

2008 University of Idaho Combined Research and Extension Annual Report of Accomplishments and Results

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I. Report Overview

1. Executive Summary

This combined report of accomplishments for the College of Agricultural and Life Sciences (CALs) represents the work of 111 and 112 faculty/professional research and extension FTEs, respectively, and another 35 FTEs of nutrition advisers, 4 H coordinators, and other paid program staff. The Extension portion of the report reflects about 68% of the total annual budgets of UI Extension, and does not include operating costs, clerical support, indirect costs, facilities, or administrative costs. The research portion reflects approx. 20 % of the total appropriated funding (state and federal) and does not include grants and contracts. Extension faculty combined to publish 67 unique peer-reviewed articles in professional journals and numbered UI Extension publications. They published hundreds of articles in trade journals and trade magazines, where many Extension faculty find the most direct access to their target audiences. Faculty posted new materials on websites, and created new websites. Thousands of references to their work are noted in published abstracts and proceedings, poster presentations, and similar communications. UI Extension faculty presented thousands of educational events that reached 427,655 people through direct, face-to-face contact, 43% of whom were children. To summarize research faculty outputs in 2008, there were 145 peer-reviewed scientific journal articles published and seven patents filed (2-plant variety protection patents and 5-provisional patents).

Total Actual Amount of professional FTEs/SYs for this State

| Year:2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 100.5 | 0.0 | 71.3 | 0.0 |
| Actual | 112.0 | 0.0 | 75.5 | 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

Topic Teams consist of faculty who conduct research and extension education programs within an area of related issues. These teams meet annually to review the program plans of colleagues and to provide counsel and feedback on planned methods and programs.

Individual Extension and research faculty submit annual position descriptions to university administrators who review, modify, and approve the slate of programs and activities proposed by faculty members. University administration announces and accepts proposals for four annual mini-grant programs to support competitive applications for programs, including: Topic Teams grant program; Critical Issues grant program; Urban Extension grant program; and Community Development grant program. These proposals are evaluated by a panel of peers against a pre-determined set of criteria. Approximately half of the applications receive funding.

County faculty present their annual work plans to County governments, as part of their annual budget justification process. Commissioners work with faculty to finalize those work plans, and then provide about 20% of UI Extension's total budget, based on the merits of county work plans.

A significant portion of the work performed by UI faculty is supported by competitive grants from outside of the University. In Extension, approximately \$3.7 million and in research, approximately \$15 million in grants and contracts demonstrates the importance and merit these activities.

All faculty in CALS or other colleges within the UI holding a research appointment in the IAES, are required to have an active, approved research project that reflects their major research emphasis. Hatch projects are expected to address problems relevant to Idaho's agriculture with either a regional or national scope of importance. Project outlines must be reviewed internally by a minimum of two colleagues with expertise in the area of research, the investigator's Department Head and a minimum of two external experts in the area not affiliated with the UI.

Research activities of the IAES that contribute to organized multi-state projects/programs approved by CSREES are designated as Multi-state (Regional) Research Projects. In the Western Region, these multi-state projects must be reviewed by a maximum of four outside peer reviewers in addition to the overall regional multi-function committee (RCIC—see below) appointed by the Western Association of Agricultural Experiment Station Directors (WAAESD). The RCIC reviews the proposal and makes recommendation to the WAAESD and, if approved, transmits the project to CSREES.

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

During 2008, we did not make significant changes to our stakeholder input process and the process described below reflects our current procedures which were used during this reporting period.

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

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

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

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

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

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

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

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

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

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 identifying stakeholders statewide included Extension Annual Conference (Boise) and annual Ag Summit and legislative strolling dinner also 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
- Survey of traditional Stakeholder groups
- Meeting with traditional Stakeholder individuals
- Survey of traditional Stakeholder individuals
- Meeting with the general public (open meeting advertised to all)
- Meeting specifically with non-traditional groups
- Survey specifically with non-traditional groups
- Meeting specifically with non-traditional individuals
- Meeting with invited selected individuals from the general public
- Survey of selected individuals from the general public
- Other (various)

Brief Explanation

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

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

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

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3. A statement of how the input was considered

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

Brief Explanation

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

Another shift in emphasis in response to stakeholder input is in the area of health and fitness. We have had a number of our nutrition faculty become certified over the past 18-months to teach the "Strong Women" program, and others have provided access for clientele to participate in "Fit and Fall Proof" classes. A similar shift in resources into Community Development has also been occurring for the past several years, resulting in approximately 2 new FTEs dedicated to community development, carved out of existing faculty position descriptions. In the case of community development, the need has been brought to our attention by professionals in State and Federal agencies, more than by individual citizens, and also by interest expressed by philanthropic organizations.

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

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

Brief Explanation of what you learned from your Stakeholders

A noticeable interest in organic farming (particularly dairy and dairy forages, and table crops) has surfaced in the past two years.

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

IV. Expenditure Summary

| 1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS) | | | |
|--|-----------------------|-----------------|--------------------|
| Extension | | Research | |
| Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| 2436970 | 0 | 2195934 | 0 |

| 2. Totaled Actual dollars from Planned Programs Inputs | | | | |
|---|--------------------------------|-----------------------|-----------------|--------------------|
| | Extension | | Research | |
| | Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| Actual Formula | 2436970 | 0 | 2195934 | 0 |
| Actual Matching | 2436970 | 0 | 2195934 | 0 |
| Actual All Other | 6763817 | 0 | 26475293 | 0 |
| Total Actual Expended | 11637757 | 0 | 30867161 | 0 |

| 3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from previous years | | | | |
|--|---|---|--------|---|
| Carryover | 0 | 0 | 818099 | 0 |

