, public policy, and public sector organizations. Over 90 percent of the participants believed that phosphorous issues are "very critical" or "critical" to the future of the livestock industry in Nebraska.

Natural resources and environment programming will continue be a high priority for Nebraska Cooperative Extension. The programming will be provided by the Natural Resources and Environment,

Integrated Crop Management, Integrated Animal Systems Management, and Community and Residential Environment Action Teams. One of the challenges the teams have is the documentation of impact. The teams are able to demonstrate outputs but, have more difficulty identifying outcomes and impacts. The impacts for these programs often require long-term documentation.

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

FFY2000	Federal	State	Local	Other	Total
Funding*:	\$ 789,902	\$3,419,843	\$ 1,067,789	\$ 1,430,700	\$6,708,234
FTE**:					59.3

* FY1999-2000 Federal Formula Funds only (includes 3b & 3c)

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

Key Theme - Natural Resources Management

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

- e) Cooperative Extension staff have been a part of the development and presentation of many environmentally related festivals. Most of the festivals are co-sponsored by Cooperative Extension and one or more of the following agencies: local Natural Resource Districts, Community and State Colleges, Natural Resources Conservation Service, Department of Environmental Quality, Nebraska Game and Parks Commission, Educational Service Units, local Schools, local Public Power Districts, and various other local partners. While the theme of each festival is unique, all of the presentations are on environmental topics including: surface water quality, ground water quality, environmental stewardship, wildlife and natural resources. Most of the festivals target 5th and 6th grade students.
- f) Impact - this past year 13 festivals, educating over 10,600 youth, submitted EARS (Extension Accomplishments Reporting System) reports. It should be noted that there were additional festivals, reaching more youth, that did not submit an EARS report, which makes reporting an accurate total number of youth reached difficult. Most of the festivals do some type of evaluation of at least a representative sample of those attending. The various types of evaluation instruments, makes it hard to write an impact statement that would be representative of all the festivals. Several festivals have developed pre/post tests evaluations that test the understanding level on various natural resources and environmental stewardship concepts. Those festivals that use this type of evaluation, report that test scores increase 40 to 50 percent after attending.
- g) Scope of Impact - State Specific

Key Theme - Natural Resources Management

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

- e) Annually, Cooperative Extension staff coordinate and present various workshops relating to wildlife and natural resources. It is estimated that 40 workshops are held that include information and topics on: Farm Wildlife; Problem Wildlife; Riparian Management for Urban and Rural Areas; Forestry Management, and Stewardship of Natural Resources.

f) Impact - approximately 1,500 participants have attended one or more workshops. An additional 10,000 individuals have received information through phone calls, NU Facts Information Center, and through the Master Gardener Program.

g) Scope of Impact - State Specific

Key Theme - Water Quality

(refers to Plan of Work Goal 4, Output Indicator 3, and Outcome Indicator's 1,2 & 4, and refers to Plan of Work Goal 1, Output Indicator 3 (which has been moved to Goal 4 to comply with the Key Themes))

e) Cooperative Extension has conducted four specific projects to address surface water quality in selected watershed areas. The Blue River Basin Water Quality Project is a joint project with Kansas State. It has both extension and research components. The Fund For Rural America also funded a joint project with KSU and includes research and extension components. Additional projects include the Riparian Buffer Promotion and the Managing Atrazine in The Blue River Basin program. Both programs are extension programs.

f) Impact - total attendance at field days, newsletter recipients and personal contacts amount to 1,500 individuals annually. Managing Atrazine in the Blue River Basin - extension contact estimates: Year 2000 Field Days had approximately 150 participants and the newsletter went to over 300; Chemical Dealer Training 4 people. Year 1999 Field Days had approximately 500 people participating and the 1999 newsletter went to over 300; Chemical Dealer Training 10 people. Year 1998 Field Days had about 95 participants and a basin tour had 60 people. An estimated additional 20-40 people participated in various meetings each year related to atrazine and or buffer strip education.

g) Scope of impact - Multistate Integrated Research and Extension (NE and KS)

Key Theme - Water Quality

(refers to Plan of Work Goal 4, Output Indicator 3, and Outcome Indicator's 1, 4 & 5)

e) The Indian Creek Watershed is an irrigated, row-crop watershed in Fillmore County and York County, Nebraska. In 1997 a background survey of farmer practices was conducted. This survey accounted for over 34,000 acres and 41 producers in the watershed. This is one of several study watersheds in the Blue River Basins Project in Southeast Nebraska. A follow up survey was completed in 2000 to see what changes in herbicide practices may have resulted from Extension efforts in the watershed. Extension provided an intensive educational program on atrazine BMPs. The 2000 survey accounted for over 31,000 acres and 24 producers. Irrigated corn and soybeans are the primary crops.

f) Impact - changes since 1998 in practices used on irrigated corn include: 1) stopped atrazine use on 15% of reported acres; 2) 20 % of producers adopted banding application and 8 % adopted post-applied products; 3) cultivation for weed control has dropped from 100% to 64% of acres; 4) ridge-till has increased from 37 % of acres to 59 % of acres; and 5) crop rotation has increased from 42% of acres to 62%.

Atrazine BMPs used on irrigated corn include: 1) 59% of acres are ridge-till; 2) 75% of acres are banded; 3) 15% of acres no longer receive atrazine; and 4) 95% of producers rotate irrigated corn. Atrazine use has remained the same on about 85% of irrigated corn acres, and rates have dropped slightly from 0.81 lb/ac to 0.78 lb/ac. Balance, a non-atrazine herbicide applied at rates of about 1.0 oz/ac (compared to lbs/ac), is used on 38% of irrigated corn acres.

g) Scope of Impact - Integrated Research and Extension

Key Theme - Natural Resources Management

(refers to Plan of Work Goal 4, Output Indicator 1, and Outcome Indicator's 1, 2,3 & 5)

e) Agricultural producers were provided with numerous opportunities to access improved crop production practices. Offerings ranged from crop specific meetings to newsletters and information distributed by radio and newspapers.

f) Impact - listed below are a small sampling of the impact that has resulted for these efforts.

- A survey conducted to determine impact of the Crop Watch newsletter indicated that 82% of those responding had changed a pest management or crop production practice. Respondents indicated an average savings of \$6.85 per acre, 1384 acres per producer for a total potential savings of \$9500 per producer.
- A survey of northeast Nebraska producers placed a value of at least \$2 per acre on the information provided during a crop water use report delivered via radio transmission broadcast up to 10 times per week. Radio station survey of their clientele prompted one station to state: “Farmers like the in-depth weather, including how much water the crops are using”.
- Producers responding to an Integrated Pest Management Newsletter survey distributed in northeast Nebraska indicated a 47% reduction in the use of pesticides, fertilizer, or water. The newsletter is distributed to approximately 300 producers representing about 380,000 acres on a weekly basis beginning in April and continuing through September.
- An advanced soil fertility workshop presented to agriculture professionals indicated that the information learned was worth up to \$1.2 million to their clientele over approximately 300,000 acres. One attendee wrote that the workshop helped him be more environmentally concerned.
- Ninety percent of those attending a Quality Alfalfa Production workshop indicated that the information gained would increase the value of the alfalfa by \$5/ton or over \$30/acre.
- Nitrogen and irrigation management field days reached about 160 producers and agriculture professionals under special water quality projects in northeast Nebraska. Attendees influenced production decisions on 20,000 acres and reported an average value of the information learned at over \$5/ac.
- Forty-three southern Panhandle producers participated in a soil fertility and irrigation management meeting in Kimball, NE. The meeting was held to educate producers about the importance of irrigation and nitrogen management practices in reducing the potential for groundwater contamination. According to an evaluation of the program, producers plan to incorporate soil sampling, UNL fertilizer recommendations, and irrigation scheduling into their production practices. The changes were valued at \$4 per acre.
- The North Platte River Basin Water Policy Conference attracted 85 people from Nebraska and Wyoming to discuss the Cooperative Agreement proposal for managing basin water supplies. All respondents to an program evaluation indicated that they had gained new information about the issues in the Platter River basin.

c) Scope of Impact - Integrated Research and Extension

Key Theme - Soil Quality

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

- c) "Building Soil Quality in the Southern Nebraska Panhandle was a workshop on soil, herbicide and residue management sponsored by the South Platte Natural Resources District, University of Nebraska Cooperative Extension and the Natural Resources Conservation Service. Topics for the day-long workshop included presentations by University of Nebraska Cooperative Extension and Natural Resources Conservation Service specialists: Sprayer setup for no-till and reduced-till, Weed control in dry beans and sugar beets, Weed management in no-till and reduced-till corn; planting into crop residue, and Building soil quality – "How Healthy is Your Soil?"
- d) Impact - eighteen producers and eight agency personnel participated in the workshop held in Kimball, NE. As a result of attending the workshop:
- 90% of evaluation respondents indicated they will be more aware of how management practices can change soil condition and how they improve soil quality.
 - 81% will select the best spray nozzle for the job; recognize how plant competition affects weeds; and have a better understanding of the importance of organic matter in the soil and how it impacts crop production.
 - One producer estimated a savings of \$45 per acre in input costs.
 - These changes will affect 12,820 acres of cropland, according to participants.

