2009 University of Idaho Combined Research and Extension Annual Report of Accomplishments and Results

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I. Report Overview

1. Executive Summary

This combined report of accomplishments for the College of Agricultural and Life Sciences (CALS) represents the work of 112 and 97 faculty/professional research and extension FTEs, respectively, as well as other personnel including nutrition advisers, 4-H coordinators, and other paid program staff. The Extension portion of the report reflects about 74% of the total annual budget of UI Extension, and does not include operating costs, clerical support, indirect costs, facilities, or administrative costs. The research portion reflects approx. 56% of the total appropriated funding (state and federal). Extension faculty combined to publish 97 unique peer-reviewed articles in professional journals and numbered UI Extension publications.They published dozens of articles in trade journals and trade magazines, where many Extension faculty find the most direct access to their target audiences. Faculty posted new materials on websites, and created new websites.Thousands of references to their work are noted in published abstracts and proceedings, poster presentations, and similar communications. UI Extension faculty presented thousands of educational events that reached 411,876 people through direct, face-to-face contact, 39% of whom were children. To summarize research faculty outputs in 2009, there were 120 peer-reviewed scientific journal articles published and 15 patents filed (14-plant variety protection patents and 1-provisional patents).

At this late date it is not realistic for UI to retrofit our existing data to accommodate the five NIFA priorities. However, portions of our work in ten programs contribute to the priority for Global Food Security and Hunger; they are: beef, cereals, dairy, farm & ranch management, forages, other commercial crops, potatoes, small farms and emerging specialty crops, sugarbeets, and human health and nutrition. Portions of two of our programs contribute to the priority for climate change; they are: forest management, nutrient and waste management. Our biofuels research program contributes to sustainable energy. Childhood obesity is addressed within the human health and nutrition program, and food safety is one of our ongoing programs.

Total Actual Amount of professional FTEs/SYs for this State

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	100.5	0.0	71.3	0.0
Actual	97.0	0.0	69.4	0.0

II. Merit Review Process

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

- Internal University Panel
- Combined External and Internal University Panel
- Expert Peer Review
- Other (administrative review)

2. Brief Explanation

Faculty continue to use traditional and novel methods to involve stakeholders as advisers. Several of our counties have complete mailing lists for all households in the county. In some cases, distributing mail surveys to every address in a county has been used during the past several years. To encourage participation in focus

groups, few local budgets can support cash incentives, but nearly all such activities provide food and refreshment for participants. To gather stakeholder input from our growing Spanish-speaking population, announcements are printed and broadcast in Spanish through appropriate venues. In some cases (community development, for example) targeted invitations were sent representatives of pre-determined sectors of the community, including socio-economic categories of residents less likely to have participated in past sessions. In most cases, people are enticed to provide input as they are taking advantage of opportunities to learn something that meets their personal needs.

During 2009, we did not make significant changes to our stakeholder input process and the process described below reflects our current procedures which were used during this reporting period.

Process: The major stakeholder groups providing input regarding the IAES's spectrum of research activities:

The Dean's Advisory Board was instituted in 2002.This committee is comprised of a spectrum of stakeholder representatives representing government, industry, and education in Idaho. Academic departments of CALS also have individual advisory boards (see below).

Idaho's 17 agricultural commodity commissions and organizations provide advice specific to commodity based programs and appropriate disciplines and departments within CALS. In addition, IAES researchers provide leadership and most of the content for several major commodity schools that are presented annually in the state. The commodity schools are well attended by stakeholders from Idaho and the region. These "schools", while primarily conducted as major outreach/technology transfer events to provide the latest research results to stakeholders, also serve as major sources of stakeholder input to IAES regarding research priorities and directions. Commodity schools are annually conducted for potato, cereal, and sugarbeet industries. As an example, the UI Potato School is a three-day event that annually attracts approximately 1,400 registrants who come from Idaho, the PNW region, virtually all other states involved in potato production as well as representatives from approximately 25-30 foreign countries.

Beyond the commodity schools mentioned above, IAES faculty organize and participate in "field days" at each of the IAES's twelve off-campus Research and Extension centers. They also conduct a number of more focused tours or workshops such as: weed identification, ecology, management and technology at several locations, potato storage research open-house, pomology program open-house and field day, and tours of the IAES's crop genetic improvement research programs for beans, potatoes, wheat, and the oilseed crops of rapeseed and mustard. Again, these stakeholder events function as educational/technology transfer events as well as opportunities for stakeholder interaction.

The IAES research project portfolio and an abbreviated version of the POW is annually shared and discussed with representative from the executive branch of state government including the Governor's Office, the Dept. of Agriculture, and to a lesser extent, the Dept. of Environmental Quality, Dept. of Health and Welfare, and the Dept. of Commerce as well as key committees (agriculture and appropriations) and leadership of the Idaho Legislature.

The faculty, staff, and students (both graduate and undergraduate) of CALS have a vested interest in the development of appropriate research programs of high quality that are responsive to needs of the state and region. This university stakeholder group is an important source of valuable input to the IAES and play a major role in IAES program development and delivery. In the course of performing their research, the majority of researchers in the IAES have frequent and substantive contact with stakeholders in their research programs as has been indicated above.An array of inputs regarding program directions and priorities are more informally received in this manner and are subsequently considered and often implemented.

CALS has also mandated the formation of advisory committees for each of the eight academic departments in CALS. As of 2002, all departments of CALS established advisory committees. These committees are comprised of representatives from a broad base of stakeholders sharing interest in the disciplines, programs, and strategic plans of the departments. These committees are now serving as a significant additional source of stakeholder input for the IAES and CALS. In addition, once a year in on-campus meetings the departmental advisory committees meet with the CALS and IAES leadership as well as with the Dean's Advisory Board on program priorities and directions for the college, the experiment station and the departments.

University of Idaho Extension has citizen advisory groups in 42 of Idaho's 44 counties. These committees, which are composed of a very diverse and broad mix of public interests, provide input regarding extension and research program priorities from the county perspective. Extension Specialists have advisory groups as well, many of which are formally associated with producer organizations or commodity interests. A Statewide 4-H advisory Board and a Statewide Extension Advisory Board contribute annual input to guide Extension programs.

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.

During this reporting period, CALS representatives met at least once with each of Idaho's commodity commission groups. In general, these meetings were conducted to determine priorities for research and extension programs relevant to the commissions. CALS administration met two times with the Deans Advisory Board and once with faculty as a group in each of Idaho's three administrative regions. Other important venues for identifying stakeholders state-wide included Extension Annual Conference and annual Ag Summit and legislative strolling dinner in Boise.The Dean or his designee also met with state legislative leaders in Boise regarding agriculture, science and technology, environmental issues, and educational appropriations. These meetings included testimony before several legislative committees as well as informal meetings.CALS research and extension faculty held numerous field days and commodity schools across the state.

Counties follow specific marketing plans that are developed locally, based upon the demographics and characteristics of their communities and populations.Those plans specify efforts needed to ensure parity in program audiences.Depending on faculty areas of expertise and program efforts, stakeholders may be quite easy to identify (for example, potato growers or dairy owners) or may be more difficult to locate (for example, expectant parents or families in financial difficulty).For farmers and ranchers, Extension cooperates with the Idaho State Department of Agriculture or other appropriate agencies to verify contact lists, including lists of those individuals who are licensed to apply pesticides.For low income audiences, Extension works with schools, with the Department of Health and Welfare, and with the local faith community to identify potential clientele.Partnerships with AARP-Idaho and other advocacy organizations have been instrumental in reaching targeted audiences.

County faculty report that requests are made to advisory committees and to local government leaders and private citizens to help identify new stakeholders. Extension Specialists report that they use commodity organizations and other groups in a similar fashion. New faculty are particularly reliant on veteran faculty to help guide them to stakeholders.

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
- Needs Assessments
- Use Surveys
- Other (Commodity-based research and Extension interactions)

Brief explanation.

To generate public participation in Horizons programs in southern Idaho, outreach and advertising was designed to effectively reach all residents of the partner communities.

For some programs (the Beef Team, for example) stakeholder input was gathered through focus groups made up of Beef Quality Assurance program participants. For other programs (Family Living Education, for example), input was collected by mailing surveys to traditional audiences and known users of those extension programs. Gathering input for several programs involved a major effort to reach underserved audiences 4-H Youth Development and Operation: Military Kids for example) through targeted visits and phone calls to organizations and individuals known to be advocates for some of our underserved groups.

Most faculty report using existing program participants to generate recommendations for future programs. Some faculty reported using newsletters to request input from readers, returned via email.

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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
- Meeting with the general public (open meeting advertised to all)
- Survey of the general public
- Meeting specifically with non-traditional individuals
- Other (various)

Brief explanation.

A significant shift in resources into the area of Family Economics has continued as a direct result of statewide citizen's stakeholder input. Our research suggested that demand for family financial programming far exceeded our capacity to deliver relevant education. UI Extension has increased capacity in this area by 300% in the past four years. These adjustments have been made through both re-tasking of existing faculty, and through re-directing of vacant positions as they are re-filled.

Another shift in emphasis in response to stakeholder input is in the area of health and fitness. We have had a number of our nutrition faculty become certified over the past 18-months to teach the "Strong Women" program, and others have provided access for clientele to participate in "Fit and Fall Proof" classes. A similar shift in resources into Community Development has also been occurring for the past several years, resulting in approximately enhanced programming in community development as existing faculty shift their efforts to this priority program area. In thecase of community development, the need has been brought to our attention by professionals in State and Federal agencies, more than by individual citizens, and also by interest expressed by philanthropic organizations.

Discipline-driven programs generally use input gathered at each event to help guide the content of the next. For example, at the international Idaho Potato Conference, participants are surveyed each year to learn what are their continuing education needs.The results of the survey are used, in part, to direct the agenda for the next conference. We have also identified a growing demand for education about health and fitness.While administrators have not re-tasked positions in Family and Consumer Sciences to respond to our survey results, our faculty have researched and acquired high quality curricula, received training and certification, and delivered health and fitness programs to help meet the need identified by stakeholders.

Information was acquired state-wide from meeting with various stakeholders is discussed at various CALS leadership meetings. These include monthly CALS leadership meetings which are attended by dean and directors as well as leaders from academic departments, research and extension centers and district offices.In addition, priority setting is conducted in an annual dean and directors retreat.Strategic planning and priority setting in these

sessions is based largely upon stakeholder input.

3. A statement of how the input will be considered

- In the Budget Process
- To Identify Emerging Issues
- Redirect Extension Programs
- In the Staff Hiring Process
- In the Action Plans
- To Set Priorities

Brief explanation.

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Brief Explanation of what you learned from your Stakeholders

We continue to experience high demand for family finance education, community economic development education, personal fitness/health education, water quality, agricultural technology, and that the agricultural commodities within Idaho are changing in relative importance. A noticeable interest in organic farming (particularly dairy and dairy forages, and table crops) has surfaced in the past two years. Currently we are experiencing increased in interest in local food systems.

IV. Expenditure Summary

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
2613303	0	2338320	0

2. Totaled Actual dollars from Planned Programs Inputs				
	Extension		Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
Actual Formula	1946870	0	2338320	0
Actual Matching	1946848	0	2338320	0
Actual All Other	5458600	0	24577365	0
Total Actual Expended	9352318	0	29254005	0

3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from				
Carryover	0	0	1051394	0

V. Planned Program Table of Content

V(A). Planned Program (Summary)

Program # 1

1. Name of the Planned Program

Beef

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
301	Reproductive Performance of Animals	20%		20%	
302	Nutrient Utilization in Animals	20%		20%	
305	Animal Physiological Processes	10%		10%	
306	Environmental Stress in Animals	10%		10%	
307	Animal Management Systems	20%		20%	
308	Improved Animal Products (Before Harvest)	20%		20%	
	Total	100%		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	3.6	0.0	2.5	0.0
Actual	4.9	0.0	2.8	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**
70762	0	57035	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
70762	0	57035	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
285440	0	957115	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Planned activities include beef schools, demonstration/applied research trails, Extension publications, popular press articles, tours, field days, faculty training sessions, web sites, CD-ROM based learning modules, beef quality assurance training/certification sessions, office visits, and farm/ranch visits.The focus of these efforts will depend on stakeholder input, questions, and needs.When appropriate, information generated by the beef team will be presented in scientific journals and at professional meetings.

2. Brief description of the target audience

The main target audience is beef cattle producers.Producers can participate with the beef team by serving on planning committees, attending educational events, meeting one-on-one with team members, reading Extension publications, seeking information on websites and through other channels, and cooperating with demonstration/applied research projects.

Some of the underrepresented audiences the beef team has the opportunity to serve include Hispanics with regard to beef quality assurance principles, youth with regard to beef quality assurance principles, and dairy owners, managers, and employees with regard to beef quality assurance principles.Hispanics, youth, and small acreage landowners would also benefit from educational programs focused on general beef cattle production and management practices.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	1750	600	100	100
Actual	5516	24949	1869	1748

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	10	
Actual	4	12	16

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Beef schools.

Year	Target	Actual
2009	10	10

Output #2

Output Measure

- Beef Quality Assurance (BQA) workshops.

Year	Target	Actual
2009	8	10

Output #3

Output Measure

- Field days.

Year	Target	Actual
2009	2	4

Output #4

Output Measure

- Demonstrations/Applied research projects.

Year	Target	Actual
2009	2	10

Output #5

Output Measure

- Tours.

Year	Target	Actual
2009	1	4

Output #6

Output Measure

- Extension publications.

Year	Target	Actual
2009	4	4

Output #7

Output Measure

- Popular press articles.

Year	Target	Actual
2009	10	19

Output #8

Output Measure

- Newsletters.

Year	Target	Actual
2009	8	27

Output #9

Output Measure

- Scientific journal articles

Year	Target	Actual
2009	2	11

Output #10

Output Measure

- Abstracts.

Year	Target	Actual
2009	8	7

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: Producers apply new, accepted, or recommended production practices. I: Number of participants indicating adoption of recommended practices.
2	O: Producers aquire knowledge and understanding of new, approved, or recommended beef production practices.I: Number of participants citing change in knowledge on evaluation instruments(pre- post-test results).
3	O: Producers are aware of new, accepted, or recommended practices related to BQA, NAIS, and other new and emerging technologies and issues.I: Number of participants at educational events.
4	O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.
5	O: Producers possess skills and knowledge about BQA I: Number of BQA certificates awarded

Outcome #1

1. Outcome Measures

O: Producers apply new, accepted, or recommended production practices. I: Number of participants indicating adoption of recommended practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	50	18

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Animal health issues affect the overall profitability of livestock ranchers. In today's economy, any factor affecting animal health, particularly weight gain and calf viability can equate to lost finances to keep the ranch in business.

What has been done
A beef school was developed and conducted. Topics addressed included pertinent animal health information such as vaccination programs and methods to ensure calf survival at birth. Other information provided included the cattle market outlook and agricultural tax issues on the reservation. Comments on the program can be summarized by the following quote, "These are good schools, we learn something new we can use every year" (George and Harold Twitchell, tribal producers)

Results
100% of the participants present indicated they would implement discussed animal health strategies and 16% of the participants indicated they were going to change their recordkeeping strategies to align with agricultural tax practices.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
306	Environmental Stress in Animals
307	Animal Management Systems

Outcome #2

1. Outcome Measures

O: Producers aquire knowledge and understanding of new, approved, or recommended beef production practices.I: Number of participants citing change in knowledge on evaluation instruments(pre- post-test results).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	50	93

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
The beef industry is a complicated industry. Producers must be knowledgeable about raising cattle, nutritional requirements, managing forages, marketing and health issues. Not managing each one of these areas costs a producer money and takes away from the profit of the ranch.

What has been done
82 surveys were returned at the end of 5 different winter school sessions. Workshops covered marketing, vaccinations, forage management, range management and economics.

Results
Sixty surveys indicated that producers left the workshop with knowledge gained and the information presented would affect their management decisions in the coming year.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)

Outcome #3

1. Outcome Measures

O: Producers are aware of new, accepted, or recommended practices related to BQA, NAIS, and other new and emerging technologies and issues.I: Number of participants at educational events.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual

2009	350	778

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
There are new technologies and techniques evolving all of the time, in which they can directly or indirectly affect a beef/livestock operation. How producers incorporate and adopt various practices can improve their efficiency, production, and profits. There is a large increase in small acreage landowners in the Magic Valley and they are very willing to learn about agriculture, as it is a steep learning curve for them since their background is in something else.

What has been done
The Intermountain Cow Symposium was held this year; therefore, we combined our Magic Valley Winter Beef Schools with that event. An education day was held at the National Dexter Show in Rupert this year. Living on the Land was conducted over a 17 week period for small acreage landowners covering everything from soils and water, to planning and zoning, to grazing and feeding animals.

Results
There were 105 participants at the Intermountain Cow Symposium. Thirty-five participants attended the National Dexter Show Education Day. Six participants were enrolled in the Living on the Land course.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
305	Animal Physiological Processes
306	Environmental Stress in Animals
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)

Outcome #4

1. Outcome Measures

O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

O: Producers possess skills and knowledge about BQA I: Number of BQA certificates awarded

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	100	85

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Consumers today expect each food product they buy to be safe, high quality, wholesome, and consistent. To maintain consumer demand for beef and beef products, beef producers must be made aware of the beef quality and consistency shortfalls that result from various management activities and be provided with methods to address and eliminate the shortfalls.

What has been done
Information on a variety of beef quality assurance (BQA) topics was presented at various events (beef schools, field days, etc.) around the state.

Results
At three educational events, participants were allowed to take the Idaho BQA Program certification exam. 85 training session participants completed the exam.

4. Associated Knowledge Areas

KA Code	Knowledge Area
302	Nutrient Utilization in Animals
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Competing Programmatic Challenges

Brief Explanation

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

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Comparison between locales where the program operates and sites without program intervention

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 2

1. Name of the Planned Program

Water and Environmental Quality

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	1%		10%	
104	Protect Soil from Harmful Effects of Natural Elements	1%		10%	
111	Conservation and Efficient Use of Water	29%		10%	
112	Watershed Protection and Management	29%		10%	
132	Weather and Climate	1%		10%	
133	Pollution Prevention and Mitigation	29%		10%	
215	Biological Control of Pests Affecting Plants	1%		10%	
315	Animal Welfare/Well-Being and Protection	1%		10%	
723	Hazards to Human Health and Safety	7%		10%	
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	1%		10%	
	Total	100%		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	1.2	0.0	6.8	0.0
Actual	0.8	0.0	7.3	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**
26566	0	343936	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
26566	0	343936	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
27816	0	2078495	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Multi-state: The Pacific Northwest collaboration of Northwest Indian College, Oregon State University, University of Alaska, University of Idaho, and Washington State University with EPA Region 10, USDA-CSREES and USDA-NRCS has completed or are in the process of completing the following activities in the last 12 months: (1) enhanced coordination between land grant institutions (LGIs), Water Research Centers, State, Tribal, local and non-governmental organizations; (2) developed and delivered appropriate pollution prevention, water conservation and management, and watershed education/management programs that resulted in the improvement of water resources; (3) integrated research, Extension and education efforts to identify and address water resource issues; (4) assessed public attitudes, aptitudes and actions taken to address water resource issues in response to our programming efforts; (5) implemented appropriate activities to support cross-regional programming; (6) implemented appropriate activities to support the USDA-NIFA national water resources program; and (7) included faculty from Hispanic serving institutions on our regional team. All programming efforts were based on needs assessment studies and stakeholder input through advisory committees. During this project year significant regional programming outputs included: (1) a watershed themed satellite conference, (2) 24 PNW WATER UPDATE newsletters, (3) three regional Extension county faculty trainings, (4) a regional research/Extension/education conference, (5) an enhanced regional website, (6) evaluation of programming impacts using survey instruments, and (7) water resource programming to support regions 8 and 9 [The West] and the national program.

Other efforts include soil moisture monitoring by region to improve irrigation scheduling with the Big Wood Canal Company; native plant display with drip irrigation, to demonstrate low water use and low maintenance; organized workshop on zebra and quagga mussels for county officials (parks & waterways, weed, marine division of sheriff's dept.); delivered presentation at workshop titled, 'Quagga and zebra mussels: threats to our economic and ecological well being; participation in Idaho Water Alliance water tour of the Hagerman Valley; participation as member of Idaho Aquatic Nuisance Species Task Force; Participation in the National water quality conference and four regional team meetings; chair of the IPM and water quality symposium planning for 2010; and participation in the Idaho NRCS State Technical Committee meeting to promote IPM as a way to improve water quality and other resource concerns.
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2. Brief description of the target audience

The target audiences include the general public living and also irrigation companies and irrigators, home horticulturists, fish producers, and other State and Federal agency personnel.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	3000	220000	100	0
Actual	3268	191500	181	24281

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	8	1	
Actual	1	7	8

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- WQ Updates

Year	Target	Actual
2009	24	24

Output #2

Output Measure

- Delivery of Regional Water Quality Conference

Year	Target	Actual
2009	1	0

Output #3

Output Measure

- Extension publications; peer reviewed (Bulletins, CIS, etc.)

Year	Target	Actual
2009	5	1

Output #4

Output Measure

- Number of Popular press articles published

Year	Target	Actual
2009	12	8

Output #5

Output Measure

- Number of Refereed journal articles published

Year	Target	Actual
2009	3	7

Output #6

Output Measure

- Number of water quality workshops and seminars

Year	Target	Actual
2009	10	16

Output #7

Output Measure

- Number of professional meetings attended

Year	Target	Actual
2009	2	7

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: Improved protection of Ground Water Resource.I: Number of participants who are land owners and managers that adopt BMPs that protect groundwater.
2	O: Improved protection of surface water resource.I: Number adopting BMPs to reduce runoff of sediment and nutrients.
3	O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates in water and environmental quality graduate training programs.
4	O: Improve protection of water resources. I: Number of pest management and nutrient management plans written with producers.

Outcome #1

1. Outcome Measures

O: Improved protection of Ground Water Resource.I: Number of participants who are land owners and managers that adopt BMPs that protect groundwater.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	150	271

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Water conservation is of major concern in this drought prone area.

