

# 2011 University of Idaho Combined Research and Extension Annual Report of Accomplishments and Results

<b>Status: Accepted</b>
<b>Date Accepted: 06/21/2012</b>

## I. Report Overview

### 1. Executive Summary

This combined report of accomplishments for the College of Agricultural and Life Sciences (CALs) represents 95.3 Extension faculty FTEs in outreach education programs and 62.0 research faculty FTEs. The Extension FTEs are contributed by 71 county-based Extension Educators organized into three extension districts and 48 Extension Specialists affiliated with academic departments. Extension programs are conducted by faculty organized into 15 program teams (Topic Teams). Those teams have generated approximately \$5,430,000 in external grant support and have recorded 338,523 direct teaching contacts. Extension faculty produced 97 peer-reviewed Extension publications and 90 articles in professional and scientific journals. To summarize research faculty, they contributed to 13 program teams (Topic Teams) and outputs included 388 publications, 10 patents filed or issued (3 plant, 7 provisional/invention disclosures), and \$25,144,183 of intramural funding expenditures.

#### Total Actual Amount of professional FTEs/SYs for this State

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	82.0	0.0	69.5	0.0
Actual	95.3	0.0	62.0	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

In 2011, our entire Health and Nutrition Team was involved in a statewide survey of customer needs and desires. Results from that survey have been incorporated into the 1013 Plan of Work for Health and Nutrition.

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 to 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.

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

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).

The Idaho Agricultural Experiment Station Advisory Board was instituted in 2011. This committee is comprised of a stakeholder representative and the superintendent from each of Experiment Station's Research and Extension Centers. The committee meets at least twice each year to discuss and prioritize needs for the Research and Extension Centers.

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 six 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. One representative from each department's advisory committee serves on the Dean's Advisory Board.

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.**

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 to 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.

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

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 six 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. One representative from each department's advisory committee serves on the Dean's Advisory Board.

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.

## **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.**

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 four administrative regions. Other important venues for collecting stakeholder input 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(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.**

To generate public participation in Extension programs, 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.

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 four administrative regions. Other important venues for collecting stakeholder input 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.

### **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.**

Several shifts in emphasis during the past several years have been the direct result of stakeholder input, including a major increase in investments for family financial education and health and fitness. These program expansions have been reported during the past several years and continue in 2011. Also in 2011, CALS is working to respond to Federal and State agency stakeholders by shifting resources into sustainable energy, childhood obesity, and other priority programs. We are also working to respond to stakeholder input by building a program that integrates health and nutrition, small farms and horticulture to address local food systems challenges.

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 provide feedback about 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.

#### **Brief Explanation of what you learned from your Stakeholders**

There is widespread interest in programs that will reduce overall energy costs and in those that will lead to sustainable local food systems.

IV. Expenditure Summary

<b>1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)</b>			
<b>Extension</b>		<b>Research</b>	
<b>Smith-Lever 3b &amp; 3c</b>	<b>1890 Extension</b>	<b>Hatch</b>	<b>Evans-Allen</b>
2716074	0	2690531	0

<b>2. Totaled Actual dollars from Planned Programs Inputs</b>				
<b>Extension</b>			<b>Research</b>	
	<b>Smith-Lever 3b &amp; 3c</b>	<b>1890 Extension</b>	<b>Hatch</b>	<b>Evans-Allen</b>
<b>Actual Formula</b>	2738561	0	2750299	0
<b>Actual Matching</b>	2738561	0	2750299	0
<b>Actual All Other</b>	1843725	0	25144183	0
<b>Total Actual Expended</b>	7320847	0	30644781	0

<b>3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from previous</b>				
<b>Carryover</b>	0	0	2661622	0

**V. Planned Program Table of Content**

S. No.	PROGRAM NAME
1	Land and Livestock
2	Cereals and Food Security
3	Commercial and Consumer Horticulture
4	Community Development
5	Dairy
6	Family Economics
7	Farm and Ranch Management
8	Food Safety
9	Forest Management
10	Health and Human Nutrition and Food Security
11	Integrated Water and Environmental Quality
12	Potatoes
13	Small Acreages and Emerging Specialty Crops
14	Sugarbeets and minor crops
15	4-H Youth Development (includes childhood obesity as a component of healthy living)



**V(A). Planned Program (Summary)**

**Program # 1**

**1. Name of the Planned Program**

Land and Livestock

**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%	
111	Conservation and Efficient Use of Water	5%		5%	
121	Management of Range Resources	15%		5%	
122	Management and Control of Forest and Range Fires	1%		5%	
133	Pollution Prevention and Mitigation	0%		5%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	5%		10%	
205	Plant Management Systems	15%		5%	
213	Weeds Affecting Plants	10%		5%	
216	Integrated Pest Management Systems	5%		5%	
301	Reproductive Performance of Animals	6%		10%	
302	Nutrient Utilization in Animals	5%		10%	
305	Animal Physiological Processes	1%		10%	
306	Environmental Stress in Animals	1%		0%	
307	Animal Management Systems	15%		0%	
308	Improved Animal Products (Before Harvest)	5%		0%	
405	Drainage and Irrigation Systems and Facilities	0%		5%	
605	Natural Resource and Environmental Economics	5%		5%	
901	Program and Project Design, and Statistics	1%		5%	
	<b>Total</b>	100%		100%	

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890

Plan	8.9	0.0	4.0	0.0
Actual Paid Professional	10.7	0.0	3.2	0.0
Actual Volunteer	0.0	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
325729	0	249167	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
325729	0	249167	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
211171	0	1511374	0

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

Activities in the Land & Livestock Team included educational programs related to beef production, rangeland management, and forage production. One interdisciplinary focus of this year was to help producers reduce the cost of winter feeding. In the beef area, faculty delivered 13 winter beef schools emphasizing a variety of production issues. A significant focus was on beef quality assurance, including seven BQA workshops, a BQA field day, and numerous presentations related to transportation best practices, selection, scoring breeding animals, and a significant effort in dairy-beef quality issues. The beef emphases on reproduction included four AI schools, a two day multi-state workshop on applied reproductive strategies for the northwest, and the continuation of a research/demonstration project on vaccine handling.

Range and pasture management was emphasized in the Lost Rivers Grazing Academy and a national workshop for management intensive grazing; stockmanship, and stewardship schools, and range management presentations. A number of invasive species activities included an interagency workshop on annual grass invasion (multi-state), a biological control field day, weed workshops, seminars, and schools. We organized 2 meetings for the Idaho Biocontrol Taskforce (IBT), a multi-agency and stakeholder group to identify future educational and outreach goals.

Work with forage crops created and distributed new knowledge about promising species for extending the grazing season. Included were alfalfa variety trials and research and demonstration trials on extended grazing. Idaho Hay & Forage Association web site and in proceedings: 1) Winter commodity school, 2) Idaho Hay and Forage Conference. Multi-state efforts included a cooperative pasture research project with USDA-ARS and Utah State to increase economic and environmental sustainability of livestock production through proper management of Grass-Legume pastures.

### 2. Brief description of the target audience

Target audiences included livestock (beef, sheep, swine, poultry) producers, feedlot operators, feed dealers, veterinarians, animal health suppliers, cattle producer associations, agency land managers, landowners with pasture and alfalfa for grazing or hay production, youth with beef and livestock projects,

small farm producers, weed management associations and supervisors, and other publics. Significant programming for Tribal members included three full-day technology transfer workshops (bio-control) for tribal land managers, the Fort Hall beef school, and a Trichomoniasis testing and verification program.

**3. How was eXtension used?**

unknown

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	19643	110006	3083	4311

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

**Patent Applications Submitted**

Year: 2011

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
<b>Actual</b>	13	58	71

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Producer schools.

Year	Actual
2011	13

**Output #2**

**Output Measure**

- Workshops (including BQA).

<b>Year</b>	<b>Actual</b>
2011	83

**Output #3**

**Output Measure**

- Demonstrations and applied research projects.

<b>Year</b>	<b>Actual</b>
2011	39

**Output #4**

**Output Measure**

- Popular press articles.

<b>Year</b>	<b>Actual</b>
2011	60

**Output #5**

**Output Measure**

- Newsletters.

<b>Year</b>	<b>Actual</b>
2011	54

**Output #6**

**Output Measure**

- Field days and tours

<b>Year</b>	<b>Actual</b>
2011	25

**Output #7**

**Output Measure**

- Presentations at grower conferences and other venues

<b>Year</b>	<b>Actual</b>
2011	175

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	O: Learners will adopt new, accepted, or recommended production practices. I: Number of participants indicating in post-program surveys that they have or intend to adopt recommended practices.
2	O: Learners acquire knowledge and understanding of new, approved, or recommended 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 and emerging technologies and issues (BQA, NAIS, etc.) 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: Learners will adopt new, accepted, or recommended production practices. I: Number of participants indicating in post-program surveys that they have or intend to adopt recommended practices.

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Action Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	183

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Estrus synchronization and artificial insemination are technologies that enable beef producers to access superior genetics for growth and product quality. Adoption of these technologies can increase ranch productivity, ranch profitability, and product quality. Thereby increasing the quality of a protein source reaching the consumer.

#### **What has been done**

A two day symposium on Applied Reproductive Strategies in Beef Cattle was conducted in Boise, ID. Presenters included UI faculty and faculty from Land-Grant institutions across the US. Presenter transmitted information on new estrus synchronization protocols as well as research on beef cattle reproductive physiology. In addition, research-based management strategies to enhance beef cow reproduction were presented.

#### **Results**

One hundred and thirty-five producers, students, Extension professionals, industry professionals and veterinarians from 5 Northwest states attended the symposium. Nine veterinarians received CE credits. Post program surveys indicated that over 70% of attendees would adopt a new estrus synchronization protocol or a management practice to increase reproductive efficiency. Respondents estimated that information from the program would add \$20-\$30 value to each calf. Based on the survey, it is estimated that ranches represented at the symposium owned 60,000 to 80,000 cows. Based on a \$20 increase in value for 60,000 calves, the economic impact of this program was \$1.2 million.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
----------------	-----------------------

102	Soil, Plant, Water, Nutrient Relationships
121	Management of Range Resources
122	Management and Control of Forest and Range Fires
205	Plant Management Systems
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 #2**

### **1. Outcome Measures**

O: Learners acquire knowledge and understanding of new, approved, or recommended 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**

<b>Year</b>	<b>Actual</b>
2011	270

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

The LRGA enrolls 15-20 students at a time for a 4-day program. Since the immediate audience is small and the faculty investment is large, it is important to know if learners felt that their understanding improved.

#### **What has been done**

Participants were given pre and post technical examinations, and were given a pre/post evaluation at the end of the program asking about their skill and knowledge level for 19 specific items before and after the workshop on a 1-5 scale. All of the participants reported improvements of at least 1 number on every category. Many, particularly the non-agency participants, indicated improvements of 2-4, mostly 3 on all the categories.

#### **Results**

Participants were given pre and post technical examinations, and were given a pre/post evaluation at the end of the program asking about their skill and knowledge level for 19 specific items before and after the workshop on a 1-5 scale. All of the participants reported improvements of at least 1 number on every category. Many, particularly the non-agency participants, indicated improvements of 2-4, mostly 3 on all the categories.

#### 4. Associated Knowledge Areas

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
121	Management of Range Resources
122	Management and Control of Forest and Range Fires
205	Plant Management Systems
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 #3

##### 1. Outcome Measures

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

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

<b>Year</b>	<b>Actual</b>
2011	3711

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

Beef Quality Assurance is essential for production of a safe, wholesome and palatable source of protein for human consumption. Proper animal handling improves animal well-being, product quality, and consumer perception.



**What has been done**

A workshop on Stockmanship and Stewardship was conducted in conjunction with the NCBA and Idaho Beef Council. The workshop was presented in four locations across Idaho. Presenters taught low-stress animal handling techniques, and proper use of vaccines.

**Results**

Over 418 producers, youth and general public attended these events. Surveys indicated that a majority (60+%) of attendees had never been to a BQA program before. In addition, for many attendees this was their first exposure to extension. Attendees indicated they wanted more information and similar programs in the future.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
121	Management of Range Resources
122	Management and Control of Forest and Range Fires
205	Plant Management Systems
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.

**2. Associated Institution Types**

- 1862 Research

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	1

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
111	Conservation and Efficient Use of Water
213	Weeds Affecting Plants
216	Integrated Pest Management Systems
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 #5**

**1. Outcome Measures**

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

Not Reporting on this Outcome Measure

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

- Economy
- Public Policy changes
- Government Regulations

**Brief Explanation**

The economy and feed prices have affected cattle production and have been a main focus for beef producers. The documentation requirements by lenders due to government regulations has affected producers and their ability to acquire loans. Extension has responded with classes to assist in record keeping. The economics of the hay industry affected the turnout of our events. We had better participation at forage schools due to people wanting to know economical ways to improve yield as the price of hay is extremely high two years in a row, and grower interest in this crop is really strong. Changed USDA APHIS policies in interpreting petitions for biological control agent introductions postponed the introduction of new agents. New agents are important as the present new management tools for noxious weeds and consequently new management technologies that can be adopted.

## **V(I). Planned Program (Evaluation Studies)**

### **Evaluation Results**

A post program survey was conducted for the Applied Reproductive Strategies in Beef Cattle - Northwest program. Major findings were as follows: 98% of respondents indicated that the value of the program was greater than the cost of registration. 70% indicated adopting or changing a technology discussed. Producers indicated an increase in income of \$20-\$30 per calf due to information learned in the program. Producers attending owned/managed approximately 60,000 to 80,000 head of cattle.

### **Key Items of Evaluation**

One hundred and thirty-five producers, students, Extension professionals, industry professionals and veterinarians from 5 Northwest states attended the Applied Reproductive Strategies in Beef Cattle - Northwest symposium. Nine veterinarians received CE credits. Post program surveys indicated that over 70% of attendees would adopt a new estrus synchronization protocol or a management practice to increase reproductive efficiency. Respondents estimated that information from the program would add \$20-\$30 value to each calf. Based on the survey, it is estimated that ranches represented at the symposium owned 60,000 to 80,000 cows. Based on a \$20 increase in value for 60,000 calves, the economic impact of this program was \$1.2 million.

**V(A). Planned Program (Summary)**

**Program # 2**

**1. Name of the Planned Program**

Cereals and Food Security

**V(B). Program Knowledge Area(s)**

**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	10%		10%	
201	Plant Genome, Genetics, and Genetic Mechanisms	1%		15%	
202	Plant Genetic Resources	25%		20%	
205	Plant Management Systems	31%		5%	
211	Insects, Mites, and Other Arthropods Affecting Plants	5%		10%	
212	Pathogens and Nematodes Affecting Plants	1%		10%	
213	Weeds Affecting Plants	10%		10%	
216	Integrated Pest Management Systems	10%		10%	
315	Animal Welfare/Well-Being and Protection	1%		0%	
501	New and Improved Food Processing Technologies	1%		0%	
502	New and Improved Food Products	1%		10%	
504	Home and Commercial Food Service	1%		0%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	1%		0%	
722	Zoonotic Diseases and Parasites Affecting Humans	1%		0%	
723	Hazards to Human Health and Safety	1%		0%	
	<b>Total</b>	100%		100%	

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	3.0	0.0	10.0	0.0
Actual Paid Professional	3.5	0.0	10.0	0.0
Actual Volunteer	0.0	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
86734	0	470686	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
86734	0	470686	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
61195	0	4174148	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

Fourteen Cereals faculty members reported participating in eight different cereal schools teaching about cereal varieties, IPM, irrigation, and many other topics of importance to the audience. Cereal variety trials were conducted to compare results in locations across the State. Research and demonstration projects were conducted on 18 sites to address management systems, and on 24 sites specifically for pest management. Numerous educational workshops were held for aerial applicators, including three multi-state workshops for applicators to fly-in, learn new technologies, and have their equipment tested and calibrated. Faculty members attended local grower meetings to present relevant programs about new varieties and technologies. Significant outreach occurs through newsletters for farmers, newsletters for professionals (including crop advisors) and through newspaper and trade magazine articles.

**2. Brief description of the target audience**

The target audiences for University of Idaho Cereals Extension included wheat and barley growers and farm workers, crop consultants, fertilizer and other ag-industry representatives, grower association members and leaders, and pesticide applicators.

**3. How was eXtension used?**

unknown

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	12548	34367	96	139

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

**Patent Applications Submitted**

Year: 2011  
 Actual: 1

**Patents listed**

Plant Variety Protection, Wheat - Bruneau (201200014)

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
Actual	9	47	56

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Idaho Cereal Schools.

Year	Actual
2011	8

**Output #2**

**Output Measure**

- Release and adoption of new cereal varieties.

Year	Actual
2011	2

**Output #3**

**Output Measure**

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

Year	Actual
2011	9

**Output #4**

**Output Measure**

- Develop pest control technology - project/experiments.

Year	Actual
------	--------

2011 24

**Output #5**

**Output Measure**

- Research on management systems - projects/experiments.

<b>Year</b>	<b>Actual</b>
2011	18

**Output #6**

**Output Measure**

- Refereed publications (Journal & Book Chapters).

<b>Year</b>	<b>Actual</b>
2011	10

**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	Actual
2011	1860

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Producers and consultants improve their knowledge and profitability when they have the most recent knowledge on production practices that improve their profit margin.

**What has been done**

The number of producers attending University of Idaho's Extension programs continues to increase. Advertising was increased to promote attendance and reference materials were distributed.

**Results**

Significant losses were incurred by growers who were not pro-active in the application of fungicides to prevent yield losses from stripe rust in wheat. Many growers and consultants who were attending the cereal schools and who were participants of the Treasure Valley Alert system and who were on the small grains email alert list serve were able to preventatively apply fungicides and protect their grain yield.