V. Planned Program Table of Content

| S. NO. | PROGRAM NAME |
|--------|---|
| 1 | 4-H Youth Development |
| 2 | Beef |
| 3 | Cereals |
| 4 | Civil Society |
| 5 | Commercial and Consumer Horticulture |
| 6 | Community Development |
| 7 | Dairy |
| 8 | Family Economics |
| 9 | Family Life Education |
| 10 | Farm and Ranch Management |
| 11 | Food Safety |
| 12 | Forages |
| 13 | Forest Management |
| 14 | Health and Human Nutrition |
| 15 | Nutrient and Waste Management |
| 16 | Other Idaho Commercial Crops |
| 17 | Potatoes |
| 18 | Range Management |
| 19 | Small Acreages and Emerging Specialty Crops |
| 20 | Sugarbeets |
| 21 | Water and Environmental Quality |
| 22 | Miscellaneous programs including Publications, IT, Evaluation, and Other management functions |

Program #1

V(A). Planned Program (Summary)

1. Name of the Planned Program

4-H Youth Development

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|--------------|---|-----------------|-----------------|----------------|----------------|
| 724 | Healthy Lifestyle | 10% | | 10% | |
| 803 | Sociological and Technological Change Affecting Individuals, Families and Communities | 10% | | 10% | |
| 806 | Youth Development | 80% | | 80% | |
| Total | | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 14.7 | 0.0 | 0.0 | 0.0 |
| Actual | 17.9 | 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 |
| 305239 | 0 | 0 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 305239 | 0 | 0 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 1014773 | 0 | 0 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

Project 1:Expanding Science and Technology SkillsExtension Educators, Coordinators and Assistants will offer curriculum, classes and training sessions for volunteers and youth trainings to enhance knowledge and skills in science and technology fields.

Project 2:Healthy Lifestyles

Extension Educators, Coordinators and Assistants will offer curriculum, classes, training sessions and camps for volunteers and youth to educate participants and encourage them to follow steps to a healthier lifestyle.

Project 3:Volunteer Development and LeadershipExtension Educators, Coordinators and Assistants will offer curriculum, classes and training sessions for volunteers and youth to learn and practice leadership skills.

Project 4:Reaching Underserved Audiences

Extension Educators, Coordinators, Assistants and Volunteers will work to encourage more participation by under-served youth and adults through collaboration, through teaching classes for these audiences, and by providing training sessions to encourage others to reach out to underserved audiences with youth development programs.

Project 5:Youth Adult Partnerships

Extension Educators, Coordinators and Assistants will offer curriculum, classes, training sessions and opportunities for adults and youth to work together to help improve the local communities.

Project 6:Strengthening Families and Communities Through Positive Youth Development ProgramsExtension Educators, Coordinators, Assistants and volunteers will offer classes, learning activities, training sessions and curriculum to involve youth and their families in programs that will teach skills and personal development.

2. Brief description of the target audience

Target Audience for 4-H youth development includes youth ages 5-19. Specific audiences targeted by individual programs also included: Youth in an after school setting, youth ages 4-12 for Junior Master Gardeners, high school horticulture classes (youth 13-18),at risk youth coming from limited income populations, teens ages 13 through 18 interested in becoming camp counselors. Adult audiences included 4-H/youth Volunteers, Youth Development Staff, Idaho legislators and judge, Community leaders, School teachers, Hispanic Youth and Adult volunteers , Community Leaders, and Native American youth and adult volunteers.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 6500 | 1500 | 32000 | 8000 |
| 2008 | 79978 | 262341 | 122799 | 91189 |

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

Patent Applications Submitted

| | |
|--------------|---------------|
| Year | Target |
| Plan: | 0 |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 0 | 0 | |
| 2008 | 7 | 0 | 7 |

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

- Number of youth in educational classes and workshops.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 27000 | 32311 |

Output #2**Output Measure**

- Number of volunteers in educational classes and workshops.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 5000 | 4138 |

Output #3**Output Measure**

- Number of opportunities to market 4-H Youth Development.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 155 | 567 |

Output #4**Output Measure**

- Number of educational classes, workshops taught.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1070 | 1098 |

Output #5**Output Measure**

- Number of publications, newsletters and columns.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 330 | 491 |

Output #6**Output Measure**

- Number of 4-H clubs or groups.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2090 | 3069 |

Output #7**Output Measure**

- Number of youth attending statewide 4-H events.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 450 | 484 |

Output #8**Output Measure**

- Number of volunteers attending state, regional events.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 285 | 178 |

Output #9**Output Measure**

- Number of TV/Radio appearances.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 10 | 18 |

Output #10**Output Measure**

- Number of radio stations airing 4-H PSA's.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 20 | 10 |

Output #11**Output Measure**

- Number of hits on the web site each year.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 20000 | 26134 |

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

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

Outcome #1**1. Outcome Measures**

O: Youth will expand science 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

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 2000 | 11314 |

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

There is great concern by educators and decision makers that youth do not have or do not take advantage of opportunities to become interested in science and technology. Test scores indicate youth are not learning the skills they will need in tomorrow's world.

What has been done

In order to prepare the youth for tomorrow's world of science and technology, one county's 4-H staff and adult volunteers promoted curricula that focused on science and technology. Youth were instructed in Animal Science-Dairy, beef, sheep, swine, horse, dog, poultry, rabbit, goat; computer science, digital photography, videography, wood science, rocket science, vet science, and entomology.

Results

210 youth participated in projects educating them in science and technology. Due to more youth and leader participation in these areas, the quality of overall projects was greatly improved.

4. Associated Knowledge Areas

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

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 8000 | 4530 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Being healthy is a priority of all individuals and families. With education and knowledge people will be able to make better decisions that can affect their health for their lifetime.

What has been done

During the afterschool program, youth were encouraged to participate in physical activities such as basketball, football, tag, kickball, etc. Also, a Nintendo Wii was brought into the program as a way to spark interest from youth who were not interested in traditional games.

