

2009 Montana State University Extension Annual Report of Accomplishments and Results

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I. Report Overview

1. Executive Summary

As Vice Provost and Director of Extension, it is my pleasure to present the 2009 Montana State University Annual Report. The report exemplifies the breadth and depth of Extension programming and education efforts across the state as we fulfill the land-grant University mission of taking the University to the people. Extension reaches across the state with programs in all 56 counties and office locations on five of the seven Indian Reservations. Following are some program highlights:

- Nutrition and Healthy Lifestyles program areas concentrate on helping families spend their food dollars wisely, planning and preparing nutritious food, engaging in regular exercise and medical screening opportunities. These are difficult program areas in which to achieve success since they require change in behaviors that are ingrained in the personal, social and psychological makeup of each person. While these are challenging program goals, the end results are better educated choices and healthier lifestyles. (Note: Programs previously under this state defined program that address childhood obesity have been moved to the Childhood Obesity Program for reporting purposes)
- Youth Development centers on positive youth development and uses hands-on methods for engaging young people in activities and experiences that will achieve those goals. The 4-H program teaches youth to be competent, caring and confident. Studies indicate that youth involved in 4-H are better equipped to make good decisions and to be contributing members of their communities. (Note: Education on obesity conducted through 4-H has been reported in the new Childhood Obesity program.)
- Ag Sustainability and Profitability fits under the NIFA priority area of Global Food Security and Hunger. This area represents issues that are extremely important to the state since agriculture is the number one industry. Small grains and livestock represent the bulk of the industry and require staying up-to-date on basic and applied research as well as consumer and industry trends. Agriculture is "risky business" that involves understanding and applying many disciplines to be successful. Marketing, pest control, crop variety selection-rotations, genetics, fertilizer applications, management systems and environmental factors to mention a few. (Note: The Food Safety portion of the Montana Beef Network has been moved to the Food Safety Program for reporting purposes)
- Family Issues, Resources and Environments address areas of great need for Montana families including Estate Planning, living with Alzheimers or other chronic diseases & especially as a caregiver, adjusting to unexpected demands such as grandparents raising their grandchildren and making decisions about housing and housing costs in economically challenging times.
- Community and Economic Development programs assist communities in addressing issues of safety, population growth and decline, poverty and leadership development. The past two years, competence of local governmental officials has been a priority since so many citizens are asked to fill positions that require them to make decisions for which they are not fully prepared. This is especially true in the rural sections of the state. (Note: Efforts in renewable/alternative energy previously reported under this state defined program have been reported under the Sustainable Energy Program this year.)
- Natural Resources and Environment have disciplines that fall under the Climate Change priority identified by NIFA. For Montana, drought has been a major issue for several years and impacts many of the state's natural resources and production capabilities. Forests and rangelands have been stressed, water quality and quantity is under pressure. Both agricultural enterprises and small acreage landowners feel the effects of climate on their businesses and living conditions.
- Sustainable Energy was originally delivered under the Community and Economic Development state defined program and was separated out to meet the NIFA requests. There is considerable interest in alternative energy in the state including wind, solar and bio-fuels. Extension is working in this area from both the developmental and the economic view points.
- Childhood Obesity has been a focus of programs in Nutrition and Healthy Lifestyles for several years but included adult obesity as well. For reporting purposes to meet the NIFA requests, program efforts in only childhood obesity were separated out. Programming in both nutrition and youth development are targeted at this issue.

• Food Safety has also been taught through Extension for many years and Extension is known for providing the "best practices" on Food Preservation. The Montana Beef Network has previously been reported under the Ag Sustainability and Profitability state defined program, but to meet the request of NIFA, this year it has been reported under Food Safety. The focus of the Beef Network is producing a safe and high quality beef. It addresses age and source verification, animal health and bio-security issues which are part of producing a safe food supply.

While this report reflects a portion of the many accomplishments over the past year, it does adequately portray the dedicated and talented individuals who are the driving force of Extension. I am pleased to share these comments with you.

Total Actual Amount of professional FTEs/SYs for this State

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	37.0	0.0	0.0	0.0
Actual	40.7	0.0	0.0	0.0

II. Merit Review Process

1. The Merit Review Process that was Employed for this year

- External University Panel
- Expert Peer Review

2. Brief Explanation

The Annual Report was reviewed by the Merit Review Committee according to the process outlined in the Plan of Work. The committee, composed of Dr. LeRoy Luft (ID Director of Extension-retired) has served 3 years, Jim DeBree (WY Director of Extension-retired) has served 6 years, and Jim Johannes (MSU Extension Area Supervisor/Director of Programming and FRTEP-retired) has served 2 years on the committee.

The comments made by the committee were used by administration, specialists and county agents in planning and conducting programs. Cross/multi county programming involving state specialists when appropriate are encouraged.

The Merit Review process provided valuable information and suggestions to improve Extension's programs. Their comments include:

We have found the educational programs to be relevant to the needs of the state, timely and successful. We applaud efforts to arrange the state programs under the umbrella of the newly developed national priorities and note significant work is exhibited under each.

The Global Food Security and Hunger&ndashAg Sustainability and Profitability programs are well done and demonstrate their worth for investment made by taxpayer dollars.

Climate Change-Natural Resources and Environment programs are important to a state so dependant on natural resources. Extension is doing a good job working with landowners (small and large) providing management education.

Youth Development remains a flagship program. Evaluation data shows marked results in life skills development: communication skills, problem solving, controlling emotions, handling stress and the value of community service by creating HERO packs for military youth.

Family Issues, Resources and Environment programs show evidence Extension education is addressing emerging needs with programs that are making a difference. Estate planning, housing and tools for caregivers are important to families.

Community and Economic Development programs help people be prepared to respond to emergencies, serve on public boards and handle conflict resolution effectively. Sustainable Energy is an important area for education in the state. Extension is providing valuable information used for sound decision making.

Childhood Obesity programs center on nutrition and increased exercise. This is a difficult program area, but adopting the health based approach vs. the weight based approach seems to be effective.

Food Safety programs range from production to table and represent education with which Extension has long been associated. There is a renewed interest requiring more educational opportunities.

Nutrition and Healthy Lifestyles provide programs focused on good health. Nutrition, exercise and health care are at the heart of the educational efforts.

The Merit Review comments were largely positive however, they had suggestions to be considered in

future programming: expanding public board education to non-profit organizations, developing a Master Food Preserver Program, reaching out to schools and the Office of Public Instruction with childhood obesity programs. The Merit Review feedback continues to provide valuable information for program planning.

III. Stakeholder Input

1. Actions taken to seek stakeholder input that encouraged their participation

- Use of media to announce public meetings and listening sessions
- Targeted invitation to traditional stakeholder groups
- Targeted invitation to non-traditional stakeholder groups
- Targeted invitation to traditional stakeholder individuals
- Targeted invitation to non-traditional stakeholder individuals
- Targeted invitation to selected individuals from general public
- Survey of traditional stakeholder groups
- Survey of traditional stakeholder individuals
- Survey of the general public

Brief explanation.

Personal contact has been the most successful way for Extension to gain stakeholder participation. The clientele who use Extension regularly are willing to provide input when asked. People who attend programs or are referrals from other agencies are asked to indicate which issues are important to them, their families and communities.

While less effective, radio, newsletters, newspapers and electronic distribution lists are used to inform clientele about the opportunity to make requests for Extension assistance. Informational booths are set up at agricultural trade shows, home and garden shows and health fairs allowing for discussions with people who often are not regular clientele of Extension. These conversations reveal concerns/issues that might not be heard in the usual process. When common issues surface through these methods and the advisory process, they are considered in the program planning process.

2(A). A brief statement of the process that was used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

1. Method to identify individuals and groups

- Use Advisory Committees
- Use Internal Focus Groups
- Use External Focus Groups
- Open Listening Sessions
- Needs Assessments
- Use Surveys

Brief explanation.

Membership on county advisory groups is generally achieved by sending an invitation to traditional stakeholder groups requesting the name of an individual who can represent their views and provide input for Extension programming. A similar invitation is sent to non-traditional groups however, in these cases, personal contact is made to explain the role of the representative. During programs targeted at certain audiences, (eg. EFNEP, Horizons, Small Acreage Owners), attendees are asked directly for input or may be asked to serve on a specific advisory committee for the program area.

Membership on the MEAC (Montana Extension Advisory Council) is based on geographic representation, areas of interest and some previous relationship with Extension. Recruitment from specific sectors such as health care, government agencies and community development are also targeted. County Extension Agents and state Specialists, Extension Program Leaders and Regional Department Heads are asked to make recommendations for membership to MEAC. Those who are selected serve a 3 year term.

2(B). A brief statement of the process that was used by the recipient institution to identify individuals and groups who are stakeholders and to collect input from them

1. Methods for collecting Stakeholder Input

- Meeting with traditional Stakeholder groups
- Meeting with traditional Stakeholder individuals
- Survey of traditional Stakeholder individuals
- Survey of the general public
- Survey specifically with non-traditional groups
- Survey of selected individuals from the general public

Brief explanation.

The most common method of gathering stakeholder input is from the regular clientele of MSU Extension. While they are contacted on a less formal basis, they are systematically asked for input into program priorities. Often this occurs in intentional program planning sessions to which these people are invited, requested to attend or are required to be present by their role or position. Examples of groups that fall into this category are County/Reservation 4-H Councils, Livestock Associations, Weed Boards, Human Resource Coalitions, Local and State Agricultural Organizations, Ag Research Center Advisory committees and special interests groups. Some of these groups have offices or directing boards that are asked for specific input.

County and state Advisory committees are also used to gather input. Advisory groups are generally comprised of a cross section of the leadership and citizens in the county. Efforts are made to involve the under served and under represented clientele by contacting agencies and organizations that work with this audience regularly. They are asked for input and/or for names of people who could provide input directly. Local Extension agents follow up with personal conversations to explain the goals and process.

At the state level, one of the most valuable sources of input is from MACo. (Montana Association of Counties). Extension makes presentations during MACo's Annual Meeting followed by an open session for mutual dialog. These types of discussions also happen during the newly elected county commissioner's orientation and have proven very beneficial. Extension administration, through the Regional Department Heads (RDH's), also gathers stakeholder input from county Commissioners during the regular and systematic visits at the county level between the RDH's and County Commissioners.

Surveys are used to gather information at either the local or state level. They may be hard copy although the electronic formats are becoming more popular. As faculty become more familiar with the electronic capabilities, it is expected that more survey work will be done using technology.

3. A statement of how the input will be considered

- To Identify Emerging Issues
- Redirect Extension Programs
- In the Action Plans
- To Set Priorities
- Other (Create a basis for additional resources)

Brief explanation.

Information gathered through the stakeholder input process is used to determine program needs and direction. In some cases, cross-county educational teams made up of county extension agents, specialists, clientele and researchers are formed to develop and implement programs. At times, county agents are able and equipped to address the issue with resources from his/her office. At other times and when issues are determined to be statewide, specialists will become more involved with program development and direction than if they are responding to a single request for information.

The statewide advisory committee (Montana Extension Advisory Council) meets twice a year, once on campus and once out in the state. The campus meeting is focused on campus based activities and the educational outreach of specialists. The off-campus meeting focuses on programming at the county level. The Director of Extension also provides a system wide update and discusses program priorities and funding.

Brief Explanation of what you learned from your Stakeholders

Stakeholders are concerned about similar issues receiving attention across the nation. Many worry about job security while others are concerned about accessing health care in their rural community. Agriculture producers are

concerned about holding a positive profit margin. Rural families living in the eastern part of the state are wondering if local school will remain open while those on the western side are concerned about the schools being over crowded. In those areas where education can help address the issue, Montanans look to Extension as a resource so they can make choices and decisions that are best for their families, businesses and communities.

IV. Expenditure Summary

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
2472166	0	0	0

2. Totaled Actual dollars from Planned Programs Inputs				
Extension			Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
Actual Formula	818353	0	0	0
Actual Matching	0	0	0	0
Actual All Other	1124002	0	0	0
Total Actual Expended	1942355	0	0	0

3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from				
Carryover	0	0	0	0

V. Planned Program Table of Content

S. No.	PROGRAM NAME
1	Nutrition and Healthy Lifestyles
2	Youth Development
3	Ag Sustainability and Profitability
4	Family Issues, Resources and Environments
5	Community and Economic Development
6	Natural Resources and Environment
7	Sustainable Energy
8	Childhood Obesity
9	Food Safety

V(A). Planned Program (Summary)

Program # 1

1. Name of the Planned Program

Nutrition and Healthy Lifestyles

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
702	Requirements and Function of Nutrients and Other Food Components	1%			
703	Nutrition Education and Behavior	65%			
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	10%			
724	Healthy Lifestyle	24%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	3.0	0.0	0.0	0.0
Actual	1.4	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
24412	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
43933	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Conduct train the trainer workshops
- Conduct workshops
- Facilitate Meetings
- Develop local and state partnerships
- Provide training

2. Brief description of the target audience

Low income adults and children under the ages of 19
 Low income youth, ages 5-12
 Adults that are FSP eligible
 Youth from FSP eligible households
 Underserved Seniors living in rural areas
 Adults (middle age to seniors)

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	10500	3500	3000	0
Actual	12545	2750	250	100

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	1	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- EFNEP/FSNP: The NEP curriculum will be used to teach three series of 8-12 sessions to adults who are enrolled. The NEP youth curriculum will be used to teach 6-7 lessons to youth in workshops (after school, in school, summer camps, park programs). Develop and maintain local and state partnerships and collaborations.

Year	Target	Actual
2009	6000	5026

Output #2

Output Measure

- Steps to a New You: Provide 3 train the trainer sessions for 15 County Extension Agents who in turn, can implement county Steps to a New You program. Provide 350 sets of training materials to County Extension Agents who will be presenting programs.
Not reporting on this Output for this Annual Report

Output #3

Output Measure

- Food Safety: Provide 3 train the trainer sessions for County Extension Agents so they can conduct 25 food safety education for audiences such as county sanitarians, school food service personnel, volunteers, food banks and so forth. Provide training and updates to County Extension Agents so they can implement County based programs.
Not reporting on this Output for this Annual Report

Output #4

Output Measure

- Healthy Life Styles: Number of people having medical screenings at health fair type activities and attending related classes as a result. Number of people following up with a physician or professional as a result of the tests conducted at the health fair activity.

Year	Target	Actual
2009	2500	1617

Output #5

Output Measure

- Strong Women: To certify 10 county agents so they are qualified to conduct strength training classes. These 10 agents will provide 1-14 week strength training sessions in their local county.