**4. Associated Knowledge Areas**

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

213	Weeds Affecting Plants
216	Integrated Pest Management Systems
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	Actual
2011	1578

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Numerous production issues in small grains are often ignored until conditions occur that favor the development of disease and insect pests.

**What has been done**

Cereal disease publications and cereal nematode publications are available on-line at our website, and reprints were bought and made available for distribution at numerous meetings, field days, and research reviews.

**Results**

Resource materials were available for identification of pests and diseases that were utilized by crop consultants and growers in scouting and determining a course of action for control. As a result, growers could determine if certain varieties needed to be aggressively treated with fungicides if they were susceptible to a disease, especially stripe rust.

**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

213	Weeds Affecting Plants
216	Integrated Pest Management Systems
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	Actual
2011	912

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**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**

<b>Year</b>	<b>Actual</b>
2011	160

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
216	Integrated Pest Management Systems

**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**

<b>Year</b>	<b>Actual</b>
2011	1

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
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
213	Weeds Affecting Plants
216	Integrated Pest Management Systems
315	Animal Welfare/Well-Being and Protection
501	New and Improved Food Processing Technologies
502	New and Improved Food Products
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
722	Zoonotic Diseases and Parasites Affecting Humans
723	Hazards to Human Health and Safety

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy

**Brief Explanation**

Environmental conditions influenced the development of stripe rust in wheat. The extremely unusual fall, winter and spring conditions all contributed to the development of a severe rust epidemic. While stripe rust is a regularly occurring issue in the Pacific Northwest, it rarely causes yield losses in southern and southeaster Idaho. Growers and

consultants who headed the advice and sprayed protective fungicides were able to prevent significant yield losses. This was a very significant behavioral change, and due to the higher price of wheat, the economic benefit to spraying was significant.

#### **V(I). Planned Program (Evaluation Studies)**

##### **Evaluation Results**

Attendees surveyed about what they had learned at several grain schools responded that they will utilize new information they learned in cereal production in the following areas:

87% Learned and will utilize the information presented on grain cultural management and production practices.

83% of summer grain tour attendees found the information taught to be of value to them.

35% Learned and will utilize the information presented on fertility management.

30% learned and will utilize the information presented on managing grain protein.

25% learned and will utilize new varieties of cereal grains.

23% Learned and will utilize the information presented on vole management.

##### **Key Items of Evaluation**

**V(A). Planned Program (Summary)**

**Program # 3**

**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	15%		0%	
111	Conservation and Efficient Use of Water	15%		25%	
202	Plant Genetic Resources	8%		25%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	5%		0%	
204	Plant Product Quality and Utility (Preharvest)	10%		25%	
205	Plant Management Systems	25%		25%	
216	Integrated Pest Management Systems	20%		0%	
805	Community Institutions, Health, and Social Services	2%		0%	
	<b>Total</b>	100%		100%	

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	9.2	0.0	1.5	0.0
Actual Paid Professional	10.1	0.0	0.5	0.0
Actual Volunteer	0.0	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
274589	0	34265	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
274589	0	34265	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
245809	0	410791	0

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

A major emphasis in our Consumer and Commercial Horticulture program continues to be to train and supervise beginning Master Gardeners. In 2011, 14 Beginning Master Gardener courses across the state produced a new crop of certified Master Gardeners to carry on our important work. Advanced courses for Master Gardeners contributed to an expanding talent pool of volunteers who contributed to dozens of community gardens, demonstration gardens, and teaching events across the State. Because all of our clientele cannot complete the rigorous Master Gardener training program, our faculty delivered five different series of lessons to horticulture clientele, 11 unique workshops and tours, and more than 40 individual presentations to various groups. Master Gardeners and faculty provided diagnostic services for Idaho residents through plant clinics and for individual homeowners and growers who bring weed, insect, and disease samples into our offices. Education for green industry professionals and employees includes several targeted workshops and field days (for example, a table grapes pruning workshop, orchard pruning workshop, groundskeepers workshop, and a tree care workshop) but also includes many of the programs offered for Advanced Master Gardeners. Horticulture faculty wrote regular newspaper columns in several local newspapers, circulated newsletters, and published several new Extension bulletins and fact sheets for targeted audiences.

### 2. Brief description of the target audience

The Beginner Master Gardener course attracts community members highly interested in horticulture and generally committed to educating others. Indirect audiences reached by certified Master Gardeners include dozens of church and community groups, vendors and patrons at farmers' markets, and residents who bring samples into plant clinics. Advanced Master Gardeners also lead community gardening efforts and maintain demonstration gardens in the county, and they serve as experienced community instructors. Faculty also respond to groups requesting home horticulture presentations including local churches, schools, local wildlife refuges and park/recreation agencies, local garden centers, garden clubs, civic groups and community gardeners. The general public is a target audience for our public outreach efforts, such as information booths, Plant Clinics, and exhibits. Classes such as the Idaho Victory Garden Series and other short format programs are targeted at community members with interest but not the time to commit to the entire Master Gardener Program. Green industry professionals represent another important target audience that we continue to serve with professional development training opportunities and technical assistance for small fruit and tree fruit producers, landscape maintenance professionals, and nursery managers and employees.

### 3. How was eXtension used?



unknown

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	30594	3144305	3330	6549

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

**Patent Applications Submitted**

Year: 2011

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
<b>Actual</b>	12	6	18

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Advanced Master Gardener Training Workshop/Tours.

Year	Actual
2011	65

**Output #2**

**Output Measure**

- Beginning Master Gardener Courses.

Year	Actual
2011	14

**Output #3**

**Output Measure**

- Consumer Horticulture Education Media Publications/Programs.

<b>Year</b>	<b>Actual</b>
2011	217

**Output #4**

**Output Measure**

- Consumer Horticulture Education Personal Contacts/Visits.

<b>Year</b>	<b>Actual</b>
2011	10003

**Output #5**

**Output Measure**

- Consumer Horticulture Web Site.

<b>Year</b>	<b>Actual</b>
2011	1

**Output #6**

**Output Measure**

- Consumer Horticulture Workshops/Seminars/Demonstrations.

<b>Year</b>	<b>Actual</b>
2011	393

**Output #7**

**Output Measure**

- Green Industry Education Workshops/Seminars/Clinics.

<b>Year</b>	<b>Actual</b>
2011	87

**Output #8**

**Output Measure**

- Master Gardener Volunteer Activities (in Hours).

<b>Year</b>	<b>Actual</b>
2011	15907



**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: Consumers have access to appropriate information about horticulture when they need it. I: Number of web site hits.
3	O: Adoption of effective and sustainable gardening practices by trained Master Gardeners. I: Survey-derived self-ranking of the extent of adoption of appropriate principles and practices; self-ranking is on 1-9 scale where 9=fully adopted.
4	O: Improved green-industry access to pest control and product information. I: Number of hits on technical resource center web site.

## **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**

<b>Year</b>	<b>Actual</b>
2011	279

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Master Gardener volunteers represent the University and must be trained in knowledge and skill to give appropriate recommendations for clientele concerns. These recommendations must be correct to encourage clientele trust in Extension and increase clientele.

#### **What has been done**

Pre- and Post-tests were offered to Beginning Master Gardeners in all of our courses, testing their knowledge gain and expected adoption of principles outlined in the curriculum material. A final Exam compared their summative knowledge with past classes.

#### **Results**

Master Gardeners posttest scores testing knowledge increased 89% while adoption rates for recommended practices were greatest for composting and planting methods. Final exam scores remained the same as the last two years' classes with an 85% average.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
202	Plant Genetic Resources
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
205	Plant Management Systems
216	Integrated Pest Management Systems

**Outcome #2**

**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**

<b>Year</b>	<b>Actual</b>
2011	96821

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Homeowner education on horticultural issues is critical as Idaho becomes urbanized. This outcome is beneficial to all Idaho's citizens who maintain landscapes and grow gardens.

**What has been done**

The Idaho Landscapes and Gardens web site was created and maintained to provide basic gardening knowledge.

**Results**

People used the site as a source of gardening knowledge. Nearly 82,000 visits were made to our main ILG website(as opposed to hits or views, which is an indicator of site usage) were counted as a measure of access.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems
216	Integrated Pest Management Systems

### **Outcome #3**

#### **1. Outcome Measures**

O: Adoption of effective and sustainable gardening practices by trained Master Gardeners. I: Survey-derived self-ranking of the extent of adoption of appropriate principles and practices; self-ranking is on 1-9 scale where 9=fully adopted.

#### **2. Associated Institution Types**

- 1862 Extension

#### **3a. Outcome Type:**

Change in Action Outcome Measure

#### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	7

#### **3c. Qualitative Outcome or Impact Statement**

##### **Issue (Who cares and Why)**

One of the goals of the Idaho Master Gardener Program is to develop skilled amateur horticulturists who are encouraged to adopt sustainable landscape and garden decisions and to teach and assist the general public to do so. By integrating and adopting sustainable gardening and landscaping practices into their own yards and gardens, Master Gardener Volunteers are better prepared to recommend and demonstrate environmentally sound practices to others.

##### **What has been done**

We specifically teach 9 recommended sustainable principles and practices in our beginning and advanced courses, focusing on composting, soil health, water use, pest management and overall safety in every aspect of home horticulture. We survey graduating Master Gardeners on their rate of adoption as a result of their learning.

##### **Results**

100% of Master Gardeners responding to a survey reported an increase in knowledge of the 9 sustainable principles learned through the program, and self-identified the areas in which they adopted the principles and to what extent. These volunteers then served thousands of individuals in our communities during the year, encouraging wider adoption of sustainable practices.

#### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants

205	Plant Management Systems
216	Integrated Pest Management Systems
805	Community Institutions, Health, and Social Services

**Outcome #4**

**1. Outcome Measures**

O: Improved green-industry access to pest control and product information. I: Number of hits on technical resource center web site.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2011	13614

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Green industry professionals have a much greater impact on the environment and on people's perceptions of maintained landscapes, and on consumers' choices of plant materials and horticultural products than do much larger numbers of individual homeowners. These professional nurserymen, landscapers, retail chemical providers and others need a higher level of detail on topics that may not be sought by general consumers. They also want detailed information about plant problems, and alternative solutions to those problems.

**What has been done**

A nursery web site was established several years ago and has been maintained and updated annually.

**Results**

The nursery web site has had 13,492 visits this past year, and more than 5,792 downloads of the five most popular plant problems described at the web site. The web authors received several e-mail messages from teachers telling how helpful the web site is to them, e-mail messages from green industry professionals asking for more details on several articles, and e-mail messages from international professionals asking for additional information.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships



111	Conservation and Efficient Use of Water
202	Plant Genetic Resources
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
205	Plant Management Systems
216	Integrated Pest Management Systems

#### **V(H). Planned Program (External Factors)**

##### **External factors which affected outcomes**

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

##### **Brief Explanation**

#### **V(I). Planned Program (Evaluation Studies)**

##### **Evaluation Results**

Extension staff and volunteers worked with partners to create the Orchard Elementary School 5th Grade Pumpkin Project. In addition to the students learning about nutrition, horticulture, and physical fitness education through a variety of methods, the project reaches the lives of many people in our community. The students share narrative stories and donate pumpkin pies to food banks, senior meals-on-wheels, and senior meal sites throughout our community. The students not only are the catalysts of this impact, they, and often someone they know, realize a direct benefit from the program. The students recognize these impacts, and undergo important learning about civic responsibility. The impact of this project was well summarized by a recent 5th grader 'To see the smile on others faces and know that I had caused that, made my heart happy and put a smile on my face.'

##### **Key Items of Evaluation**

**V(A). Planned Program (Summary)**

**Program # 4**

**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	5%		10%	
131	Alternative Uses of Land	10%		10%	
601	Economics of Agricultural Production and Farm Management	10%		10%	
608	Community Resource Planning and Development	10%		20%	
609	Economic Theory and Methods	10%		10%	
610	Domestic Policy Analysis	5%		10%	
802	Human Development and Family Well-Being	30%		0%	
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	5%		10%	
805	Community Institutions, Health, and Social Services	10%		10%	
903	Communication, Education, and Information Delivery	5%		10%	
	<b>Total</b>	100%		100%	

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	5.8	0.0	3.0	0.0
Actual Paid Professional	10.1	0.0	1.4	0.0
Actual Volunteer	0.0	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
269400	0	138257	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
269400	0	138257	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
193411	0	383366	0

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

The community development project focused activities in three areas: building social capital, economic development, and spaces and places. Much of our activity is follow-up with approximately 75 communities that have completed the Horizons program (phases I, II, and III). To help communities build their social capital, Extension organized and led dozens of leadership development educational programs in communities across the state. Many of these focused on communication, understanding people, facilitation, and interpersonal skills. Others focused on specific community needs such as disaster preparedness, the community role in youth transition to adulthood, and parenting.

The bridge between leadership and economic development is built through demographic analysis of counties, and explaining to community leaders how to use those analyses. Several economic research projects also have led to Extension educational opportunities for regional and community economic development. Extension faculty have taught community members about fundraising, and have helped communities identify important goals and succeed in raising funds to achieve those goals. Classes to support economic development have transferred knowledge about such topics as e-commerce, using basic accounting software, customer service, and marketing. Faculty have worked with small businesses, chambers of commerce, farmers markets, and small farmers to help foster successful new enterprises.

Growing community assets is also the focus for the spaces and places efforts. In 2011, faculty worked in communities to create community gardens and people's gardens, a community ice rink, bike paths and trails, and to find donors and install community benches. University students have been brought into communities to create landscape designs for a variety of land improvement and community beautification projects.

### 2. Brief description of the target audience

Target audiences for community development include city and county officials, local leaders and aspiring leaders, chambers of commerce, small business owners, entrepreneurs, and community volunteers. Partnerships with agencies include representatives and employees of small business administration, small business development centers, schools and school districts, small farmers' associations and others as part of our target audience. The Horizons program specifically targeted residents in small communities with high rates of poverty. Several programs targeted Latino or Tribal business owners and entrepreneurs.

### 3. How was eXtension used?

unknown

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	6357	78179	924	977

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

**Patent Applications Submitted**

Year: 2011  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
<b>Actual</b>	2	27	29

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Steering Committees/Teams formed.

<b>Year</b>	<b>Actual</b>
2011	33

**Output #2**

**Output Measure**

- Materials/Curriculum developed.

<b>Year</b>	<b>Actual</b>
2011	5

**Output #3**

**Output Measure**

- Presentations/Workshops.

<b>Year</b>	<b>Actual</b>
2011	67

**Output #4**

**Output Measure**

- Trainings- Series/Short Courses.

<b>Year</b>	<b>Actual</b>
2011	51

**Output #5**

**Output Measure**

- Conferences organized or implemented.  
Not reporting on this Output for this Annual Report

**Output #6**

**Output Measure**

- Ind/Boards/Com- Mentored/Coached.

<b>Year</b>	<b>Actual</b>
2011	33

**Output #7**

**Output Measure**

- Communities served.

<b>Year</b>	<b>Actual</b>
2011	72

**Output #8**

**Output Measure**

- Counties served.

<b>Year</b>	<b>Actual</b>
2011	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: 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)
4	O: Customer: Small business owners and government organizations adopt customer oriented operating practices. I: Percentage of participants indicated adoption of practices. (customer service follow-up checklist)
5	O: Leadership: Incumbent and emerging leaders learn skills for leadership positions. I: Number of participants with increased skills (pre-post test)
6	O: Leadership: New leaders will assume leadership roles. I: Number of new leaders serving in communities. (1 yr. follow up checklist/count)
7	O: Civil Society: participants change knowledge, attitude and behavior related to diversity and inclusiveness. I: Number of participants reporting change in response to surveys developed for each program.
8	O: Civil Society: People are aware that knowledge will help address diversity/inclusivity issues. I: Number of Civil Society program participants.
9	O: Family Life: 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
10	Outcome: Entrepreneurs establish or expand their business. Indicator: Number of business owners establishing or expanding their business.
11	Regional business development: Economic and business development organizations collaborate at a regional level to support local communities. Indicator: Number of regions, counties or clusters of communities establishing a regional business development effort. (Retrospective Post)
12	Social Capital Development: Community Partnerships will be developed through community networks and mentoring. Indicator: Number of participants in network and mentoring relationships.

**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	Actual
2011	142

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The economic linkages in central Idaho are often very weak, leading to significant economic leakage from the community. County officials, business people, economic development professionals and agencies, as well as individual citizens care, because the leakage significantly damages the local retail economy. The development of economic multipliers also suggests areas of the economy to focus on and is helpful in predicating what the impacts of economic downturns may be.

**What has been done**

UI county faculty and a rural development specialist met with knowledgeable volunteers in three counties to review and correct data from IMPLAN. We selected and combined sectors of the economy. The data was used to produce a Social Accounting Matrix (SAM) which estimated multipliers and final demand. The model was reviewed and corrected with the volunteers and final presentations were made in each county for interested members of local government, the business community and the general public.

**Results**

County and regional SAM models were developed. Many were surprised to find that agriculture continues to be a major sector in the county and regional economies, and that it has the largest job and economic multipliers. Local community development volunteers are already working on how to use the data to encourage business and development.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
131	Alternative Uses of Land

601	Economics of Agricultural Production and Farm Management
608	Community Resource Planning and Development
609	Economic Theory and Methods
610	Domestic Policy Analysis

## **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**

<b>Year</b>	<b>Actual</b>
2011	178

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Ninety-eight percent of the firms in Idaho are considered small businesses. Business retention and expansion is an extremely important, and often overlooked, aspect of economic development in Idaho's rural counties. Many small businesses struggle with the ability to track income and expenses in an effort to accurately measure profitability.

