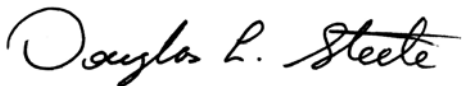


**“We should do all we can to make certain that we are facing the future and not the past,”**  
M.L. Wilson, one of Montana’s first county Extension agents (1929).

It is often stated that the only thing constant is change. In today’s environment we can see it all around us: instantaneous communication around the earth, a worldwide economy and political decisions that have ramifications across the globe. As quoted by Mr. Wilson, it is imperative that we are “facing the future and not the past.” However, even within this ever changing context, the mission of Extension remains the same, which is to be “an educational resource dedicated to improving the quality of people's lives by providing research-based knowledge to strengthen the social, economic and environmental well-being of families, communities and agriculture enterprises.”

Along with change come opportunities. We have experienced that across Montana as agricultural producers consider value-added components, diversification and marketing strategies. We see families making more informed choices about diets, budgets and lifestyles. Through the 4-H Youth Development program, young people continue to develop their life skills through project work, leadership and citizenship activities. There are communities that are on the forefront of revitalization and economic development. Montanans are actively being a positive force for change in their individual lives, their families and their communities. Most importantly, change brings about new partnerships and collaborations, new methods of performing old tasks, and new responsibilities to “think” differently. This report will highlight many of the Extension programs, activities and linkages that have a positive influence on the change that is taking place in Montana. We continue our emphasis on not just reporting “outputs”, but focusing on “outcomes” that are making a difference.

To the clientele, volunteers, stakeholders and advocates of Extension, I say “thank you.” Your support and interest in our mission makes our continued success possible. Extension is a crucial component of the Montana State University land-grant system, recognized by citizens and university administrators alike for its ability to serve the practical needs of Montanans. This report provides an overview and description of our service to the state in 2003.



Vice Provost and Director of Extension

**2003 ANNUAL REPORT**  
**MONTANA STATE UNIVERSITY EXTENSION SERVICE**

**Table of Contents**

A. Programs	
Goal 1 .....	1
Goal 2 .....	7
Goal 3 .....	13
Goal 4 .....	16
Goal 5 .....	24
Management Goals .....	34
Focus Areas .....	36
B. Stakeholder Input Process .....	36
C. Program Review Process .....	37
D. Evaluation of the Success of Multi and Joint Activities .....	38
E. Multistate Extension Activities .....	39

## **GOAL 1: AN AGRICULTURAL SYSTEM THAT IS HIGHLY COMPETITIVE IN THE GLOBAL ECONOMY**

### **Overview:**

It is difficult for many Montana Farms and Ranches to sustain profitability while maintaining stewardship of their resource base at levels that do not impact future productivity. To address this concern, the Extension Service in Montana continues to offer educational programs/assistance under many Key Themes. A selected set of these themes are summarized below and include: Ag Profitability, Invasive Species, Animal Health and Production Efficiency, Adding Value to New and Old Ag Products and Home Lawn and Gardening. Many other themes are addressed but not “highlighted” here.

2,470 field faculty days were devoted to developing, implementing and evaluating these programs. Faculty are on a combination of Federal Smith/Lever 3b&c, State and County funding sources. A total of 34,625 people completed educational programs, and 24,663 actually adopted practices. Of those completing the programs, 1,149 were American Indian, 172 were Hispanic ethnicity, and 78 were of other minority races. This number does not include the numbers of American Indians participating in Extension Programs served by our five EIRP agents on five of the seven Reservations in Montana. When we include those numbers, we are over parity of participation on Goal 1 programs.

### **Selected Impacts/Outcomes:**

- As a result of the nitrate testing program, \$40,000 was added to value of forage crops.
- Through ag policy educational efforts, Montana livestock producers benefitted by using 998 tons of nonfat dry milk to supplement feed rations. This resulted in a savings of \$79,000.
- Due to Extension educational efforts, producers have reduced the chemical application on 10,000 acres of range land.
- One alfalfa producer reported saving \$8,000 on stand reestablishment because of Extension involvement.
- Received over \$650,000 in grants to help control weeds in several counties.
- Extension assisted several producers in growing commercial onions. In 2003, those producers received \$108,000 in gross sales on the 30 acres planted.
- Participate in research with other governmental agencies to help understand and prevent the spread of Bluetongue. This disease is currently costing the US livestock industry an estimated \$125 million annually.

### **Source of funding:**

Smith Lever 3b & c, State and Local, Grant Funds

### **Scope of Impact:**

Multistate Research and Extension:

MT, ND, SD, WY, Canada

## **Key Theme: Agricultural Profitability**

**Brief description:** Several major educational activities throughout the state are listed below which cover a wide variety of topics addressing Agriculture's Profitability.

The January Thaw Farm and Ranch Conference and the Cabin Fever Institute are educational efforts which address nearly all Extension key themes in Agriculture. Agents shared responsibility to set up and recruit speakers and classes, organize, plan and present over 75 workshops. These activities target farmers, ranchers and resource managers with workshops, seminars and panel discussions on production issues related to beef, sheep, and grain, as well as issues related to marketing, economics, technology, and other current topics of interest to farmers and ranchers. Agriculture agents assisted in planning and facilitating the Montana/Wyoming Sugar Beet Symposium. Sessions included in the two-day conference included 1) Soybeans, Dry Beans, Hay Barley, Safflower, and Industrial Oils, 2) Corn and Malt Barley, 3) General Sugar Beet Industry, 4) Sugar Beet Crop Protection, 5) Sugar Beet Crop Production, and 6) BMPs for Cooperatives and Changes in Water Law. The symposium was attended by 534 producers and industry personnel from 5 States and 2 Canadian Provinces.

Regional Extension Winter Ag Series programs included topics on annual forages, the costs and benefits of developing a heifer on the ranch versus purchasing a bred heifer and costs savings generated from computer ration formulation programs. Other educational topics covered in workshops, seminars, interactive video, print and electronic media and in service training for Agents include: farm program, crop insurance, farm record keeping, ranch family communications, ranch recreational business opportunities, gis/gps applications to ag, noxious weed management's implications for profitability, utilizing sheep to control weeds, irrigation efficiency, risk management through marketing and much more.

### **Impacts:**

- While increasing weed control, producers were able to decrease the application of herbicides by 20% because of Extension's educational efforts.
- As a result of Extension programs, six producers saved \$6400 each by changing grain storage methods; 4 producers changed weed control practices increasing soil moisture and grain yields.
- Realized a \$1.00 to \$3.00 per acre increase in returns over the next decade due to ag policy educational efforts
- Producers have realized a cost savings of over \$5000 due to better management practices. Specifically, they are using better financial record keeping systems which have been designed and presented by Extension to achieve this success.
- Added \$40,000 to value of forage crops after testing for nitrates.
- 998 tons of nonfat dry milk was received through ag policy educational efforts, valued at \$79,000.
- Reduced chemical application on 10,000 acres of range land.
- Saved \$8,000 on stand reestablishment for alfalfa.

- Because of Extension educational efforts with producers, there is an estimated 20% reduction in noxious weed infested acres.
  - Extension programs focused on efficiency in irrigation have resulted in crop yield increases of from 25% to 100%.
  - Due to Extension efforts, producers have learned to accurately use ration formulation programs which have saved \$7,700 in feed costs.
  - Estimated revenue savings due to wheat variety change to counteract wheat stem sawfly was over \$4 million dollars.
  - Estimated 1% increase in net farm income resulting from cumulative affects of farm management educational efforts is over \$3 million dollars.

**Source of funding:**

Smith Lever 3b & c, State and Local, Grant Funds

**Scope of Impact:**

Multistate Research and Extension:  
MT, ND, SD, WY, Canada

**Key Theme: Invasive Species**

**Brief description:** Invasive weeds are a continuing threat to agriculture profitability, recreational enjoyment and the health of the natural resource base in Montana. In addition to the traditional approaches to weed management through governmental agencies and groups of private individuals, many innovative approaches were also implemented. They include 6th Annual Sun Canyon Weed Whacker Rodeo and the Rocky Mountain Front Weed Bounty Program. These programs paid individuals for the pounds of weeds pulled, much of which were in areas where chemicals could not be used. Chemical control is still a very large part of weed control but educational efforts and research plots were also implemented for insect control and utilization of sheep for weed control. Controlling invasive species can not be accomplished by one agency. Extension Agents and Specialist have worked hard to form partnerships with many groups and agencies including: The Boone & Crockett Club, The Nature Conservancy, Front Range Conservation Education Group, ( FRCEG ), Agricultural Chemicals Manufacturers and Distributors, local Agribusinesses, US Bureau of Land Management, US Forest Service(USFS), US Fish & Wildlife (USFW), Montana Fish ,Wildlife & Parks, East Slope Backcountry Horsemen, Various Irrigation Canal Companies, local landowners, Weed Districts and Tribal authorities in Montana. In addition to weed control efforts for existing infestations, several efforts were initiated to address potential new weed infestations following large wild fires in Montana during 2003.

**Impacts:**

- Through programs like the Rocky Mountain Front Weed Bounty program, over 8000 pounds weeds were pulled where chemical application is not appropriate.
- Obtained a \$40,000 grant to control salt cedar on the Yellowstone river.

- Because a group of high school students mapped the location of noxious weed infestations, more targeted weed control is being done. This results in a significant cost savings.
- Within a 3 county area, 4,000 flea beetles were released in 2,500 acres infested with leafy spurge, resulting in higher productivity in range and other cropping efforts.
- Producers saved approximately \$37,500 by treating weed infestations with insects and saving chemical costs.
- In one county producers minimized use of Assert on 19,150 acres, which represents 60% of the barley acres in the county. The result of this effort helps prevent ground water contamination.
- Through the use of insects and sheep, more than 20 producers report they have been able to reduce application costs for weed control while at the same time being more effective in eliminating the noxious weeds.
- Because of the Weed Seed Free Hay program introduced by Extension several years ago, producers raising weed seed free hay report receiving a premium price.

**Source of funding:**

Smith Lever 3b & c, State and Local, Grant Funds

**Scope of Impact:**

Multistate Research and Extension:  
MT, ND, SD, WY, ID, Canada

**Key Theme: Animal Health and Production Efficiency**

**Brief description:** Beef Quality Assurance (BQA) is an educational program with the objective of ensuring that feeder cattle and market cattle have quality, consistency, safety, and source and process verification. Producers who attain BQA certification are eligible to enroll their calves into the Montana Beef Network (MBN) and sell cattle into the Nebraska Corn Fed Beef Program.