What has been done
The Educator gave master gardeners classes on watering methods, irrigation system inspection and water efficient landscaping. In cooperation with Idaho Power, an irrigation workshop was given to 68 landowners. The Educator also gave presentations at a recertification workshop called Pesticides and their Movement in Soil & Water. The Mtn Home Parks and Rec personnel & Educator worked with water sensors in order to conduct a study of soil moisture and irrigation conservation.

Results
Watermark Sensors gave growers accrued water data for irrigation management. Water conservation practices have saved up to 30% of water costs, as well. Knowledge was gained that allowed groundskeepers to manage the use of nutrients, pesticide and water.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
132	Weather and Climate
133	Pollution Prevention and Mitigation

Outcome #2

1. Outcome Measures

O: Improved protection of surface water resource.I: Number adopting BMPs to reduce runoff of sediment and nutrients.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1000	1540

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Nitrogen and phosphorus introductions from agriculture into stagnant surface waters (slow flowing rivers, lakes, ponds, reservoirs, etc) results in eutrophication. The process of eutrophication compromises designated beneficial uses of many water bodies in Idaho.

What has been done
A regional irrigation management web site was developed. This web site has received over 150,000 hits from 16,000 unique users in the last 12 months. Approximately 20% of the hits have come from Idaho irrigators. In addition to the web site two PNW WATER UPDATES were targeted at improving management to reduce surface erosion from fields.

Results
Approximates 1,425 changed fertilizer and/or irrigation management practices that resulted in reduced sediment and/or nutrient delivery to surface waters in Idaho.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
132	Weather and Climate
133	Pollution Prevention and Mitigation

Outcome #3

1. Outcome Measures

O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates in water and environmental quality graduate training programs.

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	7	2

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
The state of Idaho is under court order to clean-up over 600 stream segments in the state that currently do not meet designated beneficial uses due to one or more of the following pollutants: sediment, nutrients, flow alteration, high temperature, bacteria, lack of dissolved oxygen and/or heavy metals. Science alone can not solve water quality problems, rather the human dimension is important in the implementation of programs that improve water resources within a watershed. This project will use macroinvertebrates as indicators of water quality within watersheds. This technique will allow us to measure water quality improvements following BMP implementation within stream segments that do not meet designated beneficial uses. This project will also assess public attitudes, aptitudes and changes made to enhance water quality within watersheds.

What has been done
The Clear Creek watershed in Idaho County, Idaho is a fourth order stream with primarily forestry and agriculture land use that serves as an important source for the spawning of Rainbow-Steelhead Trout and Chinook Salmon. In 1985 Clear Creek was assessed and found to be impaired for its designated beneficial uses. Over the last 20 years improvements have been made to the watershed and this study was undertaken, using macroinvertebrates as indicators of water quality, to (1) measure the current ecological health, and (2) to provide management strategies to further improve the health of the stream segment. Macroinvertebrates were sampled at 10 locations on Clear Creek using published procedures. Based on the Idaho Small; Stream Ecological Assessment Framework and the Stream Macroinvertebrate Index (SMI) Clear Creek was determined to still be impaired in 2007, 2008 and 2009 because it received an ecological health rating of fair for all three years. Human dimension components:Collaborative watershed groups are a vital source of citizen involvement in local and regional water resource decision-making processes. Current literature classifies watershed groups by origins and measures of effectiveness, but the research is not extensive and it is often limited to groups within a particular state. This study consisted of a mixed-mode survey of watershed groups from three Pacific Northwest states: Idaho, Oregon, and Washington. The goal of this survey was to classify groups across the three states by self-identified levels of success and to subsequently compare these groups on a region wide scale. The initial phase of the survey was a mail-based instrument targeted at active members of Pacific Northwest watershed groups. The mail-based portion received a response rate of over 50% in each state, with Idaho and Washington responding at levels above 66%. After analyzing data collected via the mail-based instrument, a series of follow-up interviews was performed at representative watershed group meetings within each state in an effort to further validate research findings. Survey questions targeted broad ideas including what constitutes watershed groups' success in each of the three states. The survey also sought to identify what combination of resources created a favorable environment for watershed

group success. An additional focus of both the mail-based and interview portions of the survey was to identify the key needs of watershed groups in the Pacific Northwest. This was accomplished by direct inquiry and by investigating the origins of technical, non-biased information utilized by individual watershed groups. Results show that many factors influence the success of watershed groups and that success itself is often defined very differently among individual watershed groups and across state lines.

Results

The fair ecological health rating of Clear Creek indicates that many land-based improvements must still be made in the watershed. Recommendations include: (1) improve grazing management in the upper reaches of the steams watershed, (2) better control erosion from both farmland and grazing land in the lower reaches of the stream, (3) improve the riparian vegetation in several identified places along the stream reach, (4) and continue to institute forest harvest practices that minimize soil erosion. Human dimension components: Most watershed groups in the Pacific Northwest feel that they are doing a good job at this important task. Most watershed group members feel that their time is well-spent and that they receive adequate technical support from state environmental agencies and the Environmental Protection Agency. Most watershed groups would like better support than they are getting from Extension and land grant universities. Because watershed group members are vested in this process it appears that the long term heath of these groups is good. The results of this survey are valuable to local, state, and federal agencies hoping to further understand and support watershed group processes within their state. Extension professionals may apply the results of this survey to address key information and logistic needs of watershed groups in their respective states and regions.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
104	Protect Soil from Harmful Effects of Natural Elements
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
132	Weather and Climate
133	Pollution Prevention and Mitigation
215	Biological Control of Pests Affecting Plants
315	Animal Welfare/Well-Being and Protection
723	Hazards to Human Health and Safety
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

Outcome #4

1. Outcome Measures

O: Improve protection of water resources. I: Number of pest management and nutrient management plans written with producers.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual

2009	150	280

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Concern about ground water contamination from the use of pesticides.

What has been done
We worked with NRCS to allow for cost share dollars to be spent on two IPM practices; scouting and the use of biofumigants or green manure crops.

Results
10,850 acres in Idaho had these two IPM practices implemented for the purpose of protecting the resources, mainly water quality. Of these acres 75% grew green manure crops as a replacement for synthetic soil fumigant pesticides, resulting in a reduced use of pesticides, and an impact to ground water.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
133	Pollution Prevention and Mitigation
723	Hazards to Human Health and Safety

V(H). Planned Program (External Factors)

External factors which affected outcomes
- Government Regulations
- Competing Programmatic Challenges

Brief Explanation

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

1. Evaluation Studies Planned

- Retrospective (post program)
- Time series (multiple points before and after program)
- Comparisons between program participants (individuals, group, organizations) and non-participants

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Small Acreages and Emerging Specialty Crops

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	40%		20%	
111	Conservation and Efficient Use of Water	0%		20%	
202	Plant Genetic Resources	5%		20%	
205	Plant Management Systems	30%		20%	
212	Pathogens and Nematodes Affecting Plants	5%		20%	
604	Marketing and Distribution Practices	20%		0%	
	Total	100%		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	2.3	0.0	2.4	0.0
Actual	4.5	0.0	1.5	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**
47156	0	110544	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
47156	0	110544	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
207535	0	285516	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Conferences:
- Offer yearly Small Farm Conference; alternating between southern and northern Idaho.
- Smaller conference in alternate years in Dist 2 or 3 - when larger conference is up north.

Courses: Teach in-depth courses ranging from 8 to 18 weeks and focused on both producers and landowners.
- Small Acreage Farming -every other in District I, odd years in Moscow, even years in Plummer/St. Maries; even years

in District II

- Ag Entreprepeurship -Every year in Lewis/Clearwater counties, every other in Moscow and Benewah, and potentially in District II
- Living on the Land or Stewardship of small acreages - Boise, Parma , Sandpoint, yearly; Twin Falls/Jerome, in 2008 and 2010

Workshop Series or Shortcourses:

- Pasture Management - Every year in District II (Canyon); twice every year in District I, north (Benewah/Bonner) and south(Lewis and surrounding)
- Direct Marketing - 2006 in boise (Dist. II) and 2007 in SE Idaho (District IV)
- Special Topics - Every year in Bonner County

Agricultural Tours and Field Days:

- Farm tours - annually in District IV; twce per year in District II (Boise area)
- Field Days - annually in Sandpoint, Aberdeen

Field trials and demonstrations:

- Small Fruit - Sandpoint, 2007-2011
- Huckleberries, bilberries and haskap - Sandpoint and Treasure Valley, 2007-2011
- Vegetables - Aberdeen, Parma, Treasure Valley (2006-2011); possibly beginning in Sandpoint in 2008
- Nursery stock and Christmas trees - Sandpoint, 2007-2011

Publications:

- Newsletters - Small Farm News and Views (3000 copies) and Berry Bulletin - annually
- Impact Statements - Cultivating Success - 2007
- Reports - Red Raspberry Production Guide revision in 2006; Growing Western Huckleberries revision in 2007; Preferred List of Vegetables in 2007

Web sites:

- Development of Vegetable Crops web site in 2007
- Quarterly maintenance of Small Fruits, Horticulture and Small Farms web sites

Individual Consultation:

- County wide basis- on going yearly

2. Brief description of the target audience

Established and prospective small-acreage, specialty crop producers, processors, and marketers.

Small acreage landowners who desired to learn how to manage their land in a sustainable manner to protect natural resources.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	1200	10000	50	200
Actual	7308	236529	696	217

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	0	3	
Actual	7	4	11

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Small Farms Conference in southern Idaho.

Year	Target	Actual
2009	1	0

Output #2

Output Measure

- Small Farms Conference in northern Idaho.

Year	Target	Actual
2009	1	0

Output #3

Output Measure

- Small Acreage Farming Course.

Year	Target	Actual
2009	1	7

Output #4

Output Measure

- Ag Entrepreneurship Course.

Year	Target	Actual
2009	2	6

Output #5

Output Measure

- Direct marketing shortcourse.

Year	Target	Actual
2009	0	2

Output #6

Output Measure

- Pasture management shortcourse.

Year	Target	Actual
2009	2	2

Output #7

Output Measure

- Living on the Land course.

Year	Target	Actual
2009	2	9

Output #8

Output Measure

- Living on the Land Tour.

Year	Target	Actual
2009	2	3

Output #9

Output Measure

- LOTL 5 year report.

Year	Target	Actual
2009	0	0

Output #10

Output Measure

- Vegetable variety trials.

Year	Target	Actual
2009	4	10

Output #11

Output Measure

- Specialty fruit crop trials.

Year	Target	Actual
2009	2	3

Output #12

Output Measure

- Field days at demonstration plots.

Year	Target	Actual
2009	2	4

Output #13

Output Measure

- Small fruit workshops - Huckleberries, etc.

Year	Target	Actual
2009	1	0

Output #14

Output Measure

- Extension peer-reviewed publications (CIS, Bulletin, PNW)

Year	Target	Actual
2009	0	7

Output #15

Output Measure

- Professional and scientific journal articles

Year	Target	Actual
2009	2	4

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: Growers learn about specialty crops varieties appropriate for their area.I: Number attending field days to observe results of crop variety demonstration trials.
2	O: Producers and landowners gain knowledge about natural resource management, sustainable farm production, marketing and/or business management principles and practices. I: Number of participants completing workshops, farm tours, short courses or in-depth courses such as Living on the Land, Stewardship of Small Acreages, Sustainable Small Acreage Farming or Agricultural Entrepreneurship.
3	O: Producers and landowners adopt recommended land management, production and/or marketing practices due to University of Idaho extension programming. I: Number of producers indicating they did (or intend to) adopt recommended land management, production and/or marketing practices after attending an educational class, workshop, one-on one contact or reading UI information.
4	O: Landowners and farmers achieve success in protecting their natural resources and/or maintaining a successful business.I: Number of past class participants who volunteer to host tours of their farm or speak to new students in classes, workshops or at conferences.
5	O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

Outcome #1

1. Outcome Measures

O: Growers learn about specialty crops varieties appropriate for their area.I: Number attending field days to observe results of crop variety demonstration trials.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	100	158

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Organic table grapes are a lucrative new alternative crop for small to mid-range producers in southwest Idaho. Powdery mildew is the single most economically important disease threatening growers' ability to achieve high quality, marketable fruit. Most of the available information on powdery mildew management and resistance or susceptibility of varieties has been developed for growers in California, Washington and Oregon, not Idaho.

What has been done
Our second Field Day was held in collaboration with Mike Medes of Rocky Fence Vineyard in Emmett, Idaho. Besides highlighting the results of our collaborative research on prevention and management of powdery mildew, the tour also served to introduce prospective and established growers to a number of grape varieties and their performance in Southwest Idaho both related and unrelated to powdery mildew.

Results
Field tour participants were introduced to several commercially viable table grape varieties suited to southwest Idaho and some that may be better suited for backyard production. They learned which varieties were more susceptible to powdery mildew, an economically important disease affecting the quality and marketability of a table grape crop. Potential growers will use this information to plan and select varieties for their own vineyards.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
205	Plant Management Systems

Outcome #2

1. Outcome Measures

O: Producers and landowners gain knowledge about natural resource management, sustainable farm production, marketing and/or business management principles and practices. I: Number of participants completing workshops, farm tours, short courses or in-depth courses such as Living on the Land, Stewardship of Small Acreages, Sustainable Small Acreage Farming or Agricultural Entrepreneurship.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	50	1522

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Growers and landowners who are trying to be more sustainable by protecting natural resources and operating viable farm businesses need accurate information and guidance on implementing best practices.

What has been done
Sustainable Small farm class in Moscow, two presentations to Potlatch growers group, two presentations to Grangeville Farmers Market growers and one presentation on marketing to Orofino market vendors. Co-sponsored targeted grazing for landowners in Spokane. Three of ten on-farm food safety workshops were held in my area. SARE multistate conference was held in Spokane.

Results
Evaluations indicated that 100% of students taking the Small Farming and Ranching class indicated their knowledge increased on principles of small farm sustainability, practices for sustainable producers, planning and evaluating the feasibility of a farming enterprise. All participants in marketing and production workshops in Grangeville, Potlatch and Orofino increased their knowledge on sustainable production and/or marketing practices. Landowners attending the targeted grazing workshops learned how to manage sheep and goats for effective weed management on their properties. Fifty NW producers attending the SARE multistate conference in Spokane learned how other farmers were researching new production and marketing strategies to promote sustainability of their operations. Evaluations of on-farm food safety workshops indicated 100% of participants gained knowledge on at least one aspect of food safety practices that they could use in their operations.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants
604	Marketing and Distribution Practices

Outcome #3

1. Outcome Measures

O: Producers and landowners adopt recommended land management, production and/or marketing practices due to University of Idaho extension programming. I: Number of producers indicating they did (or intend to) adopt recommended land management, production and/or marketing practices after attending an educational class, workshop, one-on one contact or reading UI information.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	15	343

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Adopting the recommended land management practices will contribute to long term environmental protection of our natural resources. Increased adoption of recommended production and marketing practices will result in increased income for producers and the likelihood of longer term business success.

What has been done
Sustainable Small Acreage Farming and Ranching classes held in 2009 in Latah County; short course in Grangeville and workshops in Potlatch and Orofino. Partnered with Rural Roots to plan and offer ten on-farm food safety workshops throughout Idaho; I attended three local workshops.

Results
12 beginning producers indicated they have or will develop farm management plans. Over eighty producers who have attended on-farm food safety events indicated they would adopt at least one of the food safety practices demonstrated at the workshop.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants
604	Marketing and Distribution Practices

Outcome #4

1. Outcome Measures

O: Landowners and farmers achieve success in protecting their natural resources and/or maintaining a successful business.I: Number of past class participants who volunteer to host tours of their farm or speak to new students in classes, workshops or at conferences.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	2	6

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Our classes focus on teaching people to protect their natural resources and run successful small farm businesses. Having students who implement practices they learned from our classes and are able to demonstrate that to subsequent class participants or others is one positive indicator of success.

What has been done
A student in Moscow's 2008 Small Acreage Farming and Ranching Class is selling at the Moscow Farmers' Market. He was asked by the FM Manager to present at the local Rotary Club on his poultry and egg business.

Results
A past student is finding success selling eggs and chickens at our local Farmers' Market. He was able to share his experiences with a group of non-farm citizens to broaden their understanding of sustainable small farm operations.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
205	Plant Management Systems
604	Marketing and Distribution Practices

Outcome #5

1. Outcome Measures

O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy

Brief Explanation

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

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 4

1. Name of the Planned Program

Forest Management

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
123	Management and Sustainability of Forest Resources	90%		70%	
213	Weeds Affecting Plants	0%		10%	
216	Integrated Pest Management Systems	10%		20%	
	Total	100%		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	3.6	0.0	1.0	0.0
Actual	3.6	0.0	1.6	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**
82462	0	67578	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
82462	0	67578	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
183098	0	433618	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

We held one session of Logger Education to Advance Professionalism ("LEAP"), which features over 20 hours of training on forest ecology, silviculture, and water quality. We also held three sessions of LEAP Update, an annual 2-day program in which LEAP graduates build on their professional development with in-depth training on a variety of forestry topics identified each year by loggers. UI Extension provided a series of workshops, field days and other educational activities titled "Strengthening Forest Stewardship Skills" designed to strengthen forest owners' ability to implement practices that improve forest health and growth. Woodland Notes, a forestry newsletter providing practical advice on forest management, was mailed out twice to over 4,000 Idaho panhandle forest owners. The 17th annual "Family Foresters Workshop", which updates consulting foresters, state-employed service foresters, and other natural resource professionals working with family forest owners on emerging technology

and knowledge

Conducted the following Forest Stewardship Programs: Forestry Shortcourse, Using Your GPS, Logger Education to Advance Professionalism, LEAP Update, Forest Insects and Disease Field Day, Forest Thinning and Pruning Field Day, Backyard Forests, Current Topics in Farm and Forest Health. I wrote articles for the Lewiston Morning Tribune, the Idaho Farm Bureau Gem State Producer and Farm Bureau Quarterly, and Woodland Notes. Published a peer reviewed article titled "Farm and Forest Fair Educates Fifth Graders" in the Journal of Extension.

2. Brief description of the target audience

The primary audiences for this topic team are family forest owners, loggers and natural resource professionals. They have been discussed in detail in earlier sections of this document.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	2500	0	250	0
Actual	0	0	0	0

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	1	3

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of workshops, field days, etc.

Year	Target	Actual
2009	30	0

Output #2

Output Measure

- Number of participants in workshops, field days, etc.

Year	Target	Actual
2009	750	0

Output #3

Output Measure

- Number of articles in popular press.

Year	Target	Actual
2009	15	0

Output #4

Output Measure

- Number of web site "hits".

Year	Target	Actual
2009	3000	0

Output #5

Output Measure

- Number of new or revised Extension publications (peer reviewed).

Year	Target	Actual
2009	2	0

Output #6

Output Measure

- Continuing Education hours for foresters, loggers, & other natural resource Professionals.

Year	Target	Actual
2009	2000	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: Family forest owners manage resources to achieve healthy, sustainable forests.I: Numbers of family forest owners indicating they will adopt recommended practices (e.g., monitor for insect, disease, or animal damage; thin forest trees; complete a forest management plan; etc.).
2	O: Family forest owners' understand issues and practices related to forest ecology, silviculture, and forest management.I: Number of family forest owners participating in educational programs who report an increase in awareness and knowledge of specific forest ecology, silviculture, and forest management issues.
3	O: Loggers operate using recommended forest management practices (e.g., monitor for insect, disease, or animal damage).I: Numbers of LEAP Update participants indicating they will adopt specific improved forest management practices.
4	O: Loggers possess credentials required by forest industry to conduct business.I: Number of loggers who complete continuing education requirements.
5	O: Natural resource professionals have knowledge consistent with current scientific understanding and emerging technologies.I: Number of natural resource professionals demonstrating increase in knowledge related to specific forest science and technology topics.
6	O: Other scientists are aware of our research findings. I: Number of refereed scientific journal articles.
7	O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

Outcome #1

1. Outcome Measures

O: Family forest owners manage resources to achieve healthy, sustainable forests.I: Numbers of family forest owners indicating they will adopt recommended practices (e.g., monitor for insect, disease, or animal damage; thin forest trees; complete a forest management plan; etc.).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	300	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
216	Integrated Pest Management Systems

Outcome #2

1. Outcome Measures

O: Family forest owners' understand issues and practices related to forest ecology, silviculture, and forest management.I: Number of family forest owners participating in educational programs who report an increase in awareness and knowledge of specific forest ecology, silviculture, and forest management issues.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	300	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
216	Integrated Pest Management Systems

Outcome #3

1. Outcome Measures

O: Loggers operate using recommended forest management practices (e.g., monitor for insect, disease, or animal damage).I: Numbers of LEAP Update participants indicating they will adopt specific improved forest management practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	230	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
216	Integrated Pest Management Systems

Outcome #4

1. Outcome Measures

O: Loggers possess credentials required by forest industry to conduct business.I: Number of loggers who complete continuing education requirements.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	250	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources

216	Integrated Pest Management Systems

Outcome #5

1. Outcome Measures

O: Natural resource professionals have knowledge consistent with current scientific understanding and emerging technologies.I: Number of natural resource professionals demonstrating increase in knowledge related to specific forest science and technology topics.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	150	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
216	Integrated Pest Management Systems

Outcome #6

1. Outcome Measures

O: Other scientists are aware of our research findings. I: Number of refereed scientific journal articles.

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
216	Integrated Pest Management Systems

Outcome #7

1. Outcome Measures

O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

Not Reporting on this Outcome Measure

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.)

Brief Explanation

{No Data Entered}

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

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after 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

Forages

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	0%		25%	
111	Conservation and Efficient Use of Water	0%		25%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	15%		50%	
204	Plant Product Quality and Utility (Preharvest)	15%		0%	
205	Plant Management Systems	40%		0%	
215	Biological Control of Pests Affecting Plants	30%		0%	
	Total	100%		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	3.1	0.0	0.5	0.0
Actual	4.5	0.0	0.5	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**
85939	0	10639	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
85939	0	10639	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
216796	0	161701	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The forages team was involved in the following multistate activities: Develop curricula contributing to a national "Intensive Pasture" workshop (Multi-state with U. Kentucky) at the American Forage and Grassland Council meeting in MI; Organized and instructed in 16-hour Alfalfa Intensive Training Seminar, Sioux Falls, SD. Also collaborated to deliver alfalfa education in OR, forage training at 2009 Far West Fertilizer & Chemical Conference NV, Forage Testing Consortium Meeting in San Antonio, TX,

and Pacific North West Forage Workers 2008 Conference, Corvallis, OR. Forage team faculty also authored, edited, and managed publication of the PNW "Pasture and Grazing Guide for the Northwest."