Results

Overall we had reported gains of 48% with healthy lifestyles life skills.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|-------------------|
| 806 | Youth Development |
| 724 | Healthy Lifestyle |

Outcome #3

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 4500 | 1603 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Youth lack an understanding of how to eat healthy snacks and incorporate physical activities into their daily schedule.

What has been done

Offered Media Smart Youth curriculum to a group of youth.

Results

Youth increased their daily steps tracked on a pedometer and improved their healthy snacking habits. They gained an understanding of the food pyramid which they applied to eating and physical activities.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|-------------------|
| 806 | Youth Development |
| 724 | Healthy Lifestyle |

Outcome #4

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.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 5000 | 2772 |

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

Volunteerism and leadership are fundamental to delivering quality programs in 4-H. To have an adequate number of well-prepared volunteers it is necessary to recruit, train, and support volunteers, both youth and adult, on an ongoing basis.

What has been done

Training opportunities were offered in leadership, child protection, effective habits of youth, record book, curriculum, animal science, team work, livestock judging, communication, & clubs.

Results

Adequately prepared volunteers aid in expanding resources and linkages for the 4-H program. Youth who have a sustained relationship with a caring adult outside of their family have greater self confidence and are less likely to be involved in criminal activity.

4. Associated Knowledge Areas

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

Outcome #5**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 400 | 410 |

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

Every year, numerous families want to enroll their children in the club 4-H program, thus increasing the need for more volunteer leaders.

What has been done

Existing club volunteers recruit new volunteers; new 4-H families are asked if they can volunteer their time. Parents are informed about the growing need for additional 4-H volunteers at 4-H marketing events.

Results

Canyon County recruited and enrolled 39 new adult volunteers and 8 new teen volunteers during the 2008 4-H year. This recruitment has helped support more than 100 new members in the county's Community Clubs programs.

4. Associated Knowledge Areas

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

Outcome #6**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|-------------|----------------------------|---------------|
| 2008 | 8000 | 10840 |

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

Many youth in the county do not participate in summer programs due to the cost of such programs. City governments have sponsored a summer lunch program to provided these families with nutrition. These programs are void of any stimulating activities to help children learn. I identified this void as an opportunity to teach underserved youth science activities.

What has been done

In the Fruitland city park. a cabana was reserved and class set up on Thursday afternoons. As youth were finishing up their lunch an announcement was made for our class to begin. Class activities were taken from the Jr. Master Gardener handbook. Master Gardeners assisted and taught class activities.

Results

Throughout the summer program, 58 youth participated in at least 2 of the activities. Four participated in 10 activities and received a Jr. Master Gardener certification and medal. As an end of the year project two of the newly certified Jr. Master Gardeners designed and built a landscape at the County fair and won first prize in the junior division.

4. Associated Knowledge Areas

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

Outcome #7**1. Outcome Measures**

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 150 | 182 |

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

Idaho is experiencing rapid changes that dramatically affect our youth and adults who work with them. Hispanic and Native American youth but have not been well represented in traditional Idaho 4-H clubs.

What has been done

Through a Children, Youth and Families at Risk Grant I have been able to start an after school program in a community with a Hispanic population of 21%. I also collaborated with the county 4-H Coordinator to bring financial classes to the youth in the Alternative High School.

Results

Hispanic youth in the after school program showed a 33% increase in life skills related to communication and healthy life styles. They showed a 67% gain in life skills related to critical thinking and a 50% gain in positive identity skills. Youth that participated in the financial management classes showed an increase in their ability to use a check book and keep track of expenses.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|---|
| 724 | Healthy Lifestyle |
| 803 | Sociological and Technological Change Affecting Individuals, Families and Communities |

Outcome #8**1. Outcome Measures**

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 80 | 57 |

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

The 4-H Youth Development Program exists to help youth develop skills, acquire knowledge and improve their lives. Helping youth develop the skills and knowledge they need to work in equal partnerships with adults is an important life skill.

What has been done

Youth were integrated into the following groups I work with: (1) 4-H Advisory Board (2) Friends of 4-H Board (3) State Leaders Association Executive Council (4) Teen Conference Planning Committee (5) Know Your Government Planning Committee (6) EYSC Local Planning Committees (7) Planning for Youth Activities for the Hispanic Parent Health Education Project

Results

Local and state decisions being made that will impact the lives are youth are improved because actual youth voice has been heard in the process of making decisions in partnership with adults.

4. Associated Knowledge Areas

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

Outcome #9

1. Outcome Measures

O: Youth and adults will learn life skills through participation in 4-H Youth Development programs. I: Number of youth and adults participating in 4-H Youth Development programs.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 32000 | 36069 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The primary objective of the 4-H Youth Development Program is to positively impact youth through development of life skills.

What has been done

New programs that are exciting to kids and yet have opportunities for developing life skills were introduced, including robotics and geospatial technologies. Adults (parents and leaders) were surveyed to ask if they had observed effects of the program on the development of life skills among the youth in the programs.

Results

All the survey respondents strongly agreed that the program had significant impact on the development of problem solving, communication, perseverance, and teamwork among the youth in the programs.

4. Associated Knowledge Areas

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

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

We are continually challenged by economic factors, particularly when working with low-income audiences.

Youth and adults in the community have a myriad of other commitments that compete with the priorities of the 4-H Youth Development program.

The increase in youth and adults of Hispanic ethnicity in some areas has dictated that more program be developed and targeted to this emerging audience.

V(I). Planned Program (Evaluation Studies and Data Collection)**1. Evaluation Studies Planned**

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

Evaluation Results

Refugee children living in apartment complexes away from city services lacked quality after school programs. Boise City officials, Parks and Rec. Dept. staff and UI-EFNEP each lacked the money to extend services to these groups of children. These children needed additional help in learning English, wanted to be active after school and wanted a snack after school.