#### **What has been done**

In an effort to help existing businesses increase profitability and management efficiency, University of Idaho Extension has provided QuickBooks® training in six southeast Idaho Counties. The training targets small business owners and managers, and the goal is to help these businesses learn better, more efficient record keeping skills. The classes consist of 12 hours of training using the QuickBooks® record-keeping program.

#### **Results**

46 business owners and managers have completed the training since 2008. Participants were surveyed to determine the increase in knowledge gained. They reported the following: ? 39% increase in knowledge of QuickBooks®; ? 25% increase in knowledge of financial record keeping. ? 95% plan to use QuickBooks®; for business record keeping. ? 51% plan to use QuickBooks®; for household record keeping. ? 89% rate the quality of the training as either very good or excellent. ? 32% increase in the use of QuickBooks®; after the training. ? 100% would recommend the training to a friend or coworker. Some comments from participants were: "This class was fun and informative, would take more." "I plan to use payroll to



the max. It couldn't have been any better. Thank you!" "I liked the team teaching. [The instructors] were great about making sure we were with them on each step."

#### 4. Associated Knowledge Areas

<b>KA Code</b>	<b>Knowledge Area</b>
601	Economics of Agricultural Production and Farm Management
609	Economic Theory and Methods
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
903	Communication, Education, and Information Delivery

#### Outcome #3

##### 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)

Not Reporting on this Outcome Measure

#### Outcome #4

##### 1. Outcome Measures

O: Customer: Small business owners and government organizations adopt customer oriented operating practices. I: Percentage of participants indicated adoption of practices. (customer service follow-up checklist)

Not Reporting on this Outcome Measure

#### Outcome #5

##### 1. Outcome Measures

O: Leadership: Incumbent and emerging leaders learn skills for leadership positions. I: Number of participants with increased skills (pre-post test)

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

<b>Year</b>	<b>Actual</b>
-------------	---------------

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Idaho's communities are challenged by issues of human rights and inclusiveness.

**What has been done**

Participants in Idaho's Journey for Diversity and Human Rights learn about past and current human rights issues of the region in a two day workshop.

**Results**

Participants in Idaho's Journey for Diversity and Human Rights report that they better understand the challenges of diversity and human rights in their region, and are better prepared with strategies to address those issues. Long term follow up of past Journeys shows that participants to follow through to take action within their communities.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
608	Community Resource Planning and Development
610	Domestic Policy Analysis
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services
903	Communication, Education, and Information Delivery

**Outcome #6**

**1. Outcome Measures**

O: Leadership: New leaders will assume leadership roles. I: Number of new leaders serving in communities. (1 yr. follow up checklist/count)

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	3

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

Individuals to guide and advise local organizations and policies, and to support emerging entrepreneurs are rare in rural communities. Extension professionals cannot provide required assistance.

#### What has been done

Through leadership development programs such as Horizons, and through local partnerships with organizations and businesses, local people receive training and coaching about how their efforts can support community development.

#### Results

Two graduates of leadership training have successfully campaigned and been elected to their respective city councils. Another graduate has completed grantwriting training and has submitted successful applications for community projects.

### 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: Civil Society: participants change knowledge, attitude and behavior related to diversity and inclusiveness. I: Number of participants reporting change in response to surveys developed for each program.

Not Reporting on this Outcome Measure

### Outcome #8

#### 1. Outcome Measures

O: Civil Society: People are aware that knowledge will help address diversity/inclusivity issues. I: Number of Civil Society program participants.

#### 2. Associated Institution Types

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	20

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Idaho's communities are challenged by issues of human rights and inclusiveness.

**What has been done**

Idaho's Journey for Diversity and Human Rights is an intensive two day workshop in which participants hear from a variety of voices and cultures represented in Idaho, learning about past and current human rights issues of the region in a two day workshop.

**Results**

Participants in Idaho's Journey for Diversity and Human Rights report that they better understand the challenges of diversity and human rights in their region, and are better prepared with strategies to address those issues. Long term follow up of past Journeys shows that participants to follow through to take action within their communities.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
610	Domestic Policy Analysis
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

**Outcome #9**

**1. Outcome Measures**

O: Family Life: 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 Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	27

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

**Outcome #10**

**1. Outcome Measures**

Outcome: Entrepreneurs establish or expand their business. Indicator: Number of business owners establishing or expanding their business.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	15

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Prosperous self-employed individuals and business owners hiring employees are essential for a healthy economy. Building their assets contributes to global food security (within or outside the agricultural sector) and poverty alleviation (hunger reduction).

**What has been done**

Building Farmers Classes, entrepreneurial skills classes, and individual consultations were variously provided to targeted audiences.

**Results**

New or expanded businesses related to fruit production, pies, meat, and youth clothing/apparel that are being direct marketed or on consignment. 13 Hispanic business owners participated in E-commerce training provided by the University of Idaho Extension and the Latino Economic and Development Center (LEAD) in July and August. Ten of them followed up by taking computer literacy and entrepreneurial skills training during September and October.

**4. Associated Knowledge Areas**

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

**Outcome #11**

**1. Outcome Measures**

Regional business development: Economic and business development organizations collaborate at a regional level to support local communities. Indicator: Number of regions, counties or clusters of communities establishing a regional business development effort. (Retrospective Post)

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	3

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Individual organizations are unable to address all business development and support needs in a region. Collaboration allows limited resources to be combined for greater impact.

**What has been done**

5 regional business and economic development organizations collaborated with extension to deliver needed training and technical assistance to rural small business owners.

**Results**

Workshop participants gained knowledge and skills and developed networks of peer entrepreneurs and local service providers.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
608	Community Resource Planning and Development
609	Economic Theory and Methods
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services
903	Communication, Education, and Information Delivery

**Outcome #12**

**1. Outcome Measures**

Social Capital Development: Community Partnerships will be developed through community networks and mentoring. Indicator: Number of participants in network and mentoring relationships.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	43

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Economic development associations in Butte, Custer, and Lemhi counties have been interacting while developing an economic base model for the three-county region. The Economic Development Administration has been following this development because there is interest in disseminating CDED to other regions in the state. Evidence-based economic development planning contributes to social welfare, global food security and hunger alleviation.

**What has been done**

A series of webinars conducted by the Center for Rural Entrepreneurship facilitates a small team of community and city leadership that can concentrically expand based on networking principles taught through the webinar. Six have been delivered workshops in three counties.

**Results**

The webinar series is ongoing, but it is already clear that the existing registry of businesses does not capture starting entrepreneurs and "lone-eagles". The most active participants use prepared presentations and documentation to interact with development agencies.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
601	Economics of Agricultural Production and Farm Management
608	Community Resource Planning and Development
802	Human Development and Family Well-Being
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**

- Economy
- Appropriations changes
- Competing Public priorities
- Competing Programmatic Challenges

**Brief Explanation**

Community development work requires continuous sustained effort by professionals to support volunteers, new governmental officials and businesses. The poor economy creates intense pressures on business and increases the size of the socially challenged portion of the population that then comes to depend on the rest of the community. Out migration increases and is driven poor employment opportunities and poor workforce development levels, which exacerbates pressure on business, governmental and education institutions. Cultural inertia by older member of society and social disengagement by younger member, prevent innovation and change necessary for the community to thrive. Census statistical rendition of the community and the economy are inaccurate due to the Idaho National Laboratory and prevent acquisition of grants and other incentives available to low-income communities.

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

E-Commerce literacy training for Latinos in Southern Idaho was implemented in collaboration with the Latino Economic and Development Center, Inc.(LEAD). Twelve evening training events of two hours duration took place between May and August 2011 with 69 participants in three counties. The overall participation was 48% relative to 144 targeted participants. Ninety percent of the participants were females and 19% of the



participants were business owners. One quarter of the participants repeated the training. About 2/3 of the training time was spent in computer literacy, an unanticipated situation; thus, E-Commerce material was not fully delivered. Nevertheless, the training allowed a more realistic assessment of needs in Latino communities in rural counties for greater outreach and digital literacy training. Eighty percent of LEAD's trainees in entrepreneurial skills during September and October 2011 participated in the E-commerce training in Bingham County. The continuity of evening education among Latinas is a measure of impact of the training provided.

### **Key Items of Evaluation**

**V(A). Planned Program (Summary)**

**Program # 5**

**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	10%		25%	
302	Nutrient Utilization in Animals	10%		25%	
305	Animal Physiological Processes	10%		10%	
307	Animal Management Systems	40%		20%	
308	Improved Animal Products (Before Harvest)	20%		10%	
311	Animal Diseases	10%		10%	
	<b>Total</b>	100%		100%	

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	2.3	0.0	3.0	0.0
Actual Paid Professional	3.2	0.0	2.1	0.0
Actual Volunteer	0.0	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
134981	0	140168	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
134981	0	140168	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
13444	0	798905	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

Multiple dairy training programs were delivered (milker, feeder, calf raising, vaccination, artificial insemination, dairy supply food safety, etc.) mainly in Spanish, including two new programs called the Three Day Milker School and Identifying Sick Cows. Two winter dairy schools were planned and delivered. Faculty collaborated with Texas A&M on a grant targeting Hispanic dairy workers that treat sick cows with the objective of improving biosecurity on dairies and defending the milk supply against zoonotic diseases that could prove a threat to our food supply and national security. A dairy marketing survey of Idaho producers was conducted. Developed and conducted the ongoing Dairy Middle Management Round Table. This bilingual (English-Spanish) program target middle managers, especially those of Hispanic origin, to increase their learning experience in topics related to dairy management and practical application of scientific knowledge. The Treasure Valley Dairy Replacement Heifer project includes working with dairy 4-H/FFA youth, dairy producers, and allied industry professionals to improve learners' success to select promising individuals leading to more productive herds. Assistance was given to producers making decisions relative to mastitis control, facilities planning, rations, and herd health. Faculty prepared content for DAIReXNET and participated in management of the COP.

**2. Brief description of the target audience**

Target audiences include dairy producers, dairy managers, dairy workers (with a major emphasis on Spanish-speaking workers), allied industry employees, 4-H/FFA youth, other extension personnel, and publics who are affected by the dairy industry and the activities that extension has related to dairy production.

**3. How was eXtension used?**

Faculty prepared two fact sheets (submitted) for facilities content the DAIReXNET and chaired the facilities section of DAIReXNET .

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	12071	311950	1598	0

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

**Patent Applications Submitted**

Year: 2011

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

<b>2011</b>	<b>Extension</b>	<b>Research</b>	<b>Total</b>
<b>Actual</b>	0	18	18

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Winter Dairy Forums.

<b>Year</b>	<b>Actual</b>
2011	2

**Output #2**

**Output Measure**

- Milker schools.

<b>Year</b>	<b>Actual</b>
2011	3

**Output #3**

**Output Measure**

- Calf Schools.

<b>Year</b>	<b>Actual</b>
2011	2

**Output #4**

**Output Measure**

- Artificial Insemination Schools.

<b>Year</b>	<b>Actual</b>
2011	6

**Output #5**

**Output Measure**

- Feeder Schools.

<b>Year</b>	<b>Actual</b>
2011	4

**Output #6**

**Output Measure**

- Popular Press articles.

<b>Year</b>	<b>Actual</b>
2011	13

**Output #7**

**Output Measure**

- Abstracts and Proceedings.

<b>Year</b>	<b>Actual</b>
2011	15

**Output #8**

**Output Measure**

- Milk Quality workshops

<b>Year</b>	<b>Actual</b>
2011	2

**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 (as evaluated with pre/post testing).
4	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).

**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**

<b>Year</b>	<b>Actual</b>
2011	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**

<b>KA Code</b>	<b>Knowledge Area</b>
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**

<b>Year</b>	<b>Actual</b>
2011	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**

<b>KA Code</b>	<b>Knowledge Area</b>
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 (as evaluated with pre/post testing).

#### **2. Associated Institution Types**

- 1862 Extension

#### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

#### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	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**

<b>KA Code</b>	<b>Knowledge Area</b>
301	Reproductive Performance of Animals
307	Animal Management Systems
311	Animal Diseases

#### **Outcome #4**

##### **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**

<b>Year</b>	<b>Actual</b>
2011	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**

<b>KA Code</b>	<b>Knowledge Area</b>
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
307	Animal Management Systems
311	Animal Diseases

## **V(H). Planned Program (External Factors)**

### **External factors which affected outcomes**

- Economy
- Appropriations changes
- Government Regulations
- Competing Programmatic Challenges

### **Brief Explanation**

The economic situation of the country and particularly of the dairy industry generated a shift in priorities for dairy operators. We responded to that change by adjusting our programs and add an emphasis on increasing the productivity of the scarce human and material resources that dairies actually have. Immigration is still one big issue for dairy operators since because recent enforcement and laws changes the offer of qualified labor (mostly immigrants) has been reduced dramatically.

## **V(I). Planned Program (Evaluation Studies)**

### **Evaluation Results**

{No Data Entered}

### **Key Items of Evaluation**

{No Data Entered}

**V(A). Planned Program (Summary)**

**Program # 6**

**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%	
	<b>Total</b>	100%		0%	

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	4.0	0.0	0.0	0.0
Actual Paid Professional	4.6	0.0	0.0	0.0
Actual Volunteer	0.0	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
127690	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
127690	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
103627	0	0	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

The family finance team has worked in partnership with a dozen financial literacy and aging coalitions, businesses, and relevant local, state, and Federal agencies. One specific partnership with the Idaho Credit Union League resulted in five National Endowment for Financial Education (NEFE) High

School Financial Planning Program (HSFPP) Teacher train the trainer workshops.

Other partnerships fostered training for Medicare recipients and other Idaho Department of Health & Welfare clientele. Faculty delivered more than 100 lessons to learners. These classes range from basic financial understanding for youth, to credit and debt management for young adults, to retirement and estate planning for mature adults. A number of simulation exercises have been created for teen-young adult learners, including Prosperity Quest delivered through Second Life.

Much of the outreach about family finance is conducted through media. Faculty author and distribute financial management expertise to clientele through a statewide financial management newsletter, through county newsletters, and through a blog. Our faculty are also in high demand to write articles and to give interviews for local print and electronic 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. An emphasis in 1011 included training for high school teachers and others in a position to teach financial management to youth and young adults.

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. Professionals 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.

**3. How was eXtension used?**

unknown

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	3549	340397	3386	1608

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

**Patent Applications Submitted**

Year: 2011

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
Actual	1	1	2

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Newsletters published; print or electronic.

Year	Actual
2011	60

**Output #2**

**Output Measure**

- Popular Press articles.

Year	Actual
2011	19

**Output #3**

**Output Measure**

- Professional or paraprofessional trainings.

Year	Actual
2011	31

**Output #4**

**Output Measure**

- Classes, seminars, and workshops.

Year	Actual
2011	205

**Output #5**

**Output Measure**

- Websites developed or updated.

<b>Year</b>	<b>Actual</b>
2011	5

**Output #6**

**Output Measure**

- Lesson/curriculum developed and published.

<b>Year</b>	<b>Actual</b>
2011	3

**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 Extension websites, social media, and use of technology.I: Number of website sessions and pages visited; number of social media followers, number of participants in Adobe Connect, chat, or other trainings offered via technology.



**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	Actual
2011	561

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

On many Idaho farms, women have the lead responsibility to manage financial resources for the business. Although some women are new to this responsibility (as their spouses are removed from the picture), many others have no formal training about how to manage finances for business decisions.

**What has been done**

With the Annie's project, a six-week course was designed and delivered for farm women to help them develop their management and decision making skills for their farms. A pre-class baseline survey was conducted on the 5 areas of risk management (production, marketing, financial, legal, human resources). Post-program responses to the financial needs in retirement questionnaire follow. Funding and planning is in place for a complete evaluation of the project.

**Results**

Knowledge/Understanding Strongly Agree/ agree A. I increased my knowledge of ways to estimate the amount of monthly income I'll need during retirement. 96% B. I increased my knowledge of the savings I'll need for retirement. 60% C. I increased my knowledge of ways to increase income during retirement. 76% D. I increased my knowledge of ways to decrease expenses during retirement. 60%

**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**

<b>Year</b>	<b>Actual</b>
2011	1106

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Money management is a critical life skill to have in order to be successful. Yet, 40% of American families report living beyond their means and have significant credit card debt. Many children and adolescents are not being taught how to manage their money by their parents or personal finance courses in schools. Yet, teens are active consumers, spending 98% of their money instead of saving it.

#### **What has been done**

2250 students participated in eighty-eight sessions of Welcome to the Real World delivered in classrooms and classroom-settings across Idaho in 2011. Post-lesson evaluations were conducted to measure learners knowledge to perform various money management skills.

#### **Results**

Of students who completed a post-lesson evaluation, 83% learned how to balance a checkbook registry, 76% learned how to set up and use online banking, and 74% understood budget percentages for different expense categories.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
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**

<b>Year</b>	<b>Actual</b>
2011	1002

#### **3c. Qualitative Outcome or Impact Statement**

##### **Issue (Who cares and Why)**

Estate planning is a topic that many people fear, hold off on, or never do. According to an attorney, 70% of people in the state of Idaho die without a will. Depending on the estate contents, it could take 4-8 months to distribute property WITH a will... much longer without one. In addition, final wishes are often unknown or ignored if a will isn't available.

##### **What has been done**

Secure Your Future workshops were offered in several counties. In this three part workshop, participants learned about organizing important financial paperwork, communicating their final wishes to family members, and preparing their financial lives for the future.

Participants were surveyed about financial preparedness at the end of the lessons, and again through a follow-up 6-months after the training.