Year	Target	Actual
2009	50	370

Output #6

Output Measure

- Healthy Lifestyles: To reach adult and youth audiences in rural communities with health fairs and school based programs that will provide medical screenings and classes on stress management, nutrition, obesity, fitness, osteoporosis, cardiovascular disease, diabetes, prostate cancer, etc.

Year	Target	Actual
2009	2500	5532

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	<p>EFNEP/FSNP:</p> <p>Number of adults gaining awareness and knowledge regarding the importance of: Healthy eating (more fruits and vegetables, more whole grains) Increasing physical activity Food Safety practices Food resource management practices Food planning and preparation</p> <p>Number of youth increasing knowledge regarding the importance of: Eating a variety of foods Healthy eating Increasing physical activity Food safety principles (hand washing)</p> <p>Number of adults: Improving the family diets by choosing/preparing healthier choices(more fruits and vegetables, hole grains) Improving food safety practices storing and thawing foods properly) Improving food resource management practices (meal planning shopping with list) Improving nutrition practices (reading food labels) Healthy eating (more fruits and vegetables, more whole grains) Increasing physical activity Food Safety practices Food resource management practices Food planning and preparation</p> <p>Number of youth increasing knowledge regarding the importance of: Eating a variety of foods Healthy eating Increasing physical activity Food safety principles (hand washing)</p> <p>Participants will: Decrease their risk of developing diet-related chronic disease, obesity, osteoporosis, cardiovascular disease and diabetes. Decrease the risk for illness and death associated with foodborne illness. Increase their confidence in the ability to manage food resources, as well as other resources.</p>
2	<p>STEPS TO A NEW YOU:</p> <p>Participants will learn about facts, attitudes, behavior change techniques and specific behaviors related to physical activity, nutrition, body image that will allow them to live healthier lifestyles and prevent or reduce obesity.</p> <p>Number of children: Eating a variety of foods Improving practices in food preparation and food safety Select low cost nutritious foods</p>
3	<p>FOOD SAFETY:</p> <p>The participants will learn about safe food handling, specifically facts and skills related to the basics of safe food handling: Controlling time and temperature when handling food Ensuring proper personal hygiene Preventing cross-contamination Proper cleaning and sanitizing</p> <p>The participants will improve safe food handling, specifically the behaviors supporting the basics of safe food handling: Controlling time and temperature when handling food Ensuring proper personal hygiene Preventing cross-contamination</p>

Proper cleaning and sanitizing.
 Participants will adopt healthy attitudes related to a healthy lifestyle approach to prevention or reduction of obesity.
 Participants will improve their eating behaviors related to a healthy lifestyle approach to obesity.
 Participants will increase their level of physical activity related to a healthy lifestyle approach to preventing or reducing obesity.
 There will be a decline in the economic and health consequences of foodborne illnesses.

4	Healthy Lifestyles: Number of people having medical screenings at health fair type activities.
5	Strong Women: Number of people improving physical measurements (maintaining or lowering BMI) and reducing resting heart rate. Amount of increase in weight resistance over the course of the program as measured by specific exercises (bicep curl) and amount of weight lifted 2# increasing to 5#.

Outcome #1

1. Outcome Measures

EFNEP/FSNP: Number of adults gaining awareness and knowledge regarding the importance of: Healthy eating (more fruits and vegetables, more whole grains Increasing physical activity Food Safety practices Food resource management practices Food planning and preparation Number of youth increasing knowledge regarding the importance of: Eating a variety of foods Healthy eating Increasing physical activity Food safety principles (hand washing) Number of adults: Improving the family diets by choosing/preparing healthier choices(more fruits and vegetables, hole grains) Improving food safety practices storing and thawing foods properly) Improving food resource management practices (meal planning shopping with list) Improving nutrition practices (reading food labels) Healthy eating (more fruits and vegetables, more whole grains Increasing physical activity Food Safety practices Food resource management practices Food planning and preparation Number of youth increasing knowledge regarding the importance of: Eating a variety of foods Healthy eating Increasing physical activity Food safety principles (hand washing) Participants will: Decrease their risk of developing diet-related chronic disease, obesity, osteoporosis, cardiovascular disease and diabetes. Decrease the risk for illness and death associated with foodborne illness. Increase their confidence in the ability to manage food resources, as well as other resources.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	6000	5026

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Limited resource families struggle to purchase and prepare food for their families in a nutritious manner with the money, food stamps, or other food resources they have available. Almost 20% of Montana children live in poverty and food security is a problem for many of these children and their families. Working low income families often lack the time, knowledge and skill to prepare and serve family meals which are tasty, low-cost and healthful.

What has been done

EFNEP taught 4 series of lessons to adult and family members on how to stretch their food dollars, selection of nutritious food, meal planning, food safety/preparation, and price comparison shopping. People in 16 counties and 6 reservations received nutrition education in healthy food choices, food resource management, food preparation, improved shopping tips, and daily physical activity.

Results

In follow-up surveys, participants show improved practices: 41% in choosing healthy foods for their families; 39% using food safety practices; 47% planning meals more often; 35% using a shopping list; 37% comparing prices while shopping; 57% reading food labels; 35% not running out of food by the end of the month; 59% eating more fruits and vegetables daily; 45% eating more whole grain products; 37% drinking lower fat milk. On average, adult participants surveyed at the end of series lessons show a 42% improvement in the areas of healthy food choices, daily physical activity, and food resource management as compared to initial surveys.

4. Associated Knowledge Areas

KA Code	Knowledge Area
702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
724	Healthy Lifestyle

Outcome #2

1. Outcome Measures

STEPS TO A NEW YOU: Participants will learn about facts, attitudes, behavior change techniques and specific behaviors related to physical activity, nutrition, body image that will allow them to live healthier lifestyles and prevent or reduce obesity. Number of children: Eating a variety of foods Improving practices in food preparation and food safety Select low cost nutritious foods

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

FOOD SAFETY: The participants will learn about safe food handling, specifically facts and skills related to the basics of safe food handling: Controlling time and temperature when handling food Ensuring proper personal hygiene Preventing cross-contamination Proper cleaning and sanitizing The participants will improve safe food handling, specifically the behaviors supporting the basics of safe food handling: Controlling time and temperature when handling food Ensuring proper personal hygiene Preventing cross-contamination Proper cleaning and sanitizing. Participants will adopt healthy attitudes related to a healthy lifestyle approach to prevention or reduction of obesity. Participants will improve their eating behaviors related to a healthy lifestyle approach to obesity. Participants will increase their level of physical activity related to a healthy lifestyle approach to preventing or reducing obesity. There will be a decline in the economic and health consequences of foodborne illnesses.

Not Reporting on this Outcome Measure

Outcome #4**1. Outcome Measures**

Healthy Lifestyles: Number of people having medical screenings at health fair type activities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	2500	1617

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

In many rural, access to medical services is limited requiring residents to travel many miles for even the basic of check-ups. As a result, many people put off getting medical attention unless the situation is critical. People don't regard prevention strategies as a priority or even an option.

What has been done

Health Fairs have been an effective way to bring health/medical services to rural communities. Emphasis is on nutrition and diet, cardiovascular disease, osteoporosis, bone density, blood scans, PSA numbers, fitness, stress management, accident prevention and cancer. This year, the H1N1 influenza was addressed at many of the health fairs. Additionally, Geriatric Emergency Medical Services (GEMS) classes were held in 4 communities in the state.

Results

Health care providers indicate health fairs have benefited patients with early recognition of disease that are treatable with medications and lifestyle modifications. A statistical summary of blood test results indicates of the health fair participants, 24% had elevated glucose levels (signifies potential diabetes concerns), 42% had elevated cholesterol levels, 34% had elevated triglycerides. Comparisons with results from 2 years ago, the percentage of individuals with elevated cholesterol and triglycerides have both decreased. Health fairs benefit rural residents financially with their medical care expenses. Using an average cost for the chem. screens, the cost savings is about \$250,000. Using an average cost for the bone density screening, the participants saved \$5,950. The GEMS training resulted in 40 new instructors and provides for rural ambulance service personnel to improve their ability to appropriately treat the increasing number of elderly patients they serve. H1N1 vaccinations were available to all rural area residents.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #5**1. Outcome Measures**

Strong Women: Number of people improving physical measurements (maintaining or lowering BMI) and reducing resting heart rate. Amount of increase in weight resistance over the course of the program as measured by specific exercises (bicep curl) and amount of weight lifted 2# increasing to 5#.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	50	350

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Middle age and older adults can benefit from regularly performed exercise. Research has demonstrated that exercise with weights (strength training) will increase strength, muscle mass, and bone density in middle aged and older adults. Strengthening exercises also reduce the risk for numerous chronic diseases such as diabetes, heart disease, osteoporosis, arthritis and psychological health. Strength training has been shown to reduce depression and improve sleep and it contributes to a sense of well-being among individuals.

What has been done

Classes were held at Senior Citizen Centers, Senior Housing Centers, churches and other facilities where middle to senior aged people gather. Participants learned to do the exercises with correct form using hand and ankle weights.

Results

On average, participants increased the weight that they could lift by 3.5#. Following the initial introduction to the classes, they returned to every 10 week session offered. Participants indicate that after attending the classes, their neck and back pain has been alleviated and their balance and strength has improved. Walking groups have been formed and some participants have been motivated to join other exercise programs like aqua aerobics. Comments from participants include: I feel stronger, I sleep better, my neck/back has less pain, I use less pain medicine, I have more energy, I can paint without getting sore, I can get out of my chair easier, I want to stay more active, my balance is better.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Competing Programmatic Challenges

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 2

1. Name of the Planned Program

Youth Development

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	15.0	0.0	0.0	0.0
Actual	12.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
307696	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
212671	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Conduct Workshops, Clinics that provide active learning in subject matter related to projects
 Conduct/facilitate Meetings that focus on facilitation and leadership skills
 Develop Curriculum and supporting Teaching Tools for volunteers to use
 Provide training for youth and adult volunteers
 Partner with youth serving groups on state and local levels

2. Brief description of the target audience

Youth ages 5-19
 Parents of youth involved in 4-H
 Adult volunteers involved in Youth Development Work: 4-H program and other group volunteers.
 Professionals involved in Youth Development Work: 4-H program and other agencies, schools and organization

professionals

School administration and teachers

Individuals who have access to property where meth can be made

Youth who live on reservations and are between the ages of 9-21.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	2300	3700	12000	12500
Actual	3991	2200	25742	9000

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009

Plan: 0

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	2	0	
Actual	2	0	2

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Life Skill Development: Statewide, 10,000 youth will be involved in 300 experiential learning activities including workshops, clinics, seminars and club meetings. On a statewide basis, 300 youth will attend 15 camps to develop enhance life skill development.

Year	Target	Actual
2009	11000	21433

Output #2

Output Measure

- Leadership/Volunteer Development: An estimated 250 youth and 450 adults will be able to apply leadership skills and positive youth development practices in their roles of organizational, project or other leadership positions. Professional and volunteer staff in at least 1/3 of the counties will follow and adhere to established financial and audit guidelines. Teenage youth will exhibit leadership and communications skills within the 4-H program and at other times outside 4-H program.

Year	Target	Actual
2009	2300	3991

Output #3

Output Measure

- Methamphetamines: Provide materials and training on meth to retailers, store managers, homeowners, agricultural producers. Distribute 100 Tools for Schools Meth Prevention materials to school administrators/teachers. Distribute 500 Toolkits on Meth to tribal communities and non-tribal communities.

Year	Target	Actual
2009	2400	300

Output #4

Output Measure

- JUNIOR AGRICULTURE LOAN PROGRAM: Approximately 8 reservation youth will apply for the Montana Department of Agriculture - Junior Ag Loan Program to borrow money to purchase livestock to start their own herd. They will receive the necessary training to complete the process.

Year	Target	Actual
2009	8	18

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	<p>LIFE SKILL DEVELOPMENT</p> <p>100% of 4-H members will show an increase in knowledge and skills 100% of 4-H members will report improved practices learned 50% of 4-H members will re-enroll 85% of the youth involved in the experiential learning activities through 4-H will gain knowledge and skills about the topic they have selected. (Example: plants, animals/quality assurance, aerospace, vet science, foods, public speaking, leadership, etc.) 200 youth select new project literature or participate in new educational programs 80% of the youth involved in the experiential learning activities through the 4-H program will show improvement in life skills. 75% of youth selecting new project literature or participating in new programs successfully complete project records or program requirements. 50% of agents and leaders will promote and market new curriculum and program initiatives Youth involved in 4-H will make contributions to their communities, be less likely to be involved in illegal activity and be more likely to perform better in school. Youth involved in 4-H will exhibit having more confidence, feeling more competent and self-assured, and feeling more connected to their families and communities.</p> <p>As a result of participating in 4-H programs for at least 2 years, members are less likely than other kids:</p> <ul style="list-style-type: none"> To shoplift or steal (3 times less likely) To use illegal drugs of any kind to get high (2 times less likely) To ride in a car with someone else who has been drinking To smoke cigarettes To damage property for the fun of it (2 times less likely) To skip school or cut classes without permission <p>4-H members are more likely than non-members</p> <ul style="list-style-type: none"> To succeed in school, getting more A's than other kids To be involved as leaders in their school and the community To be looked up to as role models by other kids To help others in the community
2	<p>LEADERSHIP/VOLUNTEER DEVELOPMENT</p> <p>Eighty percent (80%) of Extension agents attending professional development opportunities will increase knowledge in volunteer management. Sixty percent of the 4-H volunteers participating in trainings will learn the duties of an organizational leader, project leader and other leadership positions within the program so 4-H Clubs and activities will use positive youth development practices. Fifty percent of the county 4-H Councils will learn the established financial and audit procedures for handling public money. Eighty percent (80%) of participating youth will increase their self-perception of leadership development skills. 50% of Extension professionals will adopt best management practices in the areas of volunteer identification, selection, orientation, training, utilization, recognition and evaluation. Fifty percent (50%) of volunteers attending trainings will adopt practices that support the 8 critical elements on 4-H educational programs. Over the next year, at least one-third of 4-H Councils in Montana will adopt the established financial and audit guidelines. Fifty percent (50%) of participating youth will apply developed practices of leadership.</p>

Agents and volunteers participating in professional development opportunities will provide a safe, positive environment for youth to gain life skills and meet developmental needs through participation in 4-H programs in Montana. Montanan's will have a more accurate and positive impression of the 4-H Youth Development Program.