Forage faculty conducted three field demonstrations on effects of Clover Root Curculio on alfalfa root damage; Corn silage and grain variety trials; sprinkler irrigation uniformity trials for corn silage; two trails on the use of summer annuals to extend the grazing season; on-farm trials with unconventional forages and legumes; and pesticide applicator recertification trainings. Faculty delivered the content for two Lost Rivers Grazing Academies on the Eagle Valley Ranch, a practicing MiG ranch near Salmon, Idaho; presented education about winter and annual (unconventional or alternative) forages and Hay as part of cereal schools, and presented data from winter cereal research trials at the Idaho Hay and Forage Association Conference and at the National Association of County Ag Agents Western Region.

2. Brief description of the target audience

- Producers (Livestock and Forage) - Livestock and forage producers are likely to be positively impacted by new and improved production practices that will improve their profitability and ecological sustainability
- Seed Producers - Alfalfa and grass seed producers are likely to be positively impacted as many improved practices may involve the planting of new varieties with high productivity and pest resistance
- Allied Industry Suppliers - Supplies of a variety of production input are likely to be positively impacts since improved practices may include the use of new materials, machinery or other production inputs.
- Small Acreage Land Owners - Small acreage land owners will have a great understanding of the biology of their land and livestock resources, and will be less likely to be impacted by weed invasion or be taken advantage of by unscrupulous input suppliers

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	990	1115	151	40
Actual	5087	10057	119	5087

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	5	0	5

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Demonstrations.

Year	Target	Actual
2009	5	5

Output #2

Output Measure

- Extension educators trained.

Year	Target	Actual
2009	10	19

Output #3

Output Measure

- Peer Reviewed Extension Publications (CIS, Bulletin, PNW).

Year	Target	Actual
2009	3	5

Output #4

Output Measure

- Grants.

Year	Target	Actual
2009	0	6

Output #5

Output Measure

- Media Interview Articles.

Year	Target	Actual
2009	8	12

Output #6

Output Measure

- Operator Posters.

Year	Target	Actual
2009	1	2

Output #7

Output Measure

- Operator Presentations.

Year	Target	Actual
2009	1	1

Output #8

Output Measure

- Papers.

Year	Target	Actual
2009	2	3

Output #9

Output Measure

- Popular Press articles.

Year	Target	Actual
2009	14	10

Output #10

Output Measure

- Poster Papers.

Year	Target	Actual
2009	4	6

Output #11

Output Measure

- Presentations.

Year	Target	Actual
2009	19	50

Output #12

Output Measure

- Professional Education Opportunity.

Year	Target	Actual
2009	2	2

Output #13

Output Measure

- Research Papers.

Year	Target	Actual
2009	1	0

Output #14

Output Measure

- Research Presentations.

Year	Target	Actual
2009	3	5

Output #15

Output Measure

- School (group of related presentations).

Year	Target	Actual
2009	8	2

Output #16

Output Measure

- Tour (Guided tour of producers practices).

Year	Target	Actual
2009	9	3

Output #17

Output Measure

- Workshops (Multi-day educational activity).

Year	Target	Actual
2009	12	9

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: Clients will become aware of new or preferred production practices. I: Number of clients attending schools.
2	O: Clients will adopt new or preferred production practices.I: Percentage of clients indicating in post-surveys that they intend to implement recommended practices.
3	O: Clients gain improved understanding of production and harvesting principles and practices. I: Percent of clients who demonstrate improved knowledge in pre- and post- testing
4	O: Clients will become aware of new or preferred production practices I: Number of popular press articles and interview articles published

Outcome #1

1. Outcome Measures

O: Clients will become aware of new or preferred production practices. I: Number of clients attending schools.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	332	935

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Management of irrigated pastures is quite often sub-standard at best. Irrigated pastures often produce about 50% of their true potential. Improved management of irrigated pastures will improve forage production, livestock performance, quality of life, and should also improve net income for the producers.

What has been done
Workshops, talks, and the grazing academy were held to educate producers on improving their pasture management skills.

Results
80 producers attending different educational programs delivered by one educator indicated that the presentations helped to increase their knowledge of management principles.

4. Associated Knowledge Areas

KA Code	Knowledge Area
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems
215	Biological Control of Pests Affecting Plants

Outcome #2

1. Outcome Measures

O: Clients will adopt new or preferred production practices.I: Percentage of clients indicating in post- surveys that they intend to implement recommended practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	21	80

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
High costs of feed and animal production cause producers to search for more efficient ways to use their existing pasture resources. Operators attended LRGA in order to improve their knowledge and skills with management intensive grazing.

What has been done
Two 4-day classes of the Lost River Grazing academy were delivered for 39 learners, using the ranch of a practicing MiG cooperator as the laboratory. Participants were evaluated through the use of a pre-post test.

Results
In pre-post surveys, 100% of the operators indicated that they intended to implement some aspect of MiG that had been discussed and demonstrated in the workshops

4. Associated Knowledge Areas

KA Code	Knowledge Area
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems

Outcome #3

1. Outcome Measures

O: Clients gain improved understanding of production and harvesting principles and practices. I: Percent of clients who demonstrate improved knowledge in pre- and post- testing

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	47	248

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
High costs of feed and animal production cause producers to search for more efficient ways to use their existing pasture resources. Operators attended LRGA in order to improve their knowledge and skills with management intensive grazing.

What has been done
Two 4-day classes of the Lost River Grazing academy were delivered for 39 learners, using the ranch of a practicing MiG cooperator as the laboratory. Participants were evaluated through the use of a pre-post test.

Results
Participants demonstrated knoledge increase as an improvement of post-test scores by 30% over pre-test scores.

4. Associated Knowledge Areas

KA Code	Knowledge Area
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems

Outcome #4

1. Outcome Measures

O: Clients will become aware of new or preferred production practices I: Number of popular press articles and interview articles published

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	14	18

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Local forage producers and ranchers need to become aware of best management practices. Small Landowners need education on establishing and managing small pastures.

What has been done
Eighteen popular press articles were written and circulated to a large number in the target audience.

Results
Many local ranchers and forage producers who subscribe to the local papers have had the opportunity to read articles. Producers are exposed to practical tips on planting and using warm season annuals.

4. Associated Knowledge Areas

KA Code	Knowledge Area
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems
215	Biological Control of Pests Affecting Plants

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- 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)
- Case Study

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 6

1. Name of the Planned Program

Civil Society

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
805	Community Institutions, Health, and Social Services	100%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

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

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	0.7	0.0	0.0	0.0
Actual	0.7	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**
26929	0	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
26929	0	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
13949	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

2009 Idaho's Journey for Diversity and Human Rights included a two day workshop exposing participants to the Coeur d'Alene Human Rights Education Center, the Coeur d'Alene tribe's involvement in the brownfield clean-up of mining in the Silver Valley impacting Lake Coeur d'Alene and the environmental threats to the lake Pend Oreille from Eurasian Milfoil.

Civil Rights and Diversity trainings were delivered to ENP and EFNEP advisors and participants; BaFa BaFa and Starpower were used to simulate diversity issues for educators in Washington and Idaho; a number of faculty taught "Manner's Mishaps" and "Succeeding in the Working World" classes to more than 600 public school students.

2. Brief description of the target audience

Target audience is UI staff and volunteers, youth, educators, business people, community members and leaders, social service

providers, state and local agencies, etc.Audience participates by attending the workshops.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	75	50	60	25
Actual	495	117	711	109

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	0	0	
Actual	1	1	2

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Idaho's Journey for Diversity and Human Rights.

Year	Target	Actual
2009	1	1

Output #2

Output Measure

- Manners Mishaps.

Year	Target	Actual
2009	1	2

Output #3

Output Measure

- Diversity workshops.

Year	Target	Actual
2009	1	3

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: People are aware that knowledge will help address diversity/inclusiveness issuesI: Number of Civil Society program participants
2	O: Participants change in knowledge, attitude and behavior related to diversity/inclusivenessI: Surveys developed for each program

Outcome #1

1. Outcome Measures

O: People are aware that knowledge will help address diversity/inclusiveness issuesI: Number of Civil Society program participants

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	50	68

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Issues around cultural and class diversity are often difficult to discuss in a large-group setting without creating personal conflict among participants, because these issues require examples, which can be too real and emotional for many people. Diversity simulations were created in order to create a fictional 'reality' that provides examples for discussion in a safer environment.

What has been done
Starpower and BaFá BaFá are simulations designed to place participants in uncomfortable situations in order to allow them to experience some system of oppression. Both simulations allow participants to examine their belief systems surrounding issues of cultural or class discrimination and provide information for viewing such situations more compassionately.

Results
These workshops are very thought-provoking and often stimulate great discussion from participants, often painting me, the facilitator, as the antagonist, or the reason for their discomfort. Many participants compliment me on the activity, but there are always participants who don't like to be moved out of their comfort zones. I think these are the people that get the most out of the workshop.

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

Outcome #2

1. Outcome Measures

O: Participants change in knowledge, attitude and behavior related to diversity/inclusivenessI: Surveys developed for each program

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	40	12

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Idaho has historically been home to a diverse group of people who have fought for equal and humane treatment under Idaho law. Unfortunately, few people who live in Idaho understand or know about the diversity of Idaho's past and present. Our goal is to teach about actual events where diverse people courageously fought to change the state's image and their people's identity.

What has been done
team held a 2 day workshop for participants to learn about Idaho's past and present human rights issues. They learned about environmental efforts, about the "Forgotten War", when the Kootenai tribe declared war on the U.S. government (1976) and the war ended when President Ford signed a treaty. Participants toured the Human Rights Center in Coeur d'Alene, and the sturgeon nursery in Bonners Ferry. Extension provided transportation, speakers, meals, and materials.

Results
Evaluation data: All participants reported that their knowledge of people/events important to Idaho's challenges of diversity and human rights. All reported increased knowledge of past challenges ability to help us understand present day issues of human rights. all participants increased knowledge of successful strategies used in the past. All reported an increased ability to speak up or take action about human rights. All reported increased connections to others in Idaho concerned about diversity and human rights and all reported an increased commitment to helping address issues of diversity and human rights.

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

V(H). Planned Program (External Factors)

External factors which affected outcomes
- Competing Programmatic Challenges

Brief Explanation

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

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 7

1. Name of the Planned Program

Family Life Education

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
802	Human Development and Family Well-Being	100%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

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

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	1.3	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**
27542	0	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
27542	0	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
52457	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Faculty on this team offered Married and Loving It! Workshops and began development of web-based couple relationship materials; offered Basic Parenting course in partnership with Head Start and for court ordered parents and those in custody battles often referred by their attorney). Two 16 week Getting Ahead in a Just Gettin'-By-World course was taught to 24 limited resource individuals/couples. The Lewis-Clark Valley Kincare Coalition created and distributed a newsletter and hosted a Kincare Support Group/Playday in the Park meeting to promote networking and relationship-building among grandparents raising their grandchildren.

2. Brief description of the target audience

Family adults, parents, and grandparents, members of couple relationships, child-services and custody-related referrals.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	1000	2000	500	0
Actual	919	1074	136	125

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

Patent Applications Submitted

Year: 2009
Plan: 0
Actual: 1

Patents listed
BLOCK Fest, trademark application #77703177, filed March 31, 2009

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	1	0	
Actual	1	1	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Offer Married and Loving It series.

Year	Target	Actual
2009	4	2

Output #2

Output Measure

- Offer workshops on aging life issues.

Year	Target	Actual
2009	1	0

Output #3

Output Measure

- Web-based educational materials.

Year	Target	Actual
2009	4	3

Output #4

Output Measure

- Newsletter articles.

Year	Target	Actual
2009	5	19

Output #5

Output Measure

- Conference posters/presentations.

Year	Target	Actual
2009	1	3

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: People apply recommended practices to deal with issues and situations important for families. I: Number of participants in Family Life Education program (MALI, Aging, Etc.) reporting adoption of recommended practices.
2	O: People are knowledgeable about issues and practices important for families.I: Number of participants in Family Life Education programs (MALI, Aging, etc.) demonstrating changes in knowledge.
3	O: Users of web-based family life materials find useful information that addresses their needs.I: Number of participants accessing the materials who rate the information as useful.

Outcome #1

1. Outcome Measures

O: People apply recommended practices to deal with issues and situations important for families. I: Number of participants in Family Life Education program (MALI, Aging, Etc.) reporting adoption of recommended practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	100	260

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Block Fest was developed and implemented to teach parents and young children early concepts of math and science.

What has been done
Block Fest was offered to families of young children, with many enthusiastic participants -- sessions were fully booked with waiting lists.

Results
Parents report learning about the math and science learning their children are doing, and saw examples of such behavior at Block Fest. After six months, parents report still being influenced by the lessons of Block Fest, still playing blocks with their children, using more math and science terms with their children, and seeing more math and science in everyday life.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

Outcome #2

1. Outcome Measures

O: People are knowledgeable about issues and practices important for families.I: Number of participants in Family Life Education programs (MALI, Aging, etc.) demonstrating changes in knowledge.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	100	340

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Parents with youth participating in the Head Start Program with the children were requiring parenting classes as part of a court order or just wished to increase skills. Members of couple relationships were looking for premarital and marital education in increase the happiness of their marriages.

What has been done
A seven week Basic Parenting course was held with 5 participants in partnership with the Head Start Program and local health and welfare. A five week Married and Loving It! course was held with 14 participants.

Results
100% of Basic Parenting participants reported a strong increase in knowledge they could apply at home. The average post test score for Married and Loving It! participants were 88% showing a strong increase in knowledge of recommended practices.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

Outcome #3

1. Outcome Measures

O: Users of web-based family life materials find useful information that addresses their needs.I: Number of participants accessing the materials who rate the information as useful.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	80	70

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done
A Just In Time Parenting Newsletter has been under development fordelivery in Janyary 2010.

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

V(H). Planned Program (External Factors)

External factors which affected outcomes
- Appropriations changes

Brief Explanation

Funding for several family living projects was unexpectedly terminated since the plan of work was submitted, including BlockFest and Parents as Teachers.

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

1. Evaluation Studies Planned

- After Only (post program)
- Time series (multiple points before and after program)

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 8

1. Name of the Planned Program

Sugarbeets

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	0%		10%	
111	Conservation and Efficient Use of Water	0%		10%	
205	Plant Management Systems	40%		0%	
212	Pathogens and Nematodes Affecting Plants	30%		40%	
213	Weeds Affecting Plants	30%		40%	
	Total	100%		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	1.4	0.0	1.0	0.0
Actual	2.5	0.0	2.5	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**
102310	0	25425	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
102310	0	25425	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
41744	0	922046	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Revised three sections in the 2009 Pacific Northwest Insect Management Handbook: Sugar Beet Insect Pests (pp. 29-39), Sugar Beet Seed Pests (pp. 73-74), and Table Beet seed Pests (pp. 420-422); Presented UI Snake River Sugar Beet Conference including Spanish instruction and instruction on weed control research information and plant population impacts on sugarbeet yield and sugar content; presented weed and insect control research results and education at Amalgamated Grower meetings in Nyssa, OR and Nampa, ID; presented three weed control research papers at American Society of Sugar Beet Technologists meeting in Orlando, FL; published one extension publication on weed control in sugar beets in PNW Weed

Management Handbook; published two manuscripts in UI Winter Commodity School Proceedings, three abstracts in ASSBT proceedings, five technical reports in Western Society of Weed Science Research Progress Reports, six technical reports in Idaho Weed Control Report, and four articles in popular press or trade magazines. Organized and hosted UI Snake River Weed Research Tour at the Kimberly R&E Center. Conducted on-farm leaf miner evaluations and presentations, consulted with growers personally, and conducted study on developing olfactory attractants for the sugarbeet root maggot fly for eventual use in attract-and-kill or monitoring applications.

2. Brief description of the target audience

Those affected by this program are sugarbeet growers and those who advise growers, i.e. sugar company fieldmen and agronomists, chemical companies, seed companies and consultants. The specific target audiences most likely to participate in the program are sugarbeet growers, sugar company fieldmen and agronomists, chemical company representatives and seed companies.

The primary stakeholder input is through the University of Idaho Sugarbeet Working Group meeting held annually. The Working Group consists of approximately 15 growers from all areas of the state, four sugar company agriculturalists, and University of Idaho faculty working in sugarbeets.

The Pest Management Strategic Plan for Western U.S. Sugarbeets (on-line at <http://www.ipmcenters.org/pmsp/pdf/PNWSugarbeet.pdf>) provided major stakeholder input. This Plan was the result of a two-day meeting of 57 growers, commodity group representatives, industry field staff, regulators and university specialists from Colorado, Idaho, Montana, Oregon, Washington and Wyoming. This group met in Boise, Idaho on 15-16 Dec. 2004 to prioritize research, extension and regulatory needs of the sugarbeet industry. The plan was completed on August 5, 2005.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	3976	4467	0	0
Actual	2831	22523	25	0

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	1	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Other publications as lead author (non peer-reviewed).

Year	Target	Actual
2009	21	7

Output #2

Output Measure

- Web publications as lead author.

Year	Target	Actual
2009	10	3

Output #3

Output Measure

- Presentations.

Year	Target	Actual
2009	44	18

Output #4

Output Measure

- Newsletters.

Year	Target	Actual
2009	6	0

Output #5

Output Measure

- Organizing schools or conferences.

Year	Target	Actual
2009	2	2

Output #6

Output Measure

- Organizing field days.

Year	Target	Actual
2009	5	5

Output #7

Output Measure

- Field tours.

Year	Target	Actual
2009	8	12

Output #8

Output Measure

- Individual face-to-face contacts.
  Not reporting on this Output for this Annual Report

Output #9

Output Measure

- Telephone contacts.

Year	Target	Actual
2009	1028	440

Output #10

Output Measure

- Web page visits.

Year	Target	Actual
2009	2700	239

Output #11

Output Measure

- Extension publications (peer reviewed; CIS, bulletins, PNW)

Year	Target	Actual
2009	1	1

Output #12

Output Measure

- Research publications(peer reviewed; journals, book chapters).

Year	Target	Actual
2009	1	1

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: Adoption of best management practices for sugarbeet production will maximize cost-effectiveness while minimizing potential harm to environmental resources, benefiting sustainability of the agro-ecosystem and human health. I: Percentage reduction in input costs (survey).
2	O: Target audiences will gain knowledge and an awareness of sugarbeet publications and other sources of information. I: The number of participants who report increased knowledge measured by: pre- and post-tests or presentation evaluations
3	O: Development of new research information. I: Research publications (peer reviewed).
4	O: Development of new research information.I: Number of research presentations.
5	O: An increase in adoption of IPM practices and BMPs. I: Number of growers adopting one or more IPM practices or BMPs indicated by surveys.

Outcome #1

1. Outcome Measures

O: Adoption of best management practices for sugarbeet production will maximize cost-effectiveness while minimizing potential harm to environmental resources, benefiting sustainability of the agro-ecosystem and human health. I: Percentage reduction in input costs (survey).

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

O: Target audiences will gain knowledge and an awareness of sugarbeet publications and other sources of information. I: The number of participants who report increased knowledge measured by: pre- and post-tests or presentation evaluations

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

O: Development of new research information. I: Research publications (peer reviewed).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Some sugarbeet seed companies are promoting plant populations higher than current recommendations. Higher seeding rates (higher production cost) are required to produce the higher plant population. On low water holding soils or under less than optimum irrigation, these higher rates tend to produce many small beets than are not harvestable.

What has been done
Beet yield and sugar content were evaluated for 5 plant population levels over a 3-year period. Plots were located in grower fields. Water use efficiency (sugar production per unit input water) was also evaluated.

Results
Optimum plant population ranged from 110 to 130 beets per 100 feet, the range currently recommended by sugar company agronomists. This was true for sugar production and water use efficiency. Higher plant populations produced more above ground biomass relative to beet biomass.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants

Outcome #4

1. Outcome Measures

O: Development of new research information.I: Number of research presentations.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	2

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Long term impacts of fertilization need to be considered by producers as part of their nutrient management strategies.

What has been done
County wide nitrogen mineralization and nutrient management data were used for total nitrogen pool in sugar beet fertilizer recommendations. He evaluated the elemental sulfur application in high free lime soils for fertilizer use efficiency and for balancing calcium level in Base Saturation.

Results
The fertilizer use efficiency trainings and irrigation management ranged from between ten to forty percent in fertilizer savings, quality and yield. El/Owyhee Counties mineralization data is used for water quality by the Region 10 EPA, state enforcement, environmental agencies, field advisers, growers, and other researchers.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants

Outcome #5

1. Outcome Measures

O: An increase in adoption of IPM practices and BMPs. I: Number of growers adopting one or more IPM practices or BMPs indicated by surveys.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	10	257

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Currently, no other pesticide is labeled for use as a tank mix partner in RR sugar beets. Growers often want to apply other pesticides at the same time they are applying herbicides.

What has been done
Conducted field studies to determine whether or not there were any compatibility issue between glyphosate and selected fungicides and insecticides labeled for use in sugar beets. Also, evaluated weed control effectiveness with glyphosate tank mixed with cycloate, EPTC, dimethenamid-P, metolachlor, and ethofumesate.

Results
Growers tank mixed several of the fungicides and insecticides with glyphosate with little or not negative response. Growers were not at interested in tank mixing another herbicide mode of action due to the effectiveness of glyphosate alone for weed control in sugar beets.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Appropriations changes

Brief Explanation

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

1. Evaluation Studies Planned

    - Case Study

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 9

1. Name of the Planned Program

4-H 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
724	Healthy Lifestyle	40%		0%	
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	20%		0%	
806	Youth Development	40%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

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

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	16.5	0.0	0.0	0.0
Actual	8.0	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**
152696	0	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
152696	0	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
747623	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Education was delivered for volunteer leaders, faculty, and program coordinators. This training was used to deliver programs to 4-H youth and other youth education through the traditional clubs programs, afterschool programs, camps, Super Saturdays, and other organized events.