c) Scope of Impact - State Specific

Key Theme - Integrated Pest Management

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

- c) Since 1997 the University of Nebraska Department of Entomology faculty have been developing new youth educational programs for K-12 students. The major effort, called the "Bug Bash," is held annually in collaboration with the Lincoln Public Schools (LPS), Science Focus High School, which has its campus on the grounds of the Folsom Children's Zoo. A key element of the entomology program is direct teaching and mentoring of junior and senior high school students by Entomology Department Faculty and graduate students. High school students, in turn, use their knowledge to introduce insect science to younger, elementary school students. For an entire week each September, activities are conducted at several learning stations around the Zoo. These special activities include monarch butterfly tagging and release, a study of insect "musicians", insect "perfumes" or pheromones, beneficial insects, insects and health, useful products from insects, activities in the beehive, insects that damage crops, cockroach racing, "sacred" insects and the diversity of insect life. Over 12,000 sets of "trading cards," which bear photos and useful facts about various insects, have been distributed to participants.
- d) Impact - in just three years, this popular event has involved over 120 high school teachers and over 10,000 students. The program is highly valued as a teaching and learning aid by both public and private school teachers and administrators. As a result of the program, key linkages have been established between IANR/UNL, the educational community, and local zoos and museums, and the study of entomology and science careers have been promoted among prospective students. Among 37 teachers

who participated in the program and responded to a survey in 1998, 94% felt the experience stimulated student interest in insect study, 96% felt that the material presented was appropriate, 94% picked up new ideas to facilitate the use of insects as teaching tools in the classroom, and 67% conducted follow-up learning activities related to Bug Bash experiences. Over 97 percent were highly favorable and would plan to bring students another year.

e) Scope of Impact - State Specific

Key Theme - Forest Resource Management

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

- c) Maintaining a healthy urban “forest” in Nebraska is a challenge, given the difficult climatic and soil conditions that exist in this prairie state. To improve the condition of Nebraska’s community forest resource, University of Nebraska Cooperative Extension, Nebraska Forest Service, and the Nebraska Statewide Arboretum have organized Nebraska Tree Care Workshops since 1991. These day-long programs are held at six locations around the state each spring, cover a variety of tree selection and care topics, and provide a forum to discuss emerging problems associated with tree care.
- d) Impact - 1,579 tree care professionals and others interested in tree care have participated in these workshops since 1996. A survey of people who participated in at least one workshop from 1996-1999 was conducted in 2000. The survey was sent to 600 individuals with 193 surveys (32%) completed and returned. Attendees reported the following impacts:
- Tree care knowledge and skills were “improved” or “much improved.”
 - Over 62% (particularly commercial service providers and information providers) indicated they used the information they learned to train others in tree care (from 1-200 people per respondent).
 - 55% were more involved in community tree care.
 - 31% of all respondents (75% of the information and commercial providers) were more involved in environmental issues.
 - 39% (55% of commercial service and information providers) had joined tree care-related organizations.
 - 86% thought the condition of trees under their care had improved.
 - 85% reported they planted or recommended a greater diversity of tree species.
 - 5% thought their income had increased due to their participation.
 - Publications distributed at the workshops were used on the average of once a month by all respondents, and slightly more often by information providers.
 - Statewide, attendees indicated that management of community tree resource management had somewhat improved, with western NE respondents rating tree resource management as “improved.”
 - 25% reported that their communities had established or changed tree care ordinances
 - 50% indicated they thought their communities had benefitted economically.

The Nebraska Tree Care Workshops have had a considerable impact on improving community tree resources and their management across the state. They have been instrumental in creating a large cadre of well-trained people in tree selection and care. These people often train others and/or provide tree-related services to the public, and work in tree-related organizations and their communities to increase the quality of tree care statewide. The size and expertise of this cadre of skilled specialist increase with each passing year, with positive statewide impacts on Nebraska’s community forests.

c) Scope of Impact - State Specific

Key Theme - Wildlife Management

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

- a) The Wildlife Habitat Evaluation Program helps youth learn about wildlife management and develop life skills such as decision making, teamwork, and written and oral communication. Nebraska is one of about 35 states involved nationally. Teenagers work with volunteer coaches to learn and then have the opportunity each year to participate as teams in a statewide contest and outdoor experience. The sixth annual statewide event was held June 2-3, 2000 in the Platte River Valley near Cozad and the 100th meridian. The location of this statewide event is rotated each year so that participants can see the variety of Nebraska wildlife habitats. In previous years, it has been held in the rainwater basin waterfowl area (1996), Eastern Sandhills and riparian habitats (1997), Eastern Nebraska deciduous forest, which was having a 17-year cicada emergence (1998), and central Sandhills grasslands (1999). Each year the top senior team at the state contest represents Nebraska at the national Wildlife Habitat Evaluation Invitational. For 2000, this outstanding educational event was held in Townsend, Tennessee in late July. In April this year, Nebraska hosted a regional leader training program presented by the national committee. A team of eight leaders represented Nebraska and they are now working to further develop the program in the state. Nebraska Pheasants Forever Chapters and the National Izaak Walton League Endowment are primary financial supporters. Additional support is provided by Nebraska Division, Izaak Walton League of America; and Nebraska Chapter, The Wildlife Society. Travel expenses for the top senior team to the national event, award trophies, unique T-shirts for all participants, and other support was provided. Partner agencies include the Nebraska Game and Parks Commission, Natural Resources Conservation Service, and U.S. Bureau of Reclamation/Nebraska-Kansas Area Office in Grand Island. Others participate as needed in various events.
- b) Impact - the program is a strong success in teaching teenage youth about wildlife habitat and the importance of management. Many participants have never been exposed to this information before and the experience has changed views and career goals for some. Recent comments include: "a great! contest;" "learned so much about animals and what they need to survive that I feel comfortable telling other people;" "new friends from across the state;" "I like the different wildlife ecosystems we go to each year;" "I had never been to this part of our state and it was beautiful - hope to go back on vacation;" "All of us learned something new to take home and put to use towards wildlife;" "Increased my interest and knowledge about all animals."

Annual evaluations have consistently shown marked learning and life skills development. Participants (32% girls, 68% boys) reported spending an average of 3 hours per week for 2.5 weeks in preparation, study, or learning activities, and over one fourth (27%) prepared for 6 or more weeks. Questionnaire responses showed increased interest or learning in wildlife and conservation (94% of responses), related career goals (81%), working with others (91%), decision making (100%), public speaking (77%), and applying what was learned (88%).

c) Scope of Impact - State Specific

Key Theme - Natural Resources Management

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

- a) Two hundred acreage owners attended the annual Acreage Owners Expo held March 18, 2000 at the Agricultural Research and Development Center near Mead. Management strategies taught at the Expo that multiple participants identified as making a difference included: landscaping, pond development/restoration, establishing grasses and wildflowers, tree plantings, acreage security precautions, windbreak establishment, fencing alternatives, gardening information, septic system management, web site resources, evaluating equipment needs, learning about windmills and attracting wildlife.

- b) Impact - the following information is based on evaluations completed immediately following the Expo. Forty-five percent of the participants completed the evaluation form. Ninety-two percent of the participants indicated that this program was "above average" or "one of the best" compared to other educational opportunities available to them. Ninety-six percent of those attending indicated that they planned to make changes in their acreage management based on what they learned at the Expo. Participants were asked to estimate the value of the knowledge they gained and/or anticipated acreage management changes. Their responses ranged from "unknown" to \$2,000. The average economic impact reported per acreage was \$361 or nearly \$30,000 for those that completed the evaluation form. The average acreage size was 18.25 acres. Forty-nine percent of the participants lived on acreages 10 acres or less in size, Eighteen percent lived on acreages 11 to 20 acres in size and thirty-three percent lived on 21 acres or more.

- c) Scope of Impact - State Specific

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

Overview:

a) Cooperative Extension Action teams have been very proactive in working within this goal. It is estimated that 200,000 individuals (equal to 12% of the state’s population) participated directly in a program related to this goal. This does not include those reached through web based instruction, mass media, or educational bulletins.

Output numbers are significant for programs related to character education programs for youth; and NU for Families, a state-wide promotion based around the six family strengths identified by John DeFrain and Nick Stinnett’s research on strong families. Over 240,000 grocery sacks touting the six strengths of families were distributed across the great plains region.

b) Because of the excellent program related to character education, Cooperative Extension and the Nebraska Department of Education received a \$950,000 grant to continue their work in character education. The NU for Families program was so successful that a month long campaign to emphasize the importance of strong families will be replicated at the request of clientele in 2001.

c) Over fifty percent of the teachers using CHARACTER COUNTS! character education materials indicate that their students are more truthful, less blaming of others, and more willing to help each other.

d) Action teams working within goal 5 have been particularly effective. The visibility of family, youth and community program has increased dramatically. As testimony to this visibility a new stakeholder group entitled “NU for Family, Youth and Community” will meet for the first time in April. This advocacy group will have job responsibilities for helping promote the benefits of these programs, contacting policy and budgetary bodies in support of University programs, and providing input as to emerging needs. This group will parallel another stakeholder group, Ag Builders, which has been very effective in advocating for Cooperative Extension, Research and Teaching programs within the Institute of Agriculture and Natural Resources.

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

FFY2000	Federal	State	Local	Other	Total
Funding*:	\$1,829,247	\$7,919,637	\$2,472,773	\$3,313,199	\$15,534,856
FTE**:					138.3

* FY1999-2000 Federal Formula Funds only (includes 3b & 3c)

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

Key Theme - Agricultural Financial Management

(refers to Plan of Work Goal 5, Output Indicator 8, and Outcome Indicator 7)

a) NU Cooperative Extension's Women in Agricultural Marketing curriculum helps farm and ranch

women learn marketing. The four two-day sessions are conducted throughout the year and follow the marketing cycle: pre-planting, spring rally and pre- and post-harvest. This helps participants retain concepts and put them to work. From learning how to assess their production costs to judging how to best time grain or cattle sales for maximum payoffs, participants learn ways to increase the bottom line. Since 1994, approximately 300 women have participated in the program.