Many of Montana's annual forage crops (cereals, millet, sudan grass) tend to accumulate toxic levels of nitrate, particularly when grown under drought conditions. During the past five to seven dry years, the acreage of annual forages have risen dramatically, and the incidence of high nitrate accumulation has risen. Our "Nitrate QuikTest" is a rapid test for field detection of high nitrate levels. Since 2000, agents have monitored over 1000 samples annually by the Nitrate QuikTest. Each fall, the immediate goal of the program is to identify potentially toxic hay so that it is not fed to bred livestock. Agents and Specialist can also assist producers with dilution of the hay if appropriate. Nitrate poisoning, mineral deficiencies, and scarce feed resources due to drought all contribute to the importance of ration formulation and mineral balancing. Nutrition formulation for livestock in one-on-one and workshop settings are ongoing activities to assist Montana producers. Emerging Infectious Diseases Information was distributed utilizing various electronic media concerning BSE, Foot & Mouth, West Nile Virus and Bird Flu.

**Impacts:**

- Working with Extension, several ranchers have been able to reduce the livestock winter feeding costs by approximately \$229,000. This was achieved by practicing appropriate ration formulation and considering all other available feed stocks in the plan.
- Ranchers who have participated in calving management programs estimated impacts from increased calving management is a gain for 2 to 5 more live calves per year per ranch. They estimate the long term impact at approximately \$125,000.
- Ranchers report an estimated savings of \$100,000 in livestock value by avoiding death loss due to nitrate poisoning.
- In several counties, over 20,000 acres of small grains and grasses were tested with the Nitrate QuikTest allowing ranchers to make decisions that reduce death less from nitrate poisoning.
- Over 250 youth are using better practices in handling livestock because they received training livestock quality assurance. The end result is 1) there is better assurance for a quality product and 2) youth understand the importance of using appropriate practices when handling livestock.
- Because of the BQA certification process, it is estimated that an individual's net income increases by \$2,000.

**Source of funding:**

Smith Lever 3b & c, State and Local, Grant Funds

**Scope of Impact:**

Multistate Research and Extension:  
MT, ND, SD, WY, ID, Canada

**Key Theme: Adding Value to New and Old Ag Products**

**Brief description** of activity: The Eastern Montana Consolidated Wool Pool Market combined nine separate wool pools from eastern Montana. County and State Extension Faculty and stakeholders representing each wool pool developed this program jointly. This proposal had four main goals; 1) Improve grower knowledge of wool quality and on farm processing, 2) Increase total volume of wool for sale for all pools, 3) Separate wool into individual lines based on quality, 4) Increase returns for individual producers. Producer participation increased to 175 with a total of 224,623 pounds of wool marketed (7.5% of the total state production). Compared to the pool marketing in 2002 whiteface received 22.3% and blackface received 17.3% more return than in 2003.

A regional event was held to attract food processors and related industries to the region for value-added agriculture. Networking among local growers, community leaders, and the food processing industry leaders has fostered many new partnerships and brought opportunities for new crops, research, and jobs to the state. Ag tours showcased the region through a variety of visits to area agricultural sites and food processing facilities in Montana and northwestern North

Dakota. The west tour visited local producers growing safflower, sugar beets, corn and soybeans and businesses were also visited including the Rolling Hills Winery, Montola oil plant and Custom Built Feeds.

Other activities included helping producers feed cull cows to add profit to their operations, assist individuals in growing and marketing high quality horse hay and certified weed seed free hay. The Extension certification for the weed seed free forage program was offered in over 30 counties.

**Impacts:**

- Under the weed seed free forage program, Extension certified 250 tons of hay as weed seed free. When sold, the weed seed free hay being a premium price, an estimated additional \$3,750 for each producer.
- With the assistance of Extension, 9 separate wool pools consolidated resulting in greater ability to market product for premium prices. Producers revenue increased by 22.3% for blackface and 17.3% for whiteface over the previous year.
- Wool marketed through the Tri County Western Montana wool pool received an increase in revenue of 25.6% over the previous year. This increase averaged \$.10 per pound. Fourteen members of the wool pool for one county received an average increase in revenue of \$3,500 for a total of \$49,000.
- A multi species meat cooperative was formed to market beef, sheep, swine, bison and elk.
- \$75,000 of grant funds were received and used to leverage an investment of \$185,000 in round wood processing which created and/or retained 15 local jobs.

**Source of funding:**

Smith Lever 3b & c, State and Local, Grant Funds

**Scope of Impact:**

Multistate Research and Extension:  
MT, ND, SD, WY, ID, Canada

**Key Theme: Home Lawn and Gardening**

**Brief description:** During the spring and summer months, this program demands a great deal of one-on-one interaction. This interaction takes the form of house calls, answering questions via telephone, identify plants, investigating the cause of various problems, including insect, disease, fertility, water management, soil amendments, and treatment strategies for ornamental plants, garden crops and lawns. Insect and disease diagnostics was also provided through Extension specialists on campus. In addition to one to one interaction, group activity includes working with Master Gardener Program and youth groups to provide educational material on lawn care, gardening, and ornamental trees and shrubs. One example of the Master Gardener program is the Central Montana Master Gardener program which includes a formal, eight-week



training course followed by monthly luncheon programs which are educational updates. Thirteen people completed the initial training program; the monthly luncheons are attended by anywhere from 12 to 20 Master Gardeners. Master Gardeners have a booth at "Spring Fling" where copies of MSU Extension Montguides and other horticultural information is available to the general public. Thirty-seven individuals in the central Montana area have completed the Master Gardener training. Educational material was also provided through various forms of print and electronic media.

**Impacts:**

- Because of the Master Gardner Program, 1 county reports a savings of \$31,800 due to proper use of products and services.
- The Master Gardner Program has instructed people on the proper application of chemicals and fertilizer resulting significantly reducing the release of chemicals into the environment.

**Source of funding:**

Smith Lever 3b & c, State and Local, Grant Funds

**Scope of Impact:**

Statewide

**GOAL 2: A SAFE AND SECURE FOOD AND FIBER SYSTEM**

**Overview:**

The Montana State University Extension's approved Plan of Work has Performance Goals which ensure Montanans have an adequate food and fiber supply and food safety through improved science-based detection, surveillance, prevention and education.

A safe food and fiber supply is of primary concern for many Montanans' whether they are involved in the production of food, food service or some other aspect of the food industry/system. Montana Extension has helped 4599 youth and adults gain an understanding of the importance of handling food safely with 3253 people actually adopting one or more safe food handling practice. Montanans', like other U.S. citizens, have come to believe their food supply is the safest in the world. Montana programs that have been implemented to address the safe food supply include: Food Safety Works; Food Safety for Consumers; ServSafe and Retail; Starting a Specialty Food Business; and Tribal Top Notch Food Safety (Food Safety Education for Tribal Communities). Through programs such as these, Montanans will learn how to handle food in the safest possible manner.

The Beef Quality Assurance Program is targeted to beef producers and is focused on assuring the customer he/she will get a quality product and that a premium price is received for that product. If the product is not top quality, the consumer is not likely to pay for the product. In addition to beef, other livestock species have offered quality assurance programs centered on the same goals.

In addition, limited resource Montanans, most likely to be food insecure, will develop new skills and learn behaviors leading to improved nutritional well-being and economic independence.

- In the Key Theme of Food Resource Management, two programming efforts are highlighted. Montana's EFNEP (3d funds) in four counties encompassing parts of three reservations has taught a series of lessons to over 400 adult family members and 1800 youth. EFNEP federal funds paid salaries, benefits and operations for 1.2 FTE Professionals, and 5.1 FTE Paraprofessionals.
- Montana's FSNEP, funded by Food Stamp Program nutrition education funds (\$534,336) and matched by Montana State University and community organization in-kind (\$538,514), provides educational programs for food stamp households and those eligible in 30 counties of Montana. Over 126,988 Montanans (adults, seniors, and youth) were directly contacted with lessons focused on improving food skills and modifying food choices. The Food Stamp Program funds paid salaries and benefits for paraprofessionals, professionals, and classified staff.

### **Selected Impacts/Outcomes:**

As a result of attending one of the MSU Extension Service programs, nearly 4600 Montanan's gained an understanding of the importance of handling food safely. As a result of participating in EFNEP, nearly 1965 people gained an understanding of the importance of a nutritious, well balanced diet.

Participants in the FSNEP educational efforts report they have a better understanding of food resource management practices, improved nutritional practices, and/or food safety. Of the 4600 people who attended a program on food safety, 4209 indicated they were going to adopt one of the practices they learned.

Nearly 1900 EFNEP participants have made at least one positive change in their food resource management practices.

FSNEP participants indicate they have more confidence in managing their resource and planning and preparing nutritious low-cost meals.

Well over ½ (3253) of the food safety program participants adopted food safety practices by being more careful about their personal hygiene, practicing kitchen cleanliness, cooking foods adequately, avoiding cross-contamination, and keeping foods at safe temperatures.

An EFNEP and FSNEP cost/benefit study has found that for every dollar invested in the EFNEP programming, \$8.82 in future health care savings resulted and \$8.00 in benefits from reduced health care savings for those attending FSNEP classes.

**Source of funding:**

The source of funding to carry out the work under Goal 2 a combination of Federal Smith/Lever Funds 3b&c&d and state and county sources.

**Key Theme: Food Resource Management**

**Expanded Food and Nutrition Education Program (EFNEP)**

**Brief Description:**

In Montana EFNEP, Extension professionals train and supervise paraprofessionals and volunteers who teach basic nutrition and food skills to limited resource families and youth during group classed through an in-depth series of lessons, usually 10 to 12 for adults. EFNEP works to achieve lasting improvements for families while promoting immediate changes in food and physical activity habits. In the last year, Montana EFNEP operated in four counties encompassing parts of three reservations: Big Horn, Blaine / Fort Belknap, Missoula and Yellowstone.

**Collaborative:**

The collaborative effort with the four Family and Consumer Sciences agents in the counties where EFNEP is implemented is an important part of the program. The agents serve as supervisors for the EFNEP paraprofessionals (nutrition assistants). Additionally, the Fort Belknap Reservation agent serves as an on-site supervisor. Funds from the Fort Belknap Tribes partially fund that site. Collaboration in the community is extensive, as EFNEP staff recruits participants with the help of WIC (Women, Infant and Children Program), Offices of Public Assistance, food banks, and other important community agencies.

**Underserved Efforts:**

Montana EFNEP serves limited resource families and children in Montana. 56% of EFNEP participants have a household income of 50% or less of the Federal Poverty Level. All participants of EFNEP are at 185% of poverty or less. The percentage of minority participants in the adult and the youth program exceeds the percentage of those in Montana as a state.