Subject matter training for volunteer leaders and program coordinators was focused in the areas of Science, Engineering and Technology and Healthy Lifestyles. Educational programs for faculty and program coordinators also included Volunteer Development and Leadership training, instruction and motivation for programs that increase participation of underserved audiences, and create opportunities for adults and youth to work together to help improve the local communities.

Positive Youth Development is a primary goal for classes, learning activities, training sessions and curricula to involve youth and their families in programs that will teach skills and personal development.

2. Brief description of the target audience

Expanding Science and Technology Skills
•Idaho Youth, ages 5-19 •Adult and youth volunteers •School enrichment and after school youth •Teachers and Out-of-school instructors Healthy Lifestyles
•Idaho Youth, ages 5-19 •Adult and youth volunteers •School enrichment and after school youth Volunteer Development and Leadership
•Idaho Youth, ages 12-19 •4-H /Youth Volunteers •Youth Development Staff •Community Leaders Reaching Underserved Audiences

•Hispanic Youth and Adult volunteers •Native American Youth and adult volunteers •Children of Military Families and adult volunteers Youth and Adult Partnerships
•Idaho Youth, ages 12-19 •4-H /Youth Volunteers •Youth Development Staff •Community Leaders Strengthening Families and Communities
•Idaho Youth, ages 5-19 •Adult and youth volunteers •Youth Development Staff •Community Leaders •Hispanic Youth and Adult volunteers •Native American Youth and adult volunteers •Children of Military Families and adult volunteers

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	50000	4200	70000	30000
Actual	70536	283966	118072	122188

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	0	0	
Actual	2	2	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of youth in educational classes and workshops.

Year	Target	Actual
2009	70000	27470

Output #2

Output Measure

- Number of volunteers in educational classes and workshops.

Year	Target	Actual
2009	5000	8113

Output #3

Output Measure

- Number of opportunities to promote 4-H Youth Development (publications, newsletters, columns, radio PSA's, radio/TV appearances)

Year	Target	Actual
2009	250	624

Output #4

Output Measure

- Number of educational classes, workshops, trainings, seminars taught (teaching contacts)

Year	Target	Actual
2009	343	1219

Output #5

Output Measure

- Number of 4-H clubs or groups.

Year	Target	Actual
2009	1400	1079

Output #6

Output Measure

- Number of youth attending statewide 4-H events.

Year	Target	Actual
2009	475	1213

Output #7

Output Measure

- Number of volunteers attending county, multi-county, district, state, regional, and national events

Year	Target	Actual
2009	3000	1923

Output #8

Output Measure

- Number of hits on the web site each year.

Year	Target	Actual
2009	20000	40478

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: More young people will have interest and skills to enter careers in science and technology. I: Number of youth participating in 4-H Youth Development programs designed to expand science and technology skills.
2	O: Youth participating in 4-H Youth Development programs will increase their knowledge of healthy lifestyle behaviors.I: Number of youth who increase their knowledge of healthy behaviors.
3	O: Youth participating in 4-H Youth Development programs will increase their participation in healthy lifestyle behaviors.I: Number of youth who increase their adoption of healthy activities.
4	O: More trained youth and adult volunteers will be available to lead 4-H Youth Development programs.I: Total number of volunteers receiving training.
5	O: More youth and adult volunteers will be available to lead 4-H Youth Development programs.I: Number of new volunteers certified.
6	O: Underserved youth will learn life skills through 4-H Youth Development.I: Number of underserved youth participating in 4-H Youth Development.
7	O: Underserved youth will learn life skills through 4-H Youth Development.I: Number of programs designed and marketed specifically for underserved youth.
8	O: A greater number of organizations will benefit from effective youth-adult partnerships.I: Number of committees, councils and boards with youth and adults serving together.
9	O: Youth will learn life skills through participation in 4-H Youth Development programs. I: Number of youth indicating life skill development

Outcome #1

1. Outcome Measures

O: More young people will have interest and skills to enter careers in science and technology. I: Number of youth participating in 4-H Youth Development programs designed to expand science and technology skills.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	8100	5058

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
National 4-H Council developed an experiment on Biofuels for youth to try during National 4-H Week and on National Youth Science Day. The experiment is one avenue to interest youth in science and technology as a career.

What has been done
16 Idaho 4-H clubs tried out the experiment. It was also demonstrated at the State Leaders' Forum curriculum fair to interest other leaders in trying the experiment.

Results
The members learned about biofuels and how they are made. They discovered that some organic material converts to gas faster than others. These youth were able to make the connection between what they had done and a demonstration at a previous meeting on how yeast works in bread dough, stimulating scientific thought.

4. Associated Knowledge Areas

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

Outcome #2

1. Outcome Measures

O: Youth participating in 4-H Youth Development programs will increase their knowledge of healthy lifestyle behaviors.I: Number of youth who increase their knowledge of healthy behaviors.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	8200	3366

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
It is very important for kids and adults to learn what they should be eating and how much. With obesity being such an issue in America today I don't think we can review too much what really needs to be done to by each and every single person when it comes to making good food choices.

What has been done
At our 4-H camp in July one of the mini projects offered was choosing and making healthy snacks based on "My Pyramid." We covered a different part of the pyramid everyday and then made a snack from that food group. Food groups covered were milk, protein, grains, fruits, veggies

Results
By the end of the week all participating kids could name the different parts of the pyramid, and tell the foods that belonged in that category. They were even starting to connect how much of each food we should be eating daily.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #3

1. Outcome Measures

O: Youth participating in 4-H Youth Development programs will increase their participation in healthy lifestyle behaviors.I: Number of youth who increase their adoption of healthy activities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	4700	1876

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Healthy lifestyle activities improve health and well-being.

What has been done
Youth participated in healthy lifestyle education 4-H curriculum through 4-H club delivery, day camps and afterschool programming.

Results
126 youth followed through after their learning to create displays and exhibits in the healthy lifestyle programming project area at the Canyon County Fair.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle
806	Youth Development

Outcome #4

1. Outcome Measures

O: More trained youth and adult volunteers will be available to lead 4-H Youth Development programs.I: Total number of volunteers receiving training.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1425	1396

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Having well qualified, knowledgable volunteers to assist in conducting local 4-H programming efforts is essential in maintaining a high-quality educational experience for youth. Keeping abreast for programatic and organizational changes is critical, as is the need for open communication.

What has been done
In one four-county area, a wide array of evening and weekend programs were conducted that not only enable volunteers to gain the required number of annual leader recertification hours needed, but to be updated on programmatic changes and be exposed to emerging topics of interest.

Results
This past year, 197 leaders successfully completed this process.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #5

1. Outcome Measures

O: More youth and adult volunteers will be available to lead 4-H Youth Development programs.I: Number of new volunteers certified.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	450	332

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Volunteers are the life blood of 4-H. The more volunteers we have the more 4-H projects we are able to provide to our members.

What has been done
Elementary age children were given a 4-H recruitment presentation and were asked to provide the names and contact information of any adults that would be willing to volunteer their time to be a 4-H leader.

Results
Fourteen new adult volunteers enrolled in Franklin County.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #6

1. Outcome Measures

O: Underserved youth will learn life skills through 4-H Youth Development.I: Number of underserved youth participating in 4-H Youth Development.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	8200	2817

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Involving underserved youth in 4-H programs. Community leaders care because a greater number of the youth population falls in this category.

What has been done
Native American youth from the Fort Hall Indian Reservation were recruited to serve as 4-H camp counselors. A program called Cattle Kids was started to invite Blackfoot City youth to learn how to raise a calf.

Results
A 200% increase in the number of Native American 4-H Camp Counselors leading at camp in 2009. Nineteen youth from 15 Blackfoot City families had the opportunity to rasie a calf. These families all lived in the city without facilities to raise an animal. They were housed at the fairgrounds. *100% of the youth learned how much to feed their calf each day * 85% learned how to determine if their calf was sick * 69% learned the importance of daily care * 54% learned how much work is involved in raising a calf

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #7

1. Outcome Measures

O: Underserved youth will learn life skills through 4-H Youth Development.I: Number of programs designed and marketed specifically for underserved youth.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	30	219

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
The Canyon County population is at least 20% Hispanic, and many have not been reached by our Extension programs.

What has been done
A Caldwell Library Junior Master Gardener program in April focused on water/plant relationships. All handouts were translated into Spanish and bi-lingual adult and youth volunteers were available to assist families in attendance. A summer reading program at Sacajawea Elementary School in Caldwell focused on healthy eating habits and growing vegetables from seed.

Results
Youth in attendance increased their knowledge on healthy eating, basic botany, applied math and science.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle
806	Youth Development

Outcome #8

1. Outcome Measures

O: A greater number of organizations will benefit from effective youth-adult partnerships.I: Number of committees, councils and boards with youth and adults serving together.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	85	49

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Youth-adult partnerships are slowly becoming an acceptable method of decision making, both within the 4-H program and outside of it. More youth are learning how to use their voices with adults, and more adults are aware of the need to give youth opportunities to make decisions.

What has been done
The Notus Youth Council is a partnerships with adult decision makers in the community to make improvements. The Board of Directors includes youth and adults working to provide more opportunities for teens to engage in the Boise community.

Results
The Notus Youth Council continues to have a strong effect on the community and grows in size each year, despite the annual graduation of several members. They partnered with the city council and local businesses to build a basketball court in the city park. The Boise Youth in Civic Engagement subcommittee is working on conducting youth-led focus groups with local junior high students to identify potential projects. The teens on the committee have decided to take the lead on organizing and conducting the focus groups so as not to intimidate the junior high youth. The teens' sense of empowerment is evident in their enthusiasm for the project. The abilities of the youth to teach robotics principles to the younger kids far exceed the adult partners in the project. With their leadership, the Garfield FLL teams were able to qualify for the state tournament.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #9

1. Outcome Measures

O: Youth will learn life skills through participation in 4-H Youth Development programs. I: Number of youth indicating life skill development

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1800	4558

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Youth participating in 4-H Youth Development programs will increase their knowledge of and participation in healthy lifestyle behaviors. They will increase knowledge and benefits of a healthy lifestyle through education and increased activity levels of youth involved in 4-H youth programs. Youth participating in science, engineering and

technology project, activities and events will expand their science processing and technology skills.

What has been done
30 youth participated in a three day a week afterschool program. Enrichment activities were based around science and technology, healthy lifestyles and visual and cultural arts. One hour of enrichment activities were done each day of the afterschool program.

Results
67.9% of youth indicated an increase in communication skills, 46.4% indicated an increase in healthy lifestyle skills, 53.6% indicated an increase in critical thinking skills, and 39.3% indicated an increase in positive identity.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- 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

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 10

1. Name of the Planned Program

Range Management

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
121	Management of Range Resources	50%		0%	
133	Pollution Prevention and Mitigation	0%		10%	
213	Weeds Affecting Plants	30%		30%	
216	Integrated Pest Management Systems	0%		30%	
307	Animal Management Systems	20%		0%	
605	Natural Resource and Environmental Economics	0%		10%	
901	Program and Project Design, and Statistics	0%		20%	
	Total	100%		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	3.6	0.0	1.0	0.0
Actual	3.7	0.0	1.4	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**
100853	0	86421	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
100853	0	86421	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
122321	0	373923	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Conducted a wildfire recovery and grazing tour
- Presented educational programs Participated in a multi-state (UT, NV, ID) effort to develop a regional FFA range contest.
- Initiated a cooperative effort among UI and USFS to develop appropriate Forest Plan Amendments and communication

strategies with grazing permittees.

- Participated in a Science Committee convened by the Rocky Mountain Elk Foundation.
- Delivered educational programs on rangeland monitoring and assessing change in plant community, Real World Restoration of Rangelands and other topics at Producer Association and other stakeholder meetings.
- Participated in management tours and assessments with ranchers in Cassia, Minidoka, Owhyee, Caribou, Bear Lake, Bonneville and Twin Falls Counties.
- Presented educational programs on Elk-Cattle Interactions and Rangeland Monitoring at the Lemhi County Winter School.
- Presented educational programs on Rangeland Management to the Senate Agriculture, House Agriculture, and Senate Natural Resources Committees of the Idaho Legislature.
- In a cooperative effort with the Twin Falls District BLM, planned and conducted a 3 day workshop and field tour addressing issues associated with the Murphy Complex Fire.
- Participated in meetings of the Cassia County Federal Lands Advisory Group.
- Presented a "rangeland issues" program to members of Cassia County Commission.
- Conducted 2 "hands-on" range monitoring workshops to the members of the South Carmen Grazing Association.
- Conducted an in-service training for SW Idaho Extension Educators entitled "A day on the Range" which included in-class and in-the-field sessions on plant identification, rangeland monitoring, and rangeland ecology.
- Delivered rangeland ecology programs to participants in the UI Natural Resource Camp.
- Presented educational information during the Idaho/Nevada Governor's Range Tour.
- Implemented a range tour and educational program on the Lee A. Sharp Experimental Area for the Idaho section SRM summer meeting.
- Delivered educational programs at the Tri-State weed and range tour in cooperation with Bear Lake County Extension Faculty.
- Conducted a weed/grazing management tour on rangelands owned by the Blackfoot River Grazing Association.
- Presented educational programs at meetings of Idaho Rangeland Resource Commission and Idaho Rangeland Committee.
- Presented educational programs and participated in the Lost Rivers Grazing Academy.
- Coordinated and conducted the Idaho State Range Contest for FFA members.
- Provide weed control education and weed identification for community members.
- Assist US Forest Service (USFS) in disseminating information to permittees regarding ESA Chapter 7 Consultation process that is occuring on alloments on the Salmon-Challis NF.
- Attend meetings to stay updated on current information and happenings on BLM, SNRA, and USFS lands.
- Participate and provide input to the following groups: Upper Salmon Basin Watershed Program, Custer Soil & Water Conservation District, Challis Experimental Stewardship Program and Idaho Association of Counties-Public Lands Committee.
- Work with ISDA to provide training and testing for local pesticide applicators.
- Secured funding from BLM and USFS-RAC and ISDA cost share grants to operate county weed department, including hiring a full-time weed superintendent.
- Participate and provide education to local Cooperative Weed Management Areas, including the Custer and Frank Church CWMA's.
- Partnered with the Idaho Rangeland Resource Commission (IRRC) to host an educational workshop on Weeds and Idaho Rangelands. The workshop provided re-certification credits to local teachers and weed sprayers. Future workshops are being planned with IRRC.

2. Brief description of the target audience

The target audience includes land owners, range livestock producers, local government and resource management agency personnel. This audience attends workshops, meets one-on-one with topic team members, reads extension publications, seeks information on websites and participates in on-the-ground projects.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	3000	500	100	225
Actual	5848	37329	604	7848

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	3	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Range and weed tours.

Year	Target	Actual
2009	4	20

Output #2

Output Measure

- Range monitoring and grazing workshops.

Year	Target	Actual
2009	1	3

Output #3

Output Measure

- Weed workshops and presentations.

Year	Target	Actual
2009	2	15

Output #4

Output Measure

- range science at school.

Year	Target	Actual
2009	1	1

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: Awareness of new, accepted or recommended grazing and weed management practices.I: Number attending educational events.
2	O: Youth learning about rangeland ecology and management.I: Number of youth participating in school programs on range.
3	O: Extension Educators and NRCS personnel understanding and teaching BEHAVE principles.I: Number of Extension Educators and NRCS trainers trained.
4	Increase in the number of graduate students entering the workforce.

Outcome #1

1. Outcome Measures

O: Awareness of new, accepted or recommended grazing and weed management practices.I: Number attending educational events.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	500	1055

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
A plant was becoming noticed for invading a rangeland situation in Southeast Idaho. Producers became agitated because of this plant was replacing a desireable grass species. There was also a non grazed ranch that showed the same invasion.

What has been done
A group was formed to identify the invading species and to see what could be done to curtail its spread. This group become part of a Tri State Weed and Range Tour committee that met and organized a range and weed tour to teach about the invading plant species and other problems that were noticed in the rangeland system. The tour was held on July 29, 2009 in southeast Idaho. Sixty-seven people attended the tour and learned how to deal with grazing issues on our high mountain rangeland systems.

Results
Those who attended rated the overall tour a 4.47 out a possible 5. They rated new information gained a 4.13 and also rated the usefulness of the tour and information given on the tour a 4.21 out of a possible 5 points. Range riders were taught how to autopsy animals to best test for poisonous plant deaths. Three days after the tour, cattle were found dead and the rider was able to take the necessary samples and send them in for testing only to find out the animals were dealing with selenium poisoning. The concepts taught on the tour help the rider be prepared for this situation and allowed a quick resolution to take place. An impact statement was written for this event.

4. Associated Knowledge Areas

KA Code	Knowledge Area
121	Management of Range Resources
213	Weeds Affecting Plants
307	Animal Management Systems

Outcome #2

1. Outcome Measures

O: Youth learning about rangeland ecology and management.I: Number of youth participating in school programs on range.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	100	248

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Rangeland livestock producers, public land managers, It is important for youth to gain some understanding and appreciation for rangeland management as they will be some of the public

What has been done
Taught a station at the Owyhee Field days event for 4th and 5th grade students to learn about range and other related topics. The Range Management station focused on ruminant digestion and how that relates to the diets of cattle and how cattle are able to consume grasses and forbs from rangelands and convert them into products that are very beneficial to humans in the form of meat.

Results
110 students and another 20 adults now have increased knowledge on the beneficial use of rangeland.

4. Associated Knowledge Areas

KA Code	Knowledge Area
121	Management of Range Resources
213	Weeds Affecting Plants
307	Animal Management Systems

Outcome #3

1. Outcome Measures

O: Extension Educators and NRCS personnel understanding and teaching BEHAVE principles.I: Number of Extension Educators and NRCS trainers trained.

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

Increase in the number of graduate students entering the workforce.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Public Policy changes

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)
- Case Study

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 11

1. Name of the Planned Program

Family Economics

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	100%		0%	
	Total	100%		0%	

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	4.4	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**
60920	0	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
60920	0	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
219937	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Almost 300 classes on family finance were taught in 2009. A team of eight faculty developed the ID **Personal Finance** Web site. Six faculty collaborated to create the 7-lesson Retirement Ready curriculum and it, along with other retirement lessons, were taught 15 times. The National Endowment for Financial Education partnered with Extension to support three teacher training workshops in Idaho. Included among the programs taught for youth are "Welcome to the Real World" was taught 109 times, "Fun With Money" was delivered to about 95 children (70% Hispanic) in their afterschool settings on behalf of the Literacy Enrichment Academic Program (LEAP), "Money on the Bookshelf" was delivered to about 550 children (62% Hispanic) for North Side Head Start, and Kids Kredit Card was presented to 57 children. Low income adults received training as participants in 12 "Dollar Decision$" classes, "Building Bucks", Credit Cents and similar programs were delivered 40 times to adult audiences.

More than 55 articles on Family Finance were published in the Extension newsletter *The Communicator*, the e-newsletter "Idaho's Two Cent Tips" was delivered six times to 3,000 readers, nine financial management podcasts were distributed through iTunes, and 24 articles were written for local media.

2. Brief description of the target audience

Basic Financial Management: Young adults and those who are new to financial management (widows, divorcees, immigrants, etc.) and individuals who need to improve their financial management practices will use family economics publications, web sites and participate in classes/workshops. Professionals who work with low-income audiences and those with financial challenges will be trained and/or provided with family economics publications and curriculum.

Financial Security in Later Life: Adults will utilize publications, web sites, and educational programs covering retirement planning, investing, government programs benefitting senior citizens, long term care and legal education. Mid-life and older adults who are caretakers of elderly relatives and friends will use publications, the website and/or attend classes. Profesionals who serve elderly clients will use publications, curriculum materials, website and/or training provided by extension.

Youth Financial Literacy: Teachers, youth group leaders, parents and youth will utilize web sites, publications and educational programs. Teachers and youth group leaders will purchase extension curriculum for youth.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	4000	90000	1500	2000
Actual	8768	500000	4765	1683

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	7	0	
Actual	2	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Newsletters.

Year	Target	Actual

2009	22	22

Output #2

Output Measure

- Peer reviewed Extension publications (bulletins, CISs, PNW).

Year	Target	Actual
2009	1	2

Output #3

Output Measure

- Popular Press articles.

Year	Target	Actual
2009	6	54

Output #4

Output Measure

- Refereed journal articles, book chapters.

Year	Target	Actual
2009	3	1

Output #5

Output Measure

- Professional or paraprofessional trainings.

Year	Target	Actual
2009	4	20

Output #6

Output Measure

- Classes, workshops.

Year	Target	Actual
2009	100	298

Output #7

Output Measure

- Websites developed or updated.

Year	Target	Actual
2009	1	9

Output #8

Output Measure

- Lesson/curriculums developed and published.

Year	Target	Actual
2009	1	2

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: Participants increase awareness of effective financial management practices.I: Number of participants reporting awareness on end-of-class evaluations.
2	O: Participants gain new personal finance knowledge.I: Knowledge gain reported on end-of-program evaluations.
3	O: Participants adopt recommended financial practices.I: Participant responses on end-of-program and follow-up evaluations.
4	O: Extension Family economics information is accessible to new audiences through an Urban Extension website.I: Number of sessions and pages visited.

Outcome #1

1. Outcome Measures

O: Participants increase awareness of effective financial management practices.I: Number of participants reporting awareness on end-of-class evaluations.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1000	3239

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Area residents have need for unbiased, low-cost education on the important legal issues associated with later life and estate planning.

What has been done
Two Legally Secure Your Financial Future seminars were was organized, marketed, and delivered for 187 participants in Boise, 2009.