- b) Impact - fifteen southeastern Nebraska women who participated in Women in Agricultural Marketing curriculum formed a marketing group called GRAIN Gals, short for Gals Reaping Agricultural Information in Nebraska. Members gather monthly to share marketing strategies and decision-driving information. GRAIN Gals members and other participants in the ag marketing curriculum credit the program with making their farm businesses more profitable. One Nebraska woman said she learned how to forward contract and used this knowledge to pre-price her corn at 50 cents a bushel above the market price in 2000. Another reported she now can earn more as a full-time farm partner focusing on marketing than by taking a job in town.

Some of the most productive farm decisions in Nebraska aren't made in fields, but around kitchen tables. Participants in the University of Nebraska Cooperative Extension's Women in Agricultural Marketing workshops learn how to better market their farm or ranch's commodities. The four two-day sessions, offered throughout the year, give women time to retain concepts and put them to work at home. One participant credits the program with teaching her how to forward contract, which she used to sell corn at 50 cents a bushel above the market price in 2000. Another reported she can earn more as a full-time farm partner focusing on marketing than by taking a job in town. Others report the program has a ripple effect that has led them to become more involved in other farm and ranch management decisions and in their communities.

- c) Scope of Impact - State Specific

Key Theme - Character Education

(refers to Plan of Work Goal 5, Output Indicator 1, and Outcome Indicator's 1 & 2)

- a) Character education continues to be a high priority for Nebraskans. During the past year:
- Legislative Resolution 311, which recognizes the importance of and commitment to character education as a foundation for community growth and development, has been passed by the Nebraska Legislature.
 - In cooperation with the Nebraska Department of Education, Cooperative Extension was awarded \$950,000 to implement a five-year, comprehensive character education program in communities throughout the state.
 - Impact from administrators using character education programs indicates that the program is making a difference. For example, one administrator stated:

“The students in our school are seen as being more caring towards others and respectful in their play. We have noticed a decrease in playground conflicts and much fewer office referrals.”

- b) Impact - 31,000 youth have been involved in character education programs with at least 15 hours of contact. In addition, 128,000 youth have been reached through other character education programs including day camps, one-on-one contact with Kiwanis members, Family Community Education clubs, religious school classes, employees participating in workforce training programs, etc.
- 50% of the teachers using CHARACTER COUNTS! program reported an increase in their

- students being truthful.
 - 61% of the teachers using CHARACTER COUNTS! program reported an increase in their students helping each other.
 - 55% of the teachers using the CHARACTER COUNTS! program reported a decrease in children blaming others for their problems.
- c) Scope of Impact - State Specific

Key Theme - Communications Skills

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

- b) *Keeping Families First* programs help communities to form partnerships to hold family events and educational programs. Families are asked to spend more time together; businesses and organizations look at their family friendly policies and activities. *Keeping Families First* has partnered 420 agencies, businesses and faith communities to help in the educational efforts. *Keeping Families First* has also generated \$11,400 in grants to promote families spending more time together.
- c) Impact - *Keeping Families First* has reach 6,000 families each year with educational material and fun family hands-on activities. About 1,800 pledges were made to increase family time together. During one follow-up, 69% of the people making a pledge were successful or somewhat successful in carrying out their pledge.
- d) Scope of Impact - State Specific

Key Theme - Communications Skills

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

- a) In November of 2000, National Family Month, a state-wide promotion was planned based around the six family strengths identified by John DeFrain and Nick Stinnett's research on strong families. The specific focus was to encourage families to eat together on November 1; an excellent way to spend quality time together. Numerous methods were used in preparing for this event and *NU for Family* promotion. A group of educators from three action teams – Sustainable Families, Youth & Family Responsibility and Healthy Lifestyles – assembled a box of resources which was distributed to Extension Educators. It included four learn-at-home activities, family discussion topics and many other resources based on the family strengths. A community program script and PowerPoint presentation were written and shared for staff to use throughout the state.
- b) Impact - thirty-five counties and over 2,000 families participated in *NU For Families*. Promotional pieces (magnets, pencils, stickers, etc.) were distributed through many different groups and events. There was extensive media coverage: news articles, TV and cable advertisements, weekly news columns, church bulletin inserts, a "family tabloid" printed in one county, 240,000 grocery bags printed with the family strengths message and distributed in ten states through Affiliated Foods, and informational displays set up in strategic places. In partnership with the Nebraska Restaurant Association, table cards listing the family strengths and suggesting topics for family conversations were distributed to restaurants across the state. Initially, 5000 were printed with local counties making additional copies to meet their needs.

Communities planned activities to support the family. Some examples included were: an appreciation tea was held for child care providers, 75 baggies of salad “fixings” were sent home with children from a large child care center to eat for supper on November 1, one of the family strengths videos was played for 130 people during a Gingerbread House Making Night.

Several communities conducted “Family Nights” where a free meal was provided and activities were planned for children and while parents participated in a program to improve their parenting skills. This quote summarizes parent’s responses to these programs: “*I don’t have to take time to fix a meal after work and I’m home by 7:30 p.m. to get my family ready for the next day! Besides I finally get to take parent training without feeling like I’m neglecting my family.*” In a follow-up survey, 89% of the families attending said the evening built their feeling of being a family team, 100% said it made them aware of the value of establishing a regular family fun time, 50% of the families said they had scheduled special family times since the event and 78% said the event helped them recognize the uniqueness of their family.

“Farm Alarm,” a theatrical event to deal with farm stress, was recently held in York County with around 150 in attendance. Team members from Theater at Work in Minnesota presented the play and educated the public about farm stress. Through humor and drama, farm stress, health impacts, and ways of coping were illustrated. The play concluded with audience participation through a question-and-answer session. It was very well received because of the realistic way it dealt with the stress that living on the farm can create in a family. Some in the audience were moved to tears because it touched on real issues they were facing. Others appreciated the communication that was opened in their families, and the note of hope that the production ended.

c) Scope of Impact - State Specific

Key Theme - Communications Skills

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

a) *Strengthening Families and Celebrate Families* are programs designed for the entire family to attend. Both parents and children participate in activities and discussions designed to help families develop communication skills, set boundaries and solve problems together. Strengthening Families is a curriculum developed by the University of Iowa. Impact data of this program over a two year period indicates positive impact in both the decisions youth make and in parenting behavior.

b) Impact -

- 23 families
- 73 youth
- 7 agency personnel
- \$450 grant dollars
- \$800 in-kind dollars
- 3 agencies who cooperated with me in teaching curriculum

A pre-post survey was given to both youth and parents.

Youth: Significant changes were noted on the following:

- I know about the values and beliefs my family has.

- I know what my parents think I should do about drugs and alcohol.
- My parents and I can sit down together to work on a problem without yelling or getting mad.
- I know the consequences when I don't follow a given rule.

Comments from youth: *"I never knew my parents would play a game and be silly." "My mom made me do the homework on consequences this week and we followed the plan."*

Parents: Significant changes were noted on the following:

- We spend fun times together as a family.
 - I say, "I love you."
 - I help my youth figure out how to solve problems outside the home.
 - I let my youth know what the consequences are for breaking the rules.
 - I wait to deal with problems until I have cooled down.

Comments: *"I realize I rarely say positive things to my kids – I'm going to hug and say I love you more often." "We tried hard to set appropriate consequences since that lesson—it's been hard to think in advance what the consequences will be." "I think we yell at one another less since we took the class and we had a game night one night."* Two follow up sessions were held with two groups, one after three months and another after six months. Nearly 70% of participants attended the follow-up sessions and all participants could list at least three of the concepts they had learned during the seven-week sessions.

- a) Scope of Impact - State Specific

Key Theme - Communications Skills

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

- a) University of Nebraska Cooperative Extension in Seward County helped organize and coordinates BRIDGES Inc., a non-profit grassroots coalition created in 1997 to connect and coordinate county services with a goal of improving the lives of families and youth. The coalition formed task forces to address alcohol, tobacco and drug abuse prevention and other issues important to the county. BRIDGES helped create programs for youth and families, including reading, mentoring, drug prevention, advocate and economic improvement. Extension programs such as Character Counts and 4-H projects are integrated into some programs. In three years, BRIDGES has introduced 15 community programs and recruited more than 400 volunteers who serve as educators, mentors and advocates for the families and youth who participate in programs.
- b) Impact - Seward County youth and families can more easily find and access programs offered by schools, civic organizations, government and businesses, thanks to BRIDGES. Over two years, this coordinated effort to identify and provide programs addressing key needs has generated \$142,000 in grants and \$105,000 of in-kind money, which now fund 75 percent of the programs. A local school principal said the coordination is paying off: "At last all the schools are working together so now we can use each other's resources to get more for our money and time."

Individual programs are showing positive effects for participants. For example, teachers estimate communication skills improved 25 percent among youth in the Adventures in Mentoring program. The mother of one of these participants said: "I can't thank you enough for getting my daughter a mentor."