3	<p>METHAMPHETAMINES</p> <p>Percent of students who can identify the ingredients used to manufacture meth Percent of students who can identify the effects of taking meth Participants will become involved in community meth awareness and prevention outreach activities.</p>
4	<p>JUNIOR AGRICULTURE LOAN PROGRAM</p> <p>Youth will complete the finance and beef management trainings needed to complete the livestock loan application. Youth will make application to borrow money for the purchase of livestock so they can start or expand their herd.</p>

Outcome #1

1. Outcome Measures

LIFE SKILL DEVELOPMENT 100% of 4-H members will show an increase in knowledge and skills 100% of 4-H members will report improved practices learned 50% of 4-H members will re-enroll 85% of the youth involved in the experiential learning activities through 4-H will gain knowledge and skills about the topic they have selected. (Example: plants, animals/quality assurance, aerospace, vet science, foods, public speaking, leadership, etc.) 200 youth select new project literature or participate in new educational programs 80% of the youth involved in the experiential learning activities through the 4-H program will show improvement in life skills. 75% of youth selecting new project literature or participating in new programs successfully complete project records or program requirements. 50% of agents and leaders will promote and market new curriculum and program initiatives Youth involved in 4-H will make contributions to their communities, be less likely to be involved in illegal activity and be more likely to perform better in school. Youth involved in 4-H will exhibit having more confidence, feeling more competent and self-assured, and feeling more connected to their families and communities. As a result of participating in 4-H programs for at least 2 years, members are less likely than other kids: To shoplift or steal (3 times less likely) To use illegal drugs of any kind to get high (2 times less likely) To ride in a car with someone else who has been drinking To smoke cigarettes To damage property for the fun of it (2 times less likely) To skip school or cut classes without permission 4-H members are more likely than non-members To succeed in school, getting more A's than other kids To be involved as leaders in their school and the community To be looked up to as role models by other kids To help others in the community

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	20000	21433

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

It is critical county agents and volunteers have up-to-date, relevant and appealing curricula to use when teaching youth in whatever delivery option used. Additionally, improving knowledge and the application of science, engineering and technology is a growing priority as the global economy grows and workforce demands change.

Montana is actively working with technologies in GPS, GIS, robotics, and film making with the opportunity for expansion to 4-H clubs and new and underserved audiences.

What has been done

Eight curricula summit groups helped determine changes to 4-H curriculum resulting in: Over 15 4-H projects were revised or new literature adopted, 30 projects/project materials were deleted from the curriculum, 20 items were made web ready and can be downloaded so 4-H participants have current materials to use. Workshops, clinics and other trainings were held to introduce and use the 4-H curriculum. Family trips and camps were conducted as well as science, engineering and technology projects (aerospace, robotics, plant science, film making and photography) held for military families specifically. Two 4-H Natural Resource Camps were held on the Blackfeet and Flathead reservations.

Results

Participants who attended the military camps completed evaluations that revealed: 80% learned how to communicate better with others; 74% were better able to make decisions for themselves, 64% are better able to solve problems, 78% learned how to show emotions in a good way, 60% are more confident about themselves, 54% learned how to handle stressful situations. Participants attending 4-H Congress (395) contributed to the Community Service Project of creating HERO packs for Military youth. They donated 3000+ items, wrote letters and assembled the packs to deliver to youth. Over 300+ packs were filled. Studies show youth who participate in 4-H are less likely to participate in destructive behavior (use of illegal drugs, smoking, drinking, etc) than non-participants. They are also more likely to succeed in school, serve in leadership roles in their schools and help others in their communities. Blackfeet/Flathead Reservation youth learned best practices for weed control and conservation of natural resources at their 4-H camps.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #2

1. Outcome Measures

LEADERSHIP/VOLUNTEER DEVELOPMENT Eighty percent (80%) of Extension agents attending professional development opportunities will increase knowledge in volunteer management. Sixty percent of the 4-H volunteers participating in trainings will learn the duties of an organizational leader, project leader and other leadership positions within the program so 4-H Clubs and activities will use positive youth development practices. Fifty percent of the county 4-H Councils will learn the established financial and audit procedures for handling public money. Eighty percent (80%) of participating youth will increase their self-perception of leadership development skills. 50% of Extension professionals will adopt best management practices in the areas of volunteer identification, selection, orientation, training, utilization, recognition and evaluation. Fifty percent (50%) of volunteers attending trainings will adopt practices that support the 8 critical elements on 4-H educational programs. Over the next year, at least one-third of 4-H Councils in Montana will adopt the established financial and audit guidelines. Fifty percent (50%) of participating youth will apply developed practices of leadership. Agents and volunteers participating in professional development opportunities will provide a safe, positive environment for youth to gain life skills and meet developmental needs through participation in 4-H programs in Montana. Montanan's will have a more accurate and positive impression of the 4-H Youth Development Program.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	3000	3991

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The 4-H program relies heavily on volunteers to teach youth best practices in over 300 project areas. It is important for the volunteers to be adequately prepared to successfully work with youth and to know the subject matter they are to teach. They also must have an understanding of positive youth development issues and practices so they can apply them to their individual situations.

What has been done

Through educational programs, workshops, retreats and trainings, participants gain knowledge, develop skills and acquire insight into trends and best practices in volunteer and leadership development. To maximize program reach, the train-the-trainer philosophy is utilized: training is targeted at audiences that reach and teach Extension 4-H clientele. Faculty members, Extension Agents, Volunteers, and Youth Leaders receive instruction that in turn impacts programs and clientele on the county, district and state level.

Results

Based on 3 studies, the service of the 3,991 4-H volunteers is equal to an economic impact of \$2.8 million to Montana. These volunteers provide an estimated 199,550 service hours yearly, equivalent to 104 full time positions. Positive Youth Development fundamentals are taught to volunteers through the Leaders College and evaluations indicate it is successful: "The information will be helpful as a 4-H leader" 70%; "The examples used were relevant and meaningful" 98%; "I feel like I will be a better 4-H leader as a result of the leaders college" 65%; "I intend to utilize this information in my role as a 4-H leader" 98%. In evaluations of knowledge levels reported, repeated measures t-test demonstrate statistically significant differences in the before and after training knowledge levels of all participants in the area of positive youth development: program approaches, experiential learning model, critical elements of the 4-H program and ages and stages of youth development.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #3

1. Outcome Measures

METHAMPHETAMINES Percent of students who can identify the ingredients used to manufacture meth Percent of students who can identify the effects of taking meth Participants will become involved in community meth awareness and prevention outreach activities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
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2009

500

300

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

While meth is still an issue for youth and adults in the state, the program in 2009 focused largely on populations living on reservations. Materials and resources are available on the website or can be ordered for schools, community groups or other interested groups who are addressing the meth issue.

What has been done

Resource materials are available on the web or can be ordered: Meth Prevention Education Planning Toolkit-for community educators and teachers, Meth prevention DVD-3 30second TV PSAs and 5 videos, The face of a meth user: ten years - color poster, Filler Ads - 17 anti-meth ads for reproduction in newsletters, newspaper and other media, Focus Cards-5 cards tailored to specific audiences such as agriculture, motels, retailers, pharmacists, Leader's Guide - basic information, Book marks, Pocket-sized Awareness Booklet, Tools for Schools-10 easy-to-use PowerPoint presentations.

Results

Training materials were sent to 54 Tribes throughout the US including all 7 reservations in Montana. Impact data has not been available from the tribes. The Tribes however, have been good partners and report that the information is effective but they are either resistant or unable to provide much information.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #4**1. Outcome Measures**

JUNIOR AGRICULTURE LOAN PROGRAM Youth will complete the finance and beef management trainings needed to complete the livestock loan application. Youth will make application to borrow money for the purchase of livestock so they can start or expand their herd.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	8	18

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

It is difficult for Native American youth to get started in the agricultural business. Families are unable to provide resources for the younger generation to purchase land or livestock to begin their own businesses. The Jr. Agriculture Loan Program provides limited resources youth to purchase livestock through an application process. For many, this gives them a start in establishing a viable business.

What has been done

Loans were provided to 18 new youth. Twelve youth attended workshops focused on animal body condition scoring, animal production and financial record keeping and financial statements. All participants were required to fill out and submit applications to the Montana Department of Agriculture Junior Agriculture Loan Program for their loans. They had individual consultations to establish a business plan, set goals, complete financial statements and establish recordkeeping systems and develop business agreements between parties when appropriate.

Results

On the Blackfeet reservation, 5 new youth borrowed \$32,500 to start a beef operation. One previous loan was paid off during the year. On the Fort Belknap reservation, 13 youth received loans of over \$17,000 to purchase bred cattle. Previous recipients paid \$50,000 on existing loans. As soon as the youth receive the funds to purchase cattle they begin to understand the actual costs of production, what the obligations are of establishing credit by borrowing, paying back a small loan and the costs of increasing their own cattle herd. Note that some loans have been paid off.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Comparisons between program participants (individuals, group, organizations) and non-participants

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Ag Sustainability and Profitability

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
112	Watershed Protection and Management	20%			
205	Plant Management Systems	30%			
213	Weeds Affecting Plants	15%			
216	Integrated Pest Management Systems	10%			
301	Reproductive Performance of Animals	20%			
311	Animal Diseases	5%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	9.0	0.0	0.0	0.0
Actual	8.8	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
159668	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
336180	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Interactive video conferencing from campus on beef related issues. Montana Beef University provides producers with information on a variety of topics via newsletter, seminars, workshops, and interactive TV. Develop, test and implement management strategies that reduce production costs by capitalizing on the sheep's ability to favorably manipulate natural resources To develop, implement and evaluate controlled sheep grazing strategies for managing large infestations of leafy

spurge and knapweed. Develop and facilitate the implementation of selection, nutritional and marketing management strategies for sheep. MSU Master Gardener program will be delivered live and by internet. Attendees will receive in depth resources to assist with questions. Increase knowledge of adapted woody and herbaceous plant materials; basic instruction in entomology and plant problem diagnosis. Conduct workshops on records, decision making aids, leasing alternatives/marketing, lease agreements for land, machinery and livestock, farm financial record guidelines and computer applications, machinery cost summaries, and cost of production worksheets and summaries.

2. Brief description of the target audience

- Livestock Producers, especially beef and swine
- Commodity Associations
- Land Managers/Owners (small and large)
- Weed Control Professionals
- Gardening Club members/people interested in gardening
- Small Grain Producers (Dry Land and Irrigated)

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	9500	32000	900	1700
Actual	10608	10000	840	1100

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	5	0	
Actual	5	0	5

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Montana Beef Network
 - Number of people attending beef quality assurance, production and marketing programs. Number of classes provided.
 - Number of people participating in the interactive-video conference programs.
 - Number of producers becoming BQA certified.

- Participation in interactive television short courses (4).
- Number of hits on the web site
- Number of people participating in demonstration/tour opportunities.

Year	Target	Actual
2009	2500	100

Output #2

Output Measure

- Montana Sheep Institute Number of people attending workshops teaching innovative ways of using sheep. Number of projects being conducted with sheep grazing invasive plants. Number of sheep producers involved with sheep grazing projects Number of landowners involved in sheep grazing projects Number of acres where weeds were controlled and documentation of vegetative composition trends. Number of wool growers involved in developing larger, more marketable clips. Number of people attending workshops related to using 'best practices' in sheep production and marketing of wool.

Year	Target	Actual
2009	1200	1120

Output #3

Output Measure

- Weed Control
 - Number of producers participating in workshops on weed control.
 - Number of producers and landowners attending tours
 - Number of people attending meetings on pesticide control and applicator training. Number of people being recertified for pesticide use.

Year	Target	Actual
2009	1000	884

Output #4

Output Measure

- Crops
 - Number of producers attending cropping systems workshops.

Year	Target	Actual
2009	2200	2310

Output #5

Output Measure

- Master Gardener
 - Number of people who become certified Master Gardeners

Year	Target	Actual
2009	150	363

Output #6

Output Measure

- Profitability
 - Number of producers attending farm management workshops.

Year	Target	Actual
2009	125	215

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	<p>Montana Beef Network:</p> <p>Number of people using and understanding Beef Quality Assurance protocols for raising beef.</p> <p>Number of people learning about new practices in livestock production.</p> <p>The percent of increase in the value of calves sold at weaning.</p> <p>Number of people who made changes in the way records are kept on ranches.</p> <p>Percent of breeding programs that are meeting the needs of the consumer in terms of quality and yield grade of calves.</p> <p>Add value to weaned calves</p>
2	<p>Montana Sheep Institute:</p> <p>Number of people who learned about using sheep to control invasive plants</p> <p>Increase in the number of Wool Pool consolidation.</p> <p>Increased number of grazing management programs initiated and monitoring programs developed.</p> <p>Increase in the number of Wool Pools organized and wool delivery and marketing of consolidated pools implemented.</p> <p>Number of producers who developed plans to implement technology in their own production unit. (Ribeye program)</p> <p>Acres of infested landscape controlled by small ruminant grazing.</p> <p>Wool from smaller growers prepared and marketed on the international market.</p> <p>Producers improving production efficiency of their sheep enterprise.</p>
3	<p>Weed Control:</p> <p>People learn about noxious weed identification and weed management.</p> <p>People learn how to map their property with a GIS device.</p> <p>Landowners will be able to recognize weed problems, determine control techniques, and improve their weed control skills.</p> <p>An increase in the number of acres mapped for purposes of weed identification and location.</p> <p>An increase in the number of weed infested acres being controlled by accepted practices.</p> <p>Producers will implement weed management plans/areas on their land.</p> <p>Integrated Pest management techniques will be put into practice.</p> <p>Agricultural and public lands will be conserved for future production and use.</p> <p>The spread of noxious weeds will be reduced.</p>
4	<p>Master Gardener:</p> <p>Participants learn about plants and how to grow them successfully.</p> <p>Participants' volunteer hours of service to their communities in answering questions about horticultural issues.</p>
5	<p>Crops:</p> <p>Producers improve their understanding of nutrient cycling, weed control, variety selection and alternative crop possibilities.</p> <p>Producers will plant short water varieties when moisture conditions are low, plant sawfly resistant varieties to minimize losses, and forage varieties that will improve production.</p> <p>Pounds of fertilizer used in farming systems will be reduced.</p> <p>Producers will adopt weed, crop and forage management strategies that sustain agricultural crop production and lessen environmental damage.</p> <p>Farm operators who implement best practices will increase their profitability and enhance long-term sustainability.</p>
6	<p>Profitability:</p> <p>Ag producers gain knowledge associated with development of standard financial statements, and track machinery costs as well as fixed and variable costs associated with crop enterprises.</p> <p>Producers will adopt financial management programs that will provide financial statements for business analysis and bank lending requirements.</p> <p>Producers will analyze enterprise cost of production that will aid in cropping decisions, marketing, leasing, machinery and land purchases.</p>

Successful farm and ranch businesses provide stability and continuity for local communities, businesses and schools.