##### **Results**

When pre-assessments were compared to 6-month follow-up surveys, participants overall reported an increase in the number who had accessed legal tools from 64% before training to 88% at 6-month follow-up. Reported increase for specific behaviors include:

- \* Organized financial records 34% before training; 87% at 6-months
- \* Inventoried important papers 62% before training; 86% at 6-months
- \* Organized property records 40% before training; 86% at 6-months
- \* Organized family records 47% before training; 80% at 6-months
- \* Developed household recordkeeping systems 30% before training; 68% at 6-months
- \* Completed living wills 15% before training; 67% at 6-months
- \* Written goals for legal matters 44% before training; 65% at 6-months
- \* Written wills 32% before training; 64%
- \* Completed health care durable power of attorneys.

#### 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 Extension websites, social media, and use of technology. I: Number of website sessions and pages visited; number of social media followers, number of participants in Adobe Connect, chat, or other trainings offered via technology.

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2011	16639

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

In a 2009 US Department of Education study, it was revealed that on average, online students out-perform those receiving face-to-face instruction. Students are learning through new forms of instruction and the need to catch up to them is great. Financial education is now a top goal of the US Treasury Department. The recent economic crisis demands that we provide individuals with solid financial capability education for future success and economic stability.

###### **What has been done**

A team of interdisciplinary faculty and staff from the University of Idaho created a Financial Capability simulation, Prosperity Quest, in Second Life. In this "quest", students select a career based on the education they plan to achieve and the income that career will produce. Then, they are introduced to every day expenses where they select their choices (good and bad) and experience the monetary consequences of those choices.

###### **Results**

We are still in the process of collecting data. This is a new simulation (completed in June 2011). Preliminary data from one group (34 participants) suggests: \* 94% thought education could improve job options \* 89% felt more knowledgeable about financial institutions and their services \* 61% were able to buy all of the items they needed or wanted \* 61% felt a spending plan for their money would have helped in the simulation \* 83% thought a savings plan would have helped

them reach more goals \* 61% plan to make a spending and savings plan for their future (28% need to think about it/11% don't have a salary yet so will think about it when they do) \* 78% felt that the simulation was an easier way to learn about financial education. Additional focus groups are scheduled for the Spring of 2012.

#### 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
- Appropriations changes
- Public Policy changes
- Government Regulations
- Populations changes (immigration, new cultural groupings, etc.)

##### Brief Explanation

The financial crisis has cost UI Extension a number of faculty and staff support positions; agency partners also lost funding and changed their focus, reduced hours and had fewer staff. Several communities lost population and major employers. EFNEP families who would share their family's plight indicated that they were moving out of the area; to find jobs, cheaper housing, to share housing with relatives elsewhere, or to other states where there were extended TANF benefits. The economy continues to impact families financially through unemployment and underemployment. Families are frequently pulling from retirement savings to survive, even though they know it is not a recommended practice. Two years without a COLA adjustments cause Medicare beneficiaries on fixed incomes to struggle meeting expenses.

#### V(I). Planned Program (Evaluation Studies)

##### Evaluation Results

88 Teachers participated in a 7-lesson program to learn how to use the NEFE HSFP Financial Planning curriculum for high school students. At the completion of the train-the-trainer program, participants responded to a questionnaire to assess what they had learned

##### Participants Evaluation Results:

- 100% of the participants strongly agreed or agreed "After attending this workshop, my capacity to teach personal finance has been strengthened."
- 98% of the participants strongly agreed or agreed "I will use information from this training in my teaching and/or personal life."
- 98% of the participants strongly agreed or agreed "I will recommend this training to another teacher."

Participants were also asked to rate themselves pre and post training for the seven units covered (results for 4 of the units follows).

"If you will (or have) taught a course in personal financial management/personal finance/financial literacy, how competent do you feel to teach the following topics without further training?"

Financial Plan Unit:

Before this training

Not Very Competent (23) 27.06%  
Adequately Competent (49) 57.65%  
Very Competent (12) 14.12%

After taking this training

Not Very Competent (0) 0%  
Adequately Competent (40) 47.06%  
Very Competent (45) 52.94%

Investing Unit:

Before this training

Not Very Competent (35) 41.18%  
Adequately Competent (38) 44.71%  
Very Competent (12) 14.12%

After taking this training

Not Very Competent (2) 2.35%  
Adequately Competent (50) 58.82%  
Very Competent (33) 38.82%

Using Credit Wisely Unit:

Before this training

Not Very Competent (16) 18.82%  
Adequately Competent (43) 50.59%  
Very Competent (25) 29.41%

After taking this training

Not Very Competent (2) 2.35%  
Adequately Competent (29) 34.12%  
Very Competent (53) 62.35%

Insurance Unit:

Before this training

Not Very Competent (29) 34.12%  
Adequately Competent (46) 54.12%  
Very Competent (9) 10.59%

After taking this training

Not Very Competent (1) 1.18%  
Adequately Competent (48) 56.47%  
Very Competent (35) 41.18%

**Key Items of Evaluation**

**V(A). Planned Program (Summary)**

**Program # 7**

**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	5%		5%	
132	Weather and Climate	1%		5%	
212	Pathogens and Nematodes Affecting Plants	1%		5%	
601	Economics of Agricultural Production and Farm Management	55%		10%	
602	Business Management, Finance, and Taxation	10%		10%	
603	Market Economics	5%		10%	
605	Natural Resource and Environmental Economics	10%		10%	
606	International Trade and Development	10%		10%	
609	Economic Theory and Methods	1%		20%	
610	Domestic Policy Analysis	1%		10%	
722	Zoonotic Diseases and Parasites Affecting Humans	1%		5%	
	<b>Total</b>	100%		100%	

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	3.1	0.0	1.5	0.0
Actual Paid Professional	4.3	0.0	1.8	0.0
Actual Volunteer	0.0	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
156958	0	186364	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
156958	0	186364	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
64987	0	548244	0

### V(D). Planned Program (Activity)

#### 1. Brief description of the Activity

The Farm & Ranch Management Team delivered a number of courses and workshops on management topics including business strategies and planning, taxation, water economics, renting and leasing, costs of custom work, economics of equipment purchases and maintenance, farm safety and farm estate planning. They also taught a Farm & Ranch Financial Management course to meet Farm Service Agency borrower training requirements. Consultations with individual farmers covered many of the same topics. Farm economics was highlighted in a number of educational programs that focused on the economics of fertilization, pest control, and using GPS technology. Faculty created a variety of new publications that were distributed to help farm and ranch managers compare their enterprise costs with similar budgets developed for 80 different crops and livestock enterprises, to compare custom rates with new custom rates guides, create livestock enterprise budgets, and evaluate the financial conditions and outlook for Idaho agricultural.

#### 2. Brief description of the target audience

Target audiences included livestock producers in the dairy, beef and sheep industries, farmers raising small grains, row crops, potatoes and onions, specialty crops, forage crops, and small fruits and orchard crops. Some programs targeted allied industry persons in the processing, lending and appraisal areas or agency and other personnel that engage in areas that impact agricultural industries. Other programs targeted beginning and limited resource farmers, small acreage landowners, Tribal farmers and ranchers, women in agriculture, farm and non-farm youth, and farm families with retirement and succession interests.

#### 3. How was eXtension used?

unknown

### V(E). Planned Program (Outputs)

#### 1. Standard output measures



2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	0	0	0	0

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

Year: 2011  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
Actual	9	24	33

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Farm Management Schools/Classes.

Year	Actual
2011	12

**Output #2**

**Output Measure**

- Crop & Livestock Costs and Returns Estimates Published.

Year	Actual
2011	32

**Output #3**

**Output Measure**

- Number of Financial Condition of Idaho Agriculture tri-fold distributed

Year	Actual
------	--------

2011 1175

**Output #4**

**Output Measure**

- Media Contacts.

<b>Year</b>	<b>Actual</b>
2011	93

**Output #5**

**Output Measure**

- Workshops/presentations at Commodity Schools/conferences, Farm Management Schools or other appropriate venues.

<b>Year</b>	<b>Actual</b>
2011	66

**Output #6**

**Output Measure**

- Office/one-on-one consultations

<b>Year</b>	<b>Actual</b>
2011	256

**Output #7**

**Output Measure**

- AERS web site visits related to farm management

<b>Year</b>	<b>Actual</b>
2011	1821

**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.
5	An increase in the number of trained graduate students prepared to enter the workforce.

**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**

<b>Year</b>	<b>Actual</b>
2011	1403

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Tribal and non-Tribal members need to maintain agricultural records and determine costs of production to make better business decisions.

**What has been done**

A grant was obtained to develop a Livestock Records and Reference Manual for producers and a training was conducted on the use of the manual. Further, with the help of Wilson Gray, three Cow-Cost guides were published for three different types of cattle operations on the Reservation.

**Results**

Five producers reported they had used the records and reference manual. One commented the manual was a tremendous resource. Next year class participants will be asked if they have continued the use of the manual.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
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**

<b>Year</b>	<b>Actual</b>
2011	308

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Producers need to be able to manage their financial resource as well as they manage their land or livestock. Without sound financial training producers often make poor decisions when it comes to expenditures and way to produce income.

#### **What has been done**

A class was designed to help producers analyze the financial side of the their operations--which allows them to see financial trends and to observe the key financial ratios that will enable the producers to evaluate their financial health.

#### **Results**

85 percent of producers who took the class were able to show the key 16 financial ratios that indicate the financial health of their operations. Producers were able to complete two balance sheets from one end of the year to the other, and were able to also produce the necessary income statements for the year in question. They also completed an analysis of the year a projected cash flow for the upcoming year. These statements were able to satisfy the necessary documentation for the Farm Service Agency farm loan program.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
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 #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	Actual
2011	92

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Staying up-to-date and ahead of the curve is essential in today's agricultural industries in order to be successful.

**What has been done**

Financial management classes were held where participants compiled their financial statements. A workshop was conducted to have participants begin their business plan. A QuickBooks training was held to introduce the basics of the program for record keeping.

**Results**

In the financial management classes participants showed an increase of knowledge based on a pre- and post-test of 48%. In the QuickBooks training, participants ranked their knowledge of the program prior to the training and after and showed an increase in knowledge of about four points on a scale of one to ten (2.09 to 6). They also indicated they would increase their use of the program and implement various practices they learned at the training.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
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 #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**

<b>Year</b>	<b>Actual</b>
2011	123

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Growers need to understand the financial situation on their farms, need to use the best information and tools in making cost effective management decisions.

**What has been done**

Three workshops were held for growers attending the University of Idaho Potato Conference. One workshop covered analyzing the financial performance of your farm, one covered cost of production and the third discussed potato storage economics.

**Results**

Ten producers who attended the workshop on financial analysis indicated that they learned something that they would apply in managing their farming operation. Fourteen growers who attended the workshop on cost of production indicated that they learned something that they would apply in the management of their farming operation. Sixteen growers who attended the workshop on potato storage economics indicated that they learned something that they could use in managing their farms.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
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 #5**

**1. Outcome Measures**

An increase in the number of trained graduate students prepared to enter the workforce.

**2. Associated Institution Types**

- 1862 Research

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	3

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Number of M.S. and Ph.D. candidates relative to this topic team.

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
603	Market Economics
609	Economic Theory and Methods
610	Domestic Policy Analysis

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

- Economy

**Brief Explanation**



With the high prices of commodities and required input costs, producers stand to gain or lose considerable income in a year like this. Producers needed to be able to have close estimates of income and be able to plan for ways to use that income to be help the producer. Like income, inputs also had to be planned for and calculated to see if the cash was going to be able to flow throughout the year without additional funding.

#### **V(I). Planned Program (Evaluation Studies)**

##### **Evaluation Results**

In the financial management classes a pre- and post-test were conducted to show an increase in participant There was also an evaluation given and 100% of the participants who returned evaluations said the topics covered in the class were helpful in their business. In the QuickBooks training a post-evaluation was given and participants ranked their knowledge before and after the training. On a scale of 1 to 10, the rank for prior to the training was 2.09 and a 6 after. Participants also indicated they would increase their use of the program and would implement practices they learned in the training. The large acreage and numbers of livestock managed by producers taking the financial management class will be positively impacted by these educational efforts. When producers have been contacted some time after the program, many have indicated that they have taken their information to the bank where they were successful in obtaining their loan.

##### **Key Items of Evaluation**

**V(A). Planned Program (Summary)**

**Program # 8**

**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)	10%		10%	
311	Animal Diseases	1%		10%	
315	Animal Welfare/Well-Being and Protection	1%		10%	
501	New and Improved Food Processing Technologies	10%		10%	
503	Quality Maintenance in Storing and Marketing Food Products	10%		10%	
504	Home and Commercial Food Service	20%		10%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	36%		10%	
722	Zoonotic Diseases and Parasites Affecting Humans	1%		10%	
723	Hazards to Human Health and Safety	10%		10%	
	<b>Total</b>	<b>100%</b>		<b>100%</b>	

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	3.6	0.0	4.0	0.0
Actual Paid Professional	4.8	0.0	4.4	0.0
Actual Volunteer	0.0	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
131183	0	91939	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
131183	0	91939	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
102234	0	716969	0

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

Significant demands are placed on the Food Safety Team to respond to consumer needs for "just-in-time" information. Faculty, staff and volunteers answered thousands of telephone questions about food safety and home food preservation, addressed student questions through Skype interviews, and tested hundreds of pressure canner lids for accuracy in clinics and walk-in visits. Proactive education includes training for Master Food Preservers and Food Safety Advisors who logged more than 500 hours of volunteer service for community outreach education. Dozens of classes and workshops covered food preservation topics, hand hygiene, and the use of food thermometers. Many classes and workshops were conducted in partnership with local food businesses and food banks. Outreach for teenagers included delivery of the Ready' Set, Food Safe curriculum to school teachers and students in 113 Idaho classrooms, resulting in the issuance of 2493 food handlers certificates. Faculty wrote and published dozens of articles about food safety for newspapers and newsletters, and produced material about food preservation for new Extension publications. Collaborations with EFNEP and the Idaho SNAP-Ed program helped bring food safety awareness and training to low-income audiences. Research focused on the safe production of infused oils and raw milk.

### 2. Brief description of the target audience

#### Just in Time Food Safety Information

- Consumers who need specific information to keep food safe or to avoid risky foods (for example, consumers who call extension offices with questions about food preservation, food storage, etc).
- Specific groups of consumers who benefit from targeted food safety information (for example, seniors, parents of young children, volunteers who cook for groups who call extension offices with specific questions) .

#### Consumer Food Safety Programs

- Consumers who need general and specific information to keep food safe or to avoid risky foods (Programs can cover a variety of topics, requested, for example, using slow cooker safely, preserving foods safely, storing food safely, using labels to avoid allergic reaction, etc).
- Specific groups of consumers who benefit from a targeted food safety program: for example, senior centers, parents of young children, caregivers of children, volunteers who cook for groups.

#### Food Industry Assistance

- Idaho citizens interested in developing and marketing a food product.
- Food companies needing assistance with implementation of food safety systems, such as HACCP.

#### Food Safety Advisor / Master Food Preserver / Preserve-at-Home

- Consumers with particular interest in home food preparation and food safety topics (particularly food preservation and food storage) and in sharing the knowledge with others.

**Food Service Food Safety Training**

- High school students in foods classes
- Adult food service workers

**Hand Hygiene Education**

- Elementary age children and their teachers
- Families and children at County Fairs.
- Adults at health fair settings.

**ENP-EFNEP Food Safety**

- Limited income families receiving food stamps or eligible to receive food stamps (27 counties)
- Limited income families with children (4 counties)

**3. How was eXtension used?**

unknown

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	3738	221151	2083	6335

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

**Patent Applications Submitted**

Year: 2011  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
<b>Actual</b>	3	6	9

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of food safety calls answered.

<b>Year</b>	<b>Actual</b>
2011	4843

**Output #2**

**Output Measure**

- Consumer food safety classes taught.

<b>Year</b>	<b>Actual</b>
2011	85

**Output #3**

**Output Measure**

- Food industry consults.  
Not reporting on this Output for this Annual Report

**Output #4**

**Output Measure**

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

<b>Year</b>	<b>Actual</b>
2011	45

**Output #5**

**Output Measure**

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

<b>Year</b>	<b>Actual</b>
2011	61

**Output #6**

**Output Measure**

- Number of volunteer hours logged by FSA/MFPs.

<b>Year</b>	<b>Actual</b>
2011	2523

**Output #7**

**Output Measure**

- Students receiving a RSFS certificate.

<b>Year</b>	<b>Actual</b>
2011	2493

**Output #8**

**Output Measure**

- Participants in hand hygiene education programs.

<b>Year</b>	<b>Actual</b>
2011	4893

**Output #9**

**Output Measure**

- Number participants who completed ENP/EFNEP series of classes.  
Not reporting on this Output for this Annual Report

**Output #10**

**Output Measure**

- Number of participants in ENP/EFNEP one-time classes.  
Not reporting on this Output for this Annual Report

**Output #11**

**Output Measure**

- Number of Preserve@home students passint the final test.

<b>Year</b>	<b>Actual</b>
2011	33

**Output #12**

**Output Measure**

- Number of individuals receiving ServSafe certification.  
Not reporting on this Output for this Annual Report

**Output #13**

**Output Measure**

- Number of adults who completed EFNEP series of classes, including food safety lessons

<b>Year</b>	<b>Actual</b>
-------------	---------------

2011 364

**Output #14**

**Output Measure**

- Number of participants in ENP Keeping Food Safe classes

<b>Year</b>	<b>Actual</b>
2011	1776

**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**

<b>Year</b>	<b>Actual</b>
2011	1721

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Using safe food preservation guidelines is critical. It could be the difference between life and death in some cases. Proper canning practices protect the stakeholder and their families from possibly lethal food.

#### **What has been done**

Stakeholders sometimes need to be told that it is ok to throw away incorrectly processed food. Over the course of the 2011 canning season, several faculty collected surveys from prospective canners regarding their willingness to follow Extension's advice. Feedback was also solicited from many telephone and email inquiries.