Her self-esteem has totally changed. Please let her have a mentor next year.”

c) Scope of Impact - State Specific

Key Theme - Community Development

(refers to Plan of Work Goal 5, Output Indicator 2 and Outcome Indicator 3)

- a) A variety of new opportunities have been implemented to further involve youth in the community. For example, the CAN Fight Hunger Campaign collected 2,500 pounds of food that was distributed to local charities. In a statewide effort coordinated by the 4-H Youth Council, one million pop tabs were collected and presented to the Ronald McDonald house. The annual Learn & Serve conference, co-sponsored by Cooperative Extension, involved over 300 youth from 60 schools and organizations across the state. Self-reports indicate that 98% of those youth in attendance took part in at least 3 hours of service to the community.
- b) Impact – 1,807 4-H clubs organized and carried out a community service activity in support of the community.
 - 4-H clubs contributed \$106,033 to their communities through community service efforts. This is an increase of 2% over the previous year.
- c) Scope of Impact - State Specific

Key Theme - Family Resource Management

(refers to Plan of Work Goal 5, Output Indicator 10 and Outcome Indicator's 9 & 10)

- a) Endorsed by the Nebraska State Department of Banking, Consumer Credit Counseling Service of Nebraska, and the Nebraska Credit Union League, *Money 2000+* reached 105 families over a fifteen month period. In addition, local learning groups met monthly in two counties. A district-wide *Money 2000+* Financial Planning Conference was attended by 111 people at Wayne State College. Seven issues of a bi-monthly newsletter were written and distributed.
- b) Impact - evaluation data at the end of *Money 2000+* collected in January and February of 2000 indicated an average savings increase of \$1,986 and an average debt decrease of \$2,318 for an average financial net worth increase of \$4,304 or a total of \$451,920 for the families involved in the program. Written evaluation comments included one woman crediting *Money 2000+* with providing the opportunity for her and her husband to "*actually sit down and discuss*" where they were headed financially. Another man wrote that he believed that, without the program, he and his wife would still be living beyond their means. Significant learning was reported by participants at the Wayne State College event in all of the sessions held. One participant reported learning "*how to find places [where] I can invest my money on a shoestring budget*" while another reported "*finding out we are doing some things right and there are more options.*"
- c) Scope of Impact - State Specific

Key Theme - Family Resource Management

(refers to Plan of Work Goal 5, Output Indicator 10 and Outcome Indicator's 9 & 10)

- a) Over 100 individuals helped Extension personnel in program planning. Over sixty individuals gave guest presentations. Several new networks were established with agencies, banks, investment companies, lawyers, accountants and others.
- b) Impact - an estimated 2,000 individuals participate directly in financial management programs each year. Significant impact data includes:
- a reported savings.
 - reported reduction in debt - 19% payed off credit cards.
 - increased ability to achieve financial goals.
 - increased financial goals for retirement.
 - increased number of budgets established - 69% say they implemented a plan.
 - increased number and amount of reserve/emergency funds.
 - increased understanding of business management.

Some quotes from participants include: *"I've canceled my credit cards, kept track of money spent, reduced impulse spending and investigated more investment options."* *"Started a 401K and money market account for reserve fund."* *"Paid cash for 2 cars, saw 3 financial planners, opened a savings account, sold my house and bought a duplex with income from the house sale, cleared \$40,000 of debt, cut up all credit cards except one, made a budget, and bought grave plots."* *"I changed my annuities which were earning 4.5% to mutual funds paying 11% and tripled my money in a year's time."*

- c) Scope of Impact - State Specific

Key Theme - Family Resource Management

(refers to Plan of Work Goal 5, Output Indicator 10 and Outcome Indicator's 9 & 10)

- c) Approximately 700 middle school youth participated in the *Real World Real Decisions* program. During this program, youth choose a career and then live in the 'real world' for one month. They pay income tax, purchase a car, rent or purchase a home or apartment, buy insurance, groceries, clothes and entertainment. The curriculum includes pre-simulation, simulation and post-simulation activities.
- d) Impact - 91% of the students learned how to balance a checkbook. Youth comments include:
- *"Now I know what my parents go through. It was very difficult to manage all the money but I'm glad that I could experience this now."*
 - *"It's harder saving money than it is spending it. I always thought you would have more money at the end of the month."*
 - *"I never knew all the expenses that you have to pay for. I now know how expensive **things** are for just 1 person and I appreciate what my parents do for me a lot more now."*
 - *"I know that my money will go pretty fast on bills and I won't be able to buy many things that I want."*
 - *"It made me realize what adults do and that I don't want to grow up and be one. But it was really fun learning all that stuff."*
 - *"That life is not a free ride."*
 - *"It is very real, especially for a year like this year. My dad's a farmer and a lot of expenses*

came up this year.”

- c) Scope of Impact - State Specific

Key Theme - Impact of Change on Rural Communities

(refers to Plan of Work Goal 5, Output Indicator 9 and Outcome Indicator 8)

- a) Master Navigator is a community Internet training program designed to build local information technology expertise in rural communities. In this University of Nebraska Cooperative Extension program participants learn about Internet technologies and agree to spend time teaching others to build community web pages or other activities that promote Internet use. Navigator participants can follow up with extension's Electronic Main Street program, which teaches more specifics on marketing and promoting electronic businesses.
- b) Impact - since 1999 nearly 500 Nebraskans have completed the Master Navigator course and each agreed to pass their knowledge along to others. Whole communities can benefit. In Seward County, for example, government, education and business teamed to post all 140 community businesses to the web, which has directly resulted in additional business contacts. Individuals also benefit. One 78-year-old who before hadn't touched a computer before the course went on to teach others how to buy stocks and make investments via the web.

- c) Scope of Impact - State Specific

Key Theme - Impact of Change on Rural Communities

(refers to Plan of Work Goal 5, Output Indicator 8 and Outcome Indicator's 8 & 9)

- a) Nebraska EDGE — Enhancing, Developing and Growing Entrepreneurs — is an umbrella organization for rural entrepreneurial training programs hosted by local communities, organizations and associations. Entrepreneurs teach EDGE courses for business owners looking to expand and potential business owners. Participants learn legal structures, market strategies, financial statements, bookkeeping, cash flow, financing and how to manage growth. Extension works with community sponsors and course instructors to provide the EDGE program. In 2000, EDGE added alternative agricultural product training to its course offerings.
- b) Impact - nearly 900 existing and potential Nebraska business owners have participated in EDGE since it began in 1993. About half of those participants started or expanded their businesses, creating more than 500 new jobs, mostly in rural communities. One recent EDGE participant said he learned the importance of budgeting and projecting cash flow, which "... kept us from closing our doors." Another said the training provided a whole new outlook on managing growth.

- c) Scope of Impact - State Specific

Key Theme - Jobs/Employment

(refers to Plan of Work Goal 5, Output Indicator 8 and Outcome Indicator's 8 & 9)

- a) NU's Food Processing Center is a one-stop source of food safety, problem-solving, product development, and technical and business information for entrepreneurs and existing food processors. For example, its Nebraska Custom Processing Network matches Nebraska food processors that have excess plant capacity with companies that need custom or contract production, helping outside processors and Nebraska companies produce food more profitably. The center handles more than 3,000 inquiries annually for this program alone, which it operates in cooperation with the Nebraska Food Industry Association. The center was the first of its kind when it opened in 1983 and became a model for other universities.
- b) Impact - Nebraska's food processing industry has grown from 220 food processing businesses when the center opened to nearly 400 today. NU Food Processing Center officials estimate that the center's programs and services add an estimated \$12.5 million annually of economic value to Nebraska's economy. One company manager said the center's expertise helped the company increase sales by \$250,000, reduce operating costs by 7 percent, create 12 new jobs and invest \$100,000 in new capital projects.

The center's Custom Processing Network has generated more than \$11 million of additional business for Nebraska processors and contributed to 11 plant expansions and four plant relocations to Nebraska.

- c) Scope of Impact - Integrated Research and Extension

Key Theme - Leadership Training and Development

(refers to Plan of Work Goal 5, Output Indicator 3 and Outcome Indicator 4)

- a) Youth involvement in families and communities is an important part of Cooperative Extension programming. For example, NU For Families, a month-long celebration of and education about the strengths of families involved several teaching units on youth and their roles in families and communities. Nebraska 4-H continues to focus on the family unit, and that work is having an impact. For example, in a survey of Nebraska 4-H alumni who participated in county fairs during their 4-H career, learning to work as a family was ranked as one of the most important benefits of being in the program.
- b) Impact - 5,509 youth served the community in a leadership role.
 - 88% of counties have youth serving in at least one public policy role. This percentage, along with the number of youth per county serving in those roles, continues to increase

- c) Scope of Impact - State Specific

Key Theme - Leadership Training and Development

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

- a) A successful community just doesn't happen—it depends on its leaders. Programs to fill the need in communities for new leadership are on-going and successful. Extension educators throughout

Nebraska are involved in a myriad of activities aimed at strengthening the pool of effective leaders in their communities. Included in this group are educators themselves who acquire, teach and practice leadership skills in their individual communities.

Nearly 4,500 Nebraska youth and adults have completed some type of leadership education program sponsored in full or in part by Cooperative Extension in the past year. Audiences have included, county commissioners, extension staff, master gardeners, coop managers, volunteers, supervisors of volunteers, camp counselors, middle school and high school youth, community members, Emergency Medical Personnel, 4-H Committees and Councils, City Councils, Early Childhood workers, and new workers.

b) Impact -

- Evaluation from several programs indicate that the leadership development activities in Extension do make a difference. For example a two year follow-up of one program verifies that the program is helping to build community leaders. Respondents said that as a result of the program they have assumed new roles in the community and have gained confidence in their ability to influence community issues. Others report greater interest in and knowledge about community issues and greater confidence in communicating and working with community leaders. 87% of those reporting are involved in some committee, organization or board. The degree of involvement ranged from membership in a group to being elected to the City Council and appointment to a state commission.