Outcome #1

1. Outcome Measures

Montana Beef Network: Number of people using and understanding Beef Quality Assurance protocols for raising beef. Number of people learning about new practices in livestock production. The percent of increase in the value of calves sold at weaning. Number of people who made changes in the way records are kept on ranches. Percent of breeding programs that are meeting the needs of the consumer in terms of quality and yield grade of calves. Add value to weaned calves

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	2500	100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The portion of the Montana Beef Network relating to a safe food supply was moved to the Food Safety report. There is however, additional work in the beef production area that should be reported. Many producers have focused efforts on best practices for raising beef cattle. None have focused more than producers on the reservations in the state and this work deserves noting. Producers on the reservations have been fighting Trichomonas Fetus for many years and it has taken its toll on their operations.

What has been done

Extension coordinated and facilitated public information meetings to educate beef producers about animal diseases and gather input for a policy to provide guidelines for producers and Tribes to control and prevent Trichomoniasis in cattle herds. Workshops and private consultations have helped producers understand the importance of eliminating this and other diseases and techniques on how to do it.

Results

After 6 years of Extension education, producers are realizing benefits from the change in their practices. The following impacts represent work on one reservation with producers. It is an example of work done with over 75 producers and on other reservations. Producers have trich tested a total of 784 bulls over the 6 years, 25 producers are permanently pregnancy testing cows - 5,083 cows with 562 being open and an average of 89% pregnant. Over the 6 year period, 29,964 cows have been tested with 3,956 open. The cows were sold as non-producers saving the producers an average of \$170 each in wasted winter feed costs (\$672,520) These females are no longer on the reservation to harbor the disease - the pregnancy rate has raised by 2.7% and equates to 809 additional females retained in herds. If their net replacement cost is \$450 each this savings is \$364,062. Combined savings in feed and females is \$1,036,582.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
311	Animal Diseases

Outcome #2**1. Outcome Measures**

Montana Sheep Institute: Number of people who learned about using sheep to control invasive plants Increase in the number of Wool Pool consolidation. Increased number of grazing management programs initiated and monitoring programs developed. Increase in the number of Wool Pools organized and wool delivery and marketing of consolidated pools implemented. Number of producers who developed plans to implement technology in their own production unit. (Ribeye program) Acres of infested landscape controlled by small ruminant grazing. Wool from smaller growers prepared and marketed on the international market. Producers improving production efficiency of their sheep enterprise.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1200	1120

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Due to the changing face of the sheep industry, producers are looking for ways to stay in business and stay profitable. This included sheep production, wool production/marketing and the harvesting of wool. There is a shortage of sheep shearers which is one of the barriers for landowners to become involved in sheep production. Sheep have also been used extensively for weed control with some success.

What has been done

Research has been done on using sheep for weed control, especially on spotted knapweed. A study was conducted on sorting fleece lines finer than 18.5 um to take advantage of price premium and high wool loan deficiency payments. This is important to those producers who raise fine wool and was tested using the OFDA2000(Optical Fiber Diameter Analyzer). The Montana Wool Harvesting School provides a way for individuals to learn how to become a shearing professional. The School instructors receive advance training from professional program in New Zealand. This allows Montana to utilize the best instructional materials and advanced training methods developed in NZ.

Results

According to the study on sheep controlling spotted knapweed, the best time to graze spotted knapweed infested pastures is in late July or early August when spotted knapweed is flowering but prior to viable seed production. The OFDA2000 can be utilized to sort fleeces at shearing into specific fiber diameter lines of wool. This technology allowed the producers cooperating in the study to sort lines of wool to meet the contractual requirements to supply wool to Rambler's Way - a fine wool apparel business. Students attending the Montana Wool Harvesting School report that 18 are shearing for hire and 9 shear their own sheep. Of those working for hire, they shear an average of 76 sheep per day at a rate of \$3 per head equaling \$228 per day. Improved wool quality is a result of improved harvesting practices learned at the School which results in higher valued, more

marketable products.

4. Associated Knowledge Areas

KA Code	Knowledge Area
213	Weeds Affecting Plants
216	Integrated Pest Management Systems

Outcome #3

1. Outcome Measures

Weed Control: People learn about noxious weed identification and weed management. People learn how to map their property with a GIS device. Landowners will be able to recognize weed problems, determine control techniques, and improve their weed control skills. An increase in the number of acres mapped for purposed of weed identification and location. An increase in the number of weed infested acres being controlled by accepted practices. Producers will implement weed management plans/areas on their land. Integrated Pest management techniques will be put into practice. Agricultural and public lands will be conserved for future production and use. The spread of noxious weeds will be reduced.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1000	6500

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The spread of noxious weeds is one of the greatest threats to range and crop land as well as forest and wild lands. For agricultural producers, noxious weed invasion means a loss of productive lands for livestock and crops. Over 6,500 individuals applied restricted use pesticides to control pests on ag commodities they own, rent or lease.

What has been done

Two hundred fourteen programs were conducted targeting 6420 private pesticide applicators. These programs averaged 3 hours on a variety of pesticide education topics including safety, environmental concerns, IPM, calibration, the private applicator license, pesticide laws and reading and understanding the product label. Weed Prevention Areas and Weed Management areas serve as a way to collaborate in weed control and prevention efforts. Publications have been revised and updated to address weed/pesticide issues.

Results

Twenty two applicators conducted and successfully passed the online pesticide education test for certification. On the Northern Cheyenne reservation, Extension has worked with 4 landowners over a 9 year period to rehabilitate 500 acres of weed infested and abandoned cropland. The fields are now in full production producing 200 ton of hay in very challenging growing conditions - estimated production value of \$18,000. Two hundred twenty new acres of allotted land has been reseeded. On the Flathead reservation, Extension is helping producers address the orange hawkweed and meadow hawkweed complex which is problematic on that reservation.

4. Associated Knowledge Areas

KA Code	Knowledge Area
213	Weeds Affecting Plants

Outcome #4

1. Outcome Measures

Master Gardener: Participants learn about plants and how to grow them successfully. Participants' volunteer hours of service to their communities in answering questions about horticultural issues.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	150	363

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Montanans are avid gardeners and landscape enthusiasts who look for information that can make their labors successful. Primary needs include garden problem diagnosis followed by recommendations for pest control, diseases, climate considerations, pruning techniques, drip irrigation and soil health. Many people look to the Extension service for non-biased, research based information for assistance because they trust what they learn.

What has been done

The Master Gardener program requires participants to attend an 8-10 week session that covers issues ranging from problem diagnosis to diseases to drip irrigation and soil health. For many, the information gained in these sessions meets their needs, but for those wishing to become certified, additional volunteer effort is required. An exam is required and/or volunteer work which may include answering gardening calls in the Extension Office, working at the Farmers Market or helping gardeners at the Community Garden, serving as a resource to gardening clubs.

Results

Of the participants attending the Master Gardener programs, approximately one third will complete the work to become a Certified Master Gardener. This allows them to be acknowledged as a resource in gardening. Several people have worked in the schools involving youth in gardening projects and others conduct gardening classes largely to adult audiences. Those who complete the class but may not wish to become certified have done other things to meet their individual needs. For example, one person started her own blueberry farm and several others have started small landscaping businesses or yard and garden businesses.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
213	Weeds Affecting Plants

Outcome #5**1. Outcome Measures**

Crops: Producers improve their understanding of nutrient cycling, weed control, variety selection and alternative crop possibilities. Producers will plant short water varieties when moisture conditions are low, plant sawfly resistant varieties to minimize losses, and forage varieties that will improve production. Pounds of fertilizer used in farming systems will be reduced. Producers will adopt weed, crop and forage management strategies that sustain agricultural crop production and lessen environmental damage. Farm operators who implement best practices will increase their profitability and enhance long-term sustainability.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	2200	2310

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Harvested hay is produced on 2.6 million acres with a value of over \$350 million annually. Hay and seeded improved pastures are critical components of the \$1.3 billion livestock industry. Winter feed is ranchers' single largest expense. For regions that are in continuous wheat or barley production alternative crops are needed to provide some rotational relief in terms of weed, disease, and insect pressure. Camelina is an oilseed crop that is used as an alternative crop in dryland regions. Producers are looking for such a crop that can provide high yield and returns.

What has been done

"Willow Creek" forage winter wheat is a cereal forage used in rotation with alfalfa that has been developed in Montana. Extension has conducted the studies, tests and follow-up for this crop to be introduced to producers. Twenty five programs have been developed related to forage establishment, management, harvest technology, longevity, renovation and feeding. Tests are being conducted on seeding rate, planting date, depth and fertility requirements for Camelina. Information is presented at field days and extension meetings across the state.

Results

In 2009, Willow Creek forage winter wheat was harvested on about 20,000 acres and worth about \$4.2 million in gross hay value. Feeding trials confirmed that Willow Creek and other winter cereals provide a good winter maintenance diet, low cost and wide acceptance by livestock producers. Camelina is a new crop, both crop management practices and market development are being pursued simultaneously. The result is a slow and steady growth of Camelina as an alternative crop for Montana producers. This crop is grown under contract by private companies with the end product being used in the energy market. Other markets include food, cosmetics, industrial oils, all of which may develop over time.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
213	Weeds Affecting Plants

Outcome #6**1. Outcome Measures**

Profitability: Ag producers gain knowledge associated with development of standard financial statements, and track machinery costs as well as fixed and variable costs associated with crop enterprises. Producers will adopt financial management programs that will provide financial statements for business analysis and bank lending requirements. Producers will analyze enterprise cost of production that will aid in cropping decisions, marketing, leasing, machinery and land purchases. Successful farm and ranch businesses provide stability and continuity for local communities, businesses and schools.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	125	215

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Farms/ranches continue to increase in size due to the agricultural economy and increased age of operators. A large amount of crop acreage is changing hands as the USDA Conservation Reserve Program (CRP) acreage expires and older operators retire. This, coupled with normal expansion plans and few new operations, is resulting in the need for increased financial management skills. The farm/ranch manager must be able to manage all aspects of the agricultural business in order to ensure the success of the operation. Expansion plans, production decisions, machinery decisions, marketing and financial management must be incorporated into an overall business plan for the operation. Good management skills are essential in making sound decisions regarding expansion plans, production systems and tax management.

What has been done

Workshops and schools have given producers information on costs of production, enterprise budgeting and management strategies. Producers learned the importance of record keeping in order to determine direct input costs and machinery costs for farm/ranch operations. Standard income and expenses records have helped determine cash flow needs. Enterprise analysis software, fertilizer budget software and farm record keeping systems have been developed and are being adopted by producers.

Results

Farm operators have used farm records to make decisions on land leases and input purchases, as well as long-term decisions associated with machinery and land purchases. Lenders and accountants have used the financial statements for farm loans and for tax preparation. Land use observations show a dramatic increase in the production of pulse crops that are more profitable, require less nitrogen fertilizer, and aid in pest control through crop rotation. Producers are using financial management tools to make changes in their farm/ranch operations. USDA Farm Services Agency and Montana Agricultural Statistics data show a dramatic change in farm practices including tillage practices, fuel consumption, crop rotations and the mix of crops. There has been a continued shift in the number of acres that were once fallow now being planted to annual crops such as peas and lentils in rotation with wheat. Producers are realizing greater returns per crop acre with annual cropping. Depending on the area and weather conditions, fallow acres have fallen to 20%-30% of available cropland acreage and rotational crop acreage has increased substantially.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Populations changes (immigration, new cultural groupings, etc.)
- Other (High cost of fuel, fertilizer)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)

Evaluation Results

Reported in Program results

Key Items of Evaluation

V(A). Planned Program (Summary)**Program # 4****1. Name of the Planned Program**

Family Issues, Resources and Environments

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
801	Individual and Family Resource Management	45%			
802	Human Development and Family Well-Being	45%			
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures	10%			
	Total	100%			

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	3.0	0.0	0.0	0.0
Actual	2.8	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
13466	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
168157	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Conduct Workshops in all areas.

Develop support groups where and when necessary.

Partner with Agencies, Associations, Organizations, Real Estate Personnel, County Health Officials, Montana Building Industry Association.

Develop Fact Sheets on AIPRA for Tribal Members.

Develop curriculum on AIPRA for Tribal Members, estate planning in general; indoor air quality and record keeping systems;

Well maintenance folders.

Conduct Seminars on Estate Planning Healthy Indoor Environments.

Revise MontGuides (fact sheets) to reflect the changes in state and federal laws related to estate planning.

Develop publications on Asthma Awareness and lead-based paint

2. Brief description of the target audience

- Caregivers of Alzheimer Patients
- Home Health Care Providers
- Certified Nursing Assistants
- Tribal Members who own undivided interests in trust lands on a reservation
- Farmers/Ranchers
- Montana Financial Educational Coalition Partners
- 4-H Leaders
- State Agency Employees
- Home Builders, housing authorities, real estate professionals
- Remodeling Contractors
- Weatherization Contractors
- Homeowners
- Senior Citizens

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	3500	3500	30	100
Actual	3004	3284	20	50

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009

Plan: 0

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	2	0	
Actual	2	0	2

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

- Alzheimer's Mini Series: Conduct two mini series in the state. Based on past experience, 60 people could participate in each of the sessions.

Year	Target	Actual
2009	75	132

Output #2**Output Measure**

- Estate Planning, Passing of Reservation Lands: An estimated 1000 people will attend an in-depth seminar on estate planning and promotion and will begin to make plans. Distribute the revised MontGuide on state and federal law changes to 1400 participants who have purchased Estate Planning: The Basics packet. Reprint the curriculum "Track'n Your Saving Goals Register" MontGuide and develop materials with ideas on how to save. Prepare materials for presentation and seminars on AIPRA on reservations that request it; an estimated 200. Prepare a series of fact sheets that explain AIPRA and distribute them to tribal members; approximately 300.

Year	Target	Actual
2009	800	1280

Output #3**Output Measure**

- Grandparents Raising Grandchildren: Produce and distribute a bimonthly newsletter to all Extension Offices, grandparents, and others on the mailing list; currently 150 names. Provide support and assistance to start educational/support groups in local communities for grandparents who are parenting children. Currently, there are 15 in the state.