**People Completing Program: 2206**

**Impacts:**

EFNEP continues to help families stretch their food dollars to feed their families in a nutritious manner. EFNEP's evaluation system (ERS) has documented the effectiveness of the program in the follow ways: 89% of the EFNEP graduates (after 10-12 lessons) improved their diets, notably with an increase in fruits and vegetables. For EFNEP youth participants, 95% now eat or intend to eat a wider variety of foods, including fruits and vegetables.

86% of EFNEP participants made one or more positive changes in their food resource management practices. (i.e., plans meals, compares prices, or uses a grocery list). An estimated 38% of participants ran out of food less often before the end of the month.

Follow-up on graduates of the EFNEP has shown that people not only make small changes immediately because of the EFNEP lessons, but often make changes that are long term. Increased confidence in the ability to manage resources, sustained weight loss, and even related job opportunities are impacts of the program.

An EFNEP cost/benefit study in six states, including Montana, found that for every dollar invested in EFNEP programming, \$8.82 in future health care savings resulted.

**Source of Funding:**

3d Funds

**Scope of Impact:**

Four counties in the state encompassing parts of 3 reservations.

**Food Stamp Nutrition Education (FSNE)**

**Brief Description:**

The Montana Food Stamp Nutrition Education Program provides educational programs for food stamp households and those eligible. In 30 counties, paraprofessionals (nutrition assistants) provide a series of lessons or single demonstrations with practical information and skill-building tips for choosing better foods, food handling, food storage and food safety practices. FSNE partners with numerous community agencies and organizations to optimize effective programming and to make participants job ready and healthy. Primary program collaborators are the county Extension offices providing FSNE and the county Offices of Public Assistance (MT Department of Health and Human Services). Limited income households often find it challenging to stretch food resources to cover the entire month, even when they receive food stamps. Some of these households include children, senior citizens and disabled individuals. Many limited income individuals are also being employed, although not at a living wage. As family members are employed, less time at home demands greater efficiency with food resource management.

**Underserved Efforts:**

Montana FSNE serves limited resource families and children in Montana. At least 50 percent of the target population must have gross incomes at or below 185 percent of poverty. County program staff recruits participants who would not otherwise have access to food resource management information from other venues. The percentage of minority participants exceeds the percentage of those in Montana as a state. FSNE also serves elderly and developmentally disabled on food stamps.

**People Completing Program: 26998**

**Impacts:**

Over 26,988 Montanans (adults, senior citizens, and youth) were directly contacted by FSNE in FY03. Some participants completed a series of lessons, while some participated in one or more lessons or demonstrations focused on improving food skills. An additional 30,530 indirect contacts were made by the program offering Montanans information through newsletters and

displays. Adults who completed the lesson series reported that they intended to improve one or more food resource management practices, improved nutrition practices, and/or food safety practices.

94% of youth who participated improved their practices in food preparation and food safety. 23% of participants in FSNE ran out of food less often before the end of the month. FSNE continues to help families stretch their food dollars and feed their families in a nutritious manner. While the medium term impacts show immediate behavior change, participants have noted that these small changes have given them more confidence in managing their resources and planning and preparing nutritious low-cost meals on an ongoing basis.

Regional and national studies with Extension Nutrition Education Programs (EFNEP and FSNE) have shown that for every dollar invested in nutrition education with limited resource families, at least \$8.00 in benefits from reduced health care costs is realized.

**Source of Funding:**

Federal Food Stamp Program nutrition education funds are made available through a contract with the Montana Department of Health and Human Services. MSU, MSU Extension, and other county and state organizations provide in-kind support to match the federal funds.

**Scope of Impact:** 30 Counties within Montana.

**Key Theme: Food Safety**

**Brief Description:**

The Food Safety Works program was targeted at students and others involved with workforce preparation and follows the ServSafe guidelines of the National Restaurant Association Education Foundation. The program partnered with high schools and other workforce preparation agencies. The Food safety for consumers program reached senior citizens, people in assisted living centers, county employees, and general audiences. The ServSafe Food Protection Manager Certification Course from the National Restaurant Association Educational Foundation is a food safety educational training program for food service manager. This training has been accredited by the Conference for Food Protection and upon receiving a passing score on the examination, participants will receive a nationally recognized certification. The Tribal Top Notch Food Safety (Food Safety Education for Tribal Communities) has as its goal: To provide expertise at Tribal Colleges within tribal communities to improve the ability of food service workers to make informed, responsible decisions related to controlling food safety hazards, especially those associated with meat and/or poultry. The program is a partnership between the 1862 and the 1994 Land Grant Institutions on the seven reservations in the state, tribal communities and other local/state agencies including Tribal/HIS sanitarians and the Montana Department of Livestock.

The Beef Quality Assurance Program has involved 1800 producers who have attended a 1 ½ hour class on how to handle livestock to ensure a high quality product. Of those 1800, 750

people took the exam to become certified. Producers are quickly understanding the value of the BQA certification. At the current time, 62,000 calves have been sold as BQA certified.

**Impacts:**

In one county report, 5 students reported receiving increased salaries, 2 students have received promotions and 4 have become employed and are no longer on public assistance. In each case, they credit the Food Safety Works program conducted by the Extension Service.

Concession managers in another county, have reported students who have taken the Food Safety Works program use improved food safety handling practices.

In yet another county, the sanitarians say the employees in food service establishments who have participated in the Food Safety Works program have improved food safety practices.

Parents have reported that their children insist on use the principles of safe food handling at home and have even indicated that they (the parents) have changed their own food handling practices.

A Northern Cheyenne Reservation Head Start Director reported an increase in safe personal hygiene and kitchen cleanliness by those who took the Food Safety Works training.

Two counties indicate that food service employers are giving priority hiring to those receiving the Food Safety Works training.

Because of the safe food handling practices exhibited by those who have received the Food Safety Works training, food service establishments, child care agencies, and Senior Centers are requiring the training for future employees.

Sanitarians have reported they have had fewer write-ups and increased use of gloves and hand washing practices as well as an increased use of food thermometers and keeping food at the correct temperatures in those food service establishments where there are ServSafe Food Protection Manager Certified employees.

On one reservation, 13 out of 16 Native American participants passed the ServSafe Food Protection Manager Certification test and 6 participants' scores were of the level that they can become ServSafe trainers. As a result, people who live on the Northern Cheyenne reservation now have better access to receive the training, making them more employable because they use the principles of safe food handling.

Data from the Beef Quality Assurance Program shows that those producers who can sell their calves as BQA certified will receive \$1.00 to \$1.50 per hundred premium at the market place. Since there have been 62,000 BQA certified calves sold, this translates to \$372,000 to \$558,000 based on a 600 pound calf. It also ensures the consumer they are purchasing a quality product.

**Source of Funds:**

Smith/Lever 3b&c, state and county

**Scope of Impact:**

Statewide

**Key Theme: HACCP****Brief Description:**

HACCP training for meat processors and other food establishments has been a collaborative effort among MSU Extension; Montana Department of Livestock; state, tribal, and local health departments, and the food industry. Montana's two-day interactive HACCP training includes on-site visits to food processor establishments and provides information and resources on development of a HACCP plan. Participants are involved with completing a HACCP plan specific to their business requirements.

**Impacts:**

Fifty Montanans increased their understanding of importance of having a HACCP plan and have received instruction and assistance in completing it for their business. Forty eight have said they intend to adopt at least one HACCP practice while 45 report they have already adopted one or more of the practices.

From a sample of those who participated in the HACCP training, 20 business owner/managers completed a HACCP plan with follow-up of plan implementation conducted by the Department of Livestock Meat Inspectors and county sanitarians.

**Source of Funding:** Smith/Lever 3b&c, state and county

**Scope of Impact:** Statewide

**GOAL 3: A HEALTHY, WELL NOURISHED POPULATION****Overview:**

The American public is receiving a strong message that it is important to eat a healthy diet and engage in more activity, yet there are still health issues facing many. For example, the media is presenting a number of weight control diets for the public to consider, each diet claiming long term and fast results. The reasons people select a diet however, may or may not take into consideration their long term health. It may simply be focused on losing the weight.

Another area of concern is that of disease and disease prevention. It is known that the prevention of chronic disease occurs by adopting health-promoting lifestyles and Extension program efforts strive to do just that. The efforts to educate Montanans about living a healthy life style have centered on human nutrition. Many programs have been implemented to give people the information they need to make choices that will help them be healthy and well

nourished. Selecting a balanced diet and increasing activity are the foundation for these programs.

### **Key Theme: Human Nutrition**

#### **Brief Description:**

Several counties have mobilized community groups to address nutrition needs. These collaborations and alliances have done programs such as: Sunday Night Salad Bar for seniors, Central Feeling Good Mileage Club for 3<sup>rd</sup> and 6<sup>th</sup> graders, parents and teachers, and the Tasty Fork program that encourages restaurants to offer healthy choices. Dining with Diabetes which provides basic food and nutrition information for people with diabetes and their families and Calcium Plus which provides information and skills to prevent osteoporosis through increased calcium choices and other lifestyle practices were taught by county Extension agents.

In Big Horn County, Healthy Schools/Healthy Communities is a collaborative effort of Indian Health Services, MT Team Nutrition, schools and the Extension Service to present the message of diabetes/obesity prevention to all the schools in the county. The team is made up of a registered dietitian, schoolteacher, and Extension agent. Presentations have been made to 8 schools, a women's health fair, and a diabetes education conference.

And lastly, county agents present teachers and preschool/day care educators with practical, effective strategies to incorporate nutrition education into the classroom in a way that motivates children to make healthy food and lifestyle choices. Some strategies are part of a three-day teacher workshop that has been developed by the food and nutrition specialists and the Montana Team Nutrition (USDA) staff. Since teachers and preschool educators play an important role in helping children develop healthy habits in eating a nutritionally balance diet and developing a healthy lifestyle, nutrition education for educators is essential. The teachers have been successful incorporating nutrition education into the classroom, which in turn helps children make positive behavior changes.

The impacts of these programs have been significant as illustrated by the following examples.

#### **Selected Impacts/Accomplishments:**

259 Montanans increased their understanding about how healthy food choices can and does impact chronic disease.

1064 program participants gained a better understanding of the importance nutrition has on individual health because of the educational efforts and opportunities of community nutrition projects.

780 participants became aware of the importance of making healthy food choices as a result of attending general nutrition programs.

210 Montanans (81% of 259) indicated intent to adopt one or more practices that will prevent chronic disease through healthy food choices.



111 Montanans (43% of 259) adopted one or more practices that will prevent chronic disease through healthy food choices.

1021 participants (96% of the 1064) have reported they adopted one or more practices learned at nutrition education opportunities through community nutrition projects, while 650 participants (61% of 1064) have reported they adopted one or more practices leading to better nutrition because of the nutrition education classes.