Other indicators include:

- Over 1200 Middle School youth have gained: 1) confidence in their leadership abilities, 2) better understanding of the importance of character, 3) greater skills in interpersonal relationships, and 4) a realization of the importance of career choices in future lifestyle by participating in Youth Leadership workshops throughout the state. Documented benefits included: increased awareness of community leaders and leadership opportunities for teens, new confidence to speak up with thoughts and ideas, ability to teach others, an increased appreciation for the talents of others and less disruptive behaviors at school.
- Family Community Leadership Programs (FCL) have increased leadership capacity at the grassroots in communities across Nebraska. As a result of participation in FCL, many graduates have assumed leadership roles in their home communities, use new skills at home, at work, and in their communities and are motivated to participate in community affairs.
- Service learning in cooperation with schools and other community entities in an important leadership component of youth development activities. Evaluations from over 600 youth show a significant increase in community awareness, their ability to make change, and an increase in their communication and problem solving skills.
- Volunteers across the state have increased their effectiveness and ability to serve youth, families, and communities by participating in a wide range of leadership development opportunities. Other organizations who manage volunteers have gained skills through participation in Volunteer Management workshops.
- 150 community leaders and Cooperative Extension staff have participated in Full-Range Leadership workshops and nearly 100% of participants have indicated that they would change some leadership behaviors to more transformational ones and have developed personal plans to increase leadership effectiveness. "Research demonstrates that leaders who increase their use of these behaviors will see noticeable improvement in worker effort, job satisfaction and organizational effectiveness" (Barbuto, 2000).
- Community leadership programs have been initiated in several communities across Nebraska

and leadership skills are developed by hands-on leadership activities.

c) Scope of Impact - State Specific

Key Theme - Leadership Training and Development

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

a) Cooperative Extension and the Leadership Development and Public Issues Education Action Team are concerned that new and emerging leaders from diverse backgrounds are prepared to fully participate in their communities. Our goal is to strengthen the pool of leaders from diverse cultural backgrounds through assessing needs, offering leadership development opportunities, and continuing to offer support of leadership efforts. Those who work with new audiences from diverse cultures as well as those from diverse cultures are targeted.

Nearly 200 individuals from diverse cultures have completed a leadership education program. This includes youth who have participated in leadership opportunities, as well as adults who have participated in local leadership efforts.

b) Impact-

- FCL curriculum was adapted to reflect values inherent in the Native American Culture. It is now used as the training tool for Native American audiences
- On-going work with community teams working with issues surrounding the influx of non-native speaking individuals in some communities. Needs assessments are currently being carried out and on-going work with these communities is providing a structure for addressing needs and opportunities.

a) Scope of Impact - State Specific

Key Theme - Parenting

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

a) Parenting and raising children is not easy for anyone but it is especially difficult when living in poverty. Crisis upon crisis mount up and the task of raising children becomes complicated. Employment First families, especially those who are having more difficulty being self-sufficient, need to have someone teach life and family management skills which includes parenting. Building Nebraska Families curriculum focuses on family assets/strong family qualities which is the research from Dr. John DeFraim and Dr. Nick Stinnett. Parenting pieces are from Parents Forever, University of Minnesota plus Teaching Parenting the Positive Discipline Way by Lott and Nelsen - based on Adler and Dreikers research.

b) Impact - eleven of the 65 participants have graduated from the Building Nebraska Families program which started in mid 1999. Forty participants are continuing to benefit from the program with the remainder leaving the program due to moving, lack of interest, not cooperating, etc. Upon reviewing their behavior checklist from the entry to exit period, one can see notable changes. The graduates felt better about themselves, their time management skills and solving problems on their own. In doing statistical analysis on the entry versus exit behavior checklist it was noted that there is a position change in the clients' responses. That means that their responses move in a positive or negative

direction, where appropriate.

In reviewing the mean response of participants to behavior checklist questions that relate to parenting, the following is found:

Question	Entry Mean	Exit Mean
How often are you able to control your temper when you disagree?	3.84	4.56
How often does your family eat at least 1 meal a day together?	3.95	4.11
How often do you praise your child for being good?	4.13	4.56
How often do you use “I” messages in family communications?	3.16	3.22
How often does your family have fun together?	3.22	3.76

Grants BNF is funded by HHSS and is currently funded at \$424,000 per year. I would estimate that about one-fourth of the educational contacts involve strictly parenting which would mean that about \$100,000 would be directly used for parenting. BNF partnerships are mainly with Health and Human Services Employment First programs. Extension Educators have also teamed up with Curtiss and Associates, Job Service, local coalitions, Goodwill Industries, Housing Authority, plus many more. Not all of these were in relationship to the parenting piece of BNF but have ultimate impact.

- a) Scope of Impact - State Specific

Key Theme - Parenting

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

- a) *Parents Forever* received a \$7,500 grant from the Nebraska Children and Families Foundation in 1999. From 1999 to 2000 we served more than 150 adults, representing at least 200 children of divorce. In 2000, an additional \$500 was awarded to the program for three follow-up sessions. An additional \$500 was set aside for a program to parallel the adult classes for children of divorce. This money was increased by a \$10,000 Juvenile Services grant from the Nebraska Crime Commission. This program is under way with three sessions to report. There have been a total of 25 kids from age 4-14. In just 6 short hours, it has truly made a difference for kids to see that they are not the “only” ones and learn that they have some rights as kids. They already understand they are not guilty for the divorce, but are guilty of manipulating Mom and Dad to get back together.
- b) Impact - *Parents Forever* is a research-based program from the University of Minnesota that is in response to LB777 which provides judges the opportunity to require a parenting class for divorcing parents. Extension Educators have been working with judges in two judicial districts to recommend the class to parents getting a divorce. The three week parent training focuses on the developmental needs of children and how they experience the divorce. Since 1999, the following accomplishments have been reported:
 - 287 adults reached in Parents Forever.

- 685 children impacted by the program.

Impact Statements:

- *“All divorced parents should be required to take Parents Forever!!!”*
- *“We learned how to budget time for the family & how to have a happier and less stressful life.”*
- *“Communication is very important for married couples. We feel now we will be able to communicate better.”*
- *“We learned some ways to address work overload.”*
- *“This program gave me more confidence in raising my children. Now I know when to discipline and what is most effective.”*
- *“I learned how to provide more structured meal times for my children.”*
- *“As a result of this program, I have improved my parenting skills.”*
- One couple reported that one year later they had family council meetings at least monthly.
- *“Taught me how to approach my children and have more effective ways of discipline.”*

c) Scope of Impact - State Specific

Key Theme - Parenting

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

- c) Educators participated in a state-wide effort to reach busy parents through the NUFACTS phone message system. They helped create 150 messages for parents. Almost 2,000 requests were received during the first year. That number doubled during the next two years.
- d) Impact - between July 1998 and May 2000:
 - 3,882 people accessed messages.
 - 44,727 brochures were distributed by six state-wide agencies.
 - sensitive topics received the greatest number of calls.
 - Dealing with Stress
 - Reasons Children Misbehave
 - Effects of Spanking
 - Discipline vs. Punishment
 - Is it Okay to Leave my Child Home Alone.

c) Scope of Impact - State Specific

Key Theme - Parenting

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

Active Parenting and Active Parenting of Teens is a 12 series program reaching 225 adults. 100% of Active Parenting participants tried at least one activity that was a positive change in parenting skills; 100% were still referring back to the materials 5 years later.

Parent Paks were distributed to 2,400 families in the East Central and Southeast Six EPU’s. A 3-month evaluation indicated that 60% of the families read all of the packets, 20% were still using the

cards one day later, and only 12% threw them away before reading. About 23% filed the *Parent Pak* for future reference. The most significant changes included coping with peer pressure, improving communications with adolescents in the families and anger management skills.

Key Theme - Promoting Business Programs

(refers to Plan of Work Goal 5, Output Indicator 7, and Outcome Indicator's 7 & 8)

- c) The Food Entrepreneur Assistance Program in the University of Nebraska's Food Processing Center trains and helps people trying to start or expand a food business by offering technical and marketing/business development assistance to entrepreneurs. From packaging and pricing to product development and promotion, the program helps entrepreneurs determine the specific needs of their prospective business.
- d) Impact - the Food Processing Center staff estimate the Food Entrepreneur Assistance Program saves participating entrepreneurs about \$20,000 in food business startup costs. Since the program began in 1989, it has helped 101 companies start, and 73 percent remain in business today, a high percentage for this competitive industry. Many participants say they couldn't have succeeded without the training. An Omaha-based company that makes salad dressings benefitted from the program's marketing assistance and achieved statewide product distribution within its first few years.
- e) Scope of Impact - State Specific

Key Theme - Promoting Business Programs

(refers to Plan of Work Goal 5, Output Indicator 7, and Outcome Indicator's 7 & 8)

- a) This past year 251 individuals completed the Small-Scale Entrepreneurship program. Fourteen participants reported starting a new business (some part-time) while 23 expanded their product line or service area. Others maintained their business at the present size while other persons decided not to go into business. Entrepreneurs reported business management changes including *improved time management, new pricing structures, updated business and marketing plans, and better cash flow management* after the workshops.

Small towns need adequate job opportunities to sustain themselves and grow. Some Nebraskans are creating their own jobs and businesses or making existing businesses more viable with help from University of Nebraska Extension. Percent of increase of household income derived from the start-up and expansion of businesses: Many small-scale business units are operated on a part time basis to supplement family income. Sixty-six percent reported their business contributed less than 25% of the total family income.

- b) Impact - of Small Business Training in West Central Nebraska
 - Since the program was first offered in Lincoln County in 1995, more than 100 businesses in a 10-county area in west central Nebraska have graduated from the EDGE class, a 12-week business development course offered in North Platte. EDGE (Enhancing, Developing and Growing Entrepreneurs) graduates were asked to respond to a survey to indicate economic impact of the training they have received.