Results
In a follow-up survey, 86% of the participants indicated that they had discussed legal issues with family members, 68% of participants indicated that they were better prepared for end-of-life issues.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #2

1. Outcome Measures

O: Participants gain new personal finance knowledge.I: Knowledge gain reported on end-of-program evaluations.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	800	2820

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Financial literacy is a major concern for most adults and a critical need for many teens:

What has been done
Taking Control of Your Money classes were taught in Ada and Canyon counties, these workshops included classes in Budgeting, understanding credit, debt management and identity theft. Welcome to the Real World a financial management simulation was taught in high schools in Ada and Canyon Counties

Results
The Welcome to the Real World evaluation showed the following from the post survey results: 75% of students understand the budget percentages for different expenses, 52% learned how to open a savings and checking account, 51% learned how to set up and use online banking, 48% learned how to balance a checkbook, 46% understood the 'time value' of saving money 43% understood the relationship between education and potential earnings. Taking Control of Money classes featured a pre/post evaluation. When asked what practices they would adopt, participants stated that they would: watch where I'm spending my nickels and dimes; re-do my budget; discuss class with my daughter who is 16; review credit report and credit card terms; check credit score.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #3

1. Outcome Measures

O: Participants adopt recommended financial practices.I: Participant responses on end-of-program and follow-up evaluations.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	300	1592

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Changing detrimental financial habits and practices improves lives and saves futures. Our current economy demands financial resources, tools and information to individuals, families and groups. Without it, our economy, our job market and our lives will only sink farther.

What has been done
Various financial workshops were offered in Latah County, North Central Idaho and Northern Idaho covering basic financial education topics with interactive games and valuable information packets.

Results
Extension faculty received phone calls, emails, and notes from participants with comments stating behavior modification. For example, "I spoke with my daughter and we are having a family meeting tonight to put in place some of the ideas we covered last night, especially the family all working together on saving for one goal." "Keeping a budget is a great idea! Seriously it has just made me LOOK at what I'm spending and CONSIDER if I really need to/want to/can afford to buy whatever it is." This participant also shared the process she took to create a perfect budget for her and the extra steps she takes when she goes shopping. One past participant reported that she has been saving a VISA gift card for emergency cash and she never would have done that before the segment on savings in the class. A previously homeless participant shared that he is handling his life and his money with ease now that he feels more comfortable with a budget.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #4

1. Outcome Measures

O: Extension Family economics information is accessible to new audiences through an Urban Extension website.I: Number of sessions and pages visited.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	3000	5803

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Reaching audiences by using contemporary and entertaining media will further Extension's effort for financial literacy of Idahoans. People are busy and want the information now without the added hassle of going to classes or reading pages of data.

What has been done
Legally Secure Your Financial Future materials were made consumer website friendly by the eXtension team. A 7 person UI Extension team to develop and publish a website with content in 5 areas: Identity theft; Credit & debt; Spend Less, Live Well; Money 101 (financial basics); Financial Security; and a Calendar of UI Extension classes. In addition, the website links to numerous eXtension resources that include content we did not cover.

Results
During the first month of it's publication, the Idaho Personal Finance Website received 3,500 visits.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy

Brief Explanation

Poor economic conditions undoubtedly increased participation in our financial management programs.

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

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- Time series (multiple points before and after program)

Evaluation Results

In 2000, the AARP reported that 36% of survey respondents 50 and older had neither advance directives for health care nor up-to-date wills or trusts, and that only 17% had all three. Although these legal documents are essential to preparing for financial security in later life, a 2004 Martindale-Hubbell survey revealed that 70% of respondents lacked both a living will and medical directives and only 27% had filed powers of attorney for health care. Fourteen Legally Secure Your Financial Future: Organize, Communicate, Prepare (LSYFF) seminars were offered in Boise, Nampa and Caldwell during 2004, 2005, 2006, 2007, 2008 and 2009.

Participants in the workshops were surveyed at the beginning of the program and again six months later. The percentage of people who adopted good financial practices increased for each of the following recommended practices:
Living Wills&mdash30% before; 87% six months later
Inventoried important papers &ndash 34% before; 91% six months later
Health care durable power of attorney&mdash32% before; 81% six months later
organized family records &mdash40% before; 88% six months later
developed record keeping system&mdash47% before; 87% six months later
completed written wills&mdash44% before; 81% six months later
organized property records&mdash62% before; 93% six months later
organized financial records&mdash64% before; 92% six months later

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 12

1. Name of the Planned Program

Health and Human Nutrition

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
206	Basic Plant Biology	0%		5%	
301	Reproductive Performance of Animals	0%		5%	
311	Animal Diseases	0%		15%	
313	Internal Parasites in Animals	0%		5%	
701	Nutrient Composition of Food	30%		0%	
703	Nutrition Education and Behavior	30%		15%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	0%		10%	
722	Zoonotic Diseases and Parasites Affecting Humans	0%		15%	
723	Hazards to Human Health and Safety	0%		15%	
724	Healthy Lifestyle	40%		10%	
903	Communication, Education, and Information Delivery	0%		5%	
	Total	100%		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	5.5	0.0	11.0	0.0
Actual	9.5	0.0	14.0	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**
17188	0	250062	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
17166	0	250062	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
627086	0	5730279	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

More than 8,000 classes and individual consultations about health and nutrition were taught or performed in 2009. Among the classes were more than 625 that focused on fitness (Strong Women and Fit & Fall Proof); 80 that focused on general nutrition (for youth and adults); 56 with health/disease topics (diabetes, bone health); and 35 about meal planning and preparation.

2. Brief description of the target audience

The target audience includes individuals with an interest in or need for health and nutrition information. These individuals will attend classes on nutrition and/or health, and some will complete evaluation forms (surveys, etc) to determine impact of these classes. Specific audiences for individual programs include seniors, low-income families, meal preparers, and youth.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	10000	0	7000	0
Actual	26101	174638	9101	16893

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	11	
Actual	3	11	14

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Conduct classes on nutrition and health and physical activity.

Year	Target	Actual
2009	1010	8444

Output #2

Output Measure

- Extension publications (peer reviewed; CIS, Bulletins, etc)

Year	Target	Actual
2009	1	3

Output #3

Output Measure

- Submit refereed journal articles.

Year	Target	Actual
2009	1	11

Output #4

Output Measure

- Submit other publications (non-peer reviewed).
  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	O: People have increased awareness of the importance of nutrition, health, and physical activity.I: Number of participants in nutrition and health classes.
2	O: Improved physical condition of individuals enrolled in a physical activity program. I: Number of individuals who felt physically stronger from the Strong Women classes or improved their Get Up and Go scores from the Fit and Fall Proof classes.
3	O: Adult ENP participants will plan to change a dietary or activity behavior after completing a nutrition or physical activity class.I: Number of adult ENP participants who indicate their intention to improve their diet or physical activity.
4	O: Approximately 87% of Adult EFNEP participants will improve their diets after completing 6 core lessons.I: Number of adults that improve their diets by at least one food group (determined through pre/post 24 hour recalls).
5	O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.
6	O: Children attending Got Calcium classes will increase their knowledge about calcium. I: Number of children who improved post-calcium survey scores.
7	O: Seniors will become aware of nutrition needs as they age. I: Number of seniors who attend senior nutrition classes.

Outcome #1

1. Outcome Measures

O: People have increased awareness of the importance of nutrition, health, and physical activity.I: Number of participants in nutrition and health classes.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	800	9721

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Research from Ohio State University indicates that children are not getting the recommended number of fruits and vegetables. The food intake of over 6500 children between two and eighteen years old was analyzed. On average, children consumed one cup of fruit, 77% of the MyPyramid fruit recommendation. Additionally, children consumed an average of one cup of vegetables per day, 55% of the MyPyramid vegetable recommendation.

What has been done
One educator taught 7 sessions of "Eating the Alphabet from A to Z" encouraging elementary-age children to eat fruits and vegetables.

Results
Eighty-three students in the 3-5 grades completed a pre- and post-test. Sixty-five (86%) reported learning something new from the educational class. The following data shows the number of student answering test question correctly before and after the lessons. Are there fruits and vegetables starting with each letter of the alphabet? Before-27 (33%), after-72 (87%); Name a fruit or vegetable that starts with A, F, P, and X. Before-0 (0%), after-62 (75%). How many servings of fruit and vegetables should you eat every day? Before-23 (28%), after-68 (82%).

4. Associated Knowledge Areas

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

Outcome #2

1. Outcome Measures

O: Improved physical condition of individuals enrolled in a physical activity program. I: Number of individuals who felt physically stronger from the Strong Women classes or improved their Get Up and Go scores from the Fit and Fall Proof classes.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	100	666

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Individuals who are physically active have fewer health problems, less depression and generally feel better and more positive about life.

What has been done
Three new StrongWomen instructors were certified and volunteer instructor job descriptions were developed and signed. A total of 599 StrongWomen sessions were held (8 to 12 sessions for each of 60 classes).

Results
In 14 StrongWomen classes in SW Idaho, participants showed an increase of 12-56% in lower body strength.

4. Associated Knowledge Areas

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

Outcome #3

1. Outcome Measures

O: Adult ENP participants will plan to change a dietary or activity behavior after completing a nutrition or physical activity class.I: Number of adult ENP participants who indicate their intention to improve their diet or physical activity.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1000	3513

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Adults who meet the MyPyramid food group recommendations for fruits, vegetables, whole grains and low-fat dairy products are less likely to develop chronic diseases such as heart disease, diabetes, or cancer.

What has been done
Adults attended a MyPyramid class which explained the five food groups and then attended a class on each of the food groups.

Results
After attending these nutrition classes, adult participants were asked to choice which one nutrition eating behavior they planned to implement. The results showed that 43% planned on consuming more fruits and vegetables, 19% planned on consuming more whole grains, and 17% planned on consuming more low-fat dairy. Twenty one percent did not plan on making any changes to their eating behaviors.

4. Associated Knowledge Areas

KA Code	Knowledge Area
701	Nutrient Composition of Food
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #4

1. Outcome Measures

O: Approximately 87% of Adult EFNEP participants will improve their diets after completing 6 core lessons.I: Number of adults that improve their diets by at least one food group (determined through pre/post 24 hour recalls).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	330	435

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Obesity, poor health, and limited physical activity are major health concerns. Past years of data show that the EFNEP improves the health and well-being of its limited resource families. Research shows that better health is associated with reduced health care costs, less absenteeism from work, and less dependence on emergency food assistance, thus leading to public savings.

What has been done
In FY2009 488 low-income adults enrolled in the EFNEP in District II; 319 graduated the program. The graduates learned how to: improve their diets, improve their nutrition practices and stretch their food dollars farther, and increase their physical activity rates.

Results
In Food Resource Management Practices 94% (300 of 319) of the participants showed improvements in one or more food resource management practices (i.e. plans meals, compares prices, does not run out of food or uses grocery lists). In Nutrition Practices 97% (309 0f 319) of the participants showed improvement in one or more nutrition practices (i.e. plans meals, makes healthy food choices, prepares foods with adding salt, reads nutrition labels or has children eat breakfast).

4. Associated Knowledge Areas

KA Code	Knowledge Area
701	Nutrient Composition of Food
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #5

1. Outcome Measures

O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	3	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Eleven million children eat meals in childcare and preschools. Children at mealtimes in these group care settings are typically observed, rather than asked about their perspectives about mealtime routines, relationships, and environments. Their relationships around mealtimes are categorized most often in terms of adult-child relationships. Parents of children eating in these early childhood programs typically are not present when the mealtime occurs, and yet their stake in their child's healthy eating is great. The purpose of this project is to examine perspectives and relationship factors that directly impact child mealtime experiences and perspectives in group care settings, including preschools and child care centers. Children and parents are the subjects and their perspectives will be studied, rather than those of staff and administrators. Expected outcomes and impacts include materials for trainers will be made available to those who offer classes and workshops for child care and preschool staff, and a parent corner will be added to our existing feeding children in group settings website. It is expected that parents and staff will have greater cohesion in co-feeding children and helping children have healthier eating behaviors and environments.

What has been done
A survey of child care providers practices around child hood obesity and parent interactions was completed. A graduate thesis resulted. Focus groups of child care providers and parents who have children in child care were analyzed. The Feeding Children in Group Settings website was revised to include 75 handouts for trainers and

directors who supervise staff in child care centers. Materials were categorized and cross-matched with videotaped lectures, powerpoint presentations, and handouts.Teaching lectures were video taped, edited, and produced to accompany 70 vignettes of children and teachers eating together in child care settings, engaged in active play indoors and outdoors at child care programs, and child care staff interviews. Selected materials were disseminated through trainings, including training for using the Building Mealtime Environments and Relationships Inventory which was offered for child care providers, Head Start Health Care Coordinators, and preschool teachers, at presentations to the California CACFP Roundtable Annual CACFP Conference and the Wyoming Annual CACFP and Team Nutrition Early Childhood Conference. A workshop was presented to Vermont child care providers, Head Start staff, and child care directors on best practices for feeding children in group settings, through a collaboration with Team Nutrition and the Vermont Department of Education.

Results
Trainers and staff in child care programs and Head Start programs have used materials from our website. Newsletters and websites use our materials for their publications. These materials increase knowledge of research-based practices for feeding young children in group settings.

4. Associated Knowledge Areas

KA Code	Knowledge Area
206	Basic Plant Biology
301	Reproductive Performance of Animals
311	Animal Diseases
701	Nutrient Composition of Food
703	Nutrition Education and Behavior
722	Zoonotic Diseases and Parasites Affecting Humans
723	Hazards to Human Health and Safety
724	Healthy Lifestyle

Outcome #6

1. Outcome Measures

O: Children attending Got Calcium classes will increase their knowledge about calcium. I: Number of children who improved post-calcium survey scores.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	40	3590

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Most children do not meet calcium requirements. Only about 38% of males and 20% of females aged 6-11 and 32% of males ages 12-19 and 12% of similar aged females consumer 100% of the Adequate Intake for Calcium. Children and Teens have the best opportunity to build defenses against osteoporosis, but instead of drinking milk,

they are drinking soda.

What has been done
University of Idaho Extension addresses this need by presenting, "Got Calcium" in schools that qualify for the Extension Nutrition Program.

Results
The number of youth participants is 3590. Youth discussed the importance of bone health and received handouts on "Think Your Drink" and the ENP Snap handout.

4. Associated Knowledge Areas

KA Code	Knowledge Area
701	Nutrient Composition of Food
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #7

1. Outcome Measures

O: Seniors will become aware of nutrition needs as they age. I: Number of seniors who attend senior nutrition classes.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	50	212

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Many high nutritional risk seniors live in north Idaho and are served by their local Area Agency on Aging. Those at nutritional risk are asked to participate in the Senior Extension Nutrition Program. High nutritional exacerbates frailty leading to poor health.

What has been done
Home visits were offered to high nutritional risk seniors as part of the Senior Extension Nutrition Program.

Results
97% of participants understand how to use food to manage their health or health condition.

4. Associated Knowledge Areas

KA Code	Knowledge Area

701	Nutrient Composition of Food
703	Nutrition Education and Behavior
724	Healthy Lifestyle

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy

Brief Explanation

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

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Other (Paired control)

Evaluation Results

In FY2009 488 low-income adults enrolled in the EFNEP in District II; 319 graduated the program. The graduates learned how to: improve their diets, improve their nutrition practices and stretch their food dollars farther, and increase their physical activity rates. In Food Resource Management Practices 94% (300 of 319) of the participants showed improvements in one or more food resource management practices (i.e. plans meals, compares prices, does not run out of food or uses grocery lists). In Nutrition Practices 97% (309 0f 319) of the participants showed improvement in one or more nutrition practices (i.e. plans meals, makes healthy food choices, prepares foods with adding salt, reads nutrition labels or has children eat breakfast).

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 13

1. Name of the Planned Program

Community 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
111	Conservation and Efficient Use of Water	1%		10%	
131	Alternative Uses of Land	0%		10%	
601	Economics of Agricultural Production and Farm Management	1%		10%	
608	Community Resource Planning and Development	28%		20%	
609	Economic Theory and Methods	0%		10%	
610	Domestic Policy Analysis	0%		10%	
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	10%		10%	
805	Community Institutions, Health, and Social Services	30%		10%	
903	Communication, Education, and Information Delivery	30%		10%	
	Total	100%		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	4.0	0.0
Actual	8.2	0.0	3.2	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**
79758	0	94418	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
79758	0	94418	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
448807	0	1026669	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Leadership Development & Civic Engagement efforts work through local leader steering committees to guide design, implementation and evaluation of community leadership program. Much of the ongoing efforts are part of the Horizons project (collaboration with the Northwest Area Foundation) and involves Leadership Plenty training, forming Study Circles, and developing a community vision.

Economic Development, Diversity & Vitality Projects (Customer Relations, Business & Community Entrepreneurship, and Analysis of Economic Viability of Planned Buinesses): Projects involve teaching in-depth workshop series, developing curriculum, workshops for business owners & employees, consulting with business owners, and completing economic viability analysis.

Individual projects in community development include efforts to develop: a local irrigation company, a series of employee training seminars, an historical society and historical walking tour, Hispanic heritage and youth activities, a local community center, multiple farmers markets, local recycling programs, community gardens, and more. Faculty serve to support planning and zoning boards and other official and quasi-official agencies.

Data Tools for Understanding Communities: County demographic data is collected and updated in 42 individual county brochures. Data wasalso be presented in PowerPoint format for use in presentations by UI Extension Educators.Reference materials to build capacity of faculty will be prepared and distributed.

2. Brief description of the target audience

Target audiences include:

•Small business owners in Idaho •Government organizations/agencies in Idaho •Community non-profit organizations •Entrepreneurs - current and future •Elected officials & decision makers (state & local) •State & local employees •New leaders and individuals currently serving in leadership roles •Rural communities

Target audiences will participate in educational training opportunities. In many instances target audiences will also be involved in designing of programs, serving on steering committees, teaching of curriculum, recruiting of program participants, and in evaluation & redesign of programs.

Target audiences will participate in educational training opportunties. In many instances target audiences will also be involved in designing of programs, serving on steering committees, teaching of curriculum, recruiting of program participants, and in evaluation & redesign of programs.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	2000	0	400	0
Actual	19174	131787	5199	1040

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	5	
Actual	6	7	13

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Steering Committees/Teams formed.

Year	Target	Actual
2009	42	31

Output #2

Output Measure

- Materials/Curriculum developed.

Year	Target	Actual
2009	5	2

Output #3

Output Measure

- Presentations/Workshops.

Year	Target	Actual
2009	68	137

Output #4

Output Measure

- Trainings- Series/Short Courses.

Year	Target	Actual
2009	20	36

Output #5

Output Measure

- Conferences organized or implemented.

Year	Target	Actual
2009	3	4

Output #6

Output Measure

- Ind/Boards/Com- Mentored/Coached.

Year	Target	Actual
2009	28	50

Output #7

Output Measure

- Communities served.

Year	Target	Actual
2009	50	66

Output #8

Output Measure

- Counties served.

Year	Target	Actual
2009	44	44

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: Elected officials, decision makers, government agencies, and civic organizations will become knowledgeable about data relevant to their communities. I: Number of participants who increase knowledge about local data and how to find it. (Retrospective Post)
2	O: Entrepreneurs: Current & future Idaho Entrepreneurs learn business practices and develop skills needed for starting a business I: Number of participants learning skills
3	O: Entrepreneurs establish or expand their business I: number of business owners establishing or expanding their business. (Annual survey/3 yrs.)
4	O: Customer: Small business owners & government organizations in Idaho learn customer relation practices. I: Number of participants achieved a threshold level of knowledge. (Pre/post test)
5	O: Customer: Small business owners and government organizations adopt customer oriented operating practices I: Percentage of participants indicated adoption of 1/2 recommended practices. (6 mo. follow-up checklist survey)
6	O: Leadership: Incumbent and emerging leaders learn skills for leadership positions. I: Number of participants with increased skills
7	O: Leadership: New leaders will assume leadership roles I: Number of new leaders serving in communities. (2 yr. follow up checklist/count)

Outcome #1

1. Outcome Measures

O: Elected officials, decision makers, government agencies, and civic organizations will become knowledgeable about data relevant to their communities. I: Number of participants who increase knowledge about local data and how to find it. (Retrospective Post)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	40	293

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Businesses, civic organizations and county/city government need a current knowledge of county statistics in order to identify community issues and how to effect the outcomes of changes. The public needs to have current information on economic development and current policies.

What has been done
Faculty updated County at a glance brochures (including new data about poverty in several of them) and made presentations to local leadership groups.

Results
Local leaders have access to up-to-date information about their counties and are able to incorporate that data to make better informed decisions.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services
903	Communication, Education, and Information Delivery

Outcome #2

1. Outcome Measures

O: Entrepreneurs: Current & future Idaho Entrepreneurs learn business practices and develop skills needed for starting a business I: Number of participants learning skills

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	40	36

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Small business owners and entrepreneurs are significant player in Idaho's rural economy. small businesses are faced with many challenges including sufficient capital, a adequately prepared management team and actively developing markets

What has been done
Entrepreneurial short couse was conducted with 15 participants. Short course was 10 session of 3 hours each.

Results
Participants gained knowledge of management and budgeting processes

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
903	Communication, Education, and Information Delivery

Outcome #3

1. Outcome Measures

O: Entrepreneurs establish or expand their business I: number of business owners establishing or expanding their business. (Annual survey/3 yrs.)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	2	2

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Success encourages more success...so we must give the entrepreneurs the tools necessary to succeed in their business.

What has been done
Extension has provided critical tools to the entrepreneur starting with the Lost River Grazing Academy, economic analysis of business options, business plan updates, extending the grazing season, alternative forages, utilizing dairy compost to improve forage production, marketing, food processing and cheese making consultations, and getting funds to pay most of the fees for a professional grant writer from the Wood River RC&D.

Results
An $83,000 USDA Value Added working capital grant was awarded to Blue Sage Farm to help get the first sheep dairy in Idaho open for business. Sheep's milk cheese has now been added to the grass fed lamb that is being sold direct to consumers and chefs across south Idaho.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services

Outcome #4

1. Outcome Measures

O: Customer: Small business owners & government organizations in Idaho learn customer relation practices. I: Number of participants achieved a threshold level of knowledge. (Pre/post test)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	80	232

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Great customer service is especially important during an economic crisis. Customers are reluctant to spend money but great service may get them to make a purchasing decision. Local nonprofits have a difficult time collecting money during an economic crisis, help with grant writing, visioning, and strategic planning keep them on track

What has been done
Taught customer service classes. Grant Writing workshops, and Leadership classes for management of non-profit organizations including one workshop on funding, one on visioning, one on strategic planning, and one on administrating.