Schools have developed and implemented a 2-month plan to increase physical activities of students and parents, provided healthy snack choices in stores and vending machines, and encouraged teachers not to give candy as rewards.

Because of Extension nutrition programs, 701 program participants (90% of 780) indicated intent to adopt one or more practices promoting healthy food choices while 591 (76% of 780) adopted one or more practices.

In a selected evaluation sample utilizing a portion distortion class, participants demonstrated the ability to choose healthy portion sizes after learning about standard portion sizes.

In a 5 day fruit and vegetable class, participants demonstrated ability to increase intake of fruits and vegetables by learning about the benefits of phytochemicals and new ways to prepare fruits and vegetables.

Participants reported the following results after 28 days participating in the pedometer activity program: (number in parenthesis indicates number of people reporting each item: more energy (10), feels better(8), sleep better(3), stress reduction(2), weight loss(3).

In a selected evaluation sample, seniors demonstrated increased ability to identify and serve appropriate serving sizes, nutrition-dense food, incorporate exercise daily in their lifestyles choose from a variety of foods from the pyramid, and learned why their calorie needs decrease with age. Great Falls Clinic and Benefits Health Care physicians reported that 75 mature persons had improved their overall health by implementing and incorporating a nutritional balanced diet in their lifestyle. Twelve participants moderated and maintained their normal weight. Local dieticians reported a 40% improvement in the glycemic balance of diabetic clients.

In a program survey with participants in one extension diabetes class, it was learned that 15 out of the 31 attendees are doing a better job of meal planning and controlling portion sizes during their meals.

When presented with a food selection exercise, all of the participants in the community nutrition projects demonstrated the ability to make healthy food choices and appropriate physical activity.

Of the 58 participants completing the evaluation of the community nutrition project, 100 % chose a low fat menu item when ordering at a local restaurant. Because of the Tasty Fork program, 7 restaurants are offering healthy menu choices.

In a follow up program survey, 50% of the participants increased their intake of fruits and vegetables.

**Funding Sources:**

Smith/Lever 3b&c, WIN Grant Funds, local

**Scope of Impact:**

Statewide

**GOAL 4: AN AGRICULTURAL SYSTEM THAT PROTECTS NATURAL RESOURCES AND THE ENVIRONMENT**

**Overview:**

Agricultural producers in Montana have a great concern for the environment. The quality of water, soils, air, vegetation, wildlife and the rest of the ecosystem is included in the decision-making process of farmers and ranchers. The rest of the Montana public also values the environment. A statewide survey found that the public is concerned with environmental issues including water, air, soils, rangelands, forests, wildlife, and the multiple-use of public lands. This report will highlight programs under 6 of the Goal 4 key themes: Pesticide Applicator Training, Cutworm Monitoring, Livestock Environmental Management, Sugar Beet Disease Workshops, Wildlife Damage Control and Shelterbelt Development. In all programs reported under Goal 4, there were 5492 hours of field faculty time devoted to programs that are concerned with agricultural systems that protect natural resources and the environment. 9.5 FTE of Specialists time was devoted to this goal. Faculty are on a combination of Federal 3b&c, state and county funding sources. 10,431 people participated in programs under Goal 4 and 7584 of those adopted practices. Of those completing the program, 485 were American Indian and 79 were of Spanish ethnicity. These numbers put us above parity of participation for American Indian and Spanish ethnicity in the target audience.

**Selected Impacts/Outcomes are:**

This year, 237 sugar beet growers and associated industry personnel received training on scouting for Cercospora leaf spot and powdery mildew, use of in-field environmental monitoring equipment, and use of an integrative predictive model and IPM management.

In 2003, sugar beet growers in MT averaged less than 1 fungicide application per acre compared to an average of slightly over 2 applications in 2002. This saved growers more than \$1.35 million in fungicide and application cost without loss of crop yield.

In one county alone, a small increase in revenue (½ to 1 percent) associated with practices learned in the Environmental Management Assessment program resulted in \$150 - \$300 thousand in total revenue to the county's agricultural and business communities.

Four ranches have either begun or finished modifications to animal handling facilities that will mitigate or reduce environmental risks associated with those animal handling and feeding facilities.

On 18 ranches, long-term photo monitoring plots were established. Monitoring plots will be used to determine how the ranch management plan is meeting rangeland objectives.

By supplying affordable trees and long-term management skills as part of the shelterbelt program, a nicer environment is created for humans and wildlife. One county reports landowner savings resulting from this program is \$1.00 per tree or at least \$50,000 per year.

Producers have improved their existing windbreaks and shelterbelts by thinning, pruning and weeding and planted new shelterbelts and windbreaks with the knowledge they learned. This decreases erosion and improves wildlife habitat.

The results of Pesticide Applicator Training participants using pesticides in a safe and responsible manner saves Montana millions of dollars each year in preventing environmental damage, protection of water quality and ensuring personal safety.

Participants who successfully complete the Pesticide Applicators Program use pesticides in a safe and prudent manner, thus keeping our water and land resources safe. Producers will not have personal health issues associated with the misuse of pesticides.

Instead of repeated applications of a less effective product, these landowners now use the correct pesticides less often, targeted specifically to the pest. This will result in better control and less damage to the environment.

Alfalfa producers in Montana who implemented ground squirrel control practices developed will accrue \$1,500 annually. If half of Montana's alfalfa producers implement the new practices over \$3.5 million will be saved across the state.

Economic and efficient fence designs to exclude deer and elk from high value croplands and pastures have eliminated ungulate depredation on some areas. One producer reported after installing a recommended fence for \$2,300, he reduced the \$5-7,000 annual damage to \$0. He reported his conservative figure is "he will save at least \$12,000 over the 3 years...".

Another producer had over 200 elk grazing a pasture important for cow/calf spring grazing prior to entering his mountain summer pasture. The resulting \$6,000 in hay cost was eliminated the first year after he installed the \$6,000 fence developed in this program.

Cutworm populations were monitored to determine potential populations for the next year. Producers were then able to make better decisions related to management and pesticide use.

## **Key Theme: Forest Resource Management**

### **Brief Description:**

Shelterbelts have been important to farmers and ranchers in the country for the last century. As 5, 10, and 20 acre "ranchettes" become more prevalent shelterbelt planning and planting becomes very important to this new type of clientele. Workshops, literature and one-on-one meetings have been implemented to help participants gain an understanding of how a shelterbelt functions and a basic knowledge of how to design a shelterbelt that will meet their needs. They also learn how to plant and care for a new planting, or how to renovate an older stand.

Landowners must know the right species of trees to plant and the right place with a proper design to achieve the landowner's goals. In addition to prepared information, follow-up visits are made to ensure proper watering and other management is done to ensure long term survival of the planting.

### **Impacts:**

The value of a mature shelterbelt is hard to calculate but arguably invaluable to a rural residence. By supplying affordable trees and long term management skills, a nicer environment is created for humans and the local and migratory wildlife and birds. One county reports landowner savings resulting from this program is \$1.00 per tree or at least \$50,000 per year.

Landowners have learned how to manage new and existing windbreaks and shelterbelts. Producers have improved their existing windbreaks and shelterbelts by thinning, pruning and weeding and planted new shelterbelts and windbreaks with the knowledge they learned. This decreases erosion and improves wildlife habitat.

Producers maintain healthy stands of trees to pass on to future generations to enjoy along with decreasing wind erosion and increasing long-term wildlife habitat.

565 participants have been involved in the program in 7 counties and 545 have adopted practices.

### **Source of Funding:**

Smith Lever 3b&c, state, local

### **Scope of Impact:**

Generally state wide

## **Key Theme: Integrated Pest Management (IPM)**

### **Brief Description:**

Advisory and stakeholder committees have identified pest management as a serious threat, central to economic and sustainable crop and livestock production, maintenance of Montana's natural resources, and home, garden and health issues. The IPM program funds insect, weed

and disease diagnosticians to identify pests and provide biological and management information. Pest management Information is delivered through a bimonthly newsletter (Crop Health Report), timely pest alerts (AgEnto), outreach through the Pest Management Training program and a Crop Pest Management school. These and other training provide outreach opportunities to producers, Extension faculty, NRCS, BLM, Weed district, consultants and agribusiness personnel. Obtaining current cultural, biological, and chemical recommendations, treatment thresholds and biological information is important for selecting appropriate and economical management techniques.

The army and pale western cutworm monitoring program delivers a map-based risk warning for cutworms in 9 states, enabling producers to time monitoring efforts, early detect damage and make treatment decisions in a timely manner. Early scouting help producers to become more profitable in their operations and select management practices that minimize costs and reduce pesticide use increasing profits and sustainability of their operations.

Sugar beet producers must manage 5 diseases (Cercospora leaf spot, sugar beet cyst nematode, Rhizoctonia crown and root rot, powdery mildew and Aphanomyces root rot) using variety, rotation and fungicide application. Workshops provide training on monitoring environment, computer models and soil samples to indicate the need for rotation of specific fungicides.

**Impacts:**

The High Plains Guide is a four state collaboration that provides timely, web-based biological, monitoring and management information for insect and disease pests. Visits to the web site have more than doubled in 2003 to 95 visits/day from previous years.

Pheromone trapping for army and pale western cutworms is being conducted at numerous locations in 10 counties. Cutworm numbers were exceedingly high in several of the traps prompting growers to exhibit caution when winter dormancy broke and the cutworms began to feed. Cutworm populations were monitored to determine potential populations for the next year. Producers were then able to make better decisions related to management and pesticide use. The cutworm program has trained 1753 producers and 860 have adopted practices they learned.

Sugar beet Cercospora workshops were held in 8 locations throughout the sugar beet production areas of Montana. In 2003, 237 growers and associated industry personnel received training on scouting, use of in-field environmental monitoring equipment, use of predictive model and IPM for Cercospora leaf spot and powdery mildew management. In 2003 growers in MT averaged less than 1 fungicide application per acre compared to an average of slightly over 2 applications in 2002. This saved growers more than \$1.35 million in fungicide and application cost without loss of crop yield. Fewer pesticides will be introduced into the environment because of proper monitoring and timely and effective control efforts.

**Source of Funding:**

Smith Lever 3b,c,d, state & local extramural funds

**Scope of impact:**

Montana, Wyoming, South Dakota, North Dakota, Western Nebraska, Colorado, Idaho, Utah, Nevada, Southern Alberta, Southern Saskatchewan are cooperators. All counties in Montana are served.

### **Key Theme: Forest Resource Management**

#### **Brief Description:**

Shelterbelts have been important to farmers and ranchers in the country for the last century. As 5, 10, and 20 acre "ranchettes" become more prevalent shelterbelt planning and planting becomes very important to this new type of clientele. Workshops, literature and one-on-one meetings have been implemented to help participants gain an understanding of how a shelterbelt functions and a basic knowledge of how to design a shelterbelt that will meet their needs. They also learn how to plant and care for a new planting, or how to renovate an older stand.