- Thirty-five percent of those responding had completely changed the focus of their business as a result of participation in the EDGE class. Thirty percent have expanded their existing business, 20% decided not to continue with a business idea after taking the class, and 10% reported starting a business because of research they had done while taking the class. Five percent had downsized an existing business.
- Twenty-five percent of those responding had added employees since taking the class. Number of additional people employed ranged from one to five. Another 30% said they anticipate adding one or more employees in the future.
- Fifty percent of businesses said that they changed the method of marketing their business as a result of taking the class. Comments about marketing changes included the following:
 - "More specific targeting. We began some newspaper ads and TV ads."
 - "Used our advertising dollars wisely."
 - "More concentration on use of turnovers and GPM [gross profit margin]."
 - "Discovered my customer base needed to be changed and have now made changes in directing my marketing toward a different customer base. We focused on our niche market."
 - "Set goals and worked like heck to reach those goals. Did more advertising. Cut out unnecessary advertising."
- When asked, "What financial benefits have you seen in your business that you can quantify?" The following were among responses received:
 - "Sales increased from \$75,000 to \$400,000 in six years, expansion of floor space, maintaining gross profit margin at profitable levels, understanding financial planning."
 - "My market made four times the profit last year that it made the first year."
 - "Putting my business plan down on paper, enabling me to sell my business profitably."
 - "Found a new bank due to better financial reports. Got notes negotiated for a lower interest rate."
 - "A more profitable business all the way around due to awareness of sales, cash flow and what I learned about running a business."
 - "We were able to build a business plan and present it to our lender."
- Responses to the question, "What has been the most useful thing you learned from this class?" included the following:
 - "Learning to read and understand financials."
 - "Learning to itemize cost of sales and gross profits to project what we would have to do to be profitable."
 - "Learning about financial worksheets and how they are used to know how your business is operating."
 - "Set goals and figure out a way to reach those goals."
 - "Managing growth."
 - "Cash flow issues." (2 responses)
 - "How to better plan and manage our business."
- Finally, respondents were asked for any other comments regarding the class:
 - "The class opened my eyes to the ever-demanding job of owning your own business. It made me realize that it takes a very disciplined person to be able to run their own business."
 - "Invaluable for a person serious about understanding and growing their business."

- "We have developed a new business plan that continues to be updated, sometimes on a daily basis. We try to stay focused on what business and services we bring to the consumer and keep a very positive attitude."
- "Would recommend to anyone thinking of starting their own business as well as those already in."
- "Excellent class. No one should start a business without it."
- "I learned more in this class than I have learned in 18 years of business!"

c) Scope of Impact - State Specific

Key Theme - Youth Farm Safety

(refers to Plan of Work Goal 3 (which has been moved to Goal 5 to comply with the Key Themes), Output Indicator 4, and Outcome Indicator 3)

- a) There were 30 day camps planned by University of Nebraska Cooperative Extension and Progressive Farmer reaching 4,365 youth in 2000.
- b) Impact - youth working or living on farms increased their knowledge on recommended farm safety practices.
 - 1999 evaluation of day camps offered through the Progressive Farmer program revealed that up to 40% of the participating youth had improvements in safe behaviors; and approximately one-third of parents of farm safety camp youth cited positive changes in their child's safety-related behavior. Year 2000 evaluations are being completed.
 - Many of the 230 youth at one camp reported they "will check for unsafe things on the farm," "be careful of what I am doing," and "talk to my parents about what I learned during the camp."
 - 138 bicycle helmets were purchased by participants at one camp that hosted 165 individuals. An external partnership assisted in helping reduce the cost of the helmets.

c). Scope of Impact - State Specific

B. STAKEHOLDER INPUT PROCESS

A. Actions taken to seek stakeholder input

Cooperative Extension's eleven action teams (Community and Residential Environment; Community Resource Development; Enhancing Food Safety in the Food Chain; Health Care in Transition; Integrated Animal Systems Management; Integrated Crop Management; Leadership and Public Issues Education; Natural Resources and Environmental Management; Preventive Health and Wellness Education; Sustainable Families; and Youth and Family Responsibility) are required to involve a minimum of five key stakeholders (determined to represent a significant population, organization or be a key political leader) for program input on an annual basis. During 2000 the action teams exceeded the minimum goal since about 150 key stakeholders participated in either a face to face meeting, telephone or written surveys. The questions asked of stakeholders included:

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

Additionally some action teams asked stakeholders if they would like to become a member of their Cooperative Extension action team. At least three of the action teams, Leadership and Public Issues Education, Youth and Family Responsibility and Community Resource Development added external stakeholders as team members through this request.

Seven academic/administrative units reported that they had held advisory committee meetings of stakeholders during 2000. Two of the units used the results of surveys and meetings of their advisory committees in planning the program content of their five year departmental reviews. A review of the agendas of the advisory committee meetings provides evidence that discussion topics included long term program goals for Research, Extension and Teaching in these units.

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:

- Each of the eleven action teams are required to have input to their plans from stakeholders on an annual basis. It is the responsibility of the teams to identify at least five external stakeholders that are familiar with the subject matter area of the action plan. Generally these reviewers are representatives of one of the several hundred organizations/agencies that are partnering with Cooperative Extension. Stakeholders this year represented over 100 different

agencies/organizations with whom Cooperative Extension works. As an example, the Enhancing Food Safety in the Food Chain action plan was discussed by representatives of the Nebraska Beef Council, Wimmers Meat Company, Nebraska Bureau of Dairy and Foods, Nebraska Restaurant Association Foundation, Nebraska Poultry Association, Nebraska Meat Processors Association and Greater Omaha Packing. This involvement of stakeholders created a rich, interactive dialogue.

- Twenty-five stakeholders who participated in the 21st Century Task Force reviewed the work completed by the 11 action teams and gave input for consideration.
- All unit administrators (department heads and chairs, District Directors) of the Institute of Agriculture and Natural Resources with Cooperative Extension faculty in their units heard a presentation of the action team goals and gave input.
- University of Nebraska - Lincoln Deans external to Cooperative Extension and the Institute of Agriculture and Natural Resources participated in a presentation to learn about action team goals and give input.
- Nebraska Association of County Extension Boards have participated in a program given by the eleven action teams and reviewed goals and given input.

Surveys of the public conducted by the Sustainable Families Action team were randomly drawn to assure input from minority and low resource families.

It is estimated that approximately 10% of the 150 individuals representing organizations, agencies or businesses were minority.

C. How collected input was considered

Minutes of meetings and reports submitted by the action teams indicates that while generally seen as on track, modifications were made to make the plans of work more inclusive of other agencies and representative of a broader base of participants. The general tone of comments of stakeholders was that action teams were focused on high priority issues. This confirmation by stakeholders verifies that the “continuously listening” model of Nebraska Cooperative Extension’s planning process is working.

A comment from the notes of the Youth and Family Action Team summarizes another value of including stakeholders. “The meetings also brought about involvement from outside members of external stakeholders. For example, representatives from the Nebraska Department of Health and Human Services co-sponsored an inservice session at April Preview (Nebraska’s annual conference).

D. Is the Stakeholder Input Process Useful

Nebraska deems the stakeholder process useful because:

- Over 150 stakeholders learned more about Cooperative Extension’s plan of work ensuring that we continue to build public awareness of our program efforts
- Input from these stakeholders substantiates current action plans
- Co-sponsorship of programs with other entities becomes more likely as agencies/organizations learn about our programs.
- Collaborating organizations become program participants as they learn about Cooperative Extension programming and enroll their staff for educational events

C. PROGRAM REVIEW PROCESS

Nebraska has made no significant changes in its plan of work since its submission last year. No major changes in the program content of indicators being used by action teams have been made. However, since youth farm safety is identified as a key theme under Goal 5 (Nebraska has listed it under Goal 3) our state is transferring the indicators in support of youth farm safety to be listed under Goal 5 and henceforth will report under that goal. This is also the case with Goal 1, Output Indicator 3 (watershed adoption) which has been moved to Goal 4 to comply with the water quality key theme.

D. EVALUATION OF THE SUCCESS OF MULTIAND JOINT ACTIVITIES

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

Input received from over 150 stakeholders who were involved in a review of action team plans 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. For instance, the action teams meet at least face to face twice annually, and several action teams use monthly phone bridge calls to insure that they are on track. It is apparent from as action team work that they are focusing their efforts on fewer program topics, and jointly developing materials, to insure quality.

One stakeholder (College of Architecture, University of Nebraska) because of his interest in the program priorities identified has requested an extension appointment. We in Nebraska believe this is an example of the impact of working with stakeholders and addressing critical issues.

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.

- 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 new program was implemented to educate welfare to work families, primarily single mothers. This welfare to work program called Building Nebraska Families works one-on-one with the most difficult of the families moving off of the welfare roles. Six FTE of Extension Educators have been hired through a contract with the Nebraska Department of Health and Human Services to work with these families. This year, of the first ten graduates of the program, eight have found employment. For one individual this was the first job she had ever held. 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 in 2001-2002 as a result of stakeholders indicating the need for a program emphasis in this area. A new Extension Specialist who’s speciality is adult development (the aging process) will be hired.

- The Youth and Family Responsibility action team continues through its strengthening grant to emphasize programs on Nebraska's Native American reservations and in meat processing towns where considerable numbers of immigrants have arrived. Over 34% of the minority population of youth of 4-H age participate in the 4-H program which is testimony to the impact of this effort.
- Leadership and Public Issues Education action team has completed a leadership course on the Omaha Indian reservation. Repeat sessions are requested.