Year	Target	Actual
2009	400	250

Output #4**Output Measure**

- Housing and Environmental Quality Number of publications/fact sheets distributed. Number of participants attending home environmental workshops/programs. Number of people testing their wells, doing radon tests.

Year	Target	Actual
2009	1000	1342

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	<p>Alzheimer's Mini Series: Seventy-five participants in the Alzheimer's Mini Series will learn about financial planning issues, nutrition, home modifications, and family interactions related to caring for an Alzheimer's patient. Seventy percent (70%) of the participants will cope with caring for an Alzheimer's patient more effectively. Participants will feel more comfortable in their care-giving role and will have a greater understanding of how they can assist a loved one afflicted with Alzheimer's.</p>
2	<p>Estate Planning, Passing of Tribal Lands, Savings:</p> <p>The percent of people who reviewed their property titles and made changes in them, who had an attorney write a will, who reviewed their will and had an attorney update it, who began a gifting program, who made a list of tangible personal property, who reviewed beneficiaries on their life insurance policies, who discussed estate planning with family members, who learned that Montana law would not distribute their property as they desire, who learned that their estate is not large enough that federal estate taxes would apply.</p> <p>Number of participants who attended the educational sessions to learn about AIPRA. Number of feature articles on AIPRA printed in the local newspapers, newsletters and aired over the radio and requests for additional information as a result. Number of tribal members who shared the fact sheets with relatives and talked about estate planning with friends and relatives. Number of parents who open a savings account for their children, discuss saving with family members, and complete a savings goal worksheet. The percent of people who actually did the list of items under short term (the things they learned about). The percent of people who used POD and TOD designations. Number of people who request a copy of an Informational Title Report from the Bureau of Indian Affairs. The number of people who drew a family generational tree to determine to whom their property will pass upon their death; who wrote a will in their own handwriting, retitled property into joint tenancy with right of survivorship, who decided to establish a life estate, who wrote a will, who talked with an attorney about writing a will, who shared the fact sheets with an immediate family member. The number of people who start saving with a financial institution, open an IRA, 401 k or 403 b plan, and whose children are beginning to save. Farms and ranches will be able to be transferred intact without being sold to provide equally to all heirs of to pay death costs. More Montana families will be financially secure at retirement</p>
3	<p>Grandparents Raising Grandchildren:</p> <p>Number of grandparents who gain information to assist them in their parenting role, become aware of services available to support them, and learn about methamphetamine and how it affects the user. Number of grandparents who begin to use current parenting strategies, prepare nutritious meals for themselves and their grandchildren, seek information to assist with their financial and legal issues related to parenting their grandchildren. Number of grandparents and their families will experience reduced stress and grandchildren will have a safe and nurturing environment in which to grow.</p>
4	<p>Home Energy Costs:</p> <p>Number of participants who learn common methods to save home energy by applying measures to new or existing homes. Number of participants who are using high performance, resource efficient building materials and construction techniques in remodeling and new construction. Number of participants who increase their purchase of EnergyStar products and appliances resulting in an energy saving of at least 30% annually per appliance. Number of participants who experience an energy savings due to weatherizing and remodeling of existing homes resulting in an annual 13-65% energy savings per household. Number of participants who increase utilization of the Montana Energy Tax Credit program.</p>

5	<p>Housing and Environmental Quality: Number of participants who learn about environmental health concerns common to new and existing homes - molds, water quality, lead-based paint, radon, etc. Number of people requesting information related to home/environmental concerns. Homes in Montana will routinely be tested/assessed and mitigated for environmental health issues (molds, radon, asbestos, drinking water, carbon monoxide)</p>
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Outcome #1

1. Outcome Measures

Alzheimer's Mini Series: Seventy-five participants in the Alzheimer's Mini Series will learn about financial planning issues, nutrition, home modifications, and family interactions related to caring for an Alzheimer's patient. Seventy percent (70%) of the participants will cope with caring for an Alzheimer's patient more effectively. Participants will feel more comfortable in their care-giving role and will have a greater understanding of how they can assist a loved one afflicted with Alzheimer's.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	75	132

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Montana has 50 counties that are considered rural enough that residents have greater obstacles in accessing care for families affected by Alzheimer's. (Frontier Counties) These obstacles include: distance, terrain, climate, lack of providers, and fewer available specialty services.

What has been done

In 2009, a webinar was conducted with interested people from Kansas and Nebraska on Alzheimer's and how to use the toolkit. The audience was largely Extension Agents. In Montana, the program is winding down. The problem is still there, but is being addressed through different programs, specifically a Program called Powerful Tools for Caregivers.

Results

Four toolkits were purchased by Kansas Extension faculty. They are using the kits for professional development as well as to offer the series to the public. In 2009, 33 new class leaders were trained giving them the skills to offer the six-week Powerful Tool for Caregivers course. Four County Extension Agents received the Master Trainer designation and can conduct "class leader" trainings. Participant evaluations indicate they made statistically significant gains in knowledge and planned behavior after taking the six week course; they can take care of themselves while providing care to another and have better overall health themselves which in turn makes them better prepared to care-give their loved one.

4. Associated Knowledge Areas

KA Code Knowledge Area

801 Individual and Family Resource Management

802 Human Development and Family Well-Being

Outcome #2**1. Outcome Measures**

Estate Planning, Passing of Tribal Lands, Savings: The percent of people who reviewed their property titles and made changes in them, who had an attorney write a will, who reviewed their will and had an attorney update it, who began a gifting program, who made a list of tangible personal property, who reviewed beneficiaries on their life insurance policies, who discussed estate planning with family members, who learned that Montana law would not distribute their property as they desire, who learned that their estate is not large enough that federal estate taxes would apply. Number of participants who attended the educational sessions to learn about AIPRA. Number of feature articles on AIPRA printed in the local newspapers, newsletters and aired over the radio and requests for additional information as a result. Number of tribal members who shared the fact sheets with relatives and talked about estate planning with friends and relatives. Number of parents who open a savings account for their children, discuss saving with family members, and complete a savings goal worksheet. The percent of people who actually did the list of items under short term (the things they learned about). The percent of people who used POD and TOD designations. Number of people who request a copy of an Informational Title Report from the Bureau of Indian Affairs. The number of people who drew a family generational tree to determine to whom their property will pass upon their death; who wrote a will in their own handwriting, retitled property into joint tenancy with right of survivorship, who decided to establish a life estate, who wrote a will, who talked with an attorney about writing a will, who shared the fact sheets with an immediate family member. The number of people who start saving with a financial institution, open an IRA, 401 k or 403 b plan, and whose children are beginning to save. Farms and ranches will be able to be transferred intact without being sold to provide equally to all heirs of to pay death costs. More Montana families will be financially secure at retirement

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	800	1280

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Montanans are interested in planning for the distribution of their wealth following their death. Statistics reveal that 70% die without a will. The state legislature continues to change the intestate succession (dying without a will law) and contract laws that impact beneficiaries of real and personal property. Farmers/ranchers/owners of closely held businesses are interested in inter-generational transfers. This is especially true on Indian Reservations where landowners need to plan for passing their agricultural land to avoid further fractionation under the American Indian Probate Reform Act.

What has been done

"Think You know Who Gets Your Property When You Die .. Think Again" is a program presented in 49 locations across the state. Topics also included plans and tools to address succession planning, estate planning and interpersonal family and business relationships. An interactive website and CD illustrates how property passes under Montana law when a person dies without a written will. Educational materials on the American Indian

Probate Reform Act are still available.

Results

Evaluations done with participants following estate planning programs, website and CD opportunities reveal 95% were able to find their specific situation on the Internet/CD and 90% recommend the CD/website to other Montanans. After learning about Montana laws: 38% discussed estate planning with their family; 37% drafted a will for the first time and 22% revised their current will. When asked who users intended to share this information with: 58% reported their spouse/partner; 49% their children; 27% other family members; and 29% friends. There were 2,152 hits on the website in 2009. During 2009, there were 1,130 visits to the website containing 14 fact sheets on the American Indian Probate Reform Act. The fact sheets were also utilized by the Justice Works AmeriCorps Legal Fellow in a notebook for a Continuing Legal Education course for 20 Pro Bono attorneys. The 14 fact sheets, 13 media articles and eight PowerPoint presentations are being used on the Blackfeet, Fort Belknap, and Fort Peck reservations.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #3

1. Outcome Measures

Grandparents Raising Grandchildren: Number of grandparents who gain information to assist them in their parenting role, become aware of services available to support them, and learn about methamphetamine and how it affects the user. Number of grandparents who begin to use current parenting strategies, prepare nutritious meals for themselves and their grandchildren, seek information to assist with their financial and legal issues related to parenting their grandchildren. Number of grandparents and their families will experience reduced stress and grandchildren will have a safe and nurturing environment in which to grow.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	400	250

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Montana ranks 9th in the nation for the increase in Grandparents Raising Grandchildren. In almost all cases, grandparents are called upon to parent their grandchildren due to a crisis or failure in the nuclear family. Caregiving/parenting takes an emotional toll on grandparents. There can be guilt and/or shame over the failure of their children to carry out their parenting responsibilities and grandparents become frustrated with today's child rearing philosophies, which differ from their own experiences.

What has been done

A newsletter is sent to Extension Offices, grandparents and others who request it 3 times a year. A website for grandparents is maintained with up-to-date information and a list serve is available for grandparents and others to

share information. Additionally, seminars, trainings, informal discussion or support groups are conducted.

Results

Support group facilitators distribute a retrospective pre-post test evaluation form to participants. Results indicate that grandparents make statistically significant improvements in * finding resources, * understanding parenting today, * realizing they cannot control the choices their adult children make, * how to advocate for their grandchild, and * reaching out to others when they are stressed. Grandparents are more comfortable in seeking information and assistance with their financial and legal issues related to parenting their grandchildren - 42% sought financial assistance, legal and mental health assistance from community partners.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being

Outcome #4

1. Outcome Measures

Home Energy Costs: Number of participants who learn common methods to save home energy by applying measures to new or existing homes. Number of participants who are using high performance, resource efficient building materials and construction techniques in remodeling and new construction. Number of participants who increase their purchase of EnergyStar products and appliances resulting in an energy saving of at least 30% annually per appliance. Number of participants who experience an energy savings due to weatherizing and remodeling of existing homes resulting in an annual 13-65% energy savings per household. Number of participants who increase utilization of the Montana Energy Tax Credit program.

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

Housing and Environmental Quality: Number of participants who learn about environmental health concerns common to new and existing homes - molds, water quality, lead-based paint, radon, etc. Number of people requesting information related to home/environmental concerns. Homes in Montana will routinely be tested/assessed and mitigated for environmental health issues (molds, radon, asbestos, drinking water, carbon monoxide)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1000	1342

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Across the state, consumer, real estate professionals, county health officers and others are reporting alarming incidences and health effects related to home environmental issues such as: high radon levels, asthma, molds, asbestos in vermiculate insulation, drinking water contamination, improperly installed and maintained septic systems, carbon monoxide from faulty heating systems and lead-based paint.

What has been done

There have been training sessions with housing authorities, tribes, real estate agents, home inspectors, waste water treatment operators, health departments, and Extension agents.

Results

As a result of Extension programming, 172 homes were tested and corrected for radon, 38 homes tested and corrected for carbon monoxide, 65 homes tested and corrected for excessive moisture and mold. Additionally, 110 families were assisted with asthma trigger control, 85 households learned how to safely manage household chemicals, 465 septic system publications were distributed to households and 65 grease prevention folders were provided to Montana food services. Feedback shows correction strategies were taken for radon, carbon monoxide and mold. In the other areas covered by programming, participants indicate they have gained knowledge that will assist them in addressing future issues.

4. Associated Knowledge Areas

KA Code	Knowledge Area
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Public Policy changes
- Government Regulations

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Before-After (before and after program)
- During (during program)

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 5

1. Name of the Planned Program

Community and Economic Development

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
608	Community Resource Planning and Development	60%			
723	Hazards to Human Health and Safety	10%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	10%			
805	Community Institutions, Health, and Social Services	20%			
Total		100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	6.0	0.0	0.0	0.0
Actual	5.2	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
130082	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
81625	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Community meetings will be held to determine community values, attitudes, and vision on which to develop strategies and action plans.

Partner with local economic development entities, agencies, businesses/industry and organizations to implement goals and plans of action.

Partner with local Adult Education entities to identify class offerings.

Television PSA's announcing EDEN (extension Disaster/Emergency Network).

Television PSA's discussing drought/wild fires or other disasters that may occur.

Community meetings will be held to discuss renewable/alternative energy possibilities in both public and private sectors.

Training opportunities will be available for people serving on boards, councils and committees in both the public and private sectors.

2. Brief description of the target audience

- Adults interested in education
- Business and Community Leaders
- Local Development Entities
- Local Economic Development Entities
- Chamber of Commerce Members
- Tourism Leadership &ndash local/state
- County Government
- Individuals interested in start-up and expansion of business
- Individuals interested in start-up & expansion of business
- County DES, Law Enforcement, Emergency Response Coordinators
- Current Community Leadership/Potential Community Leaders
- Landowners
- City Government

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	6000	140000	200	100
Actual	5083	3000	300	125

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	2	0	
Actual	2	0	2

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

- Community Resource Development: Number of Extension lead activities such as facilitation services, assistance in feasibility studies, strategic planning processes, development of business retention and expansion plans/programs. Number of partnerships and existing relationships utilized to strengthen sustainability of county and private efforts in community and economic development.

Year	Target	Actual
2009	7500	1260

Output #2**Output Measure**

- Adult and Community Education Number of collaborations with community organizations to identify and establish classes to be offered in adult educational settings. Number of adult education classes offered during the year. Number of people attending classes.

Year	Target	Actual
2009	1000	739

Output #3**Output Measure**

- EDEN (Extension Disaster Emergency Network): Number of hits on the EDEN WEB Site. Number of responses from PSA's to emergency service entities.

Year	Target	Actual
2009	140000	628

Output #4**Output Measure**

- Horizons Program: Number of Study Circle and Leadership Plenty meetings conducted. Number of people who have not been involved in community problem solving activities in the past. Number of community members trained and serving as facilitators for programs. Number of community members involved in Study circles and Leadership Plenty process.