Landowners must know the right species of trees to plant and the right place with a proper design to achieve the landowner's goals. In addition to prepared information, follow-up visits are made to ensure proper watering and other management is done to ensure long term survival of the planting.

#### **Impacts:**

The value of a mature shelterbelt is hard to calculate but arguably invaluable to a rural residence. By supplying affordable trees and long term management skills, a nicer environment is created for humans and the local and migratory wildlife and birds. One county reports landowner savings resulting from this program is \$1.00 per tree or at least \$50,000 per year.

Landowners have learned how to manage new and existing windbreaks and shelterbelts. Producers have improved their existing windbreaks and shelterbelts by thinning, pruning and weeding and planted new shelterbelts and windbreaks with the knowledge they learned. This decreases erosion and improves wildlife habitat.

Producers maintain healthy stands of trees to pass on to future generations to enjoy along with decreasing wind erosion and increasing long-term wildlife habitat.

565 participants have been involved in the program in 7 counties and 545 have adopted practices.

#### **Source of Funding:**

Smith Lever 3b&c, state, local

#### **Scope of Impact:**

Generally state wide

## **Key Theme: Wildlife Management**

### **Brief Description:**

Impacts of wildlife on cropland and rangeland in Montana are very significant. In a survey alfalfa producers reported losses exceeded \$5 million to ground squirrels in alfalfa production alone. Other hayland, cropland and rangeland forage losses to rodents have not been documented but would greatly exceed losses reported in alfalfa. Forage consumption by deer and elk cost landowners in southwest Montana over \$5,000 annually. Stakeholders have identified a need for assistance in identifying best practices to control ground squirrel populations. Demonstration sites, trials and workshops have been implemented to assist producers in coping with wildlife problems.

### **Impacts:**

In the past, producers have conducted ground squirrel control programs when workload priorities made it convenient. Initial control trials and dissemination of results about the importance of early spring treatment have resulted in 100% improved control by producers implementing recommended procedures. If half of the alfalfa producers in Montana implement these practices, a savings will accrue equal to over \$1500 per alfalfa producer or over \$3.5 million across the state. Current trials promise equally dramatic results in other haylands and on rangelands.

Development of economical and effective fencing designs have provided ranchers and farmers with a tool to eliminate deer and elk damage in enclosed fields and pastures. One producer reported after installing a fence we designed for \$2300, he reduced the \$5-7000 annual damage to \$0! He reported his conservative figure is “he will save at least \$12,000 over the 3 years...”.

Another producer enclosed a pasture important for spring grazing prior to entering his mountain summer pasture. Prior to enclosing the pasture with the fence we designed, over 200 elk grazing there in early spring made the pasture unsuitable for cattle foraging. The resulting \$6000 in hay cost was eliminated the first year after he installed the fence. The fence paid for itself the first year and thereafter the rancher netted a \$6000 gain annually.

350 producers have received training at programs in 12 counties and 300 have adopted practices they learned.

### **Source of Funding:**

Smith Lever 3b&c, state, local and CSREES and IPM Grants.

### **Scope of Impact:**

This is a statewide effort with distribution of educational materials in every county.

## **Key Theme: Pesticide Application**

### **Brief Description:**

The safe use of agricultural herbicides and insecticides is vital to keeping agricultural operations viable. A private pesticide applicator license is required to apply restricted use herbicides and insecticides. People holding these licenses are required to receive 6 credits of continuing education every 5 years. The Pesticide Applicators Training Program provides continuing education for license holders. License holders come from all sizes of operations, some license holders have 5 acres or less, some manage in excess of 120,000 acres.

The training programs cover the management of plant, animal and insect pests, noxious weed identification, proper equipment calibration and record keeping techniques. Producers were tested and received their private pesticide applicators. Producers demonstrate their knowledge of pesticide application, sprayer calibration, environmental and applicator safety.

**Impacts:**

Participants who successfully complete the Pesticide Applicators Program use pesticides in a safe and prudent manner, thus keeping our water and land resources safe. Producers will not have personal health issues associated with the misuse of pesticides.

Constituents were certified and have passed training to legally and effectively use restricted use pesticides. Proper calibration, use according to the label, appropriate targeting of the pesticide and personal safety was emphasized. Constituents learned Integrated Pest Management techniques and to only use Restricted Pesticides as necessary.

Instead of repeated applications of a less effective product, these landowners now use the correct pesticides less often, targeted specifically to the pest. This will result in better control and less damage to the environment.

Participants who meet training requirements will be able to purchase and apply Restricted Use Products on their agricultural acreage. The public will realize that licensed applicators are trained and applying pesticide products only as necessary and responsibly.

The results of participants using pesticides in a safe and responsible manner saves Montana millions of dollars each year in preventing environmental damage, protection of water quality and ensuring personal safety.

Program participants gained knowledge on pesticide records, laws, safety, calibration, weeds, insects, rodent control, environmental issues and new products.

2595 participants were trained in pesticide application with 1556 of them implementing practices they learned. Extension faculty spent 1601 hours in the preparation and delivery of these programs.

**Source of Funding:**

Smith Lever 3b&c, state, local

**Scope of Impact:**

Statewide



## **Key Theme: Sustainable Agriculture**

### **Brief Description:**

The Partnerships for Livestock Environmental Management Assessments Systems Project organizes a support system for livestock producers to positively address environmental and community health concerns through partnerships between state universities, commodity organizations, and Soil and Water Conservation Districts. The project goal is to develop and evaluate environmental assessment and decision-support aids with which livestock producers can address local priority water and air quality issues while sustaining their operations' economic viability. This will help producers manage their AFO/CAFO concerns and reporting requirements.

### **Impacts:**

In one county alone where the annual sale of principle agriculture products grosses over \$31 million in cash receipts, a small increase in revenue (½ to 1 percent) associated with the wise use of our natural resources resulted in \$150 - \$300 thousand in total revenue to the county's agricultural and business communities.

One ranch operation has completed the permitting process for the ranch feedlot; environmental management practices including diversion ditches, shelterbelts, windbreaks and buffer strips have been installed. Another ranch operation has modified their animal handling and calf feeding facilities to eliminate livestock impacts along the stream. It is difficult, at this time, to assess the long-term value of these practice adoptions.

Four ranches have either begun or finished modifications to animal handling facilities that will mitigate or reduce environmental risks associated with those animal handling and feeding facilities.

Eight ranches in the pilot/test group completed the EMS assessment document. Three of those eight went on to complete a ranch mission statement relative to environmental management.

On 18 ranches long-term photo monitoring plots were established. Monitoring plots will be used to determine how the ranch management plan is meeting rangeland objectives.

264 producers completed the program and 208 adopted and implemented practices in a 2-county survey.

### **Source of funding:**

Smith Lever 3b&c, state, local grants and partnerships.

### **Scope of Impact:**

Statewide

## **GOAL 5: ENHANCED ECONOMIC OPPORTUNITY AND QUALITY OF LIFE FOR AMERICANS**

### **Overview Statement:**

The Plan of Work states that Montanans believe the “backbone of a healthy state and community are strong and healthy families.” The issues that were identified when the plan of work was written presented a wide variety of problems in which the Extension Service developed programs. These programs have made a difference for many Montana families and communities by providing the tools for them to make sound decisions.

Because families and communities are in a constant state of change, the need for up-to-date information is very important. Montana families face stress brought on by economic crisis, accessibility to health care, poor housing environments, and adequate child care. All of these things provide challenges within the family structure impacting relationships, parenting and communications.

All families are concerned about giving their youth “the edge” to be successful and productive in their future. Parents believe it is important for young people to learn life skills, develop a sense of leadership and cooperation and understand the importance of supporting their community. Youth development is a high priority for Montana families.

It is not wise to describe a family without looking at the community context in which it lives. In Montana, communities are facing the challenges of population growth or decline depending on the area of the state. Regardless, communities are concerned about economic development, better paying jobs and business promotion and retention. For the past several years, this concern remains the number one issue in the minds of Montanans.

Goal 5 encompasses a wide variety of programs essential to the improved economic opportunity and quality of life for Montana citizens. The FTE devoted to these issues is 4.23 and the estimated resources are \$159,350.

### **Key Theme: Housing Programs**

**Brief Description:** Housing in Montana is diverse and complex. Throughout the state, consumers are reporting alarming incidences and health effects related to home environmental problems. Research confirms the reality of these issues - during the past year natural gas costs in much of the state has increased by 45%, radon levels in MT rank 3<sup>rd</sup> highest in the U.S. and asthma among Montanan’s Native American children is reported to be 3 times that of the general population. Due to excessive mold problems Montana homes have been demolished and hundreds more remain health hazards for the occupants. Among the fastest growing indoor environment hazard in Montana is the toxic and illegal manufacturing of Meth. During the past decade individuals with AIDS/HIV are coping with securing accommodating and affordable housing. Other home environmental issues common in Montana include clean drinking water, carbon monoxide from faulty heating systems, lead-based paint, access to hazardous household

products. *Help Yourself to a Healthy Home* is an Extension Service program to help consumers assess, understand and deal with many common environment.

**Impacts:**

- 83 families with family member having AIDS/HIV found permanent housing
- 91 Montana families including 33 Native American families received homeownership training. 55 of the families were reported to have actually adopted practices as a result of the training. 75% of the Native America families indicated they felt “much more prepared” to work toward homeownership.
- 568 Montana families were provided energy assistance and documented energy saving of an average annual savings of 7 percent per household
- 105 households were found with condemned heating systems creating potential fatal carbon monoxide gas - all heating units were replaced
- Mercury thermostats were recovered from 119 homes - recycling 416.5 grams of mercury from storm-water or landfill disposal (2 grams can pollute a 60 acre lake)
- 566 Montanans received educational programs dealing mold - 101 reporting significant mold hazards and all taking action to mitigate the problems associated with moisture and the resulting mold
- 107 Real Estates agents received “Healthy Homes” continuing education - all indicating a direct use of the training and resources provided
- 65 of 79 Montana families participating in carbon monoxide workshops reported taking action as a result of the Extension agent’s outreach. 96 other Montanans, provided with water quality training applied the information to improve their home drinking water.

**Funding:**

USDA CSREES, U.S. EPA, U.S. HUD.