UI-EFNEP collaborated with the above agencies to share resources and funds to establish the Mobile Van Program that visits apartment complexes outside of regular city services. The Van Program provides staff to lead physical activities, nutrition lessons and snacks as well as arts and crafts.

More than 2000 children were enrolled in the Mobile Van Program; 1137 males and 992 females. Using the Dairy Council FAN Club curriculum (Fitness and Nutrition), 34% of the youth now eat a variety of foods, 59% increased their ability to select low-cost, nutritious foods, and 85% improved practices in food preparation and safety.

Key Items of Evaluation

The Shoshone-Bannock Tribe and tribal members derive a majority of their income from tribal land leases and grazing permits. Noxious weeds have decreased tribal farm and rangeland values and receipts. Tribal youth need programs that will help them contribute to the future of the Tribe while diverting their attentions from risky behaviors. Fort Hall Extension partnered with Shoshone-Bannock Tribal Agencies to obtain a Conservation Innovation Grant from the Natural Resources Conservation Service. Programs were conducted at local high schools to train youth in weed identification and GPS technology. Tribal youth were recruited to survey and map the occurrence of noxious weeds on the Reservation.

The youth began the program with very little knowledge of weeds and mapping technology. Now they are spreading the word about noxious weeds to tribal adults. One youth stated, "I will never look at these weeds the same-I have learned so much in this program!" The public is now more aware of the issue and how it affects individuals as well as the entire community. This program has given tribal youth an opportunity to gain education and marketable skills. More importantly, they have been publicly recognized for their contribution to their land and their Tribe.

Other UI Extension programs across the State are building youth-adult partnerships and are providing important community benefits. While the impacts of our investment are subtle, programs such as the Notus Youth Council and Health Rocks team are strongly supported by the Notus City Council and high school administration because of the success of youth-led projects including a canned food and clothing drive and a Halloween safety project. The program has produced confident and competent young people in a community that struggles with teaching youth leadership skills.

Program #2

V(A). Planned Program (Summary)

1. Name of the Planned Program

Beef

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|--------------|---|-----------------|-----------------|----------------|----------------|
| 301 | Reproductive Performance of Animals | 20% | | 20% | |
| 302 | Nutrient Utilization in Animals | 20% | | 20% | |
| 305 | Animal Physiological Processes | 10% | | 10% | |
| 306 | Environmental Stress in Animals | 10% | | 10% | |
| 307 | Animal Management Systems | 30% | | 30% | |
| 308 | Improved Animal Products (Before Harvest) | 10% | | 10% | |
| Total | | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 3.2 | 0.0 | 3.5 | 0.0 |
| Actual | 6.9 | 0.0 | 2.4 | 0.0 |

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

| Extension | | Research | |
|---------------------|----------------|----------------|----------------|
| Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| 118346 | 0 | 109066 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 118346 | 0 | 109066 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 265733 | 0 | 785323 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

Members of the Beef Team reported delivering 14 educational programs through BQA workshops, 38 at beef schools, 18 at field days, 11 at beef tours, and through 16 research demonstrations. Authors among the Beef Team reported publication of 8 abstracts, 34 newsletters, 6 articles in scientific journals, 17 Extension publications and 50 articles published by the popular press.

Research results generated were reported in a number of journal articles and provided the foundation for research proposals submitted to the Idaho Beef Council, the National Cattleman's Beef Association, and the USDA NRI.

2. Brief description of the target audience

The target audiences reported by members of the Beef Team include: Cow/calf producers, Tribal member beef cattle producers, Dairies that produce market cows, Yearling operations, Stocker and background operations, Youth with beef/livestock projects, Parents of 4-H members, Veterinarians, Agribusiness people, Commodity groups, Ranchers, Feedlot operators, Bankers, Feed salesmen, Extension Educators, Small Acreage Landowners with Cattle, Industry media, Vendors of ranch equipment and supplies, Government agency personnel who work with ranchers, and Animal science students.

Research results generated were reported in a number of journal articles and provided the foundation for research proposals submitted to the Idaho Beef Council, the National Cattleman's Beef Association, and the USDA NRI.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 1600 | 600 | 75 | 100 |
| 2008 | 7326 | 159186 | 2899 | 2639 |

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

Patent Applications Submitted

| Year | Target |
|--------------|---------------|
| Plan: | 0 |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 4 | 2 | |
| 2008 | 23 | 11 | 34 |

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

- Beef schools.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 10 | 12 |

Output #2**Output Measure**

- Beef Quality Assurance (BQA) workshops.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 5 | 14 |

Output #3**Output Measure**

- Field days.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 2 | 18 |

Output #4**Output Measure**

- Demonstrations/Applied research projects.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 2 | 16 |

Output #5**Output Measure**

- Tours.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 1 | 11 |

Output #6**Output Measure**

- Extension publications.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 4 | 17 |

Output #7**Output Measure**

- Popular press articles.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 10 | 50 |

Output #8**Output Measure**

- Newsletters.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 8 | 34 |

Output #9**Output Measure**

- Scientific journal articles

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 2 | 11 |

Output #10**Output Measure**

- Abstracts.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 3 | 8 |

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

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

Outcome #1**1. Outcome Measures**

O: Producers apply new, accepted, or recommended production practices. I:

Percent of participants indicating adoption of recommended practices.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 50 | 175 |

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

Beef cattle producers were in need of education on how to reduce winter feeding costs for their cattle. Ranchers need improved pasture species and new techniques for feeding calves and lowering feed costs.

What has been done

Educational classes, newsletter and news columns were sent to producers to educate them on utilizing lower quality, lower costs feed. A Field Day in Payette County demonstrated Grazing techniques and Creep Feeding.

Results

Producers fed more lower quality forages, and grazed longer in the winter while using protein supplements to balance the nutritive requirements of their cattle. Ranchers attending the the field day have since increased their awareness in grazing and grass varieties.