Year	Target	Actual
2009	800	2456

Output #5**Output Measure**

- Renewable/Alternative Energy: Number of people attending workshops/presentations and/or accessing the web site for information about wind energy. Number of people attending workshops/presentations on the pros and cons of various types of bio-fuels or alternative energy sources.
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	<p>EDEN: Number of PSA's produced to increase public awareness and knowledge of disasters and increase consumer awareness of local emergency services.</p> <p>The public will understand how they access local emergency services and take steps to prepare for a disaster (number of disaster survival kits made)</p> <p>Reduction of accidents, loss of property and human life due to disasters</p>
2	<p>COMMUNITY RESOURCE DEVELOPMENT: Number of community leaders, agency personnel, organization members and other citizens that will gain an understanding of the value of creating a community development/economic development plan. Number of community leaders, agency personnel, organization membership that will collaborate on economic development strategies. Number of communities that will utilize an inclusive process to establish goals and action plans. Counties will establish and maintain a sustainable population with a viable and diversified economy. Communities will be prepared and able to deal with and direct change so it will reflect its goals, values and vision.</p>
3	<p>ADULT/COMMUNITY EDUCATION Number of people who gained knowledge through adult education classes. Number of participants who tried a new activity as a result of attending a class. Number of participants who used a new skill, practice or technique as a result of attending a class.</p>
4	<p>HORIZONS: Communities demonstrate awareness and interest in poverty reduction. Community members become aware of opportunities, tools and techniques available to engage in poverty reduction. Communities begin to recognized and own poverty as a community issue about which they can take action. Communities begin to recognize and own leadership as a community issue about which they can take action. Communities demonstrate an interest in poverty reduction and begin the process of learning to recruit and mobilize others. Communities are mobilized to create and adopt a shared vision for poverty reduction. Communities will directly engage people living in poverty in leadership training and action planning. Communities will define leadership for poverty reduction as collective, rather than individual actions. Communities will implement inclusive processes and decision-making methods. Leadership base of communities will mirror the demographics of their community. Communities have a commitment to poverty reduction. Communities will implement and sustain changes that contribute to poverty reduction in the community. Communities will be able to demonstrate progress toward reducing poverty. Number of communities conducting Study Circles and Leadership Plenty activities and involve people new to the community problem solving. Number of people trained as facilitators for the Study Circle and Leadership Plenty process and are able to assist community groups. Number of people who develop or enhance their leadership skills and are able to apply those newly acquired skills and techniques</p>
5	<p>RENEWABLE/ALTERNATIVE ENERGY: Number of communities/cities making decisions about revenue generation with wind based on MSU Extension model. Number of people making decisions about the use of bio-fuels and other alternative energy opportunities.</p>

Outcome #1**1. Outcome Measures**

EDEN: Number of PSA's produced to increase public awareness and knowledge of disasters and increase consumer awareness of local emergency services. The public will understand how they access local emergency services and take steps to prepare for a disaster (number of disaster survival kits made) Reduction of accidents, loss of property and human life due to disasters

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	140000	628

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Since 9/11 an increased awareness of security and safety for all citizens has developed. There is an increased emphasis on disaster mitigation, planning and preparedness. Studies have demonstrated the benefits to communities with lives saved, decreased levels of damage, and smoother recovery when residents know how to respond before, during and after a disaster. For an agricultural state, bio-security (animal and plant disease) concerns have become high profile as well.

What has been done

Efforts were focused on youth and adults. A 5 week emergency preparedness class project was conducted for high school students to increase their level of personal and family preparedness should a disaster occur. The students in turn, presented information to the all the school (grade and high school) students. Additionally, 5 workshops on agricultural emergency preparedness were conducted which included education and practical technical assistance in agricultural emergency planning, prevention of foreign animal disease outbreaks and awareness of agro-terrorism events.

Results

Based on a survey of the students attending the emergency preparedness classes, they reported understanding and ability to perform actions required: personal preparedness - 82%, roles of public officials-86%, resources needed in a disaster-86%, incident action plans-91%, family emergency supply kit-91%, zoonotic diseases-95%, volunteer and /or youth roles in a disaster-95%, ICS-91%, decontamination-91%, agricultural emergency response-50%. The youth were asked to assist the emergency planning committee by doing/developing: public fact sheets for 22 zoonotic diseases; facility diagrams of the county fair grounds, veterinarian clinic and animal shelter, re-useable laminated incident response templates, animal decontamination guidelines, agricultural resource inventories, family survival kits, and media packets and PSA announcement templates. These are ready to be used at the community level.

4. Associated Knowledge Areas

KA Code	Knowledge Area
723	Hazards to Human Health and Safety

Outcome #2**1. Outcome Measures**

COMMUNITY RESOURCE DEVELOPMENT: Number of community leaders, agency personnel, organization members and other citizens that will gain an understanding of the value of creating a community development/economic development plan. Number of community leaders, agency personnel, organization membership that will collaborate on economic development strategies. Number of communities that will utilize an inclusive process to establish goals and action plans. Counties will establish and maintain a sustainable population with a viable and diversified economy. Communities will be prepared and able to deal with and direct change so it will reflect its goals, values and vision.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	7400	1260

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Serving on public boards at the county or municipal level is a critical component of good governance. Yet, many board members are ill-informed and unprepared for the significant challenges and responsibilities of board membership. Boards and the governing authorities that supervise them are vulnerable to bad press, poor public image and even litigation if statutory requirements or social norms are not met.

What has been done

Training materials and educational programs have been conducted across the state for the past 2 years. Over the past year, 1260 people have taken advantage of the opportunities to learn how to be effective as a board member at whatever level. Program organizers were largely county commissioners and municipal clerks.

Results

Two methods were used to evaluate this program: survey with 11 5pt Likert-scale items and 2 open ended questions, then several months after the trainings, program organizers chose participants representing new and long-term members to self evaluate on an on-line survey. Responses show an increase in knowledge of the statutes and positive changes in behavior: better understanding of Open Meeting Laws, Code of Ethics, liability issues for board members, nepotism; how to use parliamentary procedure; follow requirements prescribed in Open Meetings Laws, how to address conflict at board meetings more constructively, board members feel more comfortable with their roles/responsibilities, board minutes are taken more effectively, board meetings are more effective.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services

Outcome #3**1. Outcome Measures**

ADULT/COMMUNITY EDUCATION Number of people who gained knowledge through adult education classes. Number of participants who tried a new activity as a result of attending a class. Number of participants who used a new skill, practice or technique as a result of attending a class.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	270	739

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

There is a need for continuing education to enhance the lives of residents in rural Montana. People are looking for opportunities to enrich their lives through informal education. They are particularly interested in computer classes to learn how to work with Excel, Quicken, PowerPoint and the web. Gardening and landscape classes are also requested, especially with the economic conditions and the Mountain Pine Beetle infestation in the state. Other classes are offered depending on the interest of the community.

What has been done

Classes were offered in Microsoft Excel(r); Grain Marketing, agriculture-related insurance and personal insurance; Mountain Pine Beetle; Personality type through Colors program; Stress Management; Truck Safety; Gardening; water Aerobics; and Food Preservation. Specialized classes focused on history were also offered to adults.

Results

Participants in the Microsoft class created and manipulated spreadsheets and graphs; tree owners identified and managed the Pine Beetle in towns and shelterbelts and made decisions on how to protect their trees; participants learned 4 techniques for minimizing stress-many report sleeping better; participants learned about agriculture trucking laws, truck safety inspections and air brake systems. 40% of the participants in the Quicken classes report they use Quicken to keep their business financial records as a result of the class. 75% of participants chose not to apply protective measures on trees after the Extension programs saved them \$30 per tree. One participant in an Excel(r) class (2008) is using the program to maintain herd records for a cattle and sheep ranch. The ranch is using the program to compare calf weaning weights to cow weights to determine the least efficient cows for culling; removing inefficient cattle from the herd has increased the profitability of the herd.

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

Outcome #4**1. Outcome Measures**

HORIZONS: Communities demonstrate awareness and interest in poverty reduction. Community members become aware of opportunities, tools and techniques available to engage in poverty reduction. Communities begin to recognize and own poverty as a community issue about which they can take action. Communities begin to recognize and own leadership as a community issue about which they can take action. Communities demonstrate an interest in poverty reduction and begin the process of learning to recruit and mobilize others. Communities are mobilized to create and adopt a shared vision for poverty reduction. Communities will directly engage people living in poverty in leadership training and action planning. Communities will define leadership for poverty reduction as collective, rather than individual actions. Communities will implement inclusive processes and decision-making methods. Leadership base of communities will mirror the demographics of their community. Communities have a commitment to poverty reduction. Communities will implement and sustain changes that contribute to poverty reduction in the community. Communities will be able to demonstrate progress toward reducing poverty. Number of communities conducting Study Circles and Leadership Plenty activities and involve people new to the community problem solving. Number of people trained as facilitators for the Study Circle and Leadership Plenty process and are able to assist community groups. Number of people who develop or enhance their leadership skills and are able to apply those newly acquired skills and techniques

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	800	2456

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Communities can become involved with the Horizons project when they exhibit an interest in poverty reduction and leadership development. Community members become aware of opportunities, tools and techniques to address these two issues and then take action.

What has been done

A visioning process as well as the Study Circles and Leadership Plenty have been completed in 15 communities across the state. Approximately 450 people completed the Study Circle process and 460 completed the Leadership Plenty.

Results

According to a survey completed by participants, 87.3% indicated they learned about a topic or action and how to implement it. Additionally, 72.2% of the participants say they have adopted or changed what they are currently doing as a result of the Horizons program. Specifically, they indicate such examples as: ability to recognize leadership skills in others, ability to work with others effectively, able to lead productive meetings, ability to guide discussions among diverse groups, and ability to manage conflict in group work, and learned how to approach a community action group. Actions that have been taken in the communities include: establishment of a community garden, community communications, neighbors helping neighbors program, small business retention, food bank, affordable housing land trust, life skills training program, job creation/sustainability, low income housing, job mentor/job shadow program for youth, after-school program, leadership retreats, elderly services,

recycling center, and community center/assisted living/affordable housing.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

Outcome #5

1. Outcome Measures

RENEWABLE/ALTERNATIVE ENERGY: Number of communities/cities making decisions about revenue generation with wind based on MSU Extension model. Number of people making decisions about the use of bio-fuels and other alternative energy opportunities.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)

Evaluation Results

Reported in Program Results sections

Key Items of Evaluation

V(A). Planned Program (Summary)**Program # 6****1. Name of the Planned Program**

Natural Resources and Environment

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	10%			
121	Management of Range Resources	20%			
123	Management and Sustainability of Forest Resources	10%			
135	Aquatic and Terrestrial Wildlife	10%			
136	Conservation of Biological Diversity	10%			
213	Weeds Affecting Plants	20%			
605	Natural Resource and Environmental Economics	20%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	5.0	0.0	0.0	0.0
Actual	3.4	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
67685	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
59197	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

•Conduct workshops that will address specific topics such as forest stewardship and controlling pests for example for Extension Professionals and clientele. •Provide training so people learn will be able to calibrate spray equipment and making

management plans for example. •Work with the media to educate the public on natural resource topics. •Partner with local associations, agencies and organizations with common interests and goals. •Prepare MontGuides (Fact Sheets) on related topics. •Conduct tours and demonstrations when appropriate teaching method for topic. •Conduct workshops on water quality and safety.

2. Brief description of the target audience

- Private Forest Land Owners
- Graduates of the Forest Stewardship Program
- County Weed Boards
- Farmers and Ranchers & Ag producers
- Private Land Owners
- Small Acreage Land Owners
- Producers who operate Animal Feeding Operations
- Professional loggers/foresters

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	6500	10000	200	150
Actual	2919	7315	97	135

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	1	0	
Actual	1	0	1

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Forestry: Number of private forest owners who attend one/two workshops so they will understand the timber sale process allowing them to complete a successful timber sale. Number of people attending the forestry mini-college, a one-day educational program that includes 10 forestry related courses that provide attendees with knowledge or sources of assistance necessary to implement their forest stewardship plans.

Year	Target	Actual
2009	300	1329

Output #2

Output Measure

- Small Acreage Lands: Number of one-on-one consultation and group workshops for small acreage land owners on pest control, weed management and other topics. Number of people who participate in Field Days and demonstration opportunities for land owners to observe techniques and best practices. Number of subscribers to Big Sky Small Acres Publication.

Year	Target	Actual
2009	350	875

Output #3

Output Measure

- Environmentally Sensitive Management Systems: Provide one-on-one assistance for developing management plans. (Forestry, Animal Feeding Operations, etc.) Number of consultations. Number of demonstrations of sprayer calibrations, GPS usage, and other technical practices that provide environmental protection. To provide up-to-date guidance for operators through an AFO/CAFO website and electronic library, MontGuides publications, and field days.

Year	Target	Actual
2009	500	300

Output #4

Output Measure

- WATER QUALITY: Number of people starting a file to track water quality Number of people attending Well Educated program To guide private well owners through the process of testing their water quality complete with materials to help interpret results and insight on ways to help protect ground water resources. To educate land owners and the public about the effects and impacts of Coal Bed Methane Development using resources such as the documentary Prairies & Pipelines: Issues in Coal Bed Methane Development, MontGuides, news articles and educational forums

Year	Target	Actual
2009	300	415

Output #5

Output Measure

- Range: Number of producers participating in range monitoring programs. Number of Weed Prevention Areas hiring a person to monitor and control weed infestations on rangeland.