**Scope of Impact:**

Statewide

**Key Theme: Home Safety**

**Brief Description:** September 11, 2001 is a grim reminder of unpredictable disasters that can change lives in minutes. Disasters and emergencies are unfortunate realities of consumers - wildfires, drought, floods, earthquakes, bio-terrorism, anthrax and many more. While it is difficult to predict and often prevent these incidences consumers can prepare for emergencies and appropriately respond. MT Extension Disaster Education Network - EDEN is an all hazard and disaster information program and website that brings up-to-date, Montana-specific emergency preparedness and response information to consumers.

**Impacts:**

- Agents reported 83 Montana families participated in Hantavirus and West Nile workshops with 50 individual reporting “immediate action taken”
- One county reported as a result of emergency management planning training “70 of the 75 participants demonstrated their skills and ability to set up the new county equipment for patient decontamination. As part of the tabletop exercises conducted for both hospitals, 34

participants practiced responding to a public health emergency in the hospitals. At the county health fair 600 residents gained awareness to several public health emergencies ...”

- In collaboration with Montana Disaster Emergency Services, MT EDEN has developed the on-line “Citizens Corps Volunteer Registry and Database”. All Community Emergency Response Teams and 56 counties are using the system to register community emergency response volunteers.
- All Montana communities and emergency providing organizations will receive emergency management software because of the MT Department of Health & Human Services and MT EDEN.

**Funding:**

USDA CSREES, U.S. EPA, U.S. HUD.

**Scope of Impact:**

Statewide

**Key Themes: Promoting Business, Jobs and Employment**

**Brief Description:**

Economic development remains the number one concern for Montanans. In response to a recent state-wide poll by Lee Newspapers 52% of Montanans rated economic development as the most important issue facing the state. The next highest issue was only rated number one by 13%. Montana continues to have among the lowest average annual salaries in the country. Montana ranks number one in the number of people working two jobs to make ends meet.

The Montana Extension Service offers communities tested programs to help them capture retail sales, attract new businesses, retain and expand existing businesses, increase tourism (see Goal 5 Key Theme: Tourism) and start-up new businesses.

In a major effort Montana Extension is teaming with the Nevada and Hawaii Extension Services on a western regional project to develop an innovative computer based program to match communities with prospective new employers. During 2003 community and industry surveys were developed to determine the preferences and characteristics of each. The 50 fastest growing companies in the 50 best paying economic sectors were identified to be surveyed in 2004.

Other new efforts during 2003 included presenting Montana’s first Marketing for Artists workshop with the Montana Arts Council and conducting economic impact studies on two community events.

Agents in Jefferson, Hill, Phillips, Dawson, Deer Lodge, Prarie, Sanders, Park, Custer, and Yellowstone Counties reported a economic development efforts in 2003.

**Impacts:**

- In Jefferson County, a new industrial park was developed, work on a wind farm progressed, 12 business persons learned business planning, and an employee buyout plan was developed, 2 businesses expanded, a wood waste energy study was conducted, and both major mines agreed to remain open creating 40 new jobs.
- Eighty five residents in Hill, Valley, and Phillips Counties learned work ethics, customer service and technology applications that helped 4 people get jobs and off welfare.
- In Dawson County 26 farm laborers learned new job skills and a new onion growers group had sales of \$108,000.
- Store owners in Deer Lodge County changed hours and merchandising in response to a trade area survey, a new department store was attracted to the downtown and a new construction network was developed.
- Yellowstone County agents conducted a 3-day Sewing As A Business workshop which drew 444 women and 6 men from 5 states. The participants gained both business and sewing skills and knowledge.

**Sources of Funding:**

Federal 3b & 3c, state and local, Farm Foundation and Western Rural Development Center.

**Scope of Impact:**

Multi-state and state specific.

**Key Theme: Tourism**

**Brief Description:** Tourism is Montana's second largest export base industry bringing 900,000 tourists and \$1.8 billion to the state each year. It is also one of our only growing export base businesses.

Over the past decade the Montana Extension Service has become ever increasingly involved in tourism education. Our Community Tourism Assessment Model has attracted international attention (including an unsolicited invitation to present at the United Nations World Sustainable Communities Conference. The process has been completed by 30 communities implementing some 31 projects with an investment of over \$1 million locally. Our Farm and Ranch Recreation Business workshops have been presented to over 2,000 farmers and ranchers in 30 states. It was recognized by the U.S. Travel and Tourism Industry Association as the top tourism education program in the country. Montana chairs the Western Regional Nature-based Tourism Project.

New efforts in 2003 included joining with 13 other state and federal agencies and non-profit groups to begin a Montana Birding Trail, and an economic impact assessment of the Audubon Society's Birding Festival, and our first Nature-based Tourism Opportunities Workshop.

**Impacts:**

- Thirty five potential business operators, farmers and ranchers and local economic development directors gained new knowledge at the Nature-based Tourism Opportunities workshop.
- Sixty five artist gained knowledge of new techniques at the Marketing for Artists workshop.
- The Madison County Agents multi-county leadership contributed to Dillon being selected as one of the destination stops for the Corp of Discovery II Lewis and Clark exhibit.

**Sources of Funds:**

Federal 3b&3c plus state and local, Farm Foundation, Western Rural Development Center, and U.S. Bureau of Land Management

**Scope of Impact:**

Multi-state and state specific.

**Key Theme: Community Development****Brief Description:**

During 2003 Montana Community Development programs consisted of Planning, Visioning and Community Education efforts.

About a dozen years ago Montana chaired and hosted a Strategic Planning for Extension Faculty in the West. Since then Extension faculty have assisted over 100 groups develop strategic plans, ranging from the MSU College of Agriculture to the Fort Belknap Indian Reservation Head Start Program. During 2003, County Agents in Deer Lodge, Jefferson, Stillwater and Granite Counties facilitated strategic plans.

A national award winning model for a community visioning process developed in Beaverhead County has now been used in 10 Montana Counties. It helps communities look out 20, and in the case of Billings 50, years into the future to decide what type of place they'd like to become. Many of the projects have been done in cooperation with the MSU School of Architecture, offering students real-life work experience and providing communities with innovative design plans. During 2003 a new project was started in Lincoln County, a second visioning effort launched in Fergus County, and ongoing progress reported from previous visioning projects in Wibaux and Deer Lodge Counties.

Community education events help residents learn of community resources, educational opportunities and issues as well as gain personal knowledge and skills. Community educational events took place in Cascade, Teton, Granite, and Sanders Counties during 2003.

**Impacts:**

To establish direction for communities and groups, strategic plans were developed with the Local Economic Development Corporation, the Chamber of Commerce, the Visioning Steering Committee, the Downtown Revitalization, the Tourism, and the Extension Promotion Committees in Deer Lodge County; the Parks City School System, and the Montana Legislative Tax Reform Committee by Stillwater County Agents; with the Economic Renewal and Assessment group and Helena Vo-tech College in Granite Counties; and with the County Economic Development, Planning, Community Transition, Mine Closure, Industrial Park, and Wind Farm in Jefferson County.

Because of an Extension lead community visioning process, 98 local leaders in Lewistown are working in groups to address community needs; Jobs, Basic Human Needs, Education, Beautification, Quality of Life, and Transportation and Infrastructure. In Eureka the community visioning process involved 65 residents to identify and address local needs. They too are working in groups and considering Medical Facilities, Transportation, Business Retention and Expansion, Agriculture, an Industrial Park and Strategic Planning. Wibaux reported completion of a variety of goals including library remodeling, antique street lights and two baseball fields as a result of the community visioning project.

Almost 800 attended 87 workshops at the Cascade County Missouri Breaks educational event, subjects ranged from work ethics to technology and entrepreneurship. Teton County Educational events included sessions on the Open Meeting Law, Communication with the public, increases in meth use and production, customer service, and digital photography for on-line businesses. Granite County provide classes in grant writing, written and oral communications skills, conflict resolution, and team building to some 300 residents.

**Source of Funds:**

Federal 3b&c funds, state and local

**Scope of Impact:**

Multi-state and state specific.

**Key Theme: Parenting****Brief Description:**

The 2000 Census found that 11,098 Montana grandparents are living with their grandchildren and of that population over 6,000 or nearly 55% of these grandparents have the primary responsibility for raising their grandchildren. Demographic trends indicate a growing increase in grandparent-headed families in every socioeconomic and ethnic group across the United States with a 30% increase since 1990. The federal government now urges the placement of foster children for a variety of reasons, but one factor remains constant; almost all circumstances result from family hardship. Poverty is a major issue for grandparents who are raising their grandchildren with 27% of grandparents and their grandchildren in this situation

living below the poverty line. MS Extension is partnering with other groups including Montana AARP, Montana Child Care Resource and Referral Agencies, Montana Head Start Collaboration, Office on Aging, and Tribal partners to address the needs of grandparents.

**Impacts:**

Sixty-six individuals gained knowledge about being support group facilitators for grandparents raising grandchildren in the state of Montana. Support groups are available in nine communities throughout the state.

**Funding Source:**

Smith-Lever 3b&c, USDA and Brookdale Foundation

**Scope of Program:**

Statewide

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

**Brief Description:**

Through a recent study of youth who have participated in the 4-H Club program, it has been learned that what youth do in their out-of-school hours makes a substantial difference in their long term development. If they are involved with 4-H, those hours can provide positive experiences for youth. 4-H clubs are intentionally designed to include the eight critical elements necessary for positive youth development: Positive relationships with caring adults, Opportunities for self-determination, An accepting and inclusive environment, Opportunities to contribute through community service, A safe environment for learning and growing, Opportunities to develop and master skills, Engagement in learning, and Opportunities to be an active participant in life --- now and in the future. Montana has 10,000 youth enrolled in the 4-H Club program and receive those program benefits.

In addition, the National Educational Longitudinal Study (NELS) research shows that 4-H families reflect the diversity of the families present in the community as a whole. One fifth of those who have been in 4-H before the eighth grade were from families with incomes of less than \$15,000. In fact, the study shows that 4-H was more likely to attract youngsters whose parents had not completed high school than it was to attract youngsters who had at least one parent with a graduate degree. One-fourth of 4-H members showed five or more indicators of being “at risk” and 4-H was more likely to attract youth from the two lowest socioeconomic quartiles than from the top socioeconomic quartile.

Even though the study reflects national data, Montana 4-H reflects similar findings. Youth in Montana, especially the rural areas of the state, need to have after school and out-of-school activities that will lead them to positive experiences. Youth who participate in 4-H in Montana reflect the socioeconomic fabric of their community.