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. Three of the action teams are embarking on a process to collect this data through their web site. It is generally felt that planned programs addressed the expected outcomes.

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 programs. Several impact reports developed for stakeholders are included with this document to substantiate the difference that Extension programs are making. (See appendix III and IV)

An excellent example of efficiency is the four state in-service education program on four state cropping systems. This program is jointly planned by the four states and training for Extension Educators of all four states will offered at one time.

Efficiency is also seen in the delivery mechanisms being used for programming. As an example, an educator completed a series of educational programs for farmers/ranchers in his county by having scientists in animal science departments in Nebraska, Kentucky and several institutions present by satellite. Two way dialogue then ensued.

Efficiency is exhibited by the Educators and Specialists as they continually work to develop programs that can be delivered in multi 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.

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)

Title of Planned Program/Activity	Estimated Costs				
	FY 2000	FY 2001	FY 2002	FY 2003	FY2004
Goal 1:	<u>\$ 608,074</u>	<u>\$ 632,397</u>	<u>\$ 657,693</u>	<u>\$ 684,001</u>	<u>\$ 711,361</u>
Integrated Crop Management					
Integrated Livestock Systems Management					
Integrated Pest Management					
Sustainable Agricultural Production Systems					
Goal 2:	<u>\$ 123,641</u>	<u>\$ 128,587</u>	<u>\$ 133,731</u>	<u>\$ 139,080</u>	<u>\$ 144,643</u>
Pre and Post Harvest Plant and Animal					
Food Safety					
Food Processing and Food Service					
Management Food Safety					
Goal 3:	<u>\$ 10,131</u>	<u>\$ 10,536</u>	<u>\$ 10,957</u>	<u>\$ 11,395</u>	<u>\$ 11,851</u>
Human Nutrition, Health and Safety					
Health Care					
Goal 4:	<u>\$ 100,679</u>	<u>\$ 104,706</u>	<u>\$ 108,894</u>	<u>\$ 113,250</u>	<u>\$ 117,780</u>
Natural Resources Management and					
Protection					
Environmental Protection					
Environmental and Natural Resources Policy					
Goal 5:	<u>\$ 284,675</u>	<u>\$ 296,062</u>	<u>\$ 307,905</u>	<u>\$ 320,221</u>	<u>\$ 333,030</u>
Family Strengths					
Family Housing					
Telecommunications for Rural Areas					
Community Strengths					
Total	<u>\$1,127,200</u>	<u>\$1,172,288</u>	<u>\$1,219,180</u>	<u>\$1,267,947</u>	<u>\$1,318,665</u>

Elbert C. Dickey
Interim Director

March 1, 2001
Date

Form CSREES-BASE (2/00)

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 has been planned for 2001.
- The four state commercial horticultural workshop continues to be held at St. Joseph, MO for producers in Nebraska, Kansas, Iowa, and Missouri.
- The 2000 Central Plains Irrigation Shortcourse was hosted by Kansas with support from Colorado State University and the University of Nebraska.
- 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 will be providing training in 2001 for state teams.
- The 16th annual Four State Beef Conference was held in 2000. Nebraska, Missouri, Kansas, and Iowa cooperate to plan, conduct and host this event.
- 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 multistate 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:

- a HACCP video was produced 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.

Goal 3

Most of the multistate 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 2000. Although the proposal was not successful, the four states continue to interact on water quality issues. A proposal will prepared in response to the 2001 request for proposals when it is issued.
- The 6th annual North Platte River Basin Water Policy Conference was held in 2000. 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.

Goal 5

Most of the multistate 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:

- 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 will continue in 2001.
- 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 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.
 - An Extension faculty member serves as a member of the leadership team for the North Central Extension Leadership Development program.
 - An Extension faculty member and an Extension faculty member at the University of California Davis produce a monthly newsletter that is distributed electronically and in hard copy. The newsletter, “The Ups & Downs of Parenting Adolescents,” continues to gain national visibility.

- Nebraska Cooperative Extension has 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 will be 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.

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)

Title of Planned Program/Activity	Estimated Costs				
	FY 2000	FY 2001	FY 2002	FY 2003	FY2004
Goal 1:	<u>\$ 550,116</u>	<u>\$ 550,116</u>	<u>\$ 550,116</u>	<u>\$ 550,116</u>	<u>\$ 550,116</u>
Integrated Crop Management					
Integrated Livestock Systems Management					
Integrated Pest Management					
Sustainable Agricultural Production Systems					
Goal 2:	<u>\$ 66,244</u>	<u>\$ 66,244</u>	<u>\$ 66,244</u>	<u>\$ 66,244</u>	<u>\$ 66,244</u>
Pre and Post Harvest Plant and Animal					
Food Safety					
Food Processing and Food Service					
Management Food Safety					
Goal 3:	<u>\$ 22,139</u>	<u>\$ 22,139</u>	<u>\$ 22,139</u>	<u>\$ 22,139</u>	<u>\$ 22,139</u>
Human Nutrition, Health and Safety					
Health Care					
Goal 4:	<u>\$ 307,018</u>	<u>\$ 307,018</u>	<u>\$ 307,018</u>	<u>\$ 307,018</u>	<u>\$ 307,018</u>
Natural Resources Management and					
Protection					
Environmental Protection					
Environmental and Natural Resources Policy					
Goal 5:	<u>\$ 156,006</u>	<u>\$ 156,006</u>	<u>\$ 156,006</u>	<u>\$ 156,006</u>	<u>\$ 156,006</u>
Family Strengths					
Family Housing					
Telecommunications for Rural Areas					
Community Strengths					

The USDA North Central Region Sustainable Agricultural Research and Education Program (NCR-SARE) is located at the University of Nebraska-Lincoln and is operated as a component of the Institute of Agriculture and Natural Resources. Agricultural Research Division and Cooperative Extension Division are active in the administration of this program. Through this program, over \$1 million is allocated annually for research and education/demonstration activities throughout the North Central region. The NCR-SARE program also operates Professional Development Grant program. The projects funded by SARE are intended to explore and apply economically profitable, environmentally sound, and socially supporting farming systems. The projects funded in soil management, cover crops, integrated crop and livestock systems, management-intensive grazing, pest management, and innovative marketing practices has made a difference in the agriculture landscape and in people's lives.

Goal 2

Activity: Pre and Post Harvest Plant and Animal Food Safety

Major grant funding has been obtained to support both the Agricultural Research Division food safety activity and the Cooperative Extension Division food safety activity. This activity is highly integrated between the two divisions. The Cooperative Extension action team which coordinates the program, entitled "Enhancing Food Safety in the Food Chain," includes specialists with joint research and extension appointments. The research team which addresses a major component of the food safety research, *E-coli* 0157:H7, includes faculty with both research and extension appointments. Initial research findings on the occurrence of *E-coli* 0157:H7 in pens of live cattle has produced results with potential short term application on reducing the *E-coli* incidence in cattle feedlots. The highly integrated teams involved will be able to transfer this technology into application quickly when appropriate.

Activity: Food Processing and Food Service Management Food Safety

The research and extension program activity in the food processing and food service management area is an ongoing effort with leadership provided by members of the Food Safety in the Food Chain. This team which coordinates programming has faculty with joint research and extension appointments. This effort represents work from the farm feedlot to the consumer's table. Examples of this work are the research completed to assist a chicken processing plant study the impact of their air chilled processing plant, the HACCP implementation assistance provided to Food Processing Plants, ServSafe (a food safety for institutions serving food) taught to food managers of restaurants and other units such as hospitals and nursing homes. In each case it is the integrative work of researchers and extension faculty that is making the quick transfer of technology into application.

Goal 3

Activities: Human Nutrition, Health and Safety and Health Care

The research and extension program activity in Nutrition, Health and Safety is an ongoing effort with the leadership provided by members of the Preventive Health and Wellness Team. This team which coordinates programming has faculty with joint research and extension appointments. Additional research input is received through collaborative relationships with the University of Nebraska Medical Center. Major foci of this effort are reducing high risk behaviors of individuals (adoption of healthy life style

practices) and increasing farm safety practices. One integrated effort studied a farm family as they learned skills for better managing hazardous farm practices. Research studies on tobacco and exposure to sun resulted in programs directed at school age children. The integrative work of this team resulted in rapid development of programming to meet the needs of clientele.

Goal 4.

Activity: Natural Resources Management and Protection

Herbicide runoff from fields in the Blue River Basin area of Nebraska and Kansas can hurt drinking water quality in downstream in Kansas. Joint research, extension, and education efforts by University of Nebraska and Kansas State University are targeted at reducing the threats to drinking water. Researchers have identified the most promising herbicide management and tillage practices for reducing herbicide runoff from farm fields. Early results indicate several tillage and herbicide management practices potentially could cut annual average atrazine runoff by 50% or more. Findings provide the framework for Cooperative Extension efforts to encourage farmers to increase proven best management practices to reduce the potential for atrazine and sediment runoff.

Activity: Environmental Protection

In the Central Platte Valley Nebraska, intensive production of row crops under irrigation and fertilization for many years has resulted in high nitrate-nitrogen levels in the shallow ground- water aquifer. A major USDA grant funded Agricultural Research Division and USDA Agricultural Research Service to study irrigation and nitrogen management methods to reduce the movement of nitrogen into the groundwater. Management practices were developed which have significantly reduced the fertilizer movement to groundwater. Education efforts by the Cooperative Extension Division have been used to transfer this information to area producers which has resulted in both reduction in the level of irrigation water application and nitrogen application over large areas. Several faculty involved in this project have joint extension and research appointments.