#### **Results**

All of the stakeholders that completed surveys responded that they would follow safety guidelines. The sampling of callers (96%) agreed with the advice they received. Callers who questioned the advice given and were directed to consult the Ball Blue Book or USDA guidelines before making a final decision.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
501	New and Improved Food Processing Technologies
503	Quality Maintenance in Storing and Marketing Food Products
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.

Not Reporting on this Outcome Measure

## **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**

<b>Year</b>	<b>Actual</b>
2011	106

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

In 2011, interest in food preservation remained strong with the First year Food Safety Advisor class filling to capacity. The home food preservation movement fits with families wanting to know where their food is coming from, local seasonal foods, sustainable agriculture and knowing what is in their food.

#### **What has been done**

Food safety advisors share their expertise answering consumer food safety calls, the food safety information booth at WIF and teaching classes to community and church groups.

#### **Results**

45 first year and 61 advanced food safety advisors made more than 5000 consumer contacts and volunteered more than 2500 hours of service.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
----------------	-----------------------

503	Quality Maintenance in Storing and Marketing Food Products
504	Home and Commercial Food Service
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
723	Hazards to Human Health and Safety

**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	Actual
2011	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Many adolescents get their first job working in a food service establishment. In fact, teens make up a significant portion of the workforce in the food service industry. In addition, many high schools and teen organizations prepare food for fundraising. Unfortunately, adolescents may not have been previously taught correct ways to safely handle food or be required to receive such training if they are hired to work in a food service establishment.

**What has been done**

Extension faculty and Extension-trained school teachers taught Ready, Set, Food Safe in 113 classrooms across Idaho, to prepare students for what will likely be the first employment opportunities for many of them

**Results**

Out of more than 3350 students taking the course, 2493 (74%) passed the certification test with 80% or higher and received the Idaho Food Handler's Certificate.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
503	Quality Maintenance in Storing and Marketing Food Products
504	Home and Commercial Food Service

- 712 Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
- 723 Hazards to Human Health and Safety

**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	Actual
2011	1386

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

People do not wash as well or as often as they should to prevent illness Regular hand washing for children results in fewer sick days

**What has been done**

Germ City was taught to children in elementary schools, at county fairs and health fairs, and in other venues in counties across Idaho. A special emphasis was made to reach children in schools that qualify for the Extension Nutrition Program (SNAP-Ed).

**Results**

Where the learning that took place through Germ City was evaluated, all children were observed to be competent hand-washers. They were able to describe the best times to wash and expressed a desire to become better hand-washers.

**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
723	Hazards to Human Health and Safety

**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	Actual
2011	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
315	Animal Welfare/Well-Being and Protection
501	New and Improved Food Processing Technologies
503	Quality Maintenance in Storing and Marketing Food Products
504	Home and Commercial Food Service
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
722	Zoonotic Diseases and Parasites Affecting Humans

723 Hazards to Human Health and Safety

**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	Actual
2011	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	Actual
2011	2237

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

EFNEP families can't afford to be sick; when 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, they also lack the funds for medications. Keeping families healthy is a low-cost strategy tp help them not get further behind...at work or at school.

**What has been done**

EFNEP adult clients (364) graduated the course and learned a variety of methods to keep their food safe as well as their family healthy using low tech, low cost methods. Likewise, EFNEP youth (1847) enrolled in EFNEP 4-H learned the importance of hand washing.

**Results**

Among the 364 EFNEP graduates 68% (249) showed improvement in one or more of the food safety practices (i.e. thawing and storing foods properly). In Southwest Idaho, 100% of enrolled EFNEP youth (1847) in 8 groups improved their practices in food safety (hand washing).

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
503	Quality Maintenance in Storing and Marketing Food Products
504	Home and Commercial Food Service
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
723	Hazards to Human Health and Safety

## **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**

<b>Year</b>	<b>Actual</b>
2011	33

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Home food preservation is experiencing a resurgence due to a variety of reasons ranging from the economy to food-borne illness outbreaks and the desire to control what is in their preserved food.

#### **What has been done**

3 six-week sessions of P @ H was co-facilitated with Extension Educators from Idaho, Oregon and Colorado with a total of 45 students.

#### **Results**

33 students (6 academic) completed with a score of 70% or higher. A common theme among students is the desire to have and share accurate research based information with community food coops/food banks, church groups, neighbors, friends and family, health district clientele and community kitchen clients.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
501	New and Improved Food Processing Technologies
503	Quality Maintenance in Storing and Marketing Food Products
504	Home and Commercial Food Service
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
723	Hazards to Human Health and Safety



**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

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

**Brief Explanation**

The economy is a big factor in why people are preserving food more now than they were a few years ago. People are trying to make ends meet. Also, there is a growing concern for some to know exactly what is in their food. They are interested in the "healthy" aspect of preserving their own food.

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

With the growing need for reliable food preservation information FCS Extension Educators in the Eastern Region created a plan to offer classes throughout the region. Classes would be offered to all of the counties in the region but taught in Jefferson, Bannock and Franklin counties. We choose locations in three different areas of our district to provide easier access for our participants. A five week course was designed to cover the major food preservation topics. The topics for the five classes were: Canning Basics, Low-acid Foods, High-acid Foods, Freezing and Drying, Pickling and Preserves.

We divided the classes and topics up between seven Extension Educators. For convenience and travel reasons, one team would teach the same class at every location during the week. The next week another team would teach the class the new subject.

Between the three locations 38 people attended. The classes were designed to incorporate instruction at the beginning of class and then hands on experience to preserve food or practice methods discussed that day. A retrospective survey was given to the participants during the last session. Participants were asked about knowledge gained and behaviors they planned to change or have changed.

**Key Items of Evaluation**

<b>Intention to adopt practices Following Food Safety classes</b>	<b>Before Class ID Regularly</b>	<b>After Class WILL DO Regularly</b>
Processed all food including jam, high acid pickles, and relished in a boiling water canner according to research based recommendations.	76.9%	96.6%
Processed all low acid foods such as green beans, meats, fish and combination foods in a pressure canner.	77.3%	96.4%

When making home canned salsa, followed a tested research based recipe and processed according to recommendations.	57.9%	100%
When canning tomatoes and tomato products added acid according to recommendations.	81.0%	100%
Adjusted for altitude when pressure canning by increasing the pressure as recommended for your elevation.	78.3%	100%

**V(A). Planned Program (Summary)**

**Program # 9**

**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	75%		40%	
213	Weeds Affecting Plants	5%		20%	
215	Biological Control of Pests Affecting Plants	10%		20%	
216	Integrated Pest Management Systems	10%		20%	
	<b>Total</b>	100%		100%	

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	2.6	0.0	1.5	0.0
Actual Paid Professional	3.5	0.0	1.3	0.0
Actual Volunteer	0.0	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
116021	0	91910	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
116021	0	91910	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
40233	0	688742	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

The UI Extension Forestry Team conducted workshops, conferences, and short courses including Current Topics in Forest Health, Forestry Shortcourse, Family Foresters Workshop, and the Inland Empire Forest Engineering Conference. Series' of workshops were delivered as part of the Forest Stewardship program and LEAP (logger education to advance professionalism). Much of Extension's educational efforts are formatted as field days and tours, including Forest Insects and Disease Field Day, SAF Field Day, Forest Thinning and Pruning Field Day, Resource Policy Field Day, 6th grade forestry tour, and Using Your GPS field training. The Forest Management Team supported academic programs at the University of Idaho including the Department of Landscape Architecture and Department of Agricultural Economics and Rural Sociology. The Team supported Master Gardeners by delivering presentations and maintained a tree clinic that serves County Extension, professional foresters, the green industry, and landowners. Mass delivery of research-based information is transmitted through the trade publications and the eXtension Wildfire Information Network.

**2. Brief description of the target audience**

Target audiences for the Forest Management Team include family forest landowners, loggers, natural resource managers and professionals, youth and educators, residents of the wildland/urban interface, Extension Educators, Master Gardeners, and green industry professionals.

**3. How was eXtension used?**

Team members contributed articles to the eXtension wildfire information network.

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	5197	294539	1396	1100

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

**Patent Applications Submitted**

Year: 2011

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
<b>Actual</b>	4	12	16

**V(F). State Defined Outputs**

## **Output Target**

### **Output #1**

#### **Output Measure**

- Number of workshops, field days, etc.

<b>Year</b>	<b>Actual</b>
2011	39

### **Output #2**

#### **Output Measure**

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

<b>Year</b>	<b>Actual</b>
2011	1212

### **Output #3**

#### **Output Measure**

- Number of articles in popular and trade press.

<b>Year</b>	<b>Actual</b>
2011	9

### **Output #4**

#### **Output Measure**

- Number of web site "hits".

<b>Year</b>	<b>Actual</b>
2011	3600

### **Output #5**

#### **Output Measure**

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

<b>Year</b>	<b>Actual</b>
2011	3258

**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**

<b>Year</b>	<b>Actual</b>
2011	293

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Roughly 44% of the forests in the Idaho Panhandle (Boundary, Bonner, Kootenai and Benewah counties) are held and managed by 46,993 family forest owners (23,663 owning 5 acres or more). Family forests are critical to timber supply, water, wildlife, and many other shared values. For example, family forests tend to be more concentrated near key locations for ecosystem functions (e.g., along lakes, streams, and in increasingly rare low elevation wildlife habitats).

#### **What has been done**

As part of the Idaho Forest Stewardship program, a cooperative effort with the Idaho Dept. of Lands and many other partners, UI Extension provides an annual series of workshops, field days and other educational activities titled Strengthening Forest Stewardship Skills. In 2009 we started the Idaho Master Forest Stewards (IMFS) program to improve the growth and health of Idaho forests through forestry education by trained and certified volunteers.

#### **Results**

In FY 10-11, 679 owners of over 97,000 family forest acres attended UI Extension workshops in the Idaho panhandle. Among other impacts indicated by participants: 162 will monitor for insect, disease, or animal damage; 104 will favor tree species that resist insects & disease; 80 will complete a forest management plan or a family forest succession plan; 76 will apply pesticides more safely; 71 will thin forest trees; 54 will hold a family meeting about their forest; 35 will contact a forester for additional assistance; 30 will put together a team of professional advisors for forest ownership transition planning; 29 will explore integrating forest biomass energy into a business or public entity they are involved with; 29 will use a GPS receiver for forest management; 20 will prepare a family forest succession plan; As of September 2011, 24 certified Idaho Master Forest Stewards have provided over 1,000 hours of total volunteer service to over 1,100 forest owners and 2,400 youth

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
213	Weeds Affecting Plants
215	Biological Control of Pests Affecting Plants
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	Actual
2011	293

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

Roughly 44% of the forests in the Idaho Panhandle (Boundary, Bonner, Kootenai and Benewah counties) are held and managed by 46,993 family forest owners (23,663 owning 5 acres or more). Family forests are critical to timber supply, water, wildlife, and many other shared values. For example, family forests tend to be more concentrated near key locations for ecosystem functions (e.g., along lakes, streams, and in increasingly rare low elevation wildlife habitats).

###### **What has been done**

As part of the Idaho Forest Stewardship program, a cooperative effort with the Idaho Dept. of Lands and many other partners, UI Extension provides an annual series of workshops, field days and other educational activities titled Strengthening Forest Stewardship Skills. In 2009 we started the Idaho Master Forest Stewards (IMFS) program to improve the growth and health of Idaho forests through forestry education by trained and certified volunteers.

###### **Results**

The 293 Forest Stewardship program participants indicated knowledge increases ranging from



43% to 123%, with an un-weighted average of 74%. In a 145 item IMFS pre- and post- knowledge and experience assessment, the most recent cohort of trainees demonstrated a percentage knowledge increase of 27% over the course of the training.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
213	Weeds Affecting Plants
215	Biological Control of Pests Affecting Plants
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	Actual
2011	164

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

If communication between landowners, loggers, or foresters is inadequate, the resulting timber or biomass harvests may not meet expectations. To the extent forest certification programs require trained loggers, UI Extension logger training efforts are vital to helping Idaho forest product companies maintain or increase Idaho's share of global markets for certified wood products.

###### **What has been done**

Based on logger recommendations, we developed LEAP Update, an annual 2-day program where loggers are updated on current forestry issues.

###### **Results**

As a result of 180 loggers participation in the three LEAP Update sessions held in the Idaho Panhandle in 2010: 164 loggers will better assess potential damage from defoliating insects or in winter damaged trees; 153 will assess stream crossings and road drainage; 143 will apply

silviculture to western red cedar; and 142 will help prevent the spread of invasive non-native weeds.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
213	Weeds Affecting Plants
215	Biological Control of Pests Affecting Plants
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	Actual
2011	210

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

If communication between landowners, loggers, or foresters is inadequate, the resulting timber or biomass harvests may not meet expectations. To the extent forest certification programs require trained loggers, UI Extension logger training efforts are vital to helping Idaho forest product companies maintain or increase Idaho's share of global markets for certified wood products

###### **What has been done**

Logger Education to Advance Professionalism ('LEAP') features over 20 hours of training designed to increase loggers' understanding and skills related to forest ecology, silviculture, and water quality. UI Extension has integrated logger education needs into other education programs as well.

###### **Results**

In total, UI Extension provided 1,931 contact hours of continuing education for Panhandle loggers in 2010-2011. 921 loggers have attended the 40 LEAP sessions offered annually in the Idaho Panhandle since 1994. As of 2011, 628 loggers were enrolled in the Idaho Pro-Logger program.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
213	Weeds Affecting Plants
215	Biological Control of Pests Affecting Plants
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	Actual
2011	250

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

Foresters and other natural resource professionals must continually sharpen their skills and stay current with emerging scientific and technological developments to sustainably produce more wood and forest biomass and simultaneously improve forest biodiversity and health. To that end, the forestry community has established credentials to document foresters' continuing education efforts. UI Extension is uniquely situated to provide local continuing education opportunities for field foresters.

###### **What has been done**

UI and WSU Extension hold an annual forum for consulting foresters and other natural resource professionals titled The Family Foresters Workshop, which updates participants on emerging technology and knowledge applicable to family-owned forests. We also offer Society of American Foresters' "Continuing Forestry Education" credit was provided for selected UI Extension programs.

###### **Results**

Two-hundred eighty-four foresters and other natural resource professionals attended UI

Extension forestry programs in the Idaho Panhandle in 2010-2011, for 1,327 contact hours. Participants in the 2011 Family Forester's Workshop, indicated percentage knowledge increases ranging from 15-86% on: silviculture to produce biomass, managing early successional stands, silviculture of biologically diverse stands, handheld GIS for forestry applications, CSP and EQIP programs, managing moose habitats, and family forest economics/policy. Four panhandle teachers took the Forestry Shortcourse for credit in 2010-2011. Some teachers have used the shortcourse to develop innovative high school forestry classes.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
213	Weeds Affecting Plants
215	Biological Control of Pests Affecting Plants
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	Actual
2011	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.

##### 2. Associated Institution Types

- 1862 Research

##### 3a. Outcome Type:

Change in Action Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2011	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
213	Weeds Affecting Plants
216	Integrated Pest Management Systems

## **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)**

### **Evaluation Results**

Twenty-four people have certified in the IMFS program thus far. In a 145 item IMFS pre- and post- knowledge and experience assessment, the most recent cohort of trainees demonstrated a percentage knowledge increase of 27% over the Based on a June 2011 mail survey of certified IMFS volunteers, they have provided over 1,000 hours of total volunteer service to over 1,100 forest owners and 2,400 youth.

In addition to interacting with individual peer forest owners, Idaho Master Forest Stewards have volunteered in a wide range of activities, including: hosting and teaching at forest owner field educational programs; writing articles for newspapers and magazines; teaching youth about forests and forestry; and serving in leadership positions in the Idaho Forest Owner Association, Idaho Tree Farm Program, and Conservation Districts. Fifty to eighty-nine percent of survey respondents indicated they had implemented a variety of forest management practices on their property since completing the Idaho Master Forest Stewards Program:course of the training.

- 50% Developed or revised a written management plan for their forest
- 89% Monitored for forest insect, disease, or animal damage
- 83% Thinned forest trees
- 78% Pruned forest trees
- 72% Planted forest tree seedlings
- 83% Favored tree species more resistant to insects or disease
- 61% Protected or enhanced wildlife habitat
- 78% Participated in additional forestry education programs
- 39% Improved forest road drainage (e.g., replaced or cleaned culverts, etc.)
- 33% Interacted with a private consulting forester regarding your forest
- 39% Interacted with a state service forester (e.g., IDL) regarding your forest
- 44% Joined the Idaho Forest Owners Association or the Idaho Tree Farm program.

### **Key Items of Evaluation**

Thirty-seven years ago began the journey of sustainable forest management for Joseph "Steve" and Janet Funk of Coeur d'Alene, Idaho. Today, the Funks were named the 2011 National Outstanding Tree Farmers of the Year by the American Tree Farm System (ATFS) at their National Tree Farmer Convention in Albuquerque, New Mexico. The award, annually recognizes outstanding sustainable forest management on privately owned woodlands.

The Funks' Edgecreek Tree Farm is a 369-acre woodland that has become a valuable tool in demonstrating sustainable management of degraded forests and the pathway to a healthy and thriving forest. Steve and Janet Funk began with a dream to live near the woods and streams of the West, where they might find opportunity to camp occasionally. Opportunities for jobs near Coeur d'Alene, Idaho, and to purchase of a derelict farm in a small mountain valley with a stream running through the property put the dream into their laps - and into reality. "We believe that sustainably managing a healthy forest can only enhance its natural beauty and function. Enjoying the magnificence of the scenery is not only pleasurable to the eye, but also refreshes one's soul," declared Steve.