**Impacts:**

- Youth who are involved in 4-H reported that they are less likely than other youth to engage in delinquent behaviors such as shoplifting, stealing, use illegal drugs or get high, ride in a car with someone who has been drinking, smoke cigarettes, damage property for the fun of it, or skip school or cut classes without permission. They credited this to the positive influences they have had through 4-H.
- As a result of being in 4-H, youth have better relationships with adults than those who have not been in 4-H. 4-H members are more likely to go to an adult for help about important questions. The youth indicated for example, that they would talk to an adult about drugs, alcohol, sex and any other serious issue. The percentages of youth who would talk to their parents about important issues in their lives are:
 

• About drugs	75% in 4-H	64% non 4-H
• About alcohol	72% in 4-H	63% non 4-H
• About sex	59% in 4-H	50% non 4-H
• About other serious issues	77% in 4-H	66% non 4-H

**Key Theme: Leadership Training and Development****Brief Description:**

Volunteerism and leadership training is vital to rural communities in Montana. Some agents report concern that their will not be well informed people to assume leadership roles at the community and county levels; roles such as city council member, county commissioner, school board, and so forth. Leadership experiences are needed to provide residents confidence to take on these roles and training is vital to help them gain the competence to succeed when they do.

The 4-H program provides a “laboratory” for youth and adults to learn the tools for effective leadership as well as the importance of volunteerism. The 4-H Leadership College has been implemented in the state to teach leadership skills through the 4-H program. In addition, the 4-H Ambassador program contributes to the skills and confidence of youth so they can serve at the leadership level in their school and community. These programs help youth and adults learn about teamwork, cooperation, leadership, and a host of other very important skills.

**Impacts:**

One County reported that as a result of the 4-H Leadership College training, participants felt they had a greater understanding of Positive Youth Development and how it related to their work in 4-H. A common comment following the training was “it is always good to remember why we are involved with 4-H and that it is about helping kids learn and grow”. Three of the 16 participants have stated that they now understand that every youth has the potential to be “at risk” and that their interactions with kids can make a difference for them.

A survey indicated all the participants in the 4-H Leadership College felt they would use the materials presented. Participants reported they gained knowledge from the program making the following comments: made me think about ways to help our youth, reinforced the way we

conduct our meetings, helped with setting goals in 4-H and life, learned all youth have needs, and learned positive ways to parent, learned some positive approaches to working with children that I will use with my own children.

Leaders in one club report the members in their 4-H Club are working together as a team and have learned to cooperate within the group. The leaders contribute this to the training received through the 4-H Leadership College.

Ten of the 16 volunteer participants indicated they have put skills they learned to use in her personal and 4-H lives. Four leaders have used information the gained to improve youth teamwork and confidence. One leader reported she is providing more positive re-enforcement even in hard situations.

As a result of the training, leaders report using positive youth development practices, having greater confidence in how to interact with youth more effectively, and how to provide appropriate leadership to make the meetings more effective for youth.

A recent statewide study shows that 4-H members are more likely to take on leadership roles in their school and community. 4-H members who participate in Montana 4-H are more likely to develop useful and practical skills that will help them develop into capable, competent and contributing adults. They are more likely, for example, to have good record keeping skills, to be able to speak with ease in front of others and to know how to organize their work, make good decision, plan ahead, and manage money wisely. Percentages of youth holding leadership positions as revealed by the study are:

Have been elected to a leadership position	32% 4-H	20% non 4-H
Hold a leadership position in school	27.4% 4-H	21.4 non 4-H
Serve as chairperson of a committee	13.2 % 4-H	8.2 % non 4-H
Serve as a committee member	25.3% 4-H	17.2 non 4-H

### **Key Theme: Youth Farm Safety**

**Brief Description:** Youth living in rural Montana have been able to learn about safety in their everyday lives by attending a Youth Safety Day Camp or through programs conducted in their schools. Participants were able to gain information about several potential hazardous situations and practice solutions when confronted with similar circumstances. The stations for study included: Lawn Mower Safety, Sun Safety, Tractor Safety, First Aid, Fire and Fireworks Safety, Electricity Safety, ATV Safety, Bun Safety Seatbelt Safety and 911 Emergency. Over 200 youth participated in 4 counties with over 10% being Native American and 80% Caucasian. Additional youth participated in after school programs related to farm safety.

### **Impacts:**

Youth who participated in the farm safety programs gained an awareness of the safety risks that face them daily as well as skills on what to do if faced with an unsafe situation. Adults who

brought their youth to the programs indicated they too are better informed on the hazards they encounter daily.

Youth who participated reported they changed some habits and make better decisions to keep themselves, their friends and their family safe.

Safety practices learned will be remembered by participants and used throughout their lifetime. When risks are learned and understood at an early age, there is potential to save life or prevent injuries that can permanently impair an individual and improve the health and safety of individuals all through their lives. As rural youth and adults learn more about farm safety, they will implement risk adverse practices which will result in a decline in farm-related injuries and deaths.

### **Key Theme: Estate Planning/Cremation**

**Brief Description:** Although the passage of the Economic Growth and Tax Relief Reconciliation Act of 2001 increased in the amount that can be passed to heirs without an estate tax due, that does not eliminate the need for Montana families to plan their estates. Research has indicated that seven out of ten Montanans die without writing a will. With the financial assistance from the Business, Estate, Trusts, Tax and Real Property Section of the State Bar of Montana, a World Wide Web site is updated monthly. The site contains all 27 estate planning fact sheets: <http://www.montana.edu/www.pb/pubs/estate.html>.

In 2000, Montana was one of six states with a cremation rate above 50% (4,058 cremations out of 8,042 deaths). During 2003 a MontGuide on cremation was distributed in response to questions in this area.

### **Impacts:**

Approximately 2,121 Montanans participated in estate planning seminars in the state. An additional 480 were reached with the program "Who Get's Grandma's Yellow Pie Plate" which explores ways to distribute property that is not titled. The coauthor of the cremation MontGuide conducted 17 workshops for 1,583 consumers and families. In response to requests she mailed out 2,500 MontGuides. As a result, Montana families have gained valuable knowledge and understanding about the need for estate planning.

Past evaluations have revealed that as a result of participating in workshops: 8% had written a will and 29% intended to do so; 28% reviewed the titles of their real and personal property with 13% finding changes were necessary in the way their property was titled; and 39% reviewed their insurance situation and 8% found changes were necessary.

### **Sources of funding:**

Smith-Lever 3b&c, State Bar of Montana, Montana Funeral Directors Association

### **Scope of Impact:**

Statewide

## **Management Goals**

**Agricultural Communications:** Over the past year, the Extension Communication Services unit has been more closely aligned with the total University communication efforts. This provides more resources to the Extension Service with people who specialize in a particular communication medium. In addition, it is anticipated this integration will provide a greater understanding by total university communication staff about the resources and programs of Extension.

Communications with decision makers has been a goal of the Extension Service for the past several years. This past year, the Extension electronic reporting system was demonstrated and made available to all legislators, county commissioners and other decision makers. Those who were interested could then access information about Extension work and the difference it makes (impact) in local communities and statewide. In addition, legislators were encouraged to use Extension as a resource and access informational Web pages.

**Enhancing Customer Service/Satisfaction:** One example of enhancing customer service is the Montana Ag Live television call-in program. Feedback indicates that the audience has grown and involves not only people who are our regular customers, but also those who might not otherwise use Extension services. Those who call in generally feel they get satisfactory response to their questions or information about where they can locate additional resources to assist them. Television programming is one way Extension has worked to become more accessible to busy Montana families.

In 2001, a Materials Management System and an automated menu phone system was introduced to our Extension Publications area. The goal was to ensure a more uniform, faster and efficient operation. For the most part, these changes have contributed to a higher level of satisfaction by our constituents. Service is more immediate, efficient and accurate and new clientele are using Extension's services.

**Information Technologies:** The work done in the information technologies area has been substantial over the past several years. Building on the work that has been done, Extension workers are using technology in many ways to educate clientele, to manage their programs and to report plans and accomplishments making accountability more accurate and accessible.

The systems that were put in place are being enhanced and upgraded annually making them more usable by all. For example, the on-line reporting system (Reporting Impacts and Outcomes - RIO) is revised annually when the key themes are adjusted to match the plan of work. Faculty are able to report information 365 days a year making it possible for them to be more accurate and the public can review Extension program impacts anytime during the year. This certainly enhances the accountability of Extension to the taxpayer.

More faculty are using technology in their educational efforts. They may be teaching on line courses, involving on line data collection and processing, or designing evaluation strategies for

programs. Several faculty are learning WEB CT and other ways to use technology in their educational efforts.

The Web is highly used for providing information and answers to specific questions, newsletter communications, and organizational management functions - the intranet. More than 95% of the Counties have their own WEB page and are beginning to use it in marketing, to provide information to clientele and to use in teaching. Registration for programs is being widely done on the WEB. When this occurs, participant information can be processed more quickly and accurately resulting in less error. Clientele indicate they appreciate the capability and convenience of being able to register for programs on line.

**Institutional Engagement:** Montana Extension has worked hard to become more integrated into the institution. The MSU President often refers to Extension as the portal to the University providing an entry into the campus as a whole. A recent review of the Extension Service made several recommendations that suggest the need for better interface between campus and field faculty. These included the formation of an Extension Coordinating Council. The Council membership includes Deans and Unit Heads that have Extension faculty in their colleges/units and is chaired by the Vice Provost and Director of Extension. The review also called for the integration of campus and Extension faculty in determining Extension Program Plans. Also, the review recommended the title of Vice Provost and Director of Extension be retained for the person providing leadership to Extension organization. By title, this puts an Extension voice at the institution's decision making tables. In the review process, it was recommended that the Extension 4-H program be given a Center designation on the campus. This would provide visibility to 4-H and establish it as a recognized entity on campus. The Board of Regents voted to grant this designation, creating the 4-H Center for Youth Development. Faculty across campus have already indicated an interest in working with the Center on several projects.

While there is work to be done in the area of institutional engagement, the foundation is in place for greater integrated efforts to be developed.

**Multicultural and Diversity Issues:** In 2001, Montana Extension had a Civil Rights Compliance Review. The recommendations outlined in that review have provided the spring board for several things to happen with regard to multi cultural and diversity. Examples include:

- The theme for the 2003 Annual Conference was "Change, Diversity, Education: Extension's Role. The major presenter discussed "The New Multiculturalism" and "Multiculturalism: A Variety of Perspectives".
- The theme of the 2003 Support Staff Professional Development Conference was "Change, Diversity, Education: Extension's Role".
- Through the Extension intranet, census information is readily available for county and state faculty to use in determining target audiences when developing programs. County and reservation profiles help in developing educational programming goals for under-served and under-represented audiences. The performance appraisal process is now reflecting programming that reaches parity of participation by minorities and women.
- All Extension agent job announcements include civil rights related position responsibilities and qualifications.

- The public notification plan has been updated.
- Stakeholder advisory processes and activities will include under-served and under-represented groups.
- EIRP and Tribal College Extension agents serve on the Montana Extension Advisory Committee.