Activity: Environmental and Natural Resources Policy

Two examples of integrated program efforts in this area address water policy and livestock manure management. Research analysis of water policy alternatives provides the basis for educational programming and publications. This educational effort often provides input for policy makers. Research efforts on livestock manure management issues have provided input to the Nebraska Department of Environmental Quality as they develop regulations. Legal research has provided assistance to counties as they develop zoning policies to address livestock issues and assisted with educational programs targeting livestock producers. This is an ongoing effort.

Goal 5

Activity: Family Strengths

The research and extension program activity in Family Strengths is an ongoing effort with the leadership provided by members of the Sustainable Families Action Team. This team which coordinates programming has faculty with joint research and extension appointments in areas related to families. A significant component of this program is based on the family strengths research which has been developed into application based programs. Building on the six strengths of families research a month long statewide promotion was completed to promote the importance of families, workshops, web based educational information. The integrative work of research and extension has made this a successful program effort.

Activity: Family Housing

A faculty member with joint Agricultural Research Division and Cooperative Extension Division appointment works with the impacts of environmental disclosure policies and constraints on housing transaction practices. Both federal and Nebraska environmental regulations and policies impact existing housing environmental conditions and transactions and the property values as residential property changes owners. A journal article, "Effects of Constraints on Household Recycling Practices in a Five-State Area," was completed and accepted for publication in 2000. Results of this and other associated research are incorporated directly into extension programming with this faculty member. The faculty member also participates in a multistate research project related to family housing.

Activity: Telecommunications for Rural Areas

The research and extension program activity in Telecommunications for Rural Areas is an ongoing effort with leadership provided by members of the Community Resource Development Action Team. This team which coordinates programming has faculty with joint research and extension appointments in areas related to community development and technology. One large component of this program is built upon the research of assets of rural communities. Two target populations of this program are community leaders and businesses located in rural areas.

Activity: Community Strengths

The Community Resource Development Extension Action Team uses the research conducted by team members and other University of Nebraska faculty as a basis for its educational program. The annual Nebraska rural poll conducted by NU's Center for Applied Rural Innovation (CARI) helps to provide direction for both education and research programs. The poll has tracked rural Nebraskans' views, helping frame a broader picture of trends, attitudes, opinions and concerns and giving rural Nebraskans a voice. In addition to helping guide education and research efforts, federal, state and local policy-makers, lawmakers and rural communities use such results to help with planning, policies, and decision-making. The Nebraska Cooperative Development Center was formed in 2000 to assist with the formation of new generation cooperatives and will help connect cooperative businesses to customized technical assistance and research. An IFAFS funded project will address value-added opportunities for small to medium-sized farms in an integrated research and extension effort. The University of Nebraska is a member of the Rural Policy Research Institute (RUPRI) which conducts policy-relevant research and facilitates public dialogue to assist policymakers in understanding the rural impacts of public policies and programs. This effort helps to facilitate public policy issue education.

Summary of Multi-State Programs and Activities

Assumptions

- 1) Educator time including benefits and operating support is valued at \$32/hr.
- 2) Specialist time is \$51/hr.
- 3) Meeting costs (travel, food, hotel) are valued at \$300/day
- 4) Day is considered 9 hrs., a year is 2,250 hrs.

Multi-State Programs and Activities Supporting Goal 1:

Managing Change in Ag Conference - KS, ND, NE, SD

3 days x 15 faculty (mix of educators/specialists)	\$17,000
x 9 hr. x \$42/hr.	
travel = 15 x 3 x \$300	13,500

Four-State Horticultural Workshop - IA, KS, MO, NE

3 days - 4 faculty (3 x \$42 x 9 hrs. x 4)	4,500
travel = 4 x 3 x \$300	3,600

Four-State Grazing Meeting - IA, KS, MO, NE

3 days - 8 faculty (3 x \$51 x 9 hrs. x 8)	11,200
travel = 8 x 3 x \$300	7,200

NC SARE Program - host institution 50,000

Multi-State Soybean Cyst Nematode Project

John Wilson (38 days x \$32 x 9)	10,900
Project Support	2,500

Kansas-Nebraska Grain Sorghum Conference

2 days x 5 faculty x 9 x \$42	3,800
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Kansas-Nebraska-Colorado Tri-State Irrigation Meeting

12 faculty x 3 days x \$42 x 9	13,600
travel = 12 x 3 x \$300	10,800

Kansas Contract on Post-Harvest Grain Quality 7,000

Kansas Agreement on Sheep Programming 3,500

Regional Livestock Marketing Agreement - CO 7,500

NC Extension Committees:	
IPM - Bob Wright, 3 days x 9 x \$51	\$ 1,400
travel = 2 x \$300	600
PIAP - Shripat Kamble	2,000
PAT - Schulze, Ogg & Vitzthum	6,000
Alternative Swine - Levis & Bitney	4,000
Regional Swine Work - Levis, Brumm, Reese, Bitney	
70 days x 9 x \$51	32,100
Farm Management - Selley	2,000
Small Farms - Dave Varner	2,000
MWPS Meeting - Bodman, Shelton, Koelsch (contributes to Goal 4)	6,000
MWPS Publication work - Shelton, 8 days x 9 x \$51 (contributes to Goal 4)	3,700
MWPS Assessment (contributes to Goal 4)	12,000
 NC ANR Program Leaders' Meetings - 2 meetings annually	 5,800
National Involvement:	
Manure Management Initiative - Koelsch (10% + travel) (contributes to Goal 4)	15,100
Panhandle Cooperation w/WY & CO:	
Sugar Beets, Dry Edible Beans, Wheat, Alternative Crops, Weed Control - Wilson (10% = 225 hrs. x \$51)	11,500
Varieties Selection - Nuland (25% = 563 hrs. x \$51)	28,700
Insect Control - Hein (10% = 225 hrs. x \$51)	11,500
Jointed Goat Grass - Lyon (5% = 113 hrs. x \$51)	5,800
Alternative Crops - Baltensperger (18% = 405 hrs. x \$51)	20,700
Water Management - Yonts (25% = 563 hrs. x \$51)	28,700
Potatoes - Pavlista (15% = 338 hrs. x \$51)	17,200
Machinery Management - Smith (8% = 180 hrs. x \$51)	9,200
 <u>Multi-State Programs and Activities Supporting Goal 2:</u>	
Kansas-Nebraska Food Safety Cooperation - Burson & Brashears (50 days x \$51 x 9)	23,000
 Food Safety Video for national distribution to small-scale meat processors	
Burson (35 days x \$51 x 9)	16,000
Brashears (30 days x \$51 x 9)	14,000
Cichy (80 days x \$32 x 9)	23,000
 <u>Multi-State Programs and Activities Supporting Goal 3:</u>	
NC FCS Program Leaders' Meetings 2 meetings annually (contributes to Goal 5)	5,800

Multi-State Programs and Activities Supporting Goal 4:

NC Extension Committees:

Hypoxia - Franti	\$ 2,000
Kansas-Nebraska Blue River Basin - Franti (90 days x \$51 x 9)	41,300

Multi-State Programs and Activities Supporting Goal 5:

NC NELD Program

3 people - registration	6,000
travel = 3 x 4 days x 4 trips x \$300/day	14,400

National NELD

2 people - includes travel	24,000
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NC 4-H Program Leaders' Meetings - 2 meetings annually	5,800
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NC CRD Program Leaders' Meetings - 1 meeting annually	2,900
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4-H

Foundation Directors - Heusel & Friesen, 12 days x 9 x \$51	5,500
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Cooperative Curriculum System - Etling, Lodl, Fox, 30 days x 9 x \$51	13,800
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Character Counts - Heusel & Lodl, 42 days x 9 x \$51	19,300
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Global Conference - Caldwell & Lodl, 20 days x 9 x \$51	9,200
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National Recognition - Martikainen & Lodl, 17 days x 9 x \$51	7,800
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NC 4-H Staff Development, Asset Mapping - Heusel et al. 36 days x 9 x \$42	13,600
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NE 4-H Leader Forum - Fox, Caldwell, Lodl, 15 days x 9 x \$51	6,900
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International Exchange - Caldwell, Lodl, Etling, 46 days x 9 x \$51	21,100
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AK-SAR-BEN - Heusel & Nold, 16 days x 9 x \$51	7,300
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National Service Learning - Caldwell, 8 days x 9 x \$51	3,700
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National Involvement:

Small Scale Entrepreneurship - Thayer (10% + travel)	15,100
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Multi-State Programs and Activities Supporting All 5 Goals:

Evaluation Conference - KS, ND, NE, SD

Same as Managing Change	30,500
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Four-State Program Leader Meeting - KS, ND, NE, SD

2 days - 4 leaders x \$75 x 9	5,400
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travel = 4 x 2 x \$300	2,400
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NC Extension Committees:	
Policy - Frederick & Stevens	4,000
NC Deans' Meeting	
3 days, twice a yr. x \$75 x 9	\$4,000
travel = 3 days x 2 meetings x \$400	1,800
National Involvement:	
PODC - Niemann (10% or 225 hrs. x \$51)	11,500
3 mtg./yr. x 4 days x \$300	3,600
Miscellaneous Multi-state Projects	
Reported by Educators	
364 days x 9 x \$32	104,800
Reported by Specialists	
2.31 FTEs x 2,250 hrs. x \$51	265,100
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TOTAL	\$1,127,200

25% of FY98-99 Federal Formula Funds (3b & 3c) = \$1,039,345