4. Associated Knowledge Areas

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

Outcome #2**1. Outcome Measures**

O: Producers acquire knowledge and understanding of new, approved, or recommended beef production practices. I: Percent of knowledge increase demonstrated by participants (pre- post-test results).

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 25 | 18 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Every aspect of beef production is constantly changing by means of technology, the environment, the economy, and many other forces. For producers to survive the changing times they must be up-to-date on the latest and greatest. When information is presented it is critical that the producers are understanding and taking some new knowledge away from the various programs.

What has been done

Evaluations were distributed at the end of the winter beef school and participants indicated how much they knew before and after for each topic presented. The participants in the AI Training were given a pre- and post-test to measure their change in knowledge.

Results

The overall increase in knowledge was 1 point (on a scale from 1 to 5) at the Winter Beef Schools. The participants increased their knowledge by 18% at the AI Training.

4. Associated Knowledge Areas

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

Outcome #3

1. Outcome Measures

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 400 | 2014 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Country of Origin Labeling (COOL), NAIS and other beef issues are affecting producers and their management strategies more today than any other time period in beef production history. Producers make their living by producing a product and staying in compliance with current regulations. In addition, they must move to the forefront of technology use to stay in business.

What has been done

A beef school was conducted that addressed beef quality assurance practices. In addition, two short seminars have been conducted regarding pertinent beef issues and COOL. All events averaged 25 participants.

Results

At least 75% of producers have relied on the use of COOL publications to comply with new regulations. At least 75% currently utilize beef quality assurance practices on their operations as a result of attending beef quality assurance seminars.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|---------------------------------|
| 307 | Animal Management Systems |
| 302 | Nutrient Utilization in Animals |

| | |
|-----|---|
| 308 | Improved Animal Products (Before Harvest) |
| 301 | Reproductive Performance of Animals |

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

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 7 | 3 |

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

To understand the underlying mechanisms regulating growth of ruminants.

This research project is targeted at understanding the regulation of insulin. As insulin is an extremely important regulatory hormone, this has implications for all axes that are under insulin regulation. Our specific interest is insulin's effects on muscle metabolism and the implications for metabolic processes in other organs such as the liver. In addition, regulation of glucose homeostasis also has broad impact. This applies to livestock species but the impact is broader as there are also implications in human medicine particularly in diseases such as insulin resistance and diabetes.

What has been done

We have discovered that PDX-1, a regulator of insulin gene expression, was previously thought to be exclusively expressed in the pancreas. However, we report that in the zebrafish (a species retaining several gene duplicate paralogs of single gene copies in mammals) a second insulin gene (*insb*) and *pdx-1* were co-expressed in the blastocyst and in mature ovary and brain tissues. Also in embryonic zebrafish, *pdx-1* expression synchronized with expression patterns of insulin a (*insa*) and *insb*.

Results

The ability to understand and finely manipulate intracellular signaling pathways has enormous potential for exploitation. The single most important driver of profitability in primary production is the control of cost of production. Improvement in the efficiency of utilization of nutrients/energy will have a major effect on profitability of all beef production sectors.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|---|
| 308 | Improved Animal Products (Before Harvest) |
| 305 | Animal Physiological Processes |
| 302 | Nutrient Utilization in Animals |

Outcome #5**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 100 | 25 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Consumers expect each food product they buy to be safe, wholesome, high quality and consistent with regard to each of these areas. To maintain consumer demand for beef and beef products, the beef industry has found it necessary to address and eliminate quality and consistency shortfalls.

What has been done

Information on a variety of beef quality assurance (BQA) topics (improving and maintaining product quality and desirability, assuring animal well being, and incorporating recommended beef quality assurance (BQA) practices into production protocols) was presented at various events (beef schools, field days, etc.) around the state.

Results

At one particular educational event, participants were allowed the opportunity to take the Idaho BQA Program certification exam. 25 training session participants completed the exam.

4. Associated Knowledge Areas

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

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Public Policy changes

Brief Explanation

Dry conditions created hardships for area producers. The extremely high feed prices coupled with high fuel costs has put the economic squeeze on cattle producers. Government regulations on CAFO's along with the new law calling for mandatory Country of Origin Labeling has affected producers greatly in the past year.

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

1. Evaluation Studies Planned

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

Evaluation Results

In one three-county area, Extension partnered with local fair boards to promote the adoption of electronic identification tags on all livestock shown in those fairs. Extension held a series of formal meetings and demonstrations of the tags and scanning equipment, and assisted participants at the time of weigh in. Following the program, all 420 participants showing animals had fitted their beef, sheep, goat, and swine entries with EID tags.

Key Items of Evaluation

Program #3

V(A). Planned Program (Summary)

1. Name of the Planned Program

Cereals

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|--------------|---|-----------------|-----------------|----------------|----------------|
| 201 | Plant Genome, Genetics, and Genetic Mechanisms | 20% | | 20% | |
| 202 | Plant Genetic Resources | 20% | | 20% | |
| 205 | Plant Management Systems | 20% | | 20% | |
| 211 | Insects, Mites, and Other Arthropods Affecting Plants | 20% | | 20% | |
| 212 | Pathogens and Nematodes Affecting Plants | 10% | | 10% | |
| 502 | New and Improved Food Products | 10% | | 10% | |
| Total | | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 4.6 | 0.0 | 4.9 | 0.0 |
| Actual | 7.8 | 0.0 | 8.0 | 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 |
| 117092 | 0 | 364238 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 117092 | 0 | 364238 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 262362 | 0 | 3725586 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

The Cereals Team conducted cereal schools to provide interactive learning and new technologies to growers including information about new varieties, pest management practices and problems, management decisions, and integration of cereals in cropping systems. In addition, numerous participating faculty delivered educational programs that are instrumental for industry members to receive pesticide applicator credits necessary for certification and re-certification.