Specific programs have made efforts to be inclusive in their program offerings. Again, examples include:

- As a part of the Western 4-H Institute, agents received intensive training on making programs inclusive. 4-H leaders are currently receiving the same training.
- The 2003 Montana 4-H Leadership Forum had a workshop focused on affirmative action issues and was taught by the MSU Affirmative Action Officer.
- Recent grants focus on educating the under-served and under-represented including the 4-H CYFAR grant (after school activities).
- Food and nutrition programs focused on healthy lifestyles for Native Americans have been conducted on several of the reservations.
- The EFNEP and FSNEP programs both are targeted at under-served and under-represented audiences. In this state, they have had an impressive track record in making an impact on the participants.
- The housing and community/economic development programs work diligently with reservation audiences to enhance their quality of life. These are targeted programs showing impact with Native Americans.
- School Enrichment programs for youth are conducted in schools with large minority populations - both Hispanic and Native American.
- A program called *A Place At the Table* is focused on diversity.

The goals for the multicultural and diversity issues in our state are outlined clearly in the responses to the 2001 Civil Rights Review. Progress is being made to bring those goals to a reality.

### **Focus Areas in FY 2001 CSREES Budget**

The items listed in this category are addressed in the narratives of the National Goals 1 through 5. Programming has been done in several of the focus areas identified in the FY 2001 CSREES Budget.

### **Stakeholder Input Process**

Stakeholder meetings were held from late September through October in nearly every county in the state. Agents in each county were asked to host a stakeholder meeting to identify important topics, inviting actively interested stakeholders to participate. Those at the meeting were asked to list issues that hold importance for that area for the next two years that they would like to see

Extension address. Following discussion on those issues, they were ranked according to importance and sub-topics were developed.

After being electronically submitted to the state office, these were ranked according to frequency statewide. The top fourteen issues were compiled with supporting information and distributed to the Montana Extension Advisory Council (MEAC) for their additional input. The results of their input has now been given to the specialists for their use in program planning.

Montana State University Extension Service organized the first Annual Regional Extension Indian Reservation Program (EIRP) held May 19-21, 2003 with funds available from a grant through WSARE. Although not funded with Smith-Lever funds, this has significance because of the collaboration and partnerships that were established at this conference. Two presentations were made by Montana and Idaho agents at the National Intertribal Agriculture Conference (IAC) that were unprecedented. EIRP agents have been asked to present at future IAC national meetings.

The SPLICE Conference was held in August, 2003, at Fort Belknap College on the Fort Belknap Reservation. An outcome of this conference is the planning and expectation of holding 7 Nations 4-H camps in the future with collaboration between tribal college, reservation and county agents as well as MSU faculty.

### **Program Merit Review Process**

There have been no significant changes in the Program Merit Review process since the last 5 year Plan of Work.

The chairman of the Original Merit Review Committee however, was asked to review this years information and provide input. Attached is his letter.

In the previous merit review, it was suggested that attention be given to planning programs involving minorities, especially Hispanic or Latinos. The training in multiculturalism and diversity is addressing the concerns raised. Programs are being planned and implemented with sensitivity to the minorities living in counties.

Identifying short and long term impact statements was another area listed in the program merit review process. Efforts have been made to more clearly articulate short and long term impact statements in the annual report.

Several surveys were used by Extension faculty to determine impacts of programs which was a recommendation by the program merit review as well. Units that conducted surveys to assist with their impact data include 4-H, Nutrition, Beef, Family Financial Planning, to mention a few. Information in the program impact statements shows the results of this survey work.

## Evaluation of the Success of Multi and Joint Activities

The multi and joint activities conducted by Montana Extension do successfully respond to the needs outlined in the 5 Year Plan of Work.

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

The strategic planning process conducted prior to the writing of the 5 Year Plan of Work outlined specific areas of need which could be addressed by Extension. Careful consideration was given when planning programs to include the input stakeholders provided through that process. The WIN the Rockies and the WIRE programs are examples of programs that responded to issues of health and obesity and integrated agricultural approaches that were identified by stakeholders.

2. Did the planned programs address the needs of under-served and under-represented populations of the state(s)?

While there is continuing work to be done in reaching the under-served and under-represented populations of the state, progress is being made. Collaborations with the tribal college faculty, the Extension Reservation Agents, the EFNEP and FSNEP programs, are leading the way in the state. Many of these are multi-state and or multi-institutional or multi-disciplinary . Other programs such as youth development are having success in reaching these groups of people through after school efforts. Housing and economic development programs are also focused on reservation and non-reservation activities that would involve the under-served and under-represented. Through the efforts of the multi state collaboration, the programs mentioned have maintained an awareness and have shared plans on how to be more inclusive. Multi-institutional activities have great potential in the state, but need to be enhanced. Extension works on being interdisciplinary to make programs more problem and issue centered, but this remains an area for continual improvement.

3. Did the planned programs describe the expected outcomes and impacts?

In general, the planned programs did describe the expected outcomes and impacts. The state is still working to refine the process, but again, progress is being made. Actually, the multi- state, multi-institutional and multidisciplinary programs are often those that articulate the expected outcomes and impacts best. Bringing people from different backgrounds together necessitates a clear and focused planning process including the expected results.

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

Depending on the program, multi-state, multi-institutional and multidisciplinary efforts do add to the strength of the education. More resources are available in the form of faculty expertise and the ability to garner outside funds to support the project as well as tapping into any special capabilities of collaborating institutions. In some cases, however, the cost of planning and delivery detract from the benefits of doing program in a ‘multi’ venue.

There is great strength in joint research and extension activities. Asking the right questions to people who can find the answers is important to Extension education. Experiences in this state have shown the value of including research people from the beginning of the program planning



process through the delivery and evaluation process. This helps the researcher have a clear understanding of the problem and the questions that need to be addressed as well as any the development of any new issues.

### **Multi-State Extension Activities**

Several programs involved states from the region or from the entire nation in their program planning and delivery. The definition used in Montana for a multi-state activity states that the program must have a collaborative planning component as well as delivery in several states.

- The Youth Development program involved inter-state exchanges with North Carolina, Wisconsin, New York, Michigan, and Ohio. Faculty and 4-H volunteers served on the planning committee and teaching team for the Black Hills Recreation Lab which is open to any state. The planning however, is largely done with a smaller group and varies from year to year. States that are generally involved in the planning are Wyoming, South Dakota, Montana. In addition, Montana 4-H volunteers are involved in the planning of the Chatco Lab held in Idaho each year. Again, the program is open to any state, but the bulk of the planning is done with Idaho, Washington and Montana and is largely volunteer driven. The Western 4-H Institute was held for new faculty in the western region. The planning committee involved specialists and county faculty from 10 out of the 13 western states.
- The WIN the Rockies program targeted creating healthy lifestyles for youth and adults. It focuses on good, sound nutrition principles and increased activity. Montana has joined with Wyoming and Idaho to plan and conduct this program.
- The Small Business Pollution Prevention Program is a consortium of 8 regional pollution information centers. These centers work together to provide pollution prevention information, networking opportunities and other services to states, local governments and technical assistance providers in their region. The project includes the Region 8 states of Montana, North and South Dakota, Wyoming, Utah and Colorado.
- Several agricultural programs involved multi state activity. The Western Integrated Ranch Education program (WIRE) continues to be a collaborative effort with Wyoming. Montana partnered with Utah on the states' dairy needs, with North Dakota on Value Added Agriculture and Colorado on Marketing issues.
- A Western Region Extension Indian Reservation Program (EIRP) Conference was held in May, 2003, and involved agents and Directors from Montana, Idaho, North Dakota, Washington and Oregon. This conference was initiated with grant funding from Western Region Sustainable Agriculture Research and Education and was set up for program planning and collaboration. The conference stimulated many collaborative efforts, especially in the area of animal science, and are expected to continue into the future.

These programs were supported by Smith Lever 3b&c funds in the amount of \$114,042 and a total 2.43 FTE.

## **Integrated Research and Extension Activities**

The integrated research and extension programs are generally found in Goals 1, 4 and 5. They are primarily connected to activities conducted with researchers at the Experiment Station research centers and with Extension Specialists who have split appointments with research. These programs include but are not limited to nitrate testing, field trials, integrated pest management, beef quality assurance and noxious weed programs. Integrated work has also been done with campus researchers outside the Experiment Station in an effort to look at issues related to family and youth development.

These programs are supported by Smith Lever 3b&c funds in the amount of \$72,400 and a total of 1.96 FTE.

The MSU Extension estate planning web site has been added as a link in the national Financial Security in Later Life web site.

Betty McCoy  
MSU Extension  
Bozeman

Dear Betty,

I have reviewed the annual report as requested and find that it is very well done. It certainly proves the worth of Extension educational programs and the positive impact they are having on Montana audiences. I would like to see more input/output studies that prove the worth of tax dollars similar to the returns related to EFNEP programs.

I have made a few comments below:

- Ag Profitability- First impact statement. Can you document the acreage? Was it more acres with less chemicals, etc?

Home Lawn and Gardening

- Can you document the number of hours contributed by Master Gardeners?

Optimal Nutrition for seniors

- (Seniors in Cascade county) AARP would be a good partner for these educational efforts. I think it strengthens Extension to show partnerships with local organizations.

Goal 5.

Key Theme: Youth Development/4/H

- Great impact data to show the differences between 4-H and non 4-H

Key theme: Estate Planning/cremation

- You mention that MSU Extension estate planning web site (has) been added as a link It is probably premature but down the road you can report the number of hits on the web site. You could show number of hits on all web links that provide information for the user.

Theme: Family resource Management

- Under impacts, you indicate that changes last over time. Three month, etc. This is a very powerful statement to show retention of educational efforts. I would encourage Extension to conduct longitudinal studies on other educational programs to measure long-term impact. (Would make for a good graduate degree)

Stakeholder input Process

- You describe the planning process and the priorities were submitted to MEAC for additional input. Can you include the items by rank and show how the state supported the county inputs?

Summary:

I think the report is great. It is easy to read, lots of evidence of impact, relevant to the needs of people, and clearly shows the worth of educational efforts.

I firmly believe that if Extension could gather some base line data on socio-economic conditions, incidence of health related maladies, and other indicators for determining before and after educational efforts, I think Extension could take credit for reducing the undesirable conditions that exist in many of our counties.

Example:

If a given county has a high incidence of heart disease and Extension initiated vigorous and comprehensive educational programs, and over time, the incidence of heart disease were reduced, I think Extension could take credit for such efforts.

Extension could do this for many of the educational programs.

I hope this has been helpful. If you have any questions, don't hesitate to give me a call.

Sincerely,

Jim DeBree