When the Funks were announced as the national winners Aug. 11 in Albuquerque, N.M., they became Idaho's first tree farmers to win the award in the tree farm system's 70-year history. They credit University of Idaho Extension foresters and programs for helping them to develop their expertise as family foresters. "I don't know that there's another source that can address what's going on in this area," she said. "The interconnectedness of Extension with other agencies has just been invaluable to those of us who have forest land. We have learned how to manage our land from a variety of sources but really the one that has been the touchstone of where to get information has been Extension forestry."

"All of the information I learned, I try to pass on," said Steve Funk of his role as a University of Idaho Extension Master Forest Steward and his volunteer role helping other forest owners. "The information you do pass on has to be trustworthy information, and that's where I think Extension and people like Chris Schnepf are giving that trustworthy information." Their management plans targeted planting more than 12,000 ponderosa pine seedlings, thinning an overstocked area, pruning of white pine, ponderosa pine, Douglas fir and larch, guard rail construction, and wildlife pond enlargement.

The years of family efforts by Steve, Janet, and their four children, Janelle, Steve, Tina, and David, have resulted in a healthier stand of trees that provides growth potential, a stable water absorption mechanism, habitat for a diverse wildlife population, and a place to share with hikers, hunters, and other wanting to commune with nature. "Every year, the American Tree Farm System recognizes family forest owners like the Funks - examples by which ATFS grows stewardship from the roots. Families like the Funks are essential caregivers of our nation's private woodlands that provide the benefits we all receive from forests, including clean water, air, wildlife habitat, recreation, green jobs, and wood and paper products," said Liz Sandler, director of ATFS.

Thanks to their stewardship, private forest owners provide multiple benefits to all Americans. More than 25 percent of the nation's fresh water flows from private forests and 60 percent of at-risk wildlife depend on private forests for habitat. Good paying jobs in rural communities are supported, and all of us enjoy the wood products generated by private forests, each and every day.

**V(A). Planned Program (Summary)**

**Program # 10**

**1. Name of the Planned Program**

Health and Human Nutrition and Food Security

**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	1%		5%	
301	Reproductive Performance of Animals	1%		5%	
311	Animal Diseases	1%		15%	
313	Internal Parasites in Animals	1%		5%	
701	Nutrient Composition of Food	15%		5%	
703	Nutrition Education and Behavior	40%		15%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	1%		10%	
722	Zoonotic Diseases and Parasites Affecting Humans	1%		10%	
723	Hazards to Human Health and Safety	1%		15%	
724	Healthy Lifestyle	37%		10%	
903	Communication, Education, and Information Delivery	1%		5%	
	<b>Total</b>	100%		100%	

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	7.0	0.0	13.0	0.0
Actual Paid Professional	8.0	0.0	8.2	0.0
Actual Volunteer	0.0	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
182514	0	149264	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
182514	0	149264	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
201383	0	4636438	0

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

The Low-Income and Underserved Audience project (EFNEP, SNAP-Ed, and SENP) included approximately 950 educational events (classes and one-on-one teaching) reaching more than 52,000 contacts in 35 counties. Approximately 4,400 of these were youth contacts made through partnerships with local parks and recreation programs and with schools through summer and afterschool programs.

The Nutrition and Chronic Disease project logged 40 educational events in 2011 reaching 609 contacts with an interest in diabetes and diabetes prevention.

In the Healthy Lifestyles/physical activity project, more that 360 classes were delivered, the majority targeting seniors with education about strength or balance training, or general activity and fitness training related to weight management and overall health. This project logged 4,285 learner contacts.

Health & Nutrition faculty participated in more than 300 sessions where on-line learners accessed nutrition education programs through Extension (2,200 contacts); and faculty reported 240 individual consultations with learners about nutrition topics.

In total, the Health & Nutrition Team reached Idahoans through more than 70,000 individual contacts during more than 2,000 teaching/learning events. (NOTE that the number of contacts does overestimate the number of unique learners, as many learners attend two or more educational events.)

### 2. Brief description of the target audience

The target audience varies by program. For the program targeting low-income and underserved audience, UI Extension reaches these individuals in 35 counties through three programs - the Expanded Food and Nutrition Education Program (EFNEP), the Supplemental Nutrition Assistance-education Program (SNAP-Ed), and the Senior Extension Nutrition Program (SENP). EFNEP and SNAP-Ed target mainly adults and youth through collaborations with State Health & Welfare (to access WIC and SNAP participants), local food banks, and through schools where more than 50% of the children are eligible for free or reduced-cost lunches. The SENP, funded through the Area Agency on Aging (AAA), targets seniors at high-nutritional risk and most of them are low-income or vulnerable.

The target audience for the Nutrition and Chronic Disease program includes those interested in learning how to manage or prevent type 2 diabetes and osteoporosis, including adults with type 2 diabetes, pre-diabetes, or caregivers. The target audience for the osteoporosis classes includes adults with osteoporosis, osteopenia, or those who have a history of these diseases in their family and youth whose bones are still growing and developing.

The target audience for the Healthy Lifestyles/physical activity programs include senior adults wishing to maintain strength, agility, and balance and also adults and youth who have poor nutritional habits, are inactive, are overweight or obese and have difficulty managing stress.

The target audience for on-line learning includes those interested publics who are unable or unwilling to participate in more conventional delivery venues.

**3. How was eXtension used?**

unknown

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	44356	158262	30497	7007

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

**Patent Applications Submitted**

Year: 2011

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
<b>Actual</b>	3	21	24

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Teach adults and youth about nutrition and health and physical activity.

Year	Actual
2011	68216

**Output #2**

**Output Measure**

- Develop Extension publications that can be used in either the low-income underseved population project, the nutrition anc chronic disease project, or the healthy lifestyles project

<b>Year</b>	<b>Actual</b>
2011	2

**Output #3**

**Output Measure**

- Submit a journal article based on research conducted for the low-income, nutrition and chronic diseases, or healthy lifestyles project

<b>Year</b>	<b>Actual</b>
2011	3

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	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, Fit and Fall Proof classes, Strength & Balance and Kick Your Boot Camp classes.
2	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.
3	O: 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).
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: Improved physical condition of individuals enrolled in a physical activity program. I: Number of individuals who felt physically stronger from the Strong Women classes, Fit and Fall Proof classes, Strength & Balance and Kick Your Boot Camp classes.

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Condition Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	2279

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

As people age, they lose approximately one-third to one half of a pound of muscle every year, especially after age 40. This translates into one to two percent of strength a year. Another reason is that people become less active as they age. Loss of muscle also contributes to this. As people lose muscle, they automatically tend to become less active. Daily activities become harder to perform and they tire out more easily.

#### **What has been done**

Approximately 450 Idaho women completed the 12-week Fit and Fall Proof program, one of the 6-week Strong Women Stay program, or the Kick Your Bootcamp programs. These educational sessions teach about healthful nutrition behaviors and provide balance and strength training and focus on changing lifestyles to incorporate more physical activity.

#### **Results**

Most Fit and Fall Proof participants showed improvements in their 8-Foot Up and Go Tests. Most Strong Women participants lifted more weight and demonstrated greater arm and leg strength after the program. Kick Your Bootcamp participants demonstrated improved physical condition (strength, balance, coordination, agility) and increased weight loss.

### **4. Associated Knowledge Areas**

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

**Outcome #2**

**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**

<b>Year</b>	<b>Actual</b>
2011	9183

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Nutrition Education is critical for limited income individuals that have a poor dietary intake. Poor diet and physical inactivity are associated with an increased risk of a number of chronic health conditions including cardiovascular disease, diabetes, some cancers, high blood pressure as well as overweight and obesity.

**What has been done**

The SNAP-Ed program targets limited resource adults. The SNAP-Ed program Nutrition Advisors taught about 2700 dietary quality classes.

**Results**

Based on a follow-up survey, participants increased their fruits and vegetables consumption by 47%, they increase their whole grain consumption by 43% and their low-fat dairy consumption by 32%.

**4. Associated Knowledge Areas**

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

### **Outcome #3**

#### **1. Outcome Measures**

O: 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**

<b>Year</b>	<b>Actual</b>
2011	357

#### **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 showed that the EFNEP improved the health and well-being of its limited resource families. Research showed that better health was associated with reduced health care costs, less absenteeism from work, less dependence on emergency food assistance, thus leading to public savings.

##### **What has been done**

In FY2011 592 low-income adults enrolled in the UI Extension EFNEP; 357 graduated. The graduates learned how to: improve their diets, improve their nutrition practices, stretch their food dollars further, and increase their physical activity rates.

##### **Results**

From the EFNEP Reporting System, 95.8% (342 of 357) of the participants showed improvement in one or more of the nutrition practices (i.e. plans meals, makes healthy food choices, prepares food without adding salt, reads nutrition labels, or has children eat breakfast). Also, at exit 53.5% had a positive change in physical activity. At exit 64% reported exercising 30 to 60 minutes per day, whereas only 31% did so at entry.

#### **4. Associated Knowledge Areas**

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

**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.

**2. Associated Institution Types**

- 1862 Research

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	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**

<b>KA Code</b>	<b>Knowledge Area</b>
206	Basic Plant Biology
301	Reproductive Performance of Animals
311	Animal Diseases
313	Internal Parasites in Animals
701	Nutrient Composition of Food
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
722	Zoonotic Diseases and Parasites Affecting Humans
723	Hazards to Human Health and Safety



## **V(H). Planned Program (External Factors)**

### **External factors which affected outcomes**

- Economy
- Public Policy changes
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

### **Brief Explanation**

The economy was a major factor. Agency partners lost funding and changed their focus, had reduced funding so had fewer days open or reduced hours and fewer staff. Also, several communities lost population and major employers. Limited resource clients indicated that they or family members were moving out of the area: to find jobs, cheaper housing, to share housing with relatives elsewhere, or to other states where there were extended TANF benefits.

## **V(I). Planned Program (Evaluation Studies)**

### **Evaluation Results**

National statistics indicate four out of five seniors have chronic diseases affecting their diets, one in five skip meals daily, 87% do not eat necessary fruits, vegetables and dairy products on a daily basis, 40% of have annual incomes less than \$6,000, 33% live alone and 20% have trouble accessing necessary goods and services. Since 2002, the Senior Extension Nutrition Program (SENP) has worked with over 320 high nutritional risk seniors and provided over 2,500 educational home visits.

Evaluation data collected from participants of SENP demonstrate the programs' impact.

- Percent of participants eating 2 ½ or more servings of vegetables per day: Pre: 28%, Post: 55%
- Percent of participants eating 2 or more cups of fruit per day: Pre: 35%, Post: 83%
- Percent of participants eating 3 or more cups of milk, yogurt, cheese or other calcium rich food per day: Pre: 38%, Post: 71%

### **Key Items of Evaluation**

**V(A). Planned Program (Summary)**

**Program # 11**

**1. Name of the Planned Program**

Integrated 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
101	Appraisal of Soil Resources	10%		15%	
102	Soil, Plant, Water, Nutrient Relationships	20%		15%	
104	Protect Soil from Harmful Effects of Natural Elements	0%		5%	
111	Conservation and Efficient Use of Water	10%		15%	
112	Watershed Protection and Management	0%		5%	
121	Management of Range Resources	0%		5%	
132	Weather and Climate	0%		5%	
133	Pollution Prevention and Mitigation	10%		5%	
135	Aquatic and Terrestrial Wildlife	0%		3%	
205	Plant Management Systems	15%		5%	
307	Animal Management Systems	5%		5%	
312	External Parasites and Pests of Animals	1%		5%	
403	Waste Disposal, Recycling, and Reuse	18%		5%	
404	Instrumentation and Control Systems	0%		1%	
405	Drainage and Irrigation Systems and Facilities	10%		5%	
601	Economics of Agricultural Production and Farm Management	1%		0%	
901	Program and Project Design, and Statistics	0%		1%	
	<b>Total</b>	100%		100%	

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	4.8	0.0	7.0	0.0

Actual Paid Professional	4.4	0.0	6.8	0.0
Actual Volunteer	0.0	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
136514	0	520333	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
136514	0	520333	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
89052	0	2631338	0

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

This Topic Team, renamed Soil, Water, Waste and Air Management, is highly integrated, participating in active projects to discover new knowledge, demonstrate and transfer new technologies, and work to understand local variants that impact resource-based enterprises and the environment. Research activities include comprehensive groundwater studies, field and greenhouse experiments to understand the effects of various compounds in dairy waste water on soils and crops, plant responses to organic nutrients, and composting of farm waste. This work has resulted in a variety of scientific journal publications and a book chapter, professional presentations and reports. Field demonstrations help growers and other stakeholders understand local conditions related to nitrogen uptake and fertilizer efficiency of traditional and cover crops, water quality monitoring, home and farm composting, and recycling. These applied activities have been shared through a host of workshops and classes and numerous field days and tours. Faculty have produced an array of refereed and Extension publications, web-based fertilizer guides and nutrient management resources. Much of the Extension faculty's work is made possible through collaborations and participation on various citizen and professional alliances concerned with environmental quality and agricultural sustainability.

### 2. Brief description of the target audience

The target audiences include agricultural producers (crops, meat and dairy producers), food processors, professional consultants, publics interested in water quality and waste management issues, local producer and community organizations, para-agencies such as irrigation districts, and state and Federal agency staff who develop and implement rules, regulations, programs, and guidelines related to environmental quality.

### 3. How was eXtension used?

unknown

## V(E). Planned Program (Outputs)

### 1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	7651	8366	1218	355

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

Year: 2011  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
Actual	16	70	86

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Educational workshops, Field Days and Tours; number of events.  
 Not reporting on this Output for this Annual Report

**Output #2**

**Output Measure**

- Number of presentations for producers, crop advisors, and clientele at other meetings.  
 Not reporting on this Output for this Annual Report

**Output #3**

**Output Measure**

- Applied and basic laboratory and field research experiments, number of projects

<b>Year</b>	<b>Actual</b>
2011	20

**Output #4**

**Output Measure**

- Newsletters published.  
Not reporting on this Output for this Annual Report

**Output #5**

**Output Measure**

- Articles submitted for other (non-University) newsletters and trade publications.  
Not reporting on this Output for this Annual Report

**Output #6**

**Output Measure**

- Educational workshops, seminars, and presentations to producer groups; number of events

<b>Year</b>	<b>Actual</b>
2011	55

**Output #7**

**Output Measure**

- Tours and field days; number of events

<b>Year</b>	<b>Actual</b>
2011	7

**Output #8**

**Output Measure**

- Newsletters distributed (number of issues) and number of articles written for trade or other newsletters

<b>Year</b>	<b>Actual</b>
2011	22

**Output #9**

**Output Measure**

- Professional credits available to learners participating in educational programs

<b>Year</b>	<b>Actual</b>
2011	7

**Output #10**

**Output Measure**

- Number of presentations at professional meetings and conferences; invited and volunteer

<b>Year</b>	<b>Actual</b>
2011	24

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Growers use best practices for water, pesticide, nutrient, or waste management. I: Number of program participants indicating adoption of recommended practices (follow-up survey data) or indicating intention to adopt recommended practices (post-program questionnaire)
2	Producers are aware of issues and knowledgeable of practices that affect the environmental and economic sustainability of minor crop production. I: Percent of participants reporting that their knowledge had been increased because of their participation in program.
3	Producers are better able to manage pests, nutrients, waste, irrigation systems while protecting water, air, and-or soil resources. I: Number of pest management, nutrient management, waste management, irrigation management plans written with producers.

## **Outcome #1**

### **1. Outcome Measures**

Growers use best practices for water, pesticide, nutrient, or waste management. I: Number of program participants indicating adoption of recommended practices (follow-up survey data) or indicating intention to adopt recommended practices (post-program questionnaire)

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Action Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	34

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Irrigation and fertilizer are among those variable costs that growers have significant control. Technological advances in irrigation scheduling and timing have the potential to reduce the costs of both of these inputs, thereby protecting soil and water resources without sacrificing production.

#### **What has been done**

Irrigation Management using Hansen's Meters (data analyses) is being initiated with cooperating farmers across the state. Participating farmers used the watermark sensors in order to collect data for water usage. Extension faculty also work with city parks and other agency groundskeepers in order to evaluate soil moisture depth and irrigation system efficiency.

#### **Results**

Watermark sensors gave growers accrued water data for irrigation management. Alternative methods of fertilizer use saved on input costs and yield differentials. Information derived from publications has improved best management practices. 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, pesticides and water.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
133	Pollution Prevention and Mitigation



205	Plant Management Systems
307	Animal Management Systems
403	Waste Disposal, Recycling, and Reuse
405	Drainage and Irrigation Systems and Facilities
601	Economics of Agricultural Production and Farm Management

**Outcome #2**

**1. Outcome Measures**

Producers are aware of issues and knowledgeable of practices that affect the environmental and economic sustainability of minor crop production. I: Percent of participants reporting that their knowledge had been increased because of their participation in program.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2011	86

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

1) Salt accumulations from dairy manure applications may be affecting potato production; 2) Lack of understanding among sugar beet growers on how to interpret soil tests 3) Difficult to manage nitrogen fertilization and chaffe trails for strip-tillage of sugar beets.

**What has been done**

Research studies were created to address issues #1 and #3, and presentations were given at Idaho commodity conferences on all of the above issues to educate growers on how to address these issues.

**Results**

Potato and sugar beet growers reported an increase in knowledge about these topics after they were presented.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships

111	Conservation and Efficient Use of Water
133	Pollution Prevention and Mitigation
205	Plant Management Systems
307	Animal Management Systems
403	Waste Disposal, Recycling, and Reuse
405	Drainage and Irrigation Systems and Facilities
601	Economics of Agricultural Production and Farm Management

### **Outcome #3**

#### **1. Outcome Measures**

Producers are better able to manage pests, nutrients, waste, irrigation systems while protecting water, air, and-or soil resources. I: Number of pest management, nutrient management, waste management, irrigation management plans written with producers.