Results

Participants learned that great customer service is essential especially in an economic slowdown Grant writers and grant readers learned the fundamental concepts of grant writing and especially not to fit the program to an available grant, but seek grants that fund what the organization is already doing.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
903	Communication, Education, and Information Delivery

Outcome #5

1. Outcome Measures

O: Customer: Small business owners and government organizations adopt customer oriented operating practices I: Percentage of participants indicated adoption of 1/2 recommended practices. (6 mo. follow-up checklist survey)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	30	15

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
903	Communication, Education, and Information Delivery

Outcome #6

1. Outcome Measures

O: Leadership: Incumbent and emerging leaders learn skills for leadership positions. I: Number of participants with increased skills

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	100	417

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Organizations were looking for strong new leaders to work in existing organizations throughout the community. Leadership training is usually costly and in distance locations. Facilitators were trained in each of 15 community clusters to administer Leadership Plenty to local residents free of charge. The 9 week curriculum provided participants with a strong leadership base.

What has been done
Leadership Plenty Participants reported 97.1 percent increased their knowledge of leadership skills. On average 54.1% of participant's current knowledge in leadership came from leadership plenty.

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services
903	Communication, Education, and Information Delivery

Outcome #7

1. Outcome Measures

O: Leadership: New leaders will assume leadership roles I: Number of new leaders serving in communities. (2 yr. follow up checklist/count)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	33	13

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
New leaders are needed to run for office in city and county races.

What has been done
Leadership classes were taught to help participants learn leadership skills and confidence to help them assume new leadership roles.

Results
Three people who participated in the Horizons program in Caribou County ran for office in the fall 2009 election. A new leader was selected as an officer on a Lincoln County Farmers Market board and two new leaders were chosen as co-chairs for Horizons. Seven people from the various leadership classes ran for office in Bear Lake County in part due to their involvement in the leadership classes offered and because of leadership skills gained.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services
903	Communication, Education, and Information Delivery

V(H). Planned Program (External Factors)

External factors which affected outcomes
- Other (Budget)

Brief Explanation

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

1. Evaluation Studies Planned

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

Evaluation Results

Study Circle Evaluations:

80.8% of participants increased their knowledge of poverty; 61.5% have already taken action to reduce poverty; 42.3% are very likely to take individual action in the future to reduce poverty; 46.2% are very likely in the future to join community action to reduce poverty and 42.3% are very likely in the future to support policies to reduce poverty

Leadership Plenty Participant Evaluations:

Lava Hot Springs community members indicated on post program evaluations the ways they are going to use the knowledge they gained in Leadership Plenty. The following are the results by % indicated they are

going to use the knowledge they gained in Leadership Plenty to: 79.1% to enhance their effectiveness in the community; 47.6% to bring attention to the issue of poverty; 53.5% to expand local leadership training; 45.1% to work on local poverty reduction; 64.9% to involve more parts of the community in making decisions for the community; 85.3% to work more effectively with others.

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 14

1. Name of the Planned Program

Nutrient and Waste Management

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
101	Appraisal of Soil Resources	10%		20%	
102	Soil, Plant, Water, Nutrient Relationships	10%		20%	
133	Pollution Prevention and Mitigation	10%		20%	
205	Plant Management Systems	10%		0%	
403	Waste Disposal, Recycling, and Reuse	50%		40%	
601	Economics of Agricultural Production and Farm Management	10%		0%	
	Total	100%		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	2.2	0.0	1.0	0.0
Actual	1.9	0.0	0.3	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**
39175	0	18590	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
39175	0	18590	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
55764	0	88661	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The Nutrient and Waste Management Team conducted five field research studies involving onions (2), wheat (2), and field corn (1). Completed black soldier fly research, Facilitated field corn P uptake survey by sampling manured fields and paying for sample analysis. A dryland organic field trial was started in Fairfield and Blaine County using dairy compost and another was initiated with digester sludge tried on cropland. An nutrient management trial for organic potatoes was initiated as were projects

to look at applications of distillers grains and lagoon water. Several trails have been established to look at different cropping systems and their effects on nutrient management. Another trial was conducted to study adding legumes to the forage mix to reduce fertilizer inputs for livestock producers.

The Nutrient management team conducted field tours of research onion, corn, and wheat trials and numerous waste management trials. Faculty delivered an air quality workshop; made presentations on composting and waste management, on air quality, and on the results of numerous field trials.

Faculty prepared and submitted two publications to PNW (one on Field Corn Nutrient Management and one on alfalfa fertilization), and one Extension bulletin on Double Cropping for maximizing P removal. Prepared three Cereal Sentinel newsletter issues containing nutrient management related articles. Published copper toxicities article with eXtension and in several trade journals. Revised and published the sugarbeet fertility guide. Published two proceedings articles for conferences and published three magazine articles. Published extension newsletter articles on utilizing dairy compost for crops, and soil cation exchange capacity related to nutrient holding capacity and created and distributed the Nutrient Digest newsletter for the target audience.

2. Brief description of the target audience

•Producers and Processors provide input and feedback about programs, cooperate on demonstration trials and research, and participate in educational programs. •Professional Consultants provide input and feedback about programs, cooperate on demonstration trials and research, and participate in educational programs. •The public affected by NWM issues provide input and feedback about programs and participate in educational programs. •Local and/or state officials charged with permitting cafos provide input and feedback about programs and participate in educational programs.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	2500	2000	750	0
Actual	4461	82150	377	20

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	3	
Actual	5	3	8

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Bi-annual NWM Conference; number of participants

Year	Target	Actual
2009	0	0

Output #2

Output Measure

- Educational Field Days and Tours; number of participants.

Year	Target	Actual
2009	0	401

Output #3

Output Measure

- CCA Credits awarded through Online Testing.
  Not reporting on this Output for this Annual Report

Output #4

Output Measure

- Number of nutrient and waste management presentations at producer meetings, commodity schools, etc.

Year	Target	Actual
2009	15	42

Output #5

Output Measure

- Develop and distribute relevant Extension publications (peer reviewed; CIS, Bulletins, etc..

Year	Target	Actual
2009	5	6

Output #6

Output Measure

- Nutrient Management applied research projects and demonstrations, number of projects

Year	Target	Actual
2009	5	18

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: Improve application of NMP principles on farms; I: Percent of participants indicating their intention to adopt recommended practices
2	O: Producers and consultants learn new skills and methods through research-based education. I: Program participants demonstrate an increase in knowledge about NWM.

Outcome #1

1. Outcome Measures

O: Improve application of NMP principles on farms; I: Percent of participants indicating their intention to adopt recommended practices

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

O: Producers and consultants learn new skills and methods through research-based education. I: Program participants demonstrate an increase in knowledge about NWM.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	300	248

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Dairy and beef producers, county commissioners, P&Z personnel, farmers, educators, other livestock producers. This audience want to learn more about waste management, nutrient management, available best management practices, and how to reduce the impact of their operations.

What has been done
The Western Odor and Air Quality Education Program brought some of the best educators/scientists in the USA to present on air quality topics.

Results
Participants on our workshops indicated that they increased their knowledge. At the Western Odor and Air Quality Education Program, participants significantly increased their knowledge in all topics presented.

4. Associated Knowledge Areas

KA Code	Knowledge Area
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
133	Pollution Prevention and Mitigation
205	Plant Management Systems
403	Waste Disposal, Recycling, and Reuse
601	Economics of Agricultural Production and Farm Management

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Public Policy changes

Brief Explanation

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

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals, group, organizations) and non-participants

Evaluation Results

UI Organic Cropping Field Day, increased knowledge on nutrient sources and management in an organic system by 23% overall. 43 people claimed an increase in knowledge. Potato conference organic talk, 10 people increase in knowledge. overall increase was 24% .

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 15

1. Name of the Planned Program

Farm and Ranch Management

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
111	Conservation and Efficient Use of Water	0%		5%	
132	Weather and Climate	0%		5%	
212	Pathogens and Nematodes Affecting Plants	0%		5%	
601	Economics of Agricultural Production and Farm Management	60%		10%	
602	Business Management, Finance, and Taxation	10%		10%	
603	Market Economics	10%		10%	
605	Natural Resource and Environmental Economics	10%		10%	
606	International Trade and Development	10%		10%	
609	Economic Theory and Methods	0%		20%	
610	Domestic Policy Analysis	0%		10%	
722	Zoonotic Diseases and Parasites Affecting Humans	0%		5%	
	Total	100%		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	2.8	0.0	4.3	0.0
Actual	4.1	0.0	1.5	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**
115773	0	117495	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
115773	0	117495	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
170719	0	312389	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Courses taught by the Farm and Ranch Management Team members include: Small Acreage Farming and Ranching Course (Cultivating Success program), Tilling the Soil of Opportunity (NxLeveL Guide for Agricultural Entrepreneurs), North Idaho Farm Business Management School, Resource and Enterprise Evaluation Farmers Market vendor training, pond management course, Living on the Land, Aquaculture biosecurity workshop, six classes of *Quick Books®,* and a 12-week farm business management course for tribal members.

Faculty updated numerous crop cost and return estimates and assisted producers with FINPAC, with farm/ranch management plans, and with loan applications.

2. Brief description of the target audience

The target audience is comprised of farmers, ranchers and agribusiness managers in Idaho who are interested in improving their business management skills. This would include farmers and ranchers who are struggling financially and need to evaluate alternatives and may need help with basic financial management concepts, as well as highly successful farmers and ranchers who want to stay at the cutting-edge, improve their efficiency and/or evaluate alternative crops/cropping systems or alternative livestock/livestock production systems.

Participants will attend workshops, seminars and classes offered in a number of venues, including the traditional commodity schools/conferences as well as specialized farm managment classes. Program participants will also access decision-aid computer programs and other resource material directly from the Agricultural Economics and Rural Sociology web site.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	1200	5000	0	0
Actual	4315	5381	102	303

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	3	3	
Actual	3	9	12

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Farm Management Classes.

Year	Target	Actual
2009	2	12

Output #2

Output Measure

- Crop & Livestock Costs and Returns Estimates Published.

Year	Target	Actual
2009	90	15

Output #3

Output Measure

- Number of ID Agriculture's Economic Situation tri-fold distributed

Year	Target	Actual
2009	2500	370

Output #4

Output Measure

- Media Contacts.

Year	Target	Actual
2009	30	18

Output #5

Output Measure

- Workshops/presentations at Commodity Schools.

Year	Target	Actual
2009	6	6

Output #6

Output Measure

- Peer-reviewed Extension publications (CIS, Bulletins, PNW)

Year	Target	Actual
2009	3	1

Output #7

Output Measure

- Office/one-on-one consultations

Year	Target	Actual
2009	50	130

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: Educational material is widely distributed to clientele. I: Number of publications and other resources distributed
2	O: Clientele motivated to obtain knowledge and/or learn new management skills.I: Number of clientele attending educational programs.
3	O: Clients learn about new issues, management practices or marketing tools.I: Number of clientele attending educational programs that indicate a change in knowledge.
4	O: Clientele apply new knowledge about issues, management practices or marketing/risk management tools. I: Number of clientele attending educational programs that indicate an intention to change a practice or that have changed a practice.

Outcome #1

1. Outcome Measures

O: Educational material is widely distributed to clientele. I: Number of publications and other resources distributed

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	200	1044

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Idaho dairy producers place little value in cull market animals and do not realize the potential for value-added aspects of enhancing revenue from the sale of cull cattle.

What has been done
Team gathered physical and market information on over 13,000 dairy animals sold in Idaho, Utah and California auction yards in the spring and fall of 2008. Regression techniques were used to determine factors that influence the value of market dairy cows and bulls.

Results
We were able to determine factors that add and detract from sale prices of cull dairy livestock. Summary publication was prepared and recently mailed to a mailing list of 800 Idaho dairy producers.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
603	Market Economics
605	Natural Resource and Environmental Economics
606	International Trade and Development

Outcome #2

1. Outcome Measures

O: Clientele motivated to obtain knowledge and/or learn new management skills.I: Number of clientele attending educational programs.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1200	338

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Many businesses including farms and ranches fail due to a lack of record keeping.

What has been done
Quick Books(r) curriculum was found and adapted to our area to help teach producers and small business owners how to better utilize this powerful record keeping tool

Results
There were 40 participants in 5 communities that chose to take the training.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
605	Natural Resource and Environmental Economics

Outcome #3

1. Outcome Measures

O: Clients learn about new issues, management practices or marketing tools.I: Number of clientele attending educational programs that indicate a change in knowledge.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	150	188

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Livestock market outlook Cattlemen/ranch operators Margins are thin, desire to know what to expect in cattle markets over the coming months

What has been done
Outlook presentations at cattle producer schools

Results
Those in attendance were informed of market conditions, outlook for markets in coming months and alternative strategies to consider.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
603	Market Economics
605	Natural Resource and Environmental Economics

Outcome #4

1. Outcome Measures

O: Clientele apply new knowledge about issues, management practices or marketing/risk management tools. I: Number of clientele attending educational programs that indicate an intention to change a practice or that have changed a practice.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	100	58

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Tribal agricultural producers need to develop and maintain more accurate production records to improve management practices for their farms and ranches.

What has been done
Coordinated and delivered (with Idaho State University) a 12-week course to address all aspects of farm and ranch financial management.

Results

Seventy-five percent of the farm business management participants indicated they have implemented recordkeeping and management strategies for their operations after taking the classes. They have also stated these strategies have greatly improved their financial management skills.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
603	Market Economics

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- 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)
- During (during program)
- Case Study

Evaluation Results

Tilling the Soil of Opportunity for Agricultural Entrepreneurs (Retrospective)

Using a 1 (no knowledge) to 5 (very knowledgeable) scale, participants showed a growth in knowledge for the following course subject areas:

- Business planning - 1.8
- Goal setting - 1.7
- Industry research - 1.5
- Business regulations - 1.7
- Risk management - 1.7
- Target customers - 1.3
- Market/distribute products - 1.0
- Budgetting - 1.9
- Cash flow management - 1.9

Financial planning -2.3

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 16

1. Name of the Planned Program

Dairy

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
301	Reproductive Performance of Animals	20%		30%	
302	Nutrient Utilization in Animals	20%		30%	
305	Animal Physiological Processes	10%		0%	
307	Animal Management Systems	40%		20%	
308	Improved Animal Products (Before Harvest)	0%		20%	
311	Animal Diseases	10%		0%	
	Total	100%		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	2.4	0.0	2.7	0.0
Actual	3.1	0.0	2.3	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**
104663	0	98009	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
104663	0	98009	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
81495	0	584583	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The Dairy Team conducted twelve milker schools (more than half in Spanish), two Spanish-language calf raising schools, two three-to-four day Artificial Insemination schools (one in Spanish) and a herdsman reproduction refresher course. Team members developed materials and conducted four phosphorus workshops across Idaho's Dairy belt, participated in various field days, dairy shows and dairy forums. Faculty produced a number of popular press articles, abstracts and poster papers, and delivered educational programs at numerous producer meetings. Members wrote articles and distributed the PNW

Dairy Monitor newsletter, worked with individual dairymen to improve their management, and conducted several applied research projects.

2. Brief description of the target audience

The target audiences for dairy extension programs are: dairy producers, dairy workers, and allied industry.These audiences participate by serving on planning committees, attending workshops/schools, meeting one-on-one with topic team members, reading extension publications, and participating in on-farm projects.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	2000	220000	500	0
Actual	9170	306047	4109	420

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	10	
Actual	2	9	11

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Winter Dairy Forums.

Year	Target	Actual
2009	1	1

Output #2

Output Measure

- Milker schools.

Year	Target	Actual

2009	6	12

Output #3

Output Measure

- Calf Schools.

Year	Target	Actual
2009	2	2

Output #4

Output Measure

- Artificial Insemination Schools.

Year	Target	Actual
2009	3	2

Output #5

Output Measure

- Feeder Schools.

Year	Target	Actual
2009	2	0

Output #6

Output Measure

- Popular Press articles.

Year	Target	Actual
2009	10	12

Output #7

Output Measure

- Extension Publications (peer reviewed; CIS, Bulletin, PNW).

Year	Target	Actual
2009	2	0

Output #8

Output Measure

- Abstracts and Proceedings.

Year	Target	Actual
2009	5	13

Output #9

Output Measure

- Journal articles.

Year	Target	Actual
2009	1	9

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: Dairy Producers and workers will increase knowledge by attending dairy schools and dairy forums.I: Number attending schools and forums.
2	O: Dairy workers will increase knowledge and understanding of dairy management practices. I: Percent knowledge change by attendees (as evaluated with pre/post testing).
3	O: Sound dairy management practices will be adopted by dairy operations as a result of attending the management schools. I: Percent of participants with intent to adopt recommended dairy management practices (assessed with post/pre testing).
4	O: Improved calf health on participating farms. I: Percent reduction in calf mortality and scours (farm survey).
5	O: Dairy workers will use proper techniques taught in dairy education programs (e.g., AI techniques, feeding adjustments, milking techniques). I: Percent of participants demonstrating mastery (assessed at dairy education programs).
6	O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

Outcome #1

1. Outcome Measures

O: Dairy Producers and workers will increase knowledge by attending dairy schools and dairy forums.I: Number attending schools and forums.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	200	239

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Two issues: 1) Efficienct reproduction is key to dairy profitability, and 2) Dairy producers need work-authorized, legally documented employees

What has been done
1)Spanish language AI School, 2) Herdsman Reproductive Refresher course, and 3) Milking Schools for refugees recently re-settled in Idaho

Results
21 Spanish-speakers attended the Spanish language AI School and the Herdsman Reproductive Refresher course; 128 refugees attended the Milking Schools and 20 graduates of the Milking School are employed on a dairy.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
305	Animal Physiological Processes
307	Animal Management Systems
311	Animal Diseases

Outcome #2

1. Outcome Measures

O: Dairy workers will increase knowledge and understanding of dairy management practices. I: Percent knowledge change by attendees (as evaluated with pre/post testing).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	20	6

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Efficient reproduction is key to dairy profitability.

What has been done
Spanish language AI School participants completed 6 pre-tests and 6 post-tests.

Results
The average score for the pre-tests was 81.3%. The average score for the post-tests was 93.8%. Therefore, there was evidence of a 12.5 percentage point increase in knowledge.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
305	Animal Physiological Processes
307	Animal Management Systems
311	Animal Diseases

Outcome #3

1. Outcome Measures

O: Sound dairy management practices will be adopted by dairy operations as a result of attending the management schools. I: Percent of participants with intent to adopt recommended dairy management practices (assessed with post/pre testing).

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

O: Improved calf health on participating farms. I: Percent reduction in calf mortality and scours (farm survey).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	20	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems
311	Animal Diseases

Outcome #5

1. Outcome Measures

O: Dairy workers will use proper techniques taught in dairy education programs (e.g., AI techniques, feeding adjustments, milking techniques). I: Percent of participants demonstrating mastery (assessed at dairy education programs).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	50	158

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Use of proper milking and AI techniques us critical to milk quality and AI success rates

What has been done
Spanish language AI school, 1 international (Philippines) AI school, and 4 milker schools were delivered to thr target audience.

Results
As a result 126 individuals are trained in proper milking techniques and 32 are trained in proper AI techniques. All students at the AI schools demonstrated 100% mastery of the techniques necessary to successfully perform artificial insemination of dairy cattle.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
305	Animal Physiological Processes
307	Animal Management Systems

Outcome #6

1. Outcome Measures

O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes
- Economy
- Appropriations changes
- Government Regulations
- Competing Programmatic Challenges

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)
- Other (Evaluation study)

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 17

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
201	Plant Genome, Genetics, and Genetic Mechanisms	1%		10%	
308	Improved Animal Products (Before Harvest)	1%		10%	
311	Animal Diseases	1%		10%	
315	Animal Welfare/Well-Being and Protection	0%		10%	
501	New and Improved Food Processing Technologies	0%		10%	
503	Quality Maintenance in Storing and Marketing Food Products	0%		10%	
504	Home and Commercial Food Service	60%		10%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	37%		10%	
722	Zoonotic Diseases and Parasites Affecting Humans	0%		10%	
723	Hazards to Human Health and Safety	0%		10%	
	Total	100%		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	3.3	0.0	2.5	0.0
Actual	4.7	0.0	5.0	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**
61015	0	77286	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
61015	0	77286	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
253041	0	1751195	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Hand Hygiene Education &ndash 6 *Germ City* units were refurbished and used at schools, health fairs, and county fairs across the State to teach the importance of hand hygiene.

Classes for new Food Safety Advisors and Master Food Preservers, involving 35 hours of instruction over a 7-week period, resulted in 44 new master volunteers for Idaho. The Advanced Food Safety Advisor program recertified 67 volunteers through extended learning opportunities. The combination of new and advanced food safety advisors is estimated to have donated more than 3,000 hours of community service in 2009. The Just-in-Time Food Safety project responds to consumer questions (more than 2,000 telephone consultations in Ada County) and helps consumers through pressure gauge testing services, testing more than 1,000 gauges in 2009.

Food safety was taught to consumers through 149 classes taught by faculty and 250 taught by Food Safety Advisor/Master Food Preserver volunteers. A dozen comprehensive courses were available to learners, and the on-line Preserve@Home course was delivered to students in Idaho and elsewhere. Hundreds of EFNEP, ENP (Food Stamp Nutrition Program) and Senior ENP program participants also learned about food safety issues and practices. Food Safety for Food Service was provided through a 16 hour ServSafe training for the cooks at NIC Head Start and also using the *Ready, Set, Food Safe* curriculum delivered to more than 2,000 high school FCS students in nearly 100 classrooms across the state.

2. Brief description of the target audience

1. Just in Time Food Safety - Educators and volunteers will use each "teachable moment" when a consumer calls with a question to disseminate current researched-based information.

2. Consumer Food Safety Programs - Extension educators will offer classes, workshops, and poster exhibits on general food safety and food preservation topics.

3. Food Industry Assistance - The Extension Food Processing Specialist, Jeff Kronenberg, will continue to deliver general food safety and HACCP (Hazard Analysis Critical Control Points) workshops and specific food safety consulting (including on-site HACCP training, prerequisite programs training, preparation for food safety inspections and general food safety information) to the Idaho food processing industry.Drew Dalgetty will continue to offer classes and consulting for food entrepreneurs.