The Team conducted field trials to learn about the localized performance characteristics of varieties, and of cereals-related products, and invited growers and consultants to participate in tours and field days to share new knowledge with those stakeholders. For wheat and barley, breeding, testing, and evaluating agronomic performance, end-use quality, adaptability to an areas or types of production, suitability for specialty markets, and production of seed for moving the varieties into commercial production is crucial information for a significant economic engine in the State.

Members of the Cereals Team met with advisory committees, commodity commissions, processors, and ag-support industries for feedback and to inform them of work in cereal production in Idaho. Cereals faculty wrote articles for trade journals, produced and published newsletters, research reports, and produced scientific articles for publication in refereed journals.

2. Brief description of the target audience

The target audience for the Cereals Team includes commercial cereal producers/farmers, public resource agency and regulatory personnel, crop consultants, Ag Industry field representatives (Fieldmen), Tribal farmers, news media, and other public audiences.

Topic team members meet with advisory committees, commodity commissions (Idaho Wheat Commission, Idaho Barley Commission, Idaho Grain Producers), processors, ag support industries for feedback and to inform them of work in cereal production research and extension programs in Idaho.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 2000 | 2000 | 20 | 20 |
| 2008 | 10907 | 20464 | 594 | 50 |

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

Patent Applications Submitted

| | |
|--------------|---------------|
| Year | Target |
| Plan: | 1 |
| 2008 : | 1 |

Patents listed

Crop: Wheat, common
 Variety: Bitterroot
 Experimental name or Synonym: <ID92-22407A>
 Taxon: Triticum aestivum L.
 Date filed: 09/29/2008

3. Publications (Standard General Output Measure)**Number of Peer Reviewed Publications**

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 10 | 1 | |
| 2008 | 7 | 10 | 17 |

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Idaho Cereal Schools.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 5 | 27 |

Output #2**Output Measure**

- Release and adoption of new cereal varieties.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 1 |

Output #3**Output Measure**

- Publication of CIS, Progress reports, PNW, etc.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 10 | 61 |

Output #4**Output Measure**

- Develop pest control technology - project/experiments.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 20 | 14 |

Output #5**Output Measure**

- Research on management systems - projects/experiments.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 30 | 80 |

Output #6**Output Measure**

- Refereed publications

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 14 |

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.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.I:

Number of participants attending cereal schools, field days, etc..

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 550 | 1893 |

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

Weeds can reduce grain yields and quality by competing for nutrients, water, and light. Managing weeds in cereal crops is an important pest management practice.

What has been done

Field studies were conducted to evaluate and compare various weed management practices, including chemical and cultural weed control methods. These studies were presented to growers, crop advisors, extension educators and other agricultural professionals at our annual field day, FWAA Winter Conference, and cereal schools held in southern Idaho. Reports of the studies were published in the Western Society of Weed Science Research Progress Report and in the UI Winter Commodity School Proceedings.

Results

Growers, crop advisors, extension educators and other agricultural professionals learned more effective methods for controlling weeds in cereal production. This leads to higher grain yields and quality. Our weed control studies show that when weeds are not controlled, grain yields can be reduced by as much as 50% in moderately to heavy weed populations compared to effectively controlling weeds in cereals.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|---|
| 202 | Plant Genetic Resources |
| 212 | Pathogens and Nematodes Affecting Plants |
| 211 | Insects, Mites, and Other Arthropods Affecting Plants |
| 205 | Plant 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 | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 600 | 1017 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Growers, agricultural audiences, landowners and agriculture employees need a variety of performance and end-use quality information to allow them to select varieties that fit their needs for maximum profitability. Access to online information has provided them with readily available information. Newsletters were also a great source of information.

What has been done

The Cereals Team provided variety selection data to growers through fact sheets and other printed media, through websites, through presentations, through websites, and through a widely-distributed newsletter.

Costs and returns estimates for barley (9) and wheat (14) were placed on the AERS departments web site to allow producers and industry workers easier and more timely access.

Results

During the past year, the contract prices for cereal crops have been excellent in Idaho. The need for up-to-date, readily available information has given the grower and others the tools they need to make their crops profitable. The website had a monthly average of 28 downloads of publications for cereal production, and an estimated 25 downloads related to grain costs and enterprise budgets.

4. Associated Knowledge Areas

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

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 Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 5000 | 91570 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

UI Extension tests different varieties of wheat and other grains in field trials across the State, and publishes the results of those trials in fact sheets and on the web.

What has been done

For the past several years, trials have shown that Alturas (soft white spring wheat) yields an average 13 bushels per acre more than the previously popular Penawawa variety of SWS. These results are shared with growers at field days and tours, in cereal schools, and through newsletters and web postings.

Results

Idaho wheat farmers, acting on that data, planted 93,300 acres of higher yielding Alturas in 2008, up from only 3,000 acres in 2004. Given average 2008 prices, the transition from Penawawa to Alturas is valued at more than \$7 million for Idaho farmers in 2008.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|-------------------------|
| 202 | Plant Genetic Resources |

Outcome #4**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 200 | 172 |

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

Growers need information for decision making about cereal crops and cropping systems.

What has been done

Three educational crop tours and five winter classes including a cereal school were conducted to provide information for decision making.

Results

According to questionnaires from schools, seminars and applicator training events the majority of attendees are using information presented for decision making about crop production methods.

4. Associated Knowledge Areas

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

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 2 | 5 |

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

The development of improved soft white winter wheat cultivars will allow the wheat producers in the Pacific Northwest to continue to provide high quality grain to both the domestic and foreign grain market. In the 2007-2008 growing season 213,300 acres in Idaho were planted to cultivars produced by this program constituting 36% of the soft white winter wheat acreage in Idaho in 2007-2008.