Not Reporting on this Outcome Measure

#### **V(H). Planned Program (External Factors)**

##### **External factors which affected outcomes**

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

##### **Brief Explanation**

Increased fertilizer costs and fuel costs for transporting compost to the fields make it sustainability a key component of farm planning. As a result of environmental policies, there has been an increase in demand for dairy and feedlot-based waste management and bio-gas production information. The cool wet spring created a major need for irrigation adjustments, which may impact soil and water quality. The increase in urban population has increased requests from clientele for programs addressing urban and sub-urban environmental issues.

#### **V(I). Planned Program (Evaluation Studies)**

##### **Evaluation Results**

Chronic water shortage and poor water management in the Big Lost River area has resulted in low income for most water users. This limits funds to maintain and repair water conveyance and measurement structures. Significant water is lost through leaks and incorrect water measurement so even the limited water available is poorly managed. A multi-agency approach over the last two years has demonstrated the need for improved water measurement and improved canal maintenance. The result has been a reduction in water delivery losses and an increase in water available for on-farm crop production. Extension worked with the Big Lost River Water District and the Big Lost River Canal Company, to develop The Lost River Water Conveyance and Measurement Symposium. Because of this and other efforts, funding for irrigation water conveyance and

measurement repair and maintenance was increased and support for improved water measurement increased. These efforts continued in 2011, where another tour verified that almost all the inadequate measurement structures had been corrected. The effect has been to increase water user confidence in the correct distribution of water and to continue to improve system maintenance to reduce canal seepage.

**Key Items of Evaluation**

**V(A). Planned Program (Summary)**

**Program # 12**

**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	15%		10%	
201	Plant Genome, Genetics, and Genetic Mechanisms	5%		10%	
202	Plant Genetic Resources	5%		10%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	5%		10%	
204	Plant Product Quality and Utility (Preharvest)	5%		10%	
205	Plant Management Systems	15%		10%	
212	Pathogens and Nematodes Affecting Plants	15%		10%	
216	Integrated Pest Management Systems	15%		10%	
503	Quality Maintenance in Storing and Marketing Food Products	15%		10%	
603	Market Economics	5%		10%	
	<b>Total</b>	100%		100%	

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	2.5	0.0	9.0	0.0
Actual Paid Professional	3.7	0.0	10.0	0.0
Actual Volunteer	0.0	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
189271	0	264763	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
189271	0	264763	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
11007	0	5358914	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

The Potato Team is highly integrated, participating in active projects to discover new knowledge, demonstrate and transfer new technologies, and work to understand local variants that impact potato production and storage. Members of the Team meet regularly and otherwise collaborate with industry associations and the Idaho Potato Commission to understand needs of stakeholders. Research and Extension activities include pest management studies and information dissemination (Potato Viruses X and Y, wireworm, Late Blight, and Early Blight), field and greenhouse experiments to understand the ecology and treatment options for serious potato pests in the field and in storage, nutrient management questions, and the value of various soil amendments. Field demonstrations help growers and other stakeholders understand the impact of various planting and pest management practices and irrigation needs and strategies. These applied activities have been shared through the Idaho Potato Conference as well as a host of workshops and classes and numerous field days and tours. Faculty produced an array of refereed and Extension publications and publications in various trade journals and targeted media. Much of the Extension faculty's work is made possible through collaborations and participation on various citizen and professional alliances concerned with environmental quality and agricultural sustainability.

**2. Brief description of the target audience**

Target audiences included were potato growers, field agronomists, consultants, industry representatives from the seed, processing and fresh market sectors, and chemical company representatives.

**3. How was eXtension used?**

unknown

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	7777	106985	156	177

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

**Patent Applications Submitted**

Year: 2011  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
Actual	13	50	63

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Workshops and Seminars.

Year	Actual
2011	0

**Output #2**

**Output Measure**

- Popular Press Articles.  
 Not reporting on this Output for this Annual Report

**Output #3**

**Output Measure**

- Field Days.

Year	Actual
2011	8

**Output #4**

**Output Measure**

- Individual Consultations.

Year	Actual
2011	303

**Output #5**

**Output Measure**

- Graduate Students.

<b>Year</b>	<b>Actual</b>
2011	7

**Output #6**

**Output Measure**

- Professional Meetings.  
Not reporting on this Output for this Annual Report

**Output #7**

**Output Measure**

- Email Information Dissemination.

<b>Year</b>	<b>Actual</b>
2011	426

**Output #8**

**Output Measure**

- Number of seminars, workshops, and field day presentations

<b>Year</b>	<b>Actual</b>
2011	72

**Output #9**

**Output Measure**

- Articles in Trade Journals

<b>Year</b>	<b>Actual</b>
2011	47

**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	Actual
2011	400

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Potato virus Y in seed potatoes. Potato virus Y can lead to yield and quality reductions in commercial potatoes. Seed and commercial growers as well as process and fresh potato buyers are very concerned about internal tuber defects caused by the new tuber necrotic strains of this virus.

**What has been done**

Extension presentations and magazine articles were delivered stressing the importance of very low levels of potato virus Y in the seed potatoes used for both seed and commercial production.

**Results**

The amount of PVY in Idaho seed potatoes has gone down by more than 20% over the last 4 years.

**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 #2**

### **1. Outcome Measures**

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

Not Reporting on this Outcome Measure

## **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**

<b>Year</b>	<b>Actual</b>
2011	406

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

A study was initiated to evaluate the usefulness of serological disease detection test kits to rapidly and accurately diagnose diseases in the field and storage. Information from this study will enable growers and fieldmen to efficiently diagnose certain potato diseases using visual symptoms and disease detection kits and allow for quick decision making regarding proper identification and control.

#### **What has been done**

Information was presented at numerous workshops, presentations, and disseminated in proceeding and trade journal articles. A presentation was made at the 2011 Potato Association of America meeting on "Utilizing Pathogen Detection Test Kits for Rapid In-field Potato virus Y Diagnosis". An Annual Extension Conference presentation was made and test kits and explanation of use was disseminated to Idaho county extension educators for grower submitted sample identification in their counties.

#### **Results**

Survey and verbal comments from fieldmen have indicated the successful use of these test kits in the field and storage. Results from the 2011 University of Idaho Potato Conference survey indicated of the 4 respondents, 4 out of 4 learned something at the workshop. Approximately 100 people attended the workshop.

#### 4. Associated Knowledge Areas

<b>KA Code</b>	<b>Knowledge Area</b>
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.

##### 2. Associated Institution Types

- 1862 Research

##### 3a. Outcome Type:

Change in Action Outcome Measure

##### 3b. Quantitative Outcome

<b>Year</b>	<b>Actual</b>
2011	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
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

### V(H). Planned Program (External Factors)

#### External factors which affected outcomes

- Economy
- Other (unusual weather)

#### Brief Explanation

Due to a wet and cool spring, growers have had to spend capital on fungicide. The lack of ample heat units and sudden temperature increase created a major physiological potato disorder, resulting in a high demand for on-farm calls and consultations with growers to overcome the problems. Harvesting problems were created by a higher than average rainfall. The growers are unable to operate their machinery therefore causing an increase in the cost of labor and overall harvest costs. Educator and growers are discussing alternative harvest methods.

### V(I). Planned Program (Evaluation Studies)

#### Evaluation Results

An important outcome is the continuing decrease in potato virus Y (PVY) in the Idaho seed potato system. In 2007, 60% of the seed lots in the Idaho Seed Potato system contained some level of PVY and 27% of the lots contained more than 2% PVY and could not be increased for any additional years (the industry term for this is "ineligible for recertification"). For the 2010 season, the percentage of seed lots with some PVY is down to 40% and the percentage of lots ineligible for recertification is down to only 8%. Because of our extension and research activities targeting the reduction of PVY, Idaho seed potatoes are now some of the highest quality seed available in North America.

#### Key Items of Evaluation



**V(A). Planned Program (Summary)**

**Program # 13**

**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
101	Appraisal of Soil Resources	5%		0%	
102	Soil, Plant, Water, Nutrient Relationships	15%		20%	
111	Conservation and Efficient Use of Water	5%		0%	
202	Plant Genetic Resources	5%		20%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	0%		20%	
205	Plant Management Systems	15%		20%	
212	Pathogens and Nematodes Affecting Plants	5%		20%	
213	Weeds Affecting Plants	5%		0%	
216	Integrated Pest Management Systems	15%		0%	
601	Economics of Agricultural Production and Farm Management	5%		0%	
602	Business Management, Finance, and Taxation	5%		0%	
604	Marketing and Distribution Practices	15%		0%	
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	5%		0%	
	<b>Total</b>	100%		100%	

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	2.7	0.0	1.5	0.0
Actual Paid Professional	3.6	0.0	0.9	0.0
Actual Volunteer	0.0	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
68797	0	46400	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
68797	0	46400	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
74594	0	552160	0

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

The Small Acreages and Emerging Specialty Crops team continued to deliver intensive educational programs that focus on sustainable use of lands and natural resources, including the 15-week Living on the Land and Cultivating Success courses delivered in multiple locations across the State. Other conferences and workshops for small acreage farmers and ranchers were delivered through several conferences and as individual workshops covering topics from weed identification and pesticide certification training to food safety and marketing of local fruits and vegetables. Efforts to deliver education about farm business planning were increased in 2011, and soil and resource sustainability education continued to draw clientele. Faculty organized a number of tours and field days, several of which focused on Farmers Markets and opportunities for enterprise development; and delivered educational messages through numerous media including websites (and an on-line course offering), Extension publications and a small farms newsletter.

### 2. Brief description of the target audience

Target audiences include established and prospective small acreage, specialty or organic crop producers, processors and marketers. Prospective producers are primarily interested in growing for direct markets. Established producers are looking to become more economically or environmentally sustainable, or diversify their existing enterprises and marketing. Among the specialty crop producers are owners of vineyards, orchards, small acreage poultry and livestock, and organic farmers. Participants and managers of Farmers Markets present a specific audience for some of our programming.

### 3. How was eXtension used?

unknown

## V(E). Planned Program (Outputs)

### 1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	6305	132502	607	147

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

**Patent Applications Submitted**

Year: 2011

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
Actual	0	12	12

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Small Farms Conference in southern Idaho.

Year	Actual
2011	1

**Output #2**

**Output Measure**

- Small Farms Conference in northern Idaho.  
Not reporting on this Output for this Annual Report

**Output #3**

**Output Measure**

- Small Acreage Farming Course.

Year	Actual
2011	6



**Output #4**

**Output Measure**

- Ag Entrepreneurship Course.

<b>Year</b>	<b>Actual</b>
2011	2

**Output #5**

**Output Measure**

- Living on the Land course.

<b>Year</b>	<b>Actual</b>
2011	2

**Output #6**

**Output Measure**

- Living on the Land Tour.

<b>Year</b>	<b>Actual</b>
2011	2

**Output #7**

**Output Measure**

- Vegetable variety trials.  
Not reporting on this Output for this Annual Report

**Output #8**

**Output Measure**

- Specialty fruit crop trials.  
Not reporting on this Output for this Annual Report

**Output #9**

**Output Measure**

- Field days at demonstration plots.  
Not reporting on this Output for this Annual Report

**Output #10**

**Output Measure**

- Farmers Market workshops in collaboration with Idaho State Department of Agriculture

<b>Year</b>	<b>Actual</b>
-------------	---------------

2011 3

**Output #11**

**Output Measure**

- Specialty Crops workshops

<b>Year</b>	<b>Actual</b>
2011	2

**Output #12**

**Output Measure**

- small pasture/livestock management workshops

<b>Year</b>	<b>Actual</b>
2011	3

**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.

Not Reporting on this Outcome Measure

## **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**

<b>Year</b>	<b>Actual</b>
2011	752

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

In south-central Idaho, the majority of farms are under 50 acres and close to half of these farms produce an agricultural income of less than \$10,000 yearly (USDA 2007). In order to help keep their farm economical, small-scale farmers rely on a variety of management practices to help manage production risk.

#### **What has been done**

The University of Idaho Camas/Gooding, Jerome, and Blaine County Extension offices developed the Farms to Food Workshop. This one-day workshop consisted of two concurrent presentation sessions focused on small-scale farm topics.

#### **Results**

The workshop participants stated they increased awareness and knowledge. The majority of participants had "agree" and "strongly agree" for all or most of the above statements in the questionnaire. The postcards revealed that the three most common plans participants aim to

implement in the next year are to reduce microbial contamination, perform a soil test, and plant a new crop for intercropping and/or a new market. Conference educators plan to follow-up with participants by mailing the self-addressed postcards back to participants early spring 2011. This will help remind growers of what they learned at the Farms to Food Workshop and to remind them to implement their proposed plans; fulfilling the Knowledge to Implementation. Through the day's talks and the small farm tour, our evaluation tools proved that the majority of participants plan to implement one sustainable practice.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants
601	Economics of Agricultural Production and Farm Management
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 Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	257

**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 Farms and Ranches program in 2010 - 18 students - 39 hours instruction and tours SSFR on-line, spring 2011, 50 students - 12 weeks SSFR short course fall 2011 in Lewiston - 5 students, 5 weeks 3 farm tours, 15-20 attended each tour

**Results**

Evaluation from SSFR classes indicated 85% of participants would implement practices they learned about in classes. About 25 % completed whole farm plans and another 60 % indicated they would complete a whole farm or marketing plan and implement other production and marketing practices. About 75% of tour participants indicated they would implement new knowledge gained in their farm or in their work.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
202	Plant Genetic Resources
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
216	Integrated Pest Management Systems
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
604	Marketing and Distribution Practices
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources

**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	Actual
2011	18

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Landowners and farmers who have benefitted from previous seminars given by Extension can vouch for the usefulness of the material and techniques learned from Extension programs. Their experiences are well received by new students

**What has been done**

4 people who had attended small farm conferences previously were invited to speak at the "Farms and Food Conference" on November 4, 2010 in Gooding. Their talks focused on techniques that work on their farm. Topic covered were, lamb raising, chicken marketing and bee keeping.

**Results**

Peer presenters were effective to transfer new knowledge to beginning farmers. Among 28 participants returning their evaluation at the end of one program, 25 indicated they strongly agreed or agreed that they increased their knowledge of certain management practices presented at the conference.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
202	Plant Genetic Resources
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
216	Integrated Pest Management Systems
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation

**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**

<b>Year</b>	<b>Actual</b>
2011	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**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

- Economy

**Brief Explanation**

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**



Participants were evaluated following the Cultivating Success Small Acreage Farming and Ranching Course, the Living on the Land shortcourse, and the Farmers' Market Vendor workshops. This data provides immediate feedback as to the quality and effectiveness of the education, tracked increases in knowledge and planned behavior change, and provided information on how we can continually improve our programs.

Our small acreage programs have succeeded to help jump start new small farm enterprises in several regions of the State. At the Nampa Farmer's Market in 2011, at least three regular vendors were graduates of our programs and at least a dozen others attended workshops, tours and field days and accessed our printed and web publications. Our program participants also sell their products through Cooperatives, CSAs, Farm Markets, on farm stands and through any number of other direct marketing strategies.

### **Key Items of Evaluation**

**V(A). Planned Program (Summary)**

**Program # 14**

**1. Name of the Planned Program**

Sugarbeets and minor 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	10%		10%	
111	Conservation and Efficient Use of Water	10%		10%	
201	Plant Genome, Genetics, and Genetic Mechanisms	1%		10%	
202	Plant Genetic Resources	10%		10%	
205	Plant Management Systems	15%		10%	
211	Insects, Mites, and Other Arthropods Affecting Plants	5%		10%	
212	Pathogens and Nematodes Affecting Plants	15%		10%	
213	Weeds Affecting Plants	15%		10%	
215	Biological Control of Pests Affecting Plants	3%		5%	
216	Integrated Pest Management Systems	10%		5%	
402	Engineering Systems and Equipment	5%		5%	
511	New and Improved Non-Food Products and Processes	1%		5%	
	<b>Total</b>	100%		100%	

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	4.5	0.0	4.5	0.0
Actual Paid Professional	3.1	0.0	5.9	0.0
Actual Volunteer	0.0	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
126289	0	366783	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
126289	0	366783	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
25923	0	2732794	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

The sugar beet and minor crops team integrated field research, demonstration, and outreach education primarily related to numerous crop pests and diseases, and to irrigation systems and soil moisture relationships. Field studies and tours were conducted in collaboration with growers and in UI Agricultural Experiment Station fields to study onions, sugar beets, dry beans, and sweet corn. Economically important pests studied and reported include onion thrip, Rhizoctonia, Aphanomyces, leaf minor and curly top. Significant efforts were devoted to weed management, pesticide registration, development and extension of knowledge about IPM tools, and soil moisture/irrigation protocols influencing pests and diseases. New and practical information was shared through a dozen regional conferences and commodity schools. Faculty prepared a host of Extension publications and research publications explaining their findings to end users and to other scientists.

**2. Brief description of the target audience**

Target audiences include growers of sugar beets, onions, table beets, dry beans, hop, alfalfa seed, mint and other specialty crops produced in Idaho and the western U.S., field men and other grower or corporate entity consultants, State and Federal agency staff, and leaders in commodity associations.

**3. How was eXtension used?**

unknown

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	0	0	0	0

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

Year: 2011  
 Actual: 2

**Patents listed**

Plant Variety Protection, Rapeseed - Amanda (201100403)  
 Plant Variety Protection, Mustard - Kodiak (201100053)

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
Actual	8	37	45

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Presentations at grower conferences and other non-extension venues.

Year	Actual
2011	55

**Output #2**

**Output Measure**

- Workshops, schools and conferences.