4. Food Safety Advisor / Master Food Preserver / Preserve@Home- UI FCS Educators will teach 1)Food Safety Advisor/Master Food Preserver, 2)Advanced Food Safety Advisor/Advanced Master Food Preserver, and 3) Preserve@Home.UI Extension trained FSA/MFP volunteers will share their expertise in their communities in a variety of ways including: answering consumer calls, providing written materials as requested, teaching classes for community organizations, preparing and manning educational displays and information booths, surveying clientele on home food preservation methods, and assisting with awareness and service activities such as pressure canner gauge testing and county fair open class food preservation class judging.

5. Food Service Food Safety Training - Ready, Set, Food Safe curriculum will be taught in high school FCS classes throughout the state. ServSafe will be taught to food service workers/mangers or food industry personnel requiring this level of training.

6. Hand Hygiene Education - Hand washing technique and effectiveness will be taught in a fun, "hands-on" learning experience with the use of black light sensitive lotion (such as Glo-Germ or Glitterbug lotions) and a black light.

7. ENP/EFNEP -Food Safety - ENP/EFNEP clients receive 15% of their education on food safety topics. These lessons vary by county in accordance with client needs.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	6000	0	4000	0
Actual	14472	416670	11661	8782

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	10	
Actual	4	7	11

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of food safety calls answered.

Year	Target	Actual
2009	4000	7514

Output #2

Output Measure

- Consumer food safety classes taught.

Year	Target	Actual
2009	20	149

Output #3

Output Measure

- food safety presentations in other classes.
  Not reporting on this Output for this Annual Report

Output #4

Output Measure

- Food industry consults.

Year	Target	Actual
2009	35	18

Output #5

Output Measure

- Number of new certified Food Safety Advisors (MFPs).

Year	Target	Actual
2009	20	44

Output #6

Output Measure

- Number of re-certified Food Safety Advisors (& MFP).

Year	Target	Actual
2009	30	67

Output #7

Output Measure

- Number of volunteer hours logged by FSA/MFPs.

Year	Target	Actual
2009	1000	3204

Output #8

Output Measure

- Students receiving a RSFS certificate.

Year	Target	Actual
2009	250	233

Output #9

Output Measure

- Participants in hand washing education programs.

Year	Target	Actual
2009	3000	12860

Output #10

Output Measure

- Number pparticipants enrolled in ENP/EFNEP series of classes.

Year	Target	Actual
2009	500	1043

Output #11

Output Measure

- Number of participants in ENP/EFNEP one-time classes.

Year	Target	Actual
2009	1650	642

Output #12

Output Measure

- Refereed journal publications

Year	Target	Actual
2009	2	4

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: People use Just in Time Food Safety Information to help them make decisions about food preparation, storage, etc.I: Number of people who describe that they will use requested advice.
2	O: Food Industry Assistance-Companies have appropriate knowledge to operate food safe businesses.I: Number of companies that achieve licensing.
3	O: Food Safety Advisor/Master Food Preserver-Knowledgeable citizens volunteer to help others learn and adopt safe food practices.I: Number of certified Food Safety Advisors and Master Food Preservers.
4	O: Food Service Food Safety Training-High school students are prepared to work in food service jobs.I: Number of students passing the RSFS exam and becoming certified.
5	O: Hand Hygiene Education-People will practice improved hand hygiene for reduction of colds, flu and foodborne illness.I: Hand Hygiene Education-Program participants indicate their intention to adopt recommended health practices.
6	O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.
7	O: Other scientists are aware of our research findings. I: Number of refereed scientific journal articles.
8	O: ENP-EFNEP Food Safety-Low income family members will practice safe food behaviors.I: Number of EFNEP graduates reporting intent to adopt practices.
9	O: Interested consumers will learn skills through Preserve@Home I: number of people completing program

Outcome #1

1. Outcome Measures

O: People use Just in Time Food Safety Information to help them make decisions about food preparation, storage, etc.I: Number of people who describe that they will use requested advice.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	2850	4686

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Consumers call Extension offices to get answers to specific food safety questions (food preservation, food storage, etc). The Food Safety Topic Team wanted to find out if consumers intended to use the requested advice.

What has been done
Extension Educators, Program Assistants, and trained office staff provide callers with answers to their food safety questions. Extension personnel in 7 Idaho counties who provide answers for callers, asked all callers with a food safety questions, during a one week data collection period, whether they intended to follow the requested advice.

Results
During the data collections weeks, 196 callers were queried "Do you plan to use [advice provided was repeated]? 180 callers, 92%, indicated they planned to use the requested advice.

4. Associated Knowledge Areas

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

Outcome #2

1. Outcome Measures

O: Food Industry Assistance-Companies have appropriate knowledge to operate food safe businesses.I: Number of companies that achieve licensing.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	3	2

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Local Idaho food manufacturers are required to meet food safety standards in order to be in business.

What has been done
Extension worked with Grasmick Produce and the Idaho Candy Company to teach good manufacturing practices and hand hygiene.

Results
This will allow these Companies to expand to new markets.

4. Associated Knowledge Areas

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

Outcome #3

1. Outcome Measures

O: Food Safety Advisor/Master Food Preserver-Knowledgeable citizens volunteer to help others learn and adopt safe food practices.I: Number of certified Food Safety Advisors and Master Food Preservers.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	20	130

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
With limited number of FCS Educators it is imperative that we train volunteers to help and assist our communities with food safety education and program delivery.

What has been done
the educator in Canyon County recruited and trained 23 first-year Food Safety Advisors (20 completed volunteer time). Maintained 31 Advanced Food Safety Advisors (25 completed volunteer hours.)

Results
Advanced Food Safety Advisors made 3563 contacts and donated 711 volunteer hours. First-year Food Safety Advisors made 2316 contacts and donated 741 volunteer hours.

4. Associated Knowledge Areas

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

Outcome #4

1. Outcome Measures

O: Food Service Food Safety Training-High school students are prepared to work in food service jobs.I: Number of students passing the RSFS exam and becoming certified.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	250	337

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
About one-third of employed youth 15-17 years of age work in food service. Over 70% of teens work in food service as their first job. Many Idaho high schools have vocational food service programs, including in-school cafes or bakeries, where food is prepared for public sale. It is important to food service customers and owners that youth employed are well trained in food safety procedures and perform well on the job.

What has been done
Faculty taught the nine-lesson Ready, Set, Food Safe curriculum in high schools resulting in 337 graduates who were able to pass the food service certification exam. Partner high school teachers using the curriculum were able to certify more than 1000 other teens.

Results

4. Associated Knowledge Areas

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

Outcome #5

1. Outcome Measures

O: Hand Hygiene Education-People will practice improved hand hygiene for reduction of colds, flu and foodborne illness.I: Hand Hygiene Education-Program participants indicate their intention to adopt recommended health practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	2850	6602

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Handy hygiene is a key, often-overlooked behavior important for food safety, personal health and disease prevention. Most people do not wash their hands as often or as well as needed. Studies support the need for behavior change as well as for effective hand washing education.

What has been done
Germ City was conducted two nights at the Minidoka County Fair.

Results
40 youth completed Germ City. 68% of girls and 80% of boys indicated they would improve hand washing after coughing or sneezing. 76% of girls and 73% of boys indicated they would improve hand washing after playing or working outside. 40% of girls and 60% of boys indicated they would improve hand washing before preparing food. 44% of girls and 60% of boys indicated they would improve hand washing after using the restroom. 96% of girls and 73% of boys indicated they would improve hand washing after playing with pets.

4. Associated Knowledge Areas

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

Outcome #6

1. Outcome Measures

O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	2	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
201	Plant Genome, Genetics, and Genetic Mechanisms
308	Improved Animal Products (Before Harvest)
311	Animal Diseases
504	Home and Commercial Food Service
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #7

1. Outcome Measures

O: Other scientists are aware of our research findings. I: Number of refereed scientific journal articles.

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	2	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
201	Plant Genome, Genetics, and Genetic Mechanisms
308	Improved Animal Products (Before Harvest)
311	Animal Diseases
504	Home and Commercial Food Service
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #8

1. Outcome Measures

O: ENP-EFNEP Food Safety-Low income family members will practice safe food behaviors.I: Number of EFNEP graduates reporting intent to adopt practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual

2009	385	2564

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Gossett, LindaEFNEP families can't afford to be sick; when their children miss school they get behind in their school work and the parents are not able to work. Not only do EFNEP families not have extra money for doctor visits but they also lack the funds for medications. Few low-income workers are employed where sick leave is provided. Keeping families healthy is a low cost strategy to help them not get further behind.

What has been done
EFNEP adult clients in Eastern Idaho (319) graduated the course and learned a variety of methods to keep their food safe as well as their family healthy using low tech, lost cost methods. Likewise, EFNEP youth (2071) enrolled in EFNEP 4-H learned the importance of hand washing.

Results
Of 319 EFNEP graduates 79% (253 of 319) showed improvement in one or more of the food safety practices (i.e. thawing and storing foods properly). Also, 22% (69 of 319) of participants showed improvement in both of the food safety practices (i.e. thawing and storing foods properly). One hundred percent of enrolled EFNEP youth (2071) in 10 groups improved their practices in food safety (hand washing).

4. Associated Knowledge Areas

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

Outcome #9

1. Outcome Measures

O: Interested consumers will learn skills through Preserve@Home I: number of people completing program

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	5	33

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
People who preserve food at home care because they want to safely preserve a variety of food products that are high in quality and shelf-stable so they have a secure food supply during the off season. This is a common across district and state lines.

What has been done

Preserve @ home was developed to address the need for food preservation knowledge with a shrinking pool of faculty who are knowledgeable of food preservation methods. The use of technology makes it easier for participants to gain the knowledge they need at a time that is convienet for them. During 2009 the course was revised from 10 lessons to 6 which keeps students engaged and makes better use of educator's time.

Results

Partnerships with Extension Educators from 3 states to expand the reach of P @ H. Introduced in 2004 with 15 students the program has grown to 63 students. Students received a certificate of completion but are not certified with the exception of Whatcom County, Washington, who uses P@H for the lecture portion FSA class. Student comments include: I feel like I learned a lot about things I otherwise would not have known to ask about. I would very much be interested in taking other classes in the canning and preserving curriculum to further increase my knowledge. I have already put my new info to good use. Heather Lawrence, Council, Idaho; I learned a lot and now have a great resource book to use in the future. Gay Griffeth, Franklin County; See...your great class has taught me to be cautious. John, Elk Grove, California (2007 class); Thanks for being available as a resource. It is reassuring to have you at hand. (Shannon Bailey, 2009 WSU class)

4. Associated Knowledge Areas

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

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

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

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)

Evaluation Results

Consumers call Extension offices to get answers to specific food safety questions (food preservation, food storage, etc). The Food Safety Topic Team wanted to find out if consumers intended to use the requested advice. Extension Educators, Program Assistants, and trained office staff provide callers with answers to their food safety questions. Extension personnel in 7 Idaho counties who provide answers for callers, asked all callers with a food safety questions, during a one week data collection period, whether they intended to follow the requested advice. During the data collections weeks, 196 callers were queried "Do you plan to use [advice provided was repeated]? 180 callers, 92%, indicated they planned to use the requested advice.

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 18

1. Name of the Planned Program

Cereals

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	0%		10%	
201	Plant Genome, Genetics, and Genetic Mechanisms	5%		15%	
202	Plant Genetic Resources	20%		20%	
205	Plant Management Systems	40%		0%	
211	Insects, Mites, and Other Arthropods Affecting Plants	15%		15%	
212	Pathogens and Nematodes Affecting Plants	15%		10%	
213	Weeds Affecting Plants	0%		10%	
216	Integrated Pest Management Systems	0%		10%	
502	New and Improved Food Products	5%		10%	
	Total	100%		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	5.5	0.0	7.5	0.0
Actual	5.0	0.0	10.8	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**
122136	0	456882	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
122136	0	456882	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
173562	0	3317529	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The Cereals team tested wheat and barley varieties in trials across Southern Idaho, and in various locations in Northern Idaho. Results of the variety trials were summarized and extended to growers through various published and face-to-face communications, including cereals field days and tours that are held for each of the trial locations. Eleven winter cereals schools were held in Idaho in 2009 to transfer new information about varieties, pest management, and cultural practices. Weed management, wheat virus, large yellow underwing (and other pests and pathogens), slow-release nitrogen, tillage methods, and irrigation practices were the subject of various, surveys, investigations, and field projects conducted by members of the Cereals Team. Team members produced a regional newsletter for cereal producers and professionals, and submitted 14 papers to peer review journals.

2. Brief description of the target audience

Cereal growers in Idaho - will be provided with technology to enhance cereal production and profitability and provide feedback and suggestions of needs and areas of concern for profitable cereal production. They will also provide resources for the project through direct use of facilities, and through checkoff contributions to commodity commissions.

Agribusiness and support workers - will provide resources for technology development and delivery, be targets for information delivery, provide feedback and suggestions for directions of the program.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	2000	2000	20	20
Actual	12355	58030	85	50

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

Year: 2009
Plan: 1
Actual: 2

Patents listed
1) PVP 201000086 - UICF- Grace Wheat and 2) PVP Number to be determined - UICF Brundage Wheat

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	10	10	
Actual	11	14	25

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Idaho Cereal Schools.

Year	Target	Actual
2009	5	11

Output #2

Output Measure

- Release and adoption of new cereal varieties.

Year	Target	Actual
2009	2	2

Output #3

Output Measure

- Peer-reviewed Extension publication (CIS, Bulletins, PNW)

Year	Target	Actual
2009	10	11

Output #4

Output Measure

- Develop pest control technology - project/experiments.

Year	Target	Actual
2009	20	37

Output #5

Output Measure

- Research on management systems - projects/experiments.

Year	Target	Actual
2009	30	46

Output #6

Output Measure

- Refereed publications (Journal & Book Chapters)
  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	O: Producers gain knowledge about improved cereals management at cereal schools, field days, seminars, and re-certification events. I: Number of participants attending cereal schools, field days, etc..
2	O: Producers are aware of cereal resource publications.I: Number of cereal extension publications distributed.
3	O: Producers adopt new cereal varieties.I: Increase in number of acres of new varieties (released within 5 years; greater than previously grown).
4	O: Adoption of new crop production methods.I: Number of growers who report adoption through surveys at educational events and meetings.
5	O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

Outcome #1

1. Outcome Measures

O: Producers gain knowledge about improved cereals management at cereal schools, field days, seminars, and re-certification events. I: Number of participants attending cereal schools, field days, etc..

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	550	555

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
The number of growers attending meetings have continued to decline.

What has been done
Promote the cereal schools in many forms, and consolidate the individual chemical meetings into one day meetings (Crop Protection Seminars) in Pocatello and Idaho Falls. Offer pesticide applicator credits to encourage attendance.

Results
Grower attendance at cereal schools, field days, and crop protection seminars is starting to increase.

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
502	New and Improved Food Products

Outcome #2

1. Outcome Measures

O: Producers are aware of cereal resource publications.I: Number of cereal extension publications distributed.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	600	1422

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Getting information into the growers' hands is difficult and expensive.

What has been done
Promote the Cereals website as a source of information and CD's of the Variety Trial experimental results in order to reduce expense and increase access to the information.

Results
Growers and industry representatives regularly use the Cereals website as a source of information, and attend the cereal schools often to get the cereal variety trial books.

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
502	New and Improved Food Products

Outcome #3

1. Outcome Measures

O: Producers adopt new cereal varieties.I: Increase in number of acres of new varieties (released within 5 years; greater than previously grown).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual

2009	5000	5200

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Varieties with high end-use quality are not always the highest yielding and have the best agronomics for the grower.

What has been done
Promotion of newer varieties with acceptable end-use quality and better yield, disease resistance, and resistance to lodging are promoted.

Results
Varieties with the end-use quality desired by the industry are being offered for contract with a premium in order to compensate the growers for characteristics that often mean lower yield.

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources

Outcome #4

1. Outcome Measures

O: Adoption of new crop production methods.I: Number of growers who report adoption through surveys at educational events and meetings.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	200	432

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Diseases and insects build up in continuous grains and growers are faced with declining profits.

What has been done
Production practices that promote plant health and reduce disease and insect problems are discussed, including variety choices.

Results
Growers listen, especially to variety information, and chose varieties that will work best in their situation. Growers have moved away from varieties susceptible to stripe rust, foot rot, and black chaff, including Moreland hrw, Klasic HWS and WB936.

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants

Outcome #5

1. Outcome Measures

O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	2	2

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Major agricultural commodities such as wheat are at the foundation of Idaho's agricultural base, and are of vital economic significance to the state. Though agricultural commodities contribute significantly to the state economic wellbeing, it has become apparent that it is not sufficient to focus solely on production aspects alone. The ability to increase the value of raw agricultural commodities represents a key component for continued economic growth and development. In fact, value-added processing of agricultural commodities by the food industry accounts for approximately half of realized profits across the entire food distribution system. Thus, a greater proportion of the total market revenue is retained within the state by processing raw agricultural commodities into value-added products. The long-term sustainability of production agriculture and, to a significant degree, the state economy are linked to maximizing profitability from the state's agricultural commodities through value-addition to enhance competitiveness in both domestic and global markets. The proposed work explores the potential for producing value-added products from wheat. This approach is intended to provide new opportunities for wheat products, and if successful, could allow US growers and industries to continue to expand and diversify into market areas that are presently inaccessible.

What has been done

Three sets of research findings (designated 1, 2, and 3) are reported. 1) A preliminary investigation was conducted to assess the differential reactivities of the two wheat starch granule types at the molecular level. Two wheat starch genotypes (normal, waxy) and granule types (A-, B-types), as well as the influence of granule proteins in starch reactions, were tested. Isolated waxy and normal wheat starches were fractionated into their respective A- and B-type granule populations, after which portions of starch representing each isolated fraction were subjected to treatment with protease (24 hr) to facilitate removal of granule surface proteins. Isolated normal and waxy wheat starch A- and B-type granule fractions (both native and protease-treated) were derivatized with 5-(4,6-

dichlorotriazinyl)aminofluorescein (DTAF, fluorescent probe) under both non-hydrated and hydrated reaction conditions. Granular reaction patterns of starch derivatives were visualized by confocal laser scanning microscopy (CLSM), while molecular reaction patterns were assessed via high performance size exclusion chromatography (HPSEC) equipped with refractive index (RI) and fluorescence (FL) detection. Prior to HPSEC analysis, derivatized starch fractions were debranched with isoamylase to facilitate determination of the relative reaction densities of amylopectin branch chains. 2) Using commercial wheat starch (comprised of A-type granules), the reaction kinetics of DTAF were investigated over the course of an extended reaction period (0, 0.5, 3, 8,16, and 24 hr). Reacted starch representing each reaction time interval was solubilized, debranched and analyzed on an HPSEC system equipped with RI and FL detection to assess the relative reaction densities of amylose and amylopectin branch chains for the various time intervals.

Results

In preliminary investigations of wheat starch granule reactivity with DTAF (fluorescent probe), granular reaction patterns visualized by CLSM revealed that reaction locale in non-hydrated reactions was confined to external granule surfaces (i.e., surface-reacted), while hydrated starch reactions permitted reagent to react throughout the granule matrix (i.e., matrix-reacted). For all surface- and matrix-reacted granule derivatives, starch material eluting in the amylose (AM) region of IPSEC chromatograms was consistently more densely reacted than that associated with amylopectin (AP). Protease treatment had no impact on the extent of reaction in surface-reacted derivatives, while A-type (relative to B-type) granule reactivity in matrix-reacted derivatives was enhanced after protease treatment. For both surface- and matrix-reacted starch derivatives, B-type granules were more heavily reacted than A-type granules. In those cases where differing extents of reaction were observed between starch granule derivatives, reactivity differences could be attributed to differential reaction densities on starch AM and AP branch (long, medium, and short) chains. 2) In studying the reaction kinetics of DTAF (wheat starch), overall extent of reaction increased over the 24 hr reaction period, exhibiting a two-phase reaction rate (rapid/0-3 hr; slow/3-24 hr). For all time intervals of reaction, AM was more heavily reacted than AP. Of the various chain fractions, AP long chains were most densely reacted, followed by AM, AP medium branch chains, and AP short branch chains. The relative reaction densities noted between the various starch chains (i.e., AM and AP long, medium, and short branch chains) were maintained at all time intervals of reaction, implying that the same types of chains were reacted in similar proportions at all time stages of reaction.

4. Associated Knowledge Areas

KA Code	Knowledge Area
201	Plant Genome, Genetics, and Genetic Mechanisms
202	Plant Genetic Resources
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
502	New and Improved Food Products

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Competing Programmatic Challenges

Brief Explanation

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

1. Evaluation Studies Planned

- After Only (post program)

- Retrospective (post program)
- Time series (multiple points before and after program)

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 19

1. Name of the Planned Program

Commercial and Consumer Horticulture

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	20%		0%	
111	Conservation and Efficient Use of Water	0%		20%	
202	Plant Genetic Resources	0%		20%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	15%		0%	
204	Plant Product Quality and Utility (Preharvest)	15%		20%	
205	Plant Management Systems	20%		30%	
216	Integrated Pest Management Systems	20%		10%	
805	Community Institutions, Health, and Social Services	10%		0%	
	Total	100%		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	8.8	0.0	1.7	0.0
Actual	10.6	0.0	1.5	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**
100420	0	35445	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
100420	0	35445	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
594347	0	486111	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The Consumer and Commercial Horticulture Team trained beginning Master Gardeners (approximately 45 hours of training) in 14 locations (counties) around Idaho. Idaho faculty also partnered with multistate colleagues to deliver Master Gardener training in Utah, Oregon, and Washington. Advanced Master Gardener courses were also offered to recertify advanced volunteers across the state. In total, Master Gardeners volunteered more than xxx hours of service to their communities. Many of those hours were spent in Extension plant clinics helping residents with pest problems. Other volunteer projects include presentations for youth audiences, community gardens, displays, staffing information booths, and city beautification projects.

Consumer horticulture education was also delivered through the Victory Garden series of classes in two counties and the Easy Gardening series in one. Elsewhere faculty delivered two courses on landscaping, and numerous presentations and seminars, including mini-workshops at garden centers, on topics ranging from vegetable gardening and vegetable storage to pruning trees and shrubs.