What has been done

A new imazamox resistant cultivar, (UICF-Lambert) was released in 2008 that will aid Idaho wheat producers in managing difficult to control weeds such as jointed goatgrass in their fields. Work on the CB2 population continues to provide additional molecular markers to assist in the selection for traits such as Cercospora foot rot, Cephalosporium stripe and stripe rust. The CB2 population has shown transgressive segregation for resistance to both Cephalosporium stripe and stripe rust allowing for the identification of quantitative trait loci (QTLs) associated with these traits. Completion of molecular mapping of the CB2 population (targeted for June, 2009) will provide improved markers for disease resistance and other desired traits in the population. Work continues on developing a protocol for the transfer of traits of interest from jointed goatgrass to wheat but the work continues to be slowed by the low level of fertility of the backcross generations developed using both Ph1 and Gc1 alleles to induce recombination between the genomes of the two species.

Results

The products from the various aspects of the program were the result of both direct research by the personnel of this program and through collaboration with other wheat research programs in the state and Pacific Northwest region (Oregon and Washington).

4. Associated Knowledge Areas

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

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Economy

Brief Explanation

Grain prices favor application of insecticides for pest densities that may not need chemical control. Drought seems to increase populations of some insects. A cold, wet spring affected many grain producers this year and delayed planting. In addition, the cost of fuel and fertilizer may have increased producer attendance of cereal programs as they search for more cost effective methods of production.

V(I). Planned Program (Evaluation Studies and Data Collection)**1. Evaluation Studies Planned**

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

Evaluation Results

At the "commercial pesticide applicator's calibration fly-in," 12 aircraft were tested by measuring the pattern of their application following replicated passes over the test area. In the 2008 fly-in, spray equipment was adjusted on 7 of the 12 planes following the test runs. Previous fly-ins determined that the applicators involved in the tests pesticide on approximately 150,000 acres each, per year. For 2008, sprayer modifications made at the fly-in improved the efficiency of application and reduced the unit cost of application on more than one million acres of cropland.

Key Items of Evaluation

UI Extension and researchers generate and test different varieties of wheat and other grains in field trials across the State, and publish the results of those trials in journals, fact sheets and on the web. For the past several years, trials have shown that Alturas (soft white spring wheat) yields an average 13 bushels per acre more than the previously popular Penawawa variety of SWS. Idaho wheat farmers, acting on that data, planted 93,300 acres of higher yielding Alturas in 2008, up from only 3,000 acres in 2004. Given average 2008 prices, the transition from Penawawa to Alturas is valued at more than \$7 million for Idaho farmers in 2008.

Program #4

V(A). Planned Program (Summary)

1. Name of the Planned Program

Civil Society

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

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

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 0.8 | 0.0 | 0.0 | 0.0 |
| Actual | 0.9 | 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 |
| 16888 | 0 | 0 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 16888 | 0 | 0 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 36323 | 0 | 0 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

In June 2008 we hosted Idaho's Journey in the Treasure Valley area, starting in Boise and traveling to the Snake River petroglyphs on the first day. The second day featured sites in the Boise area. Other activities include: Manner Mishaps, Horizon project presentations for recruitment, presentations at local colleges on diversity and careers to the freshman and sophomore classes. Other Diversity presentations included: Starpower, offered at the Extension Nutrition Program mini conference, Early Head Start, Head Start, and the Department of Health and Welfare.

2. Brief description of the target audience

Participation in Idaho's Journey and in other diversity programs includes individuals recruited from all sectors of the population, including community members and leaders, Extension Educators and other UI faculty and staff, college students, teachers, social service providers, business people, government employees, retirees and other interested residents.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 75 | 50 | 60 | 25 |
| 2008 | 400 | 4570 | 525 | 98 |

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

Patent Applications Submitted

| Year | Target |
|--------------|---------------|
| Plan: | 0 |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 0 | 0 | |
| 2008 | 1 | 2 | 3 |

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Idaho's Journey for Diversity and Human Rights.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 1 |

Output #2

Output Measure

- Manners Mishaps.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 13 |

Output #3

Output Measure

- Diversity workshops.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 7 |

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

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

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 50 | 42 |

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

Idaho's Journey for Diversity and Human Rights is designed to change peoples' knowledge, attitude and behavior relevant to Idaho's constituent groups.

What has been done

Idaho's Journey for Diversity and Human Rights was conducted in June 2008 in the Treasure Valley area. This two-day program included visits to sites in Boise and on the Snake River along with presentations by experts on the relevant issues.

Results

Evaluation question from Idaho's Journey My knowledge of how Idaho's past challenges can help us understand present day issues of diversity and human rights. Post 4.7 Pre 3.4 t= 7.17, p <.01

4. Associated Knowledge Areas

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

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 40 | 318 |

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

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

What has been done

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

Results

Participants in these simulations stated that they were unforgettable experiences. Anecdotal evidence is always complimentary, and participants often express the impact the experience had on their lives several years after going through a simulation . Many youth participants commonly expressed that the active learning experience is their favorite way to learn, and post-simulation debriefs always produce lively and thoughtful discussion. Even people who participate more than once express that they learn as much the second time around.

4. Associated Knowledge Areas

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

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Economy

Brief Explanation

It has been observed that people are spending less, in both time and money, to participate in extracurricular learning activities.

V(I). Planned Program (Evaluation Studies and Data Collection)**1. Evaluation Studies Planned**

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

Evaluation Results

Manner Mishaps was evaluated using a pre-post test completed by participants at the conclusion of the program. Across all classes, the evaluations indicated 93% agreed or strongly agreed the program was interesting. 81% agreed or strongly agreed the information was helpful. 91% agreed or strongly agreed the activities were helpful and 92% agreed or strongly agreed the information would help them in their future. The pre-test average correct score was 64% and the post-test average correct score was 92%.