Year	Actual
2011	32

**Output #3**

**Output Measure**

- Field tours and demonstration projects.

Year	Actual
2011	7

**Output #4**

**Output Measure**

- Applied basic laboratory and field experiments

Year	Actual
------	--------

2011 56

**Output #5**

**Output Measure**

- Professional invited presentations.

<b>Year</b>	<b>Actual</b>
2011	3

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	O: growers use best management practices in the production of sugar beets and minor crops. I: Percentage of Idaho growers indicating adoption or intent to adopt recommended practices (survey).
2	O: Producers are aware of issues and knowledgeable of practices that affect the environmental and economic sustainability of sugar beet and minor crop production. I: The percent of participants who report increased knowledge in pre/post-tests or surveys.
3	O: Development of new research information. I: Research publications (peer reviewed).
4	O: Producers are aware of issues and knowledgeable of practices that affect the environmental and economic sustainability of sugar beet and minor crop production. I: The numbers of participants who report increased knowledge in pre/post-tests or surveys.

**Outcome #1**

**1. Outcome Measures**

O: growers use best management practices in the production of sugar beets and minor crops. I: Percentage of Idaho growers indicating adoption or intent to adopt recommended practices (survey).

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2011	302

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Herbicide resistance and GMO crops are forcing a change in herbicide practices by sugar beet growerschanging .

**What has been done**

A variety of programs and venues have been deployed to transfer information on best weed management practices in sugar beets to growers, crop advisors and agricultural consultants. These activities include the UI Snake River Pest Management Tour, conferences and presentations at grower meetings, and a revision of the sugar beet weed management chapter in the PNW Weed Management Handbook.

**Results**

More growers are finally beginning to tank mix other herbicides with a different mode of action with glyphosate for weed control in Roundup Ready beets. According to Amalgamated Sugar Company estimates, 25% of the growers are using tank mixtures compared to 0% one or two years ago.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
202	Plant Genetic Resources
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants

212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
216	Integrated Pest Management Systems
402	Engineering Systems and Equipment

**Outcome #2**

**1. Outcome Measures**

O: Producers are aware of issues and knowledgeable of practices that affect the environmental and economic sustainability of sugar beet and minor crop production. I: The percent of participants who report increased knowledge in pre/post-tests or surveys.

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	Actual
2011	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
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants

#### Outcome #4

##### 1. Outcome Measures

O: Producers are aware of issues and knowledgeable of practices that affect the environmental and economic sustainability of sugar beet and minor crop production. I: The numbers of participants who report increased knowledge in pre/post-tests or surveys.

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2011	180

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

Field scouting is necessary to insure that pests are present in numbers above an economic threshold before taking treatment action. Unnecessary pesticide treatments impact the grower's economic viability and may harm the environment.

###### **What has been done**

Research based information about pests and treatment thresholds was sent on the PNWPestAlert.net website.

###### **Results**

PNWPestAlert.net subscribers used field scouting to document pest levels before taking treatment actions. In some cases growers were able to reduce the number of sprays applied because of information received through the website.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships

111	Conservation and Efficient Use of Water
202	Plant Genetic Resources
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems
402	Engineering Systems and Equipment

#### **V(H). Planned Program (External Factors)**

##### **External factors which affected outcomes**

- Economy
- Other (weather)

##### **Brief Explanation**

#### **V(I). Planned Program (Evaluation Studies)**

##### **Evaluation Results**

An electronic survey was sent to those registered on the pesticide applicator recordkeeping program. Those returning a survey had their name put into a drawing for restaurant gift certificates. Of those who returned the anonymous survey, 88.9% said the PAR was useful to them and 77.8% said the program helped ensure they were in compliance with federal and state worker protection regulation.

The use of TurningPoint ARS clickers increased pesticide applicator class participant's engagement and knowledge retention by allowing the instructors to use a real-time evaluation of subject retention during presentations and reinforce topics not well comprehended. Test results from classes around the state revealed a pesticide certification exam pass rate of 65%, compared to 55% pass rate for those who do not attend UI Extension pesticide safety training programs. Testing areas of Forest Environment, Restricted Use Pesticide, and Agricultural Herbicide had pass rates of 100, 86, and 74 percent, respectively. In the 2011 classes over three-quarters of those who tested for pesticide certification were testing for the first time for a new license. Attendees indicated (93%), from a retrospective class questionnaire that their knowledge of pesticide use and safety had increased as a result of attending the training course and that the information they had gained would be useful in their occupation.

##### **Key Items of Evaluation**

**V(A). Planned Program (Summary)**

**Program # 15**

**1. Name of the Planned Program**

4-H Youth Development (includes childhood obesity as a component of healthy living)

**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	30%		0%	
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	10%		0%	
806	Youth Development	60%		0%	
	<b>Total</b>	100%		0%	

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	17.6	0.0	0.0	0.0
Actual Paid Professional	17.3	0.0	0.0	0.0
Actual Volunteer	0.0	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
411891	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
411891	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
405655	0	0	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

The 4-H Youth Development Team organized and supervised a traditional club program in each county in Idaho, held summer camps, day camps, science camps (including robotics, GPS, Entomology, Geology, aAeronautics, and more), livestock camps, and other project camps (some in collaboration with neighboring States). Faculty and 4-H Coordinators supported or managed 4-H afterschool programs and managed 4-H activities at County Fairs, including training of judges. 4-H professionals provided leadership and curriculum training to adult 4-H volunteers and to youth volunteers. Primary emphases were placed on projects and activities that promote interest in science, engineering and technology, and that promote healthy living choices.

4-H faculty engaged in multi state efforts to create and pilot new curricula, to train livestock judges, and to provide professional development for 4-H professionals. Older 4-H members were challenged to become productive citizens through the 4-H Ambassadors program, Teen Training, Camp Counselors programs, Know Your Government. Outreach to underserved youth included significant efforts with the Shoshone-Bannock and Nez Perce Tribes, with numerous afterschool programs (two partially supported by CYFAR grants), through Operation Military Kids, and with targeted day camps.

**2. Brief description of the target audience**

- Idaho youth, ages 5-18
- 4-H Volunteers
- Adult and youth volunteers
- Teachers and Out-of-school instructors
- Youth in school enrichment and afterschool programs
- Low income youth and families
- Youth-at-risk
- Youth Development staff
- Community Leaders
- Hispanic youth and adult volunteers
- American Indian youth and adult volunteers
- Children and families with military ties

**3. How was eXtension used?**

unknown

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	44751	174022	76487	108173

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

**Patent Applications Submitted**

Year: 2011

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

<b>2011</b>	<b>Extension</b>	<b>Research</b>	<b>Total</b>
<b>Actual</b>	10	5	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of youth in educational classes and workshops.

<b>Year</b>	<b>Actual</b>
2011	59060

**Output #2**

**Output Measure**

- Number of volunteers in educational classes and workshops.

<b>Year</b>	<b>Actual</b>
2011	10584

**Output #3**

**Output Measure**

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

<b>Year</b>	<b>Actual</b>
2011	744

**Output #4**

**Output Measure**

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

<b>Year</b>	<b>Actual</b>
2011	2601

**Output #5**

**Output Measure**

- Number of 4-H clubs or groups.

<b>Year</b>	<b>Actual</b>
2011	2223

**Output #6**

**Output Measure**

- Number of youth attending statewide 4-H events.

<b>Year</b>	<b>Actual</b>
2011	3484

**Output #7**

**Output Measure**

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

<b>Year</b>	<b>Actual</b>
2011	3277

**Output #8**

**Output Measure**

- Number of hits on the web site each year.

<b>Year</b>	<b>Actual</b>
2011	210428

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	O: Youth will expand science, engineering, and technology skills through participation in 4-H Youth Development Programs. 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: More youth and adult volunteers will be available to lead 4-H Youth Development programs. I: Total number of volunteers receiving training.
4	O: More youth and adult volunteers will be available to lead 4-H Youth Development programs. I: Number of new volunteers certified.
5	O: Underserved youth will learn life skills through 4-H Youth Development. I: Number of underserved youth participating in 4-H Youth Development.
6	O: Underserved youth will learn life skills through 4-H Youth Development. I: Number of programs designed and marketed specifically for underserved youth.
7	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.
8	O: Youth will learn life skills through participation in 4-H Youth Development programs. I: Number of youth indicating life skill development
9	O: Participants will increase their knowledge of healthy living. I: Number of youth participating in healthy living activities and programs.
10	O: Participants will adopt healthy lifestyle behaviors. I: Number of youth who change their behaviors, such as eating healthy snacks, and increasing physical activity. (Documented though completing an evaluation survey)
11	O: Participants will learn leadership skills through participation in 4-H Youth Development programs. I: Number of youth indicating life skill development through completing an evaluation survey.
12	O: Participants will build leadership and youth development skills through training and support. I: Total number of volunteers receiving one or more trainings.
13	O: Increased participation of underserved audiences through relevant programs. I: Number of underserved youth participating in 4-H Youth Development.
14	I: Participants will learn to design youth-adult partnerships. O: Number of committees, councils and boards with youth and adults serving together

**Outcome #1**

**1. Outcome Measures**

O: Youth will expand science, engineering, and technology skills through participation in 4-H Youth Development Programs. 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 Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	13707

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Youth in Idaho need to increase their SET skills. The County 4-H programs can increase these skills in youth through school enrichment, after school, day camps and the club program.

**What has been done**

Educators attended area elementary school classes to teach the scientific method, numerous science topics, and perform science experiments with youth. Day camps and after school program used SET related curricula for projects. Juvenile Offenders participated in SET activities.

**Results**

Elementary school students learned the scientific method and a variety of science topics. Elementary school students increased awareness of science in everyday life. Juvenile offenders performed science experiments and developed critical thinking skills through SET programming.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
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.

Not Reporting on this Outcome Measure

**Outcome #3**

**1. Outcome Measures**

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

Not Reporting on this Outcome Measure

**Outcome #4**

**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.

Not Reporting on this Outcome Measure

**Outcome #5**

**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.

Not Reporting on this Outcome Measure

**Outcome #6**

**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.

Not Reporting on this Outcome Measure

**Outcome #7**

**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.

Not Reporting on this Outcome Measure

**Outcome #8**

**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**

<b>Year</b>	<b>Actual</b>
2011	12013

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

SET is a national priority of 4-H. In order for youth to be competitive in the workforce they will need to be skilled in the areas of science, engineering, technology and math.

**What has been done**

Participants of the afterschool program used computers, cameras, video cameras and a STEM lab to conduct various SET activities.

**Results**

Life skills surveys indicated that youth has an increase of 43% in self responsibility skills, 8% in healthy lifestyle choices. As a group, the children indicated that they sometimes to usually accomplished doing activities in more than one way, thought about another way to do an activity and decided how to do the activity after getting directions.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
724	Healthy Lifestyle

803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

**Outcome #9**

**1. Outcome Measures**

O: Participants will increase their knowledge of healthy living. I: Number of youth participating in healthy living activities and programs.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2011	22770

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

With the ever increasing influence that media has on children's diets, it is important that children learn about healthy living.

**What has been done**

Dozens of educational programs accross the state addressed healthy living issues. In one program, the educator taught seven sessions of Snack Attack, encouraging elementary-age children to choose healthy snacks to eat.

**Results**

One hundred nineteen students in the 3-5 grades were included in an evaluation of "Snack Attack" in which they completed a pre and post test. The survey revealed an increase in knowledge gained in every area measured.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
724	Healthy Lifestyle
806	Youth Development

**Outcome #10**

**1. Outcome Measures**

O: Participants will adopt healthy lifestyle behaviors. I: Number of youth who change their behaviors, such as eating healthy snacks, and increasing physical activity. (Documented though completing an evaluation survey)

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	10067

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Childhood obesity is an epidemic, and many youth are lacking basic education in how to make healthy choices.

**What has been done**

Junior Master Gardener events and afterschool programs introduced youth the benefits of physical activity and healthy food choices that include fresh fruits and vegetables.

**Results**

Youth participating in gardening projects are more likely to try new foods and consumer the recommended servings of fruits and vegetables. Gardening also provides an excellent means of engaging in moderate exercise.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
724	Healthy Lifestyle
806	Youth Development

**Outcome #11**

**1. Outcome Measures**

O: Participants will learn leadership skills through participation in 4-H Youth Development programs. I: Number of youth indicating life skill development through completing an evaluation survey.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	6085

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Developing leadership skills is essential to success as an adult. Developing these skills through experiences in the youth years can prepare youth to deal with difficult situations later in life.

**What has been done**

Teens developed and participated in a "Builders Club". 4-H Club members participated in leadership roles within their clubs. Teens attended Ambassador Retreat, TALK Retreat, KYG, and Teen Conference.

**Results**

Teens at Teen Conference indicated an increase in life skills in the following areas related to leadership skill development: List my options before making a decision. Think about what might happen because of my decision. Think about what I might do when I am older. Have friendships with people who are different from me. Evaluate decisions I have made. Decide what I want to do.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
806	Youth Development

**Outcome #12**

**1. Outcome Measures**

O: Participants will build leadership and youth development skills through training and support. I: Total number of volunteers receiving one or more trainings.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	3924

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Leaders need to be trained so they can teach the 4-H youth with which they participate. Without proper leaders training, youth do not get the level of education that is possible when the leaders are better trained.

**What has been done**

Leaders attended a livestock judges training to help them be better evaluators of livestock to enable the leaders to teach 4-H youth to pick better project animals. Leaders are taught how to recognize physical abuse as they teach in their 4-H clubs. They are taught what to do in case they see this abuse and they are taught how to be a positive influence in the lives of troubled youth. Leaders attend leaders? council on a monthly basis where specific youth problems were discussed.

**Results**

Leaders attended a livestock judges training to help them be better evaluators of livestock to enable the leaders to teach 4-H youth to pick better project animals. Leaders are taught how to recognize physical abuse as they teach in their 4-H clubs. They are taught what to do in case they see this abuse and they are taught how to be a positive influence in the lives of troubled youth. Leaders attend leaders? council on a monthly basis where specific youth problems were discussed.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
806	Youth Development

**Outcome #13**

**1. Outcome Measures**

O: Increased participation of underserved audiences through relevant programs. 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	Actual
2011	13360

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Idaho has a rapidly growing Hispanic/Latino population and most of these families have not experience 4-H and do not think 4-H Programs are for them.

**What has been done**

A 4-H Outreach Educator was hired in the Boise area to make a special effort to reach out to Hispanic/Latino families to make them aware of 4-H programs and to communicate the message 4-H is for your family too. Many other projects were intended specifically to reach underserved youth, such as the White Pine 4-H Afterschool Program , targeting underserved audiences in Cassia County. In these examples, targeted youth would not otherwise participate in the Idaho 4-H program.

**Results**

As a result of enhanced effort to attract Hispanic Youth to the 4-H Program, our the Hispanic proportion of our overall participation has increased to more than 15%. These children have demonstrated the same kinds of learning and behavioral outcomes that have other 4-H groups across the State.

**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 #14**

### **1. Outcome Measures**

I: Participants will learn to design youth-adult partnerships. O: 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**

<b>Year</b>	<b>Actual</b>
2011	124

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Adults and youth need to learn how to work with each other. Youth want to participate in community leadership roles which allow them to make decisions which affect their lives, yet consistently they are not asked for their opinions. Co-learning that takes place when youth and adults work together to solve problems has been well documented.

#### **What has been done**

Many of the Idaho county 4-H Youth Development programs emphasize adult volunteers, staff, and youth working together to achieve both statewide goals as well as county and individual club goals. Youth and adults are continuously being educated and trained to successfully work together. Youth are encouraged to make and take leadership opportunities in all meetings, events, and activities. As an example, the Engaging Youth Serving Communities Project has been funded in 5 counties in Idaho and has reached 75 youth with training on how to work in effective partnerships with adults.

#### **Results**

Youth and adults are learning the skills to work with each other and are enhancing their leadership abilities including presentation skills, speaking skills, writing skills, teaching skills, and teamwork skills. We have a greater number of youth stepping up take leadership roles in all aspects of the 4-H program as they see the adults value their input and decisions. More than one hundred Idaho youth feel more confident about working in partnership with adults to make changes in their county to improve the lives of youth.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
803	Sociological and Technological Change Affecting Individuals, Families, and



806 Communities  
Youth Development

### **V(H). Planned Program (External Factors)**

#### **External factors which affected outcomes**

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

#### **Brief Explanation**

Continued growth in the proportion of Latino youth in Idaho precipitate accelerating efforts to bring new, relevant youth development programming to targeted groups of youth and their families.

### **V(I). Planned Program (Evaluation Studies)**

#### **Evaluation Results**

Rural elementary schools face many financial, cultural and educational challenges. These challenges and the need to meet student test score targets, limit teachers' ability to emphasize the sciences in the daily curriculum. Furthermore, many of the children, are from limited-resource families, and have a limited view of the world that often stems from physical labor backgrounds, poverty and/or limited education. Many have never been exposed to trained professionals in the sciences and have no idea that there is any other kind of work or world that could be in their future.

In order to help expose children to science and engineering at an earlier age, a project in one community involved the entire 4th grade to the annual National Science Experiment. Teaching emphasizes the scientific method, forming a hypothesis, designing an experiment, performing the experiment and evaluating the results. Many of the children have never looked at their world in this way.

We began by asking the children, by a show of hands, how many had ever thought of becoming a scientist or an engineer. In any class, it is unusual for 2 out of 30, 5%, to even know what a scientist does. After they have investigated the project, formed hypotheses about what will happen, performed their experiment and analyze the results, before we leave, we always ask, by a show of hand, if anyone is interested in perhaps becoming a scientist when they grow up. Every single child raises their hand.

#### **Key Items of Evaluation**