Horticulture faculty disseminates information to the public through regular newspaper columns, through newsletters, and through radio presentations and call-in shows. Faculty organized events in conjunction with Arbor Day and sponsored activities at Green Expos, County Fairs, and other public venues.

Our horticulture team targets the green industry professionals by organizing programs and conferences including a Christmas tree pests workshop, the Ornamentals Nursery Workshop, and by presenting individual topics at other conferences including two workshops for professional pest control operators and one local workshop about IPM strategies for tree and shrub borers for nursery operators.

2. Brief description of the target audience

Master Gardener Education:
The target audience includes members of the public with a high level of interest in horticulture and time and interest in educating others. Beginning Master Gardeners are to participate in 30 to 70 hours of basic training in topics related to landscaping and gardening, such as soils, plant development, fertility, irrigation, plant diagnosis, pest control, etc. Following completion of the training course, students will become Advanced Master Gardeners. In this role, they will continue training under UI horticulturists in advanced topics using a hands-on approach. More importantly, with respect to team objectives, Advanced Master Gardeners become volunteer instructors and are expected answer horticultural questions from the general public, assist in organizing workshops, conferences, and other education opportunities, develop public demonstration projects, and assist communities with plant-based improvement projects.
Consumer Horticulture Education:
The potential target audience for this project is very large, consisting of virtually all Idaho citizens with yards, gardens, or landscapes. For the most part, this target audience will play the role of student within this objective. They will take opportunities to learn sustainable horticultural principles from numerous sources, including publications, popular press articles and presentations, workshops, conferences, demonstrations, and other teaching forums. Organized groups from this target audience, including community public works departments, garden clubs, church groups, and other interested organizations will assist by sponsoring educational gatherings.
Green Industy Education:
The target audience consists of all owners, managers, and employees of green industry companies. The audience will take a fairly active role in recommending curriculum, organizing teaching opportunities, and actively working to become competent horticulturists.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	33500	0	8300	0
Actual	30656	1608681	3940	12859

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	8	2	
Actual	6	4	10

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Advanced Master Gardener Training Workshop/Tours.

Year	Target	Actual
2009	9	69

Output #2

Output Measure

- Beginning Master Gardener Courses.

Year	Target	Actual
2009	18	14

Output #3

Output Measure

- Consumer Horticulture Education Media Publications/Programs.

Year	Target	Actual
2009	125	221

Output #4

Output Measure

- Consumer Horticulture Education Personal Contacts/Visits.

Year	Target	Actual
2009	6350	21516

Output #5

Output Measure

- Consumer Horticulture Web Site.

Year	Target	Actual
2009	1	10

Output #6

Output Measure

- Consumer Horticulture Workshops/Seminars/Demonstrations.

Year	Target	Actual
2009	150	336

Output #7

Output Measure

- Green Industy Education Workshops/Seminars/Clinics.

Year	Target	Actual
2009	26	75

Output #8

Output Measure

- Extension Publications (peer reviewed; CIS, Bulletins, etc.)

Year	Target	Actual
2009	8	8

Output #9

Output Measure

- Master Gardener Volunteer Hours.

Year	Target	Actual
2009	10000	17578

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: Beginning Master Gardeners will obtain adequate knowledge of horticultural principles to help or instruct other people.I: Marked increase in knowledge as measured by percentage increase in before and after test assessments.
2	O: Increase in Master Gardener retention and contribution.I: Increase in the number of hours contributed by Master Gardener volunteers.
3	O: Consumers have access to appropriate information about horticulture when they need it.I: Number of web site hits.
4	O: Less water is used to maintain consumer landscapes and gardens.I: Number of water conservation practices (xeriscaping, drip irrigation, etc.) showing increasing rates of adoption by the public.
5	O: Green industry managers and employees are equipped to help solve consumer problems.I: Estimation by green company owners of percentage of adequately trained employees.

Outcome #1

1. Outcome Measures

O: Beginning Master Gardeners will obtain adequate knowledge of horticultural principles to help or instruct other people.I: Marked increase in knowledge as measured by percentage increase in before and after test assessments.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	50	50

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Several hundred consumer horticulture questions are submitted in person or by phone to the Canyon County Extension office every year. Trained volunteers are required to provide this service in a high quality, timely manner. Master Gardener volunteers must demonstrate an ability to diagnose home gardening problems, answer questions and provide approved, research based solutions.

What has been done
Canyon County Master Gardeners receive 45 hours of instruction from Extension faculty, specialists and industry experts. They also receive instruction on systematic approaches to diagnosing plant problems and pesticide safety. Volunteers are tested and surveyed at the end of the course. Diagnostic techniques and approved information sources are additionally provided on the Canyon County horticulture website

Results
100% of Canyon County Master Gardener course participants (30 individuals) completed the end of course test successfully. Survey results show an average 97% of participants increased their knowledge on 15 topics as a result of participation in Beginning Master Gardener program. Our Master Gardeners and Advanced Master Gardeners assisted over 500 private citizens with home gardening questions from 22 communities on over 12 general topics, totaling 360 hours of Plant Clinic service.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
205	Plant Management Systems
216	Integrated Pest Management Systems

Outcome #2

1. Outcome Measures

O: Increase in Master Gardener retention and contribution.I: Increase in the number of hours contributed by Master Gardener volunteers.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	10000	17578

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Having Master gardeners to help the work load of helping to answer questions benefits the public by quicker response and improved customer service.

What has been done
Latah County Master Gardeners contributed 125 hours to Plant Clinic, 25 hours at the Farmers Market, 54 hours at the demo garden, 70 hours of teaching, and 353 hours of general volunteer service.

Results
Thirteen new and returning Master Gardeners are actively helping to educate the public about recommended gardening practices.

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

Outcome #3

1. Outcome Measures

O: Consumers have access to appropriate information about horticulture when they need it.I: Number of web site hits.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	25000	35271

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
The Internet is the primary way many people access their information now. In order to serve this clientele, it is important to provide timely horticulture information on our Jerome County website.

What has been done
A horticulture section on our Jerome County website has 12 individual pages dealing with various horticultural subjects. There is one page where a garden question can be submitted online to be forwarded to me to be answered. Horticulture programs are also promoted on these pages. The Magic Valley Master Gardener Association (Club) has a page for their activities and newsletter.

Results
Results were measured in number of hits for each of the 10 pages. They were: gardening tips 844, horticulture 723, Master Gardener 495, Hortwise 419, pest page 488, houseplants 210, insect of the month 293, tip of the season 162, gardening help 289 and unwanted 363. Impact has not been measured - as it is difficult to tell if those who register hits use any of the information.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
205	Plant Management Systems
216	Integrated Pest Management Systems

Outcome #4

1. Outcome Measures

O: Less water is used to maintain consumer landscapes and gardens.I: Number of water conservation practices (xeriscaping, drip irrigation, etc.) showing increasing rates of adoption by the public.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual

2009	3	5

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
As water resources become increasingly limited, water wise landscape and gardening practices will need to be learned and implemented by the general public.

What has been done
Water wise landscaping and gardening is emphasized in most, if not all of our education, outreach and publication efforts. This topic was the cornerstone of the 2009 District II Master Gardener Slow the Flow Conference, and an entire section of the 2009 Idaho Green Expo Extension Greening Your Garden Exhibit promoted Xeriscaping and other techniques for water conservation.

Results
There are hundreds of practices that could be employed to reduce water use among the general public and few ways to accurately track increased rates of adoption. However, the post course evaluation of Canyon County Beginning Master Gardeners shows that 99.9% of respondents significantly increased their knowledge of issues related to water use in the landscape and garden. Canyon County Master Gardeners, Green Expo visitors, Living on the Land course participants and those attending the Slow the Flow Conference, plan to reduce water use in their landscapes and gardens by: 1. Measuring rainfall and sprinkler irrigation and making adjustments to their system 2. Installing drip irrigation systems in their garden or landscape 3. Choosing and installing Xeric and native plants 4. Mulching 5. Designing landscapes with conservation in mind

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
205	Plant Management Systems

Outcome #5

1. Outcome Measures

O: Green industry managers and employees are equipped to help solve consumer problems.I: Estimation by green company owners of percentage of adequately trained employees.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes
- Natural Disasters (drought, weather extremes, etc.)

Brief Explanation

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

1. Evaluation Studies Planned

- Before-After (before and after program)

Evaluation Results

Questions about insect identification and management are among the most common problems that UI Master Gardeners are called upon to answer. Most beginning Master Gardeners lack the technical subject-matter knowledge to correctly answer such questions. Short-term outcomes (i.e., gains in audience knowledge) were measured via written 10-question pre-test:post-test of 43 beginning Master Gardeners at two 3-hr workshops. Mean gain-in-knowledge was 62%, computed as [(post-test no. correct answers &ndash pre-test no. correct answers)/(pre-test no. correct answers)].

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 20

1. Name of the Planned Program

Other Idaho Commercial Crops

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	0%		6%	
111	Conservation and Efficient Use of Water	1%		6%	
204	Plant Product Quality and Utility (Preharvest)	1%		12%	
205	Plant Management Systems	1%		10%	
211	Insects, Mites, and Other Arthropods Affecting Plants	20%		12%	
212	Pathogens and Nematodes Affecting Plants	20%		12%	
213	Weeds Affecting Plants	0%		3%	
214	Vertebrates, Mollusks, and Other Pests Affecting Plants	0%		6%	
215	Biological Control of Pests Affecting Plants	10%		6%	
216	Integrated Pest Management Systems	44%		6%	
403	Waste Disposal, Recycling, and Reuse	1%		0%	
404	Instrumentation and Control Systems	1%		6%	
405	Drainage and Irrigation Systems and Facilities	0%		3%	
511	New and Improved Non-Food Products and Processes	0%		6%	
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	1%		6%	
	Total	100%		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	5.5	0.0	8.0	0.0
Actual	2.6	0.0	8.1	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**
89325	0	301915	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
89325	0	301915	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
85494	0	2923505	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The Other Idaho Commercial Crops team focuses on integrated pest management research and education for a large number of minor crops. Faculty members have contributed to the Spanish IPM Scouting Manual and shared that resource with other professionals. Invited and volunteer presentations were made at national and regional conferences, including the National Pesticide C & T Conference, the International IPM Symposium, the Pacific Northwest pest management workgroup, the Western Region IR-4 meeting, and the Pacific Northwest C&T meeting. Presentations and abstracts were produced by faculty for the National Allium Research Conference in Savannah GA and the IX International Symposium on Thysanoptera and Tospoviruses in Queensland Australia. Pesticide safety presentations have been made for numerous grower meetings in Idaho (for pesticide recertification), including a Spanish language pesticide safety meeting in western Idaho. Pesticide safety educational classes for pre-license training were delivered at three multi-day workshops in Idaho. Team members also reported contributing through presentations in 11 commodity schools.

Idaho faculty contribute to a multistate effort through efforts to reviewed grant proposals for the Western IPM Center and serving on the USDA/CSREES PIPE subcommittee. Idaho faculty conducted 20 contracted field studies for the Western IR-4 magnitude of residue program and 16 applied and basic laboratory and field research experiments, published eight manuscripts in professional journals, published six University of Idaho Extension Bulletins (Spanish and English), and published two documents/chapters for Pacific Northwest Pest Management Handbooks.

2. Brief description of the target audience

Growers of minor crops in Idaho and western U.S., EPA, USDA, ISDA and other western departments of agriculture, regional land grant institutions, public interest groups, crop advisers and farm workers throughout Idaho will be the target audience of this program.The target audience will participate by providing input into program selection, providing collaboration and resources for research and extension projects and by participating in educational programs.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	6230	55125	0	0
Actual	2335	48885	169	0

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

Patent Applications Submitted

Year: 2009

Plan: 1

Actual: 4

Patents listed
PVP 200900306, Kimberly Common Bean; PVP 200900304, Shoshone Common Bean; PVP 200900305, Sawtooth Common Bean; PVP 200900310, Hungerford Common Bean

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	9	10	
Actual	9	19	28

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Professional invited presentations.

Year	Target	Actual
2009	15	12

Output #2

Output Measure

- Professional submitted presentations.

Year	Target	Actual
2009	60	17

Output #3

Output Measure

- Workshops, field tours, demonstration projects and presentations.

Year	Target	Actual
2009	90	40

Output #4

Output Measure

- Extension peer-reviewed Publications (CIS, Bulletins, PNW).

Year	Target	Actual
2009	9	9

Output #5

Output Measure

- Other Professional Publications.

Year	Target	Actual
2009	15	16

Output #6

Output Measure

- Applied and basic laboratory and field research experiments.

Year	Target	Actual
2009	45	53

Output #7

Output Measure

- Refereed journal articles

Year	Target	Actual
2009	10	8

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: Producers are aware of issues and knowledgeable of practices that affect the environmental and economic sustainability of minor crop production.I: Percent of knowledge increase demonstrated by participants in programs.
2	O: Growers use best practices in the production of minor crops.I: Percent of Idaho growers indicating adoption of recommended practices (followup survey data).
3	O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

Outcome #1

1. Outcome Measures

O: Producers are aware of issues and knowledgeable of practices that affect the environmental and economic sustainability of minor crop production.I: Percent of knowledge increase demonstrated by participants in programs.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	25	125

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
1. Personal safety for Spanish speaker pesticide handlers and field workers. To avoid potential acute and chronic health condiditons from use of pesticides. 2. Increase knowledge of pesticide safety with pesticide safety licensing training, both pre-license training and recertification training. 3. Knowledge and use of Integrated Pest Mangement in potatoes. To avoid potentially unnecessary use of pesticides, increase effectiveness and economics of pest management practices.

What has been done
1. Pesticide safety and integrated pest management training was conducted, in Spanish, for farm and landscape workers. 2. Utilized turning point technology to reinforce educational material. Also used this for post test evaluation. 3. Integrated pest management training was provided, in Spanish, utilizing the newly published scouting manual for potatoes (In Spanish and English). The training was provided at the farm location, to their Spanish speaking field workers.

Results
1. Pre and post test indicated that the Spanish training provided an increase in knowledge of safe pesticide handling practices and a better understanding of the potential of chronic illness related to pesticide exposure. 2. Licensing test scores increased at classes where turning point was used to enhance teaching. 3. Surveys of farmers, where the programs were given, indicated the farmers thought that providing the IPM training in Spanish would help them with better scouting and pest management decisions.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems

Outcome #2

1. Outcome Measures

O: Growers use best practices in the production of minor crops.I: Percent of Idaho growers indicating adoption of recommended practices (followup survey data).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	30	257

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Chemicals are used to control agricultural pests in the Treasure Valley. Sometimes chemical applications are made for reasons not related to field scouting to document the pest problem before an action is taken.

What has been done
Information about pest outbreaks, and research based control information was disseminated through the PNWPestAlert.net website.

Results
In the 2008 evaluation for the PNWPestAlert.net website, 40% of survey respondents reported that as a result of information received through the website, they increased their field scouting to document pest levels before taking actions to control the pest.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems

Outcome #3

1. Outcome Measures

O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy

Brief Explanation

Lost several faculty members due to budget reductions.

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

1. Evaluation Studies Planned

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

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 21

1. Name of the Planned Program

Potatoes

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	5%		10%	
202	Plant Genetic Resources	5%		10%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	10%		10%	
204	Plant Product Quality and Utility (Preharvest)	5%		10%	
205	Plant Management Systems	25%		10%	
212	Pathogens and Nematodes Affecting Plants	20%		10%	
216	Integrated Pest Management Systems	15%		10%	
503	Quality Maintenance in Storing and Marketing Food Products	10%		20%	
603	Market Economics	5%		10%	
	Total	100%		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	4.2	0.0	7.0	0.0
Actual	4.0	0.0	8.6	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**
133830	0	186640	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
133830	0	186640	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
138124	0	3144030	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The UI Potato Team hosted the annual University of Idaho Potato Conference and presented a large number of workshops and seminars. Spanish workshops at the UI Potato School included new topics developed for 2009: "how to avoid killing honey bees while using pesticides" and a lecture "how to effectively use the new IPM Spanish filed guide."

Other presentations included Weed Management and Hairy Nightshade-Apids-PVY Interaction workshops, and current findings and best practices related to planting, harvesting, irrigation, and storage of potatoes. Presentations are also delivered to potato growers and other industry groups, including at local organic field days.

Several dozen field trials make up the significant effort that is invested to conduct research about potato pests and diseases, including research on management of the Potato virus Y, control of potato cyst nematode, and field research for the biological control of early blight on potatoes. Research was also conducted in seed physiology, development of markets for new cultivars, and potato harvesting and storage.

Information on best management storage and field practices was assessed and relayed to growers. Technical information was disseminated through county faculty, educational seminars, workshops, conferences, news releases, field and storage visits, phone calls, newspaper, trade journal and newsletter articles, updates to websites and hotlines, and by providing information to trade journals and newspapers. UI Extension published nine issues of the Spudvine newsletter in 2009.

2. Brief description of the target audience

The main target audience is potato producers.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	9500	140000	0	0
Actual	11396	111420	174	230

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

Year: 2009
Plan: 0
Actual: 9

Patents listed
PVP 201000084, Alpine Russet Potato; PVP201000085, Clearwater Russet Potato; PVP 2009000167, Classic Russet Potato; PVP 200900291, A84180-8 Potato Variety; PVP 200600201, Blazer Russet Potato; PVP 200700286, Premier Russet Potato; PVP 200700285, Highland Russet Potato; PVP200700287, Yukon Gem Potato; US Provisional 61/248,350, Chemically Modified Potato Products

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	2	10	
Actual	6	13	19

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Newsletters.

Year	Target	Actual
2009	9	23

Output #2

Output Measure

- Extension peer-reviewed publications (CIS, bulletins, PNW).

Year	Target	Actual
2009	2	5

Output #3

Output Measure

- Workshops and Seminars.

Year	Target	Actual
2009	150	158

Output #4

Output Measure

- Popular Press Articles.

Year	Target	Actual
2009	40	27

Output #5

Output Measure

- Field Days.

Year	Target	Actual
2009	4	14

Output #6

Output Measure

- Individual Consultations.

Year	Target	Actual
2009	100	479

Output #7

Output Measure

- Refereed Journal Articles.

Year	Target	Actual
2009	10	13

Output #8

Output Measure

- Graduate Students.

Year	Target	Actual
2009	1	0

Output #9

Output Measure

- Professional Meetings.

Year	Target	Actual
2009	11	28

Output #10

Output Measure

- Email Information Dissemination.

Year	Target	Actual
2009	200	1981

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: Growers apply best potato management practices. I: Number of growers adopting recommended practices
2	O: Growers are aware of pest incidence. I: Number of Subscribers to pest alert website
3	O: Growers are knowledgeable about best potato management practices. I: Number of participants attending educational programs.
4	O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

Outcome #1

1. Outcome Measures

O: Growers apply best potato management practices. I: Number of growers adopting recommended practices

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	130	89

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Successful management of a profitable potato crop requires careful attention to several factors, including planter performance, irrigation management, nutrients management, disease control and proper pre-harvest and post-harvest management.

What has been done
Comprehensive surveys were conducted of potato storage, disease and insect population, migration and control. The Educator taught a number of comprehensive short courses.

Results
Improved fertilizer practices were implemented. For the fourth year, Lesser Onion Bulb Fly identification and education programs were 98% effective. Alternative fertilizer methods saved up to 30% on input costs and yield differentials. Water sensors gave growers accurate water data for irrigation management.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants
216	Integrated Pest Management Systems
503	Quality Maintenance in Storing and Marketing Food Products

Outcome #2

1. Outcome Measures

O: Growers are aware of pest incidence. I: Number of Subscribers to pest alert website

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	360	234

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Growers are not aware of the new necrotic strains of PVY and their interactions with the aphid vectors.

What has been done
Four talks were presented on this subject to reach growers at producer meetings.

Results
68% of the growers present at the talks responded correctly to the questions at the end of these extension talks. This demonstrates the knowledge increase on the pest interactions.

4. Associated Knowledge Areas

KA Code	Knowledge Area
212	Pathogens and Nematodes Affecting Plants
216	Integrated Pest Management Systems

Outcome #3

1. Outcome Measures

O: Growers are knowledgeable about best potato management practices. I: Number of participants attending educational programs.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	75	455

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Potato producers cannot use or adapt best management practice unless they are aware of them. Educational programs are conducted to give producers the opportunity to hear about research and technology they may want to incorporated into their farming operation.

What has been done
Conducted two workshops at the annual University of Idaho Potato Conference, one on planting management and one on harvest management.

Results
There were 105 people who attended the two workshops, and evaluations were available for the attendees to complete. Approximately 29% of the people attending completed the evaluations. Eighty percent of those completing the evaluations said they will use all, most or some of the information, which is an indication they likely gained knowledge because they plan on using the information.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants
216	Integrated Pest Management Systems
503	Quality Maintenance in Storing and Marketing Food Products
603	Market Economics

Outcome #4

1. Outcome Measures

O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy

Brief Explanation

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)

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 22

1. Name of the Planned Program

Administration, IT, and Media

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
902	Administration of Projects and Programs	100%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

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

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Actual	12.3	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**
299452	0	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
299452	0	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
711445	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Administration of University of Idaho Extension programs, Information Technology support, and Media development and distribution including web-based, other electronic media (video) and print media were supported in this program

2. Brief description of the target audience

The audience for these efforts are internal, although the outputs from the media functiona are used to reach the learner audiences specific to each of the other program 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	0	0	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

- number of policies, handbooks, and faculty guides developed and distributed.

Year	Target	Actual
2009	{No Data Entered}	4

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Faculty are aware of best program planning, development, and delivery practices.

Outcome #1

1. Outcome Measures

Faculty are aware of best program planning, development, and delivery practices.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Appropriations changes

Brief Explanation

major impacts in this program area have been felt by administration, IT, and media.

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

1. Evaluation Studies Planned

- Other (these programs are not evaluated as to outcomes)

Evaluation Results

Evaluation of Administration, IT, and Media programs is conducted through annual performance appraisals for appropriate personnel. These eveluations result in an effective workforce through mentoring and professional development where appropriate, and in replacing or otherwise re-assigning staff where appropriate.

Key Items of Evaluation