Key Items of Evaluation

Program #5

V(A). Planned Program (Summary)

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% | | 15% | |
| 203 | Plant Biological Efficiency and Abiotic Stresses Affecting Plants | 10% | | 10% | |
| 204 | Plant Product Quality and Utility (Preharvest) | 10% | | 10% | |
| 205 | Plant Management Systems | 35% | | 35% | |
| 216 | Integrated Pest Management Systems | 20% | | 20% | |
| 805 | Community Institutions, Health, and Social Services | 10% | | 10% | |
| Total | | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 6.4 | 0.0 | 1.2 | 0.0 |
| Actual | 10.7 | 0.0 | 1.0 | 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 |
| 151893 | 0 | 43014 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 151893 | 0 | 43014 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 398526 | 0 | 611771 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

Twenty-six UI Extension and research faculty reported activity to the commercial and consumer horticulture team. Classes were held for new Master Gardeners in 10 Idaho Counties, and also for 4 more Idaho counties in collaboration with Utah State University. The Idaho-only programs graduated 283 new Master Gardeners, and the joint Idaho-Utah program graduated 216. Advanced Master Gardener programs were managed 10 Counties and involved approximately 209 learners/volunteers.

Faculty were also involved delivering education through two District Master Gardener Conferences, dozens of home gardening presentations, engagement with FFA youth in floriculture, and in pesticide certification training for homeowners as well as for professionals.

Advanced Master Gardeners provided public service at Plant Clinics in several counties, advanced and beginning master gardeners combined to provide more than 1600 hours of public service in 2008.

UI faculty served the Green Industry through participation and contribution to the annual Horticulture Expo, a premier training event for Idaho's green industry employees. In cooperation with stakeholder companies and the Idaho Department of Agriculture, training workshops were held at various places around the state. These programs for advanced audiences provide information on nursery management techniques, pesticide and fertilizer use and recommendations, plant establishment and maintenance principles, and other topics that will ultimately make green industries more profitable and create better service for consumers.

A major research focus of this group is the domestication of native berries (huckleberries), flowers, shrubs, and grasses.

2. Brief description of the target audience

Master Gardener Education: The target audience includes members of the public with a high level of interest in horticulture and time and interest in educating others. Beginning Master Gardeners are to participate in 30 to 70 hours of basic training in topics related to landscaping and gardening, such as soils, plant development, fertility, irrigation, plant diagnosis, pest control, etc. Following completion of the training course, students will become Advanced Master Gardeners. In this role, they will continue training under UI horticulturists in advanced topics using a hands-on approach. More importantly, with respect to team objectives, Advanced Master Gardeners become volunteer instructors and are expected to answer horticultural questions from the general public, assist in organizing workshops, conferences, and other education opportunities, develop public demonstration projects, and assist communities with plant-based improvement projects.

Consumer Horticulture Education: The potential target audience for this project is very large, consisting of virtually all Idaho citizens with yards, gardens, or landscapes. For the most part, this target audience will play the role of student within this objective. They will take opportunities to learn sustainable horticultural principles from numerous sources, including publications, popular press articles and presentations, workshops, conferences, demonstrations, and other teaching forums. Organized groups from this target audience, including community public works departments, garden clubs, church groups, and other interested organizations will assist by sponsoring educational gatherings.

Green Industry Education: The target audience consists of all owners, managers, and employees of green industry companies. The audience will take a fairly active role in recommending curriculum, organizing teaching opportunities, and actively working to become competent horticulturists.

Research target audiences: Nursery growers (of ornamental and native landscape plants), landscape maintenance companies, cattle and dairy producers, biogas producers, and U.S. Forest Service personnel involved in habitat restoration.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 33000 | 950000 | 8200 | 2150 |
| 2008 | 23778 | 927493 | 3176 | 10288 |

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

Patent Applications Submitted

| Year | Target |
|--------------|---------------|
| Plan: | 0 |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 0 | 0 | |
| 2008 | 7 | 0 | 7 |

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

- Advanced Master Gardener Training Workshop/Tours.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 9 | 73 |

Output #2**Output Measure**

- Beginning Master Gardener Courses.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 17 | 14 |

Output #3**Output Measure**

- Consumer Horticulture Education Media Publications/Programs.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 260 | 197 |

Output #4**Output Measure**

- Consumer Horticulture Education Personal Contacts/Visits.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 6300 | 16946 |

Output #5**Output Measure**

- Consumer Horticulture Web Site.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 0 | 1 |

Output #6**Output Measure**

- Consumer Horticulture Workshops/Seminars/Demonstrations.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 240 | 272 |

Output #7**Output Measure**

- Green Industry Education Workshops/Seminars/Clinics.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 25 | 39 |

Output #8**Output Measure**

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

Not reporting on this Output for this Annual Report

Output #9**Output Measure**

- Master Gardener Volunteer Hours.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 9900 | 16853 |

Output #10**Output Measure**

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

| Year | Target | Actual |
|-------------|-------------------|---------------|
| 2008 | {No Data Entered} | 1 |

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

| O No. | OUTCOME NAME |
|--------------|--|
| 1 | O: Beginning Master Gardeners will obtain adequate knowledge of horticultural principles to help or instruct other people.I: Marked increase in knowledge as measured by percentage increase in before and after test assessments. |
| 2 | O: Increase in Master Gardener retention and contribution.I: Increase in the number of hours contributed by Master Gardener volunteers. |
| 3 | O: Consumers have access to appropriate information about horticulture when they need it.I: Number of web site hits. |
| 4 | O: Less water is used to maintain consumer landscapes and gardens.I: Number of water conservation practices (xeriscaping, drip irrigation, etc.) showing increasing rates of adoption by the public. |
| 5 | O: Green industry managers and employees are equipped to help solve consumer problems.I: Estimation by green company owners of percentage of adequately trained employees. |
| 6 | Number of M.S. and Ph.D. candidates relevant to this topic team. |

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 35 | 33 |

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

Master Gardeners should feel confident in their knowledge and well as BE proficient in their horticultural knowledge. This is important for them to provide correct answers to questions from the public and to provide competent volunteer assistance to