Year	Target	Actual
2009	{No Data Entered}	100

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	<p>Forestry: Participants will learn the necessary steps for selling timber and what resources are available to them for assistance. Attendees will receive information they can use to meet their individual forest stewardship objectives. Landowners will develop a plan and implement activities that will enhance the sustainability of their forests. Landowners will implement activities for their individual stewardship objectives Montana's private landowners will be managing their forests to meet their individual stewardship objectives and so the forests lands continue to provide environmental, economic and social benefits to Montana citizens.</p>
2	<p>Small Acreages: Producers and small acreage landowners will become aware of insect, weed and disease infestations as they are developing so they can make management decisions in a timely manner. Applicators will learn the risks associated with applying pesticides and safety precautions recommended to mitigate those risks, while at the same time, learn techniques in applying chemical appropriately. Producers will learn to use the GPS in locating weed or other problem areas.</p>
3	<p>Environmentally Sensitive Management Systems: Producers will understand the current rules and regulations relative to animal feeding operations and how to evaluate their own operation. This also applies to forestry plans, grazing land plans and any other plans appropriate to the individual operation. Producers will learn to identify and manage their particular IPM issue or natural resource concern. Landowners will implement best management practices in addressing weed issues. Number of producers/small landowners who have adopted weed, crop, pest and forage management strategies. Local landowners will become more profitable while protecting the environment Producers/Landowners will adopt practices outlined in their CNMP plans. (applies to other planning efforts) Producers/landowners will adopt practices that will address their specific IPM problem. All operations that develop and implement a CNMP protect ground and surface water, apply manure at agronomic rates, and utilize technologies that allow them to better operate and/or monitor their operation. All operations will remain economically viable and environmentally friendly.</p>
4	<p>Water Quality: Participants will learn the importance of and steps to do well testing. Percent of forage producers/participants who learn proper timing and implementation of control techniques and methods appropriate to their operations. Number of wells tested and recommendations followed as a result. Distribution of the documentary Prairie and Pipelines: Issues in Coal Bed Methane Development as well as information retrieved from the accompanying mail in survey.</p>
5	<p>RANGE MANAGEMENT Participants will learn the techniques of monitoring their range and how to work cooperatively with public lands entities. Weed Prevention Areas will control weed infestations before they become significant issues on rangelands.</p>

Outcome #1**1. Outcome Measures**

Forestry: Participants will learn the necessary steps for selling timber and what resources are available to them for assistance. Attendees will receive information they can use to meet their individual forest stewardship objectives. Landowners will develop a plan and implement activities that will enhance the sustainability of their forests. Landowners will implement activities for their individual stewardship objectives Montana's private landowners will be managing their forests to meet their individual stewardship objectives and so the forests lands continue to provide environmental, economic and social benefits to Montana citizens.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	300	1329

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Montana has over 24 million acres of forestlands of which 3.5 million acres are in family forest ownership. Although non-industrial private lands account for only 16% of the productive forested land-base, they annually provide an average 30% of the total wood harvested in the state. Agricultural croplands account for an additional 14.5 million acres for which windbreaks and shelterbelts are an important soil and energy conservation tool. Private lands are highly valued for wildlife management, grazing water quality, aesthetics and quality of life.

What has been done

Programs offered to forestry landowners, service providers, policy makers and youth are: Forest Stewardship: 75 participants - 39,690 acres impacted; Past Stewardship plans refreshed: 28 participants-14,322 acres impacted; Master Forest Steward participants: 42 participants-5280 acres impacted; Mini-College: 122 participants-74,254 acres impacted; Windbreak/Shelterbelts: 193 participants-386,000 acres impacted. The Montana Natural Resources Youth Camp offers teenagers a way to learn about applied and sustainable natural resource management.

Results

Awareness and skills were taught resulting in landowners doing inventories of their forests, developing management plans and implementing desired practices. Surveys indicate that 44% of service providers had an increase in knowledge on the workshop topic they attended and 69 of the 129 youth learned skills related to forestry, wildlife and noxious weed management. A majority of landowners who have attended multiple workshops have demonstrated family forests that are well inventoried, have a certifiable forest management plan, and have implemented practices for reduced wildfire hazard, noxious and exotic weed invasion and enhanced wildlife habitat.

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
605	Natural Resource and Environmental Economics

Outcome #2**1. Outcome Measures**

Small Acreages: Producers and small acreage landowners will become aware of insect, weed and disease infestations as they are developing so they can make management decisions in a timely manner. Applicators will learn the risks associated with applying pesticides and safety precautions recommended to mitigate those risks, while at the same time, learn techniques in applying chemical appropriately. Producers will learn to use the GPS in locating weed or other problem areas.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	350	875

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Thousands of acres of former ranch, farm or wilderness lands are being subdivided into small acreages parcels. As this occurs, the number of landowners grows with people who often lack knowledge and skills to manage land while preserving the natural resources. Soil erosion, overgrazing, water contamination/waste, decreased/fragmented wildlife habitat, noxious weed infestations, poor domesticated animal health, air quality issues, pesticide overuse, riparian area issues are problems that can result.

What has been done

One of the biggest issues during 2009 was the control of the Mountain Pine Beetle. Well over 50 meetings/workshops were held to address this issue along with hundreds of telephone calls, newspaper articles, TV PSAs, and radio programs. The Mountain Pine Beetle has become a crisis in the state - especially for small acreage owners. They want to know how to identify the infested trees and what to do about them. They are also very interested in the prevention of the beetles attacking their trees in the first place. The Big Sky Small Acres publication now reaches over 300 landowners and provides reliable information useful to this audience.

Results

As a result of Extension information, small landowners (and large ones) worked to stop the spread of the Mountain pine beetle by spraying their trees with a recommended chemical spray or by applying pheromone pouches. They removed infested trees at appropriate times and in some situations, took the trees to a commercial chipper to turn them into a usable compost pile. While it is hard to determine the total number of trees "saved" by the work of these landowners, it is clear that without their efforts, many of the trees standing today would have been attacked. The Big Sky Small Acres magazine targeted to small landowners, carried articles on Mountain Pine Beetle, bark beetles, horseflies, burrowing rodents, watering animals, brand inspections, meat goats, ground water, spiders, pasture management, organic farming, winter pruning, beekeeping, managing manure, feeding programs for horses, and much more. While an evaluation of the effectiveness of the magazine has not been done, the subscriptions continue to grow indicating it is of value to the target audience.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
136	Conservation of Biological Diversity
605	Natural Resource and Environmental Economics

Outcome #3

1. Outcome Measures

Environmentally Sensitive Management Systems: Producers will understand the current rules and regulations relative to animal feeding operations and how to evaluate their own operation. This also applies to forestry plans, grazing land plans and any other plans appropriate to the individual operation. Producers will learn to identify and manage their particular IPM issue or natural resource concern. Landowners will implement best management practices in addressing weed issues. Number of producers/small landowners who have adopted weed, crop, pest and forage management strategies. Local landowners will become more profitable while protecting the environment. Producers/Landowners will adopt practices outlined in their CNMP plans. (applies to other planning efforts) Producers/landowners will adopt practices that will address their specific IPM problem. All operations that develop and implement a CNMP protect ground and surface water, apply manure at agronomic rates, and utilize technologies that allow them to better operate and/or monitor their operation. All operations will remain economically viable and environmentally friendly.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	500	300

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Livestock feeding is significant and represents many operations in the state. The state DEQ estimates that around 500 operations may fall into a category of animal feeding operations that will require education and technical assistance to comply with federal and state regulations.

What has been done

Extension is working to assist producers with education and technical service to providing agencies and commodity associations. Needed assistance includes: development of manure and nutrient management plans, assistance in completing permit applications, advising on appropriate best practices for water quality and assisting farmers in using manure for crop fertility. Seventeen presentations and resources on the web have provided information to producers.

Results

CAFO and livestock water quality issues have been addressed with producers because more of them are obtaining environmental permits and inquiries related to increased government scrutiny on AFOs (inspections). Producers have gained information to use on animal and food waste composting, equine environmental management, manure for organic production, CAFO permitting, manure application rates, well protection around livestock, and carcass composting material.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
136	Conservation of Biological Diversity
605	Natural Resource and Environmental Economics

Outcome #4

1. Outcome Measures

Water Quality: Participants will learn the importance of and steps to do well testing. Percent of forage producers/participants who learn proper timing and implementation of control techniques and methods appropriate to their operations. Number of wells tested and recommendations followed as a result. Distribution of the documentary Prairie and Pipelines: Issues in Coal Bed Methane Development as well as information retrieved from the accompanying mail in survey.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	300	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Montanans are concerned about the quality and quantity of the water they have access to. The Well Educated program walks homeowners through a process of testing and understanding their water quality. Tribes on reservations view water resources as sacred. Members of the tribe (Crow) use water from the reservation's river for drinking, recreation and religious practices and have expressed concerns about declining water quality on the reservation over their lifetimes.

What has been done

Over 300 households have tested their private wells and learned about their septic systems through 5 realtor and/or homeowner workshops. An 8 part educational video series for well and septic owners was completed. (3000 copies have been distributed in Northern Plains and Mountains Regions.) Work with 4 watershed groups to build capacity for citizen water quality monitoring efforts is under way. A teaching package for a college level water quality course for use at Tribal Colleges, Hispanic Serving Institutions and other 2 year colleges has been developed. A documentary film was produced by a collaboration with the Crow Reservation: "Tribal Waters: The Clean Water Act in Indian Country".

Results

The people who tested their wells and septic systems said the fact sheets and DVD helped them understand how their water systems are connected to ground water and what their responsibilities are to protect that resource. Homeowners and realtors surveyed indicate the video series increased their knowledge of their well and septic systems and said they could identify problems with their well or septic system. (CO, WY, MT) Watershed citizen groups, as a result of a 2 day training preceded by consultation on what to monitor and what equipment to procure, are actively monitoring the watershed in their areas. Data collection is targeted for 2011. The "Tribal

Waters" film addresses nonpoint source pollution on the reservation. Brandon Good Luck was hired into the tribe's water program - it is critical to have tribal members involved for programs to be successful.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
136	Conservation of Biological Diversity

Outcome #5

1. Outcome Measures

RANGE MANAGEMENT Participants will learn the techniques of monitoring their range and how to work cooperatively with public lands entities. Weed Prevention Areas will control weed infestations before they become significant issues on rangelands.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	{No Data Entered}	352

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Rangeland comprises 65 percent of the land base, is a major land type in most counties in Montana and often makes significant economic contributions. Ranges in most of the state are in fair to good condition coming out of a long drought period and producers are building numbers of cattle to pre-drought levels. Producers are wondering what is a sustainable stocking rate for their rangelands. Additionally, some range areas in the state have significant noxious weed infestations while others do not. Areas that have weed issues are planning control strategies while those that don't have weed problems are working hard to maintain their range as noxious weed free.

What has been done

Rangeland Resource Monitoring improves land stewardship and helps producers to objectively measure the effects of livestock grazing on rangeland resources. Weed Prevention Areas (WPAs) have been developed in 11 counties for the purpose of stopping infestations of noxious weeds from entering their rangelands. Some WPA's employ a person to identify new weed infestations. They are armed with GPS units for mapping weed locations and possess skills in weed identification so targeted control methods can be applied immediately. The WPA's are active in using display signs and weed prevention literature about problem weeds and ask residents/visitors to report new weed occurrences.

Results

Information gained through Rangeland Resource Monitoring is being used to develop ranch grazing plans and serve as a basis for cooperatively working with public lands entities. One rancher applied monitoring and negotiation skills acquired over a 10 year period in the monitoring program to interact with the BLM to achieve a mutually acceptable grazing management plan for their BLM allotment. Two grazing associations comprising 15

ranches have implemented grazing plans on BLM allotment that meet resource management objectives while improving the economic performance of participating ranches. The WPA's involve over 600,000 acres of rangeland in 11 counties and show evidence that within the WPA's new weed infestations as well as some that existed prior to the establishment of the area have been eradicated. Because of the aggressive work for weed prevention, acres within the WPA's are generally considered "weed free".

4. Associated Knowledge Areas

KA Code	Knowledge Area
121	Management of Range Resources
123	Management and Sustainability of Forest Resources
213	Weeds Affecting Plants

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparison between locales where the program operates and sites without program intervention

Evaluation Results

Reported in Results Section

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 7

1. Name of the Planned Program

Sustainable Energy

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
608	Community Resource Planning and Development	100%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Actual	2.3	0.0	0.0	0.0

Actual	2.3	0.0	0.0	0.0
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2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
3105	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
102878	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Conduct workshops
- Facilitate Meetings
- Develop local and state partnerships
- Provide training

2. Brief description of the target audience

- Tribal Leaders/Producers
- Agricultural Producers
- Business and community leaders
- Local/County Government

Ag Producers

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
Actual	1761	300	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009

Plan:

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan			
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- RENEWABLE/ALTERNATIVE ENERGY: Number of people attending workshops/presentations and/or accessing the web site for information about wind energy. Number of people attending /workshops on the pros and cons of various types of bio-fuels or alternative energy sources.

Year	Target	Actual
2009	{No Data Entered}	30

Output #2

Output Measure

- RENEWABLE ENERGY EDUCATION Number of agricultural producers attending workshops/presentations on alternative energy related to their operations/land use.

Year	Target	Actual
2009	{No Data Entered}	1136

Output #3

Output Measure

- MONTANA WEATHERIZATION PROGRAM Number of participants attending workshops and presentations for weatherizing homes.

Year	Target	Actual
2009	{No Data Entered}	595

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	RENEWABLE/ALTERNATIVE ENERGY Participants will understand energy alternatives and be able to make sound decisions on becoming involved at some level.
2	RENEWABLE ENERGY EDUCATION Participants will become informed about alternative energy sources related to agriculture and the economics associated with alternative energy generation.
3	MONTANA WEATHERIZATION PROGRAM Participants will be able to cut home energy costs using wise weatherization techniques.

Outcome #1**1. Outcome Measures**

RENEWABLE/ALTERNATIVE ENERGY Participants will understand energy alternatives and be able to make sound decisions on becoming involved at some level.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	{No Data Entered}	30

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Financing alternative energy efforts is a challenge for many businesses. The Big Sky Energy Revolving Loan Fund was developed as a flexible finance tool for encouraging investment in energy projects. Funds targeted projects resulting in energy efficiency, conservation and green energy development. Increasing energy costs and a national economic slowdown negatively impact Montana businesses ability to finance energy projects. Small businesses can no longer pass on to consumers higher costs driven by escalating energy costs. A recent study by the SBA found small businesses pay 3% more for electricity than large businesses. In order for businesses to compete in the national market, flexible and innovative tools to reduce energy costs are necessary.

What has been done

Extension's role in this project was to aid the Northern Rocky Mountain RC&D and Northern Rocky Mountain EDD in developing a business plan and implementation model for capitalizing and managing a renewable energy revolving loan fund with a goal of \$1,000,000.

Results

The economic consequence was that two boards of directors determined that it was not viable for them to pursue development of a one million dollar revolving fund program at this time. While they did pursue and issue one loan (\$20,000 to a car wash that installed a solar hot water system to defray electrical costs for heating water), the decision resulted in no large renewable energy loan program being built in the region. The decision considered the financial risk and fiduciary responsibility of the boards and was appropriate given the resources of the boards at this time. This decision was based on information and a decision-making framework provided by Extension.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #2**1. Outcome Measures**

RENEWABLE ENERGY EDUCATION Participants will become informed about alternative energy sources related to agriculture and the economics associated with alternative energy generation.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	{No Data Entered}	1136

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Agricultural producers and other rural enterprises have considered alternative sources of energy as a way to address input costs to their businesses. Generally, questions center around the feasibility of investing in bio-fuel production, small wind energy generation, large scale commercial wind development and land use issues related to renewable energy development. Many of these people look to Extension for information.

What has been done

Training, workshops and conferences centered on renewable energy (wind and bio-fuels especially) were conducted in over 20 locations across the state. Webinars, educational materials and in-depth issue-specific trainings have been provided to aid Montana agricultural producers and others in making informed decisions regarding energy generation on their properties.

Results

As a result of Extension programming, at least 10 producers now understand the economics involved and have opted not to pursue production of biodiesel or small wind systems; landowners undergoing wind leasing negotiations are doing better at assessing the nature and intentions of companies proposing a lease agreement; they are able to understand and negotiate compensation for leases, understand the issues associated with subordination of their mortgage and working in the negotiation process to ensure they have access to the equity in their land, avoid language in the lease document that could have long term negative implications for their agricultural operation and ensure their lease documents reflect realistic timelines given current market dynamics. Lenders and attorneys have asked Extension for training related to wind energy development so they can better understand risk issues.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #3

1. Outcome Measures

MONTANA WEATHERIZATION PROGRAM Participants will be able to cut home energy costs using wise weatherization techniques.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	{No Data Entered}	595

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Home owners and small business people are interested in how to cut energy costs which have continued to rise and are generally the highest utility of their expenses. The weatherization program has become popular with these people as they seek help in addressing energy costs.

What has been done

There were 27 workshops on weatherization conducted in Montana. They covered topics such as lead safe weatherization, basic weatherization techniques, CDS Audits, Rinnai Furnace, Health and Safety, Air Sealing and Insulation, Infrared Imaging, Mobile Home Weatherization, Renovation-Repair & Painting, and Basic Furnace.

Results

As a result of the workshops conducted on weatherization, participants (595) report they have used the information they learned in their homes and businesses. They report the information they gains has contributed to an average energy savings of 27% per participant.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Comparisons between program participants (individuals, group, organizations) and non-participants

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 8

1. Name of the Planned Program

Childhood Obesity

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
703	Nutrition Education and Behavior	65%			
724	Healthy Lifestyle	35%			
Total		100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Actual	1.2	0.0	0.0	0.0

Actual	1.2	0.0	0.0	0.0
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2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
3501	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
56749	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Conduct train the trainer workshops
- Conduct workshops
- Facilitate Meetings
- Develop local and state partnerships
- Provide training

2. Brief description of the target audience

- Low income adults and children under the ages of 19
- Low income youth, ages 5-12
- Adults that are FSP eligible households

Underserved Seniors living in rural areas
 Parents of 8-12 year old 4-H youth in rural areas

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
Actual	508	50	4735	21971

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan:
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan			
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- EFNEP/SNAP: The NEP youth curriculum was used to teach 6-7 lessons to youth in workshops (after school, in school, summer camps, park programs). Develop and maintain local and state partnerships and collaborations.

Year	Target	Actual
2009	{No Data Entered}	4735

Output #2

Output Measure

- STEPS TO A NEW YOU: Provide 3 train the trainer sessions for 15 County Agents who in turn, can implement county Steps to a New You program. Provide 350 sets of training materials to County Extension Agents who will be presenting programs.

Year	Target	Actual
2009	{No Data Entered}	446

Output #3

Output Measure

- 4-HEALTH Provide parents with relevant information, effective parenting skills and strategies, and a strong social support network that encourages them and helps them to solve everyday problems relating to the health and well-being of their pre-teen children.

Year	Target	Actual
2009	{No Data Entered}	62

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	EFNEP/SNAP ED
2	<p>STEPS TO A NEW YOU: Participants will learn about facts, attitudes, behavior change techniques and specific behaviors related to physical activity, nutrition, body image that will allow them to live healthier lifestyles and prevent or reduce obesity. Number of children: Eating a variety of foods improving practices in food preparation and food safety select low cost nutritious foods.</p>
3	4-HEALTH PROGRAM

Outcome #1**1. Outcome Measures**

EFNEP/SNAP ED

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	{No Data Entered}	4735

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Both children and adults in Montana are increasingly obese and overweight; in 2007, 21.8% adults were obese and 39.2% overweight. The personal costs of obesity include higher risk for heart disease, hypertension, stroke, some types of cancer and diabetes. Research on diet quality and cost indicates that as incomes drop and food budgets shrink, the trend is to shift away from selecting healthier, nutrient-dense foods and instead opt for energy-dense, refined grains, added sugars and fats.

What has been done

SNAP ED program reached youth from 221 classrooms in Title I qualifying schools completed a six lesson nutrition education series. The EFNEP program reached youth ages 5-17 in Title I schools and out-of-school programs with lessons on healthier, low cost food choices and child obesity

Results

SNAP ED: The results of surveys from youth programming indicate 78% of youth are selecting and adopting healthy food and lifestyle choices. Post-surveys from 3rd and 5th grade youth who completed the series of lessons indicate: 39% eat different kinds of fruits and vegetables daily, 49.5% eat at least one whole grain serving daily, 40% consume the recommended amount of low-fat dairy daily, and 62.% are more physically active on a daily basis. EFNEP: A survey of youth participants indicates: 95% now eat a variety of foods, 93% increased their ability to select low-cost, nutritious foods, 96% improved practices in food preparation and safety, 92% show a higher understanding of the essentials of human nutrition.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #2**1. Outcome Measures**

STEPS TO A NEW YOU: Participants will learn about facts, attitudes, behavior change techniques and specific behaviors related to physical activity, nutrition, body image that will allow them to live healthier lifestyles and prevent or reduce obesity. Number of children: Eating a variety of foods improving practices in food preparation and food safety select low cost nutritious foods.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	{No Data Entered}	446

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Obesity is a widespread, serious and complex nutrition-related health problem. The goal of this project is to slow and reverse the rising obesity rates and increase the fitness levels through changes in health-related attitudes and behaviors toward food, physical activity and body image. Employing a health-centered (rather than a weight-centered) approach to well-being, the project is based on the idea that people can best improve their health by developing positive lifestyle habits rather than by trying to achieve a specific body size, shape or weight.

What has been done

Steps to a New You combines a series of food/physical activity/body image classes with a physical activity program. Educational settings include adult education classes, worksite programs and church groups. It has also been conducted in schools as a way to meet the mandatory School Wellness policies and as professional development for teachers. The focus of the classes is on behaviors associated with the current research based approach to obesity prevention.

Results

A survey taken at the end of the program series indicated that the participants were taking steps to reduce individual health risks, increase physical activity, limit portion sizes and eat healthy snacks. Six weeks after the program was completed, a survey of participants indicated 70% were eating smaller portion sizes, 50% had increased their physical activity and were participating in some activity at least 2-3 days a week. All participants reported they had learned not to use body shape and size as an indicator of one's worth.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #3**1. Outcome Measures**

4-HEALTH PROGRAM

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	{No Data Entered}	62

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

The increasing prevalence of childhood obesity is cause for alarm in the state. Because they have poorer nutrition, more sedentary lifestyles, and poorer body image, children today are worse off both physically and emotionally than children were 25 years ago. The goal of 4-Health is to deliver an obesity prevention curriculum that will change the behaviors of parents and children thereby significantly reducing the likelihood of children becoming overweight. Parents of 4-H youth will improve their abilities to encourage nutritious eating, adequate physical activity, and provide healthier home environments for their children.

What has been done

Eleven discussion-based focus groups with parents of children in 4-H and age 8-12 were conducted in order to learn ideas and information to ensure success and receive feedback about the program. The most commonly voiced concerns were: nutrition - feeling too busy to prepare healthy meals and snacks; physical activity - concern about low amounts of physical activity in the winter months; and body image - concern about others' influence on pre-teens' body image.

Results

The 4-Health curriculum reflects the concerns of parents who participated in the focus groups and is designed to meet the needs of rural Montana. Focus group information has been shared with County Agents as a way for them to become involved with the program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Competing Public priorities
- Competing Programmatic Challenges

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Before-After (before and after program)
- Other (Focus Groups)

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 9

1. Name of the Planned Program

Food Safety

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	25%			
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	75%			
Total		100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Actual	3.6	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
108738	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
62612	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Conduct train the trainer workshops
 Conduct workshops
 Facilitate meetings
 Develop local and state partnerships with agencies and businesses
 Workshops aimed at meeting beef quality assurance standards, production and marketing goals.

2. Brief description of the target audience

Restaurant and other Food service managers/employees

Volunteers at food service operations

Adults engaging in home food preservation

Producers of animals for human consumption

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
Actual	3442	1500	35	50

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009

Plan:

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan			
Actual	9	0	9

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Provide 3 trainer sessions for County Extension Agents so they can conduct 25 food safety education for audiences such as county sanitarians, school food service personnel, volunteers, food banks and so forth. Provide training and updates to county Extension Agents so they can implement County based programs.

Year	Target	Actual
2009	{No Data Entered}	866

Output #2

Output Measure

- FOOD PRESERVATION: provide 2 training sessions for County Extension Agents so they can conduct 5 workshops for people wanting to can their own foods safely. Produce written materials describing

equipment, skills and safe techniques for home canning. Test pressure cooker gauges so home canners be assured they are canning foods safely

Year	Target	Actual
2009	{No Data Entered}	1458

Output #3

Output Measure

- BEEF QUALITY ASSURANCE: Number of people attending beef quality assurance, production and marketing programs. Number of classes, demonstrations and tours provided. Number of people becoming BQA certified. Number of people participating on interactive video program and hits on the web site.

Year	Target	Actual
2009	{No Data Entered}	1118

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	FOOD SAFETY: Number of people practicing safe food handling techniques
2	FOOD PRESERVATION: Number of people practicing safe food preservation practices.
3	MONTANA BEEF NETWORK: BEEF QUALITY ASSURANCE AND BIOSECURITY EDUCATION. Number of people using and understanding Beef Quality Assurance protocols for raising beef. Number of programs that are meeting the needs of the consumer in terms of quality and yield grade of calves.

Outcome #1

1. Outcome Measures

FOOD SAFETY: Number of people practicing safe food handling techniques

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	{No Data Entered}	866

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Food borne illnesses impact 1 in 65 Montanans so food safety is of growing concern for the food service industry, public and private agencies. Food safety training ranges from basic safe food handling practices to understanding HACCP. The financial costs of food-borne illnesses are tremendous covering lost wages, health care and investigation. These losses have widespread implications in health care costs, productivity, and health and economic well-being of children, families, and communities.

What has been done

Food safety training for food service employees covered the basics of safe food handling focusing on controlling time and temperature, ensuring personal hygiene, preventing cross-contamination, proper cleaning and sanitizing. Additional training included HACCP and the Serve Safe Food Protection Manager Certification Course designed to provide food-safe knowledge and skills to maintain a food-safe establishment, the impact of safety on the operation, and the flow of food through the operation.

Results

In eleven counties/reservations food safety training has been conducted with a pre/post evaluation to show impact which revealed 80-90% of participants: use different cutting boards for different foods, keep hot foods hot and cold foods cold, adequately cooking foods, food temperatures are checked regularly and cooler temperatures are noted on report sheets and problems reported to management, and food is rotated and dated routinely. Five counties conducted the ServSafe Food Protection Manager Certification with 94% of the participants obtaining certification. Inspections from county sanitarians indicate increased use of good personal hygiene practices, setting up HACCP plans and careful monitoring of temperatures due to changes made in Sanitary Operating Procedures in food service establishments.

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #2

1. Outcome Measures

FOOD PRESERVATION: Number of people practicing safe food preservation practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	{No Data Entered}	1458

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Difficult economic times have renewed food preservation interest. Participants report they understand the importance of following food safety to preserve the highest quality of food for their families. They also prefer to buy food locally believing the quality is better. In general, they believe "if you produce and preserve your food yourself, you know what goes into it. You know that it is safe and nutritious." They believe they are getting more nutrition for the cost.

What has been done

Nine counties/reservations provided food preservation training through workshops or publications to 1458 people. Nine Food Preservation MontGuides (bulletins) were published so up-to-date and information was available to the public. Pressure canner gauges were tested to ensure equipment was working properly.

Results

For people with previous canning experience, up-to-date information was available through newly written publications. For new food preservers, workshops were conducted using hands-on methods so participants had actual experience. In one county alone, 43 pressure gauges were tested with only 15 found to be working properly. Instruction on how to correct problems in the other 28 was given so people could be confident in preserving foods.

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #3**1. Outcome Measures**

MONTANA BEEF NETWORK: BEEF QUALITY ASSURANCE AND BIOSECURITY EDUCATION. Number of people using and understanding Beef Quality Assurance protocols for raising beef. Number of programs that are meeting the needs of the consumer in terms of quality and yield grade of calves.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	{No Data Entered}	1118

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

The portion of the Montana Beef Network relating to a safe food supply was moved to the Food Safety report. There is however, additional work in the beef production area that should be reported. Many producers have focused efforts on best practices for raising beef cattle. None have focused more than producers on the reservations in the state and this work deserves noting. Producers on the reservations have been fighting Trichomonas Fetus for many years and it has taken its toll on their operations. Age and Source Verification remains an important tool for producers raising livestock.

What has been done

Extension coordinated and facilitated public information meetings to educate beef producers about animal diseases and gather input for a policy to provide guidelines for producers and Tribes to control and prevent Trichomoniasis in cattle herds. Workshops and private consultations have helped producers understand the importance of eliminating this and other diseases and techniques on how to do it. Over a 10 year period, about 358,000 calves have been enrolled in the Age and Source Verification program.

Results

After 6 years of Extension education, producers are realizing benefits from the change in their practices. The impacts represent work with producers on one reservation and are an example of work done with over 75 producers and on other reservations. Producers have trich tested a total of 784 bulls over the 6 years, 25 producers are permanently pregnancy testing cows - 5,083 cows with 562 being open and an average of 89% pregnant. Over the 6 year period, 29,964 cows have been tested with 3,956 open. The cows were sold as non-producers saving the producers an average of \$170 each in wasted winter feed costs (\$672,520) These females are no longer on the reservation to harbor the disease - the pregnancy rate has raised by 2.7% and equates to 809 additional females retained in herds. If their net replacement cost is \$450 each this savings is \$364,062. Combined savings in feed and females is \$1,036,582. Calves in the Age/Source Verification program weighing 600# received a premium of \$9.83 per head.

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Competing Programmatic Challenges

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Other (Focus Groups, Surveys)

Evaluation Results

Key Items of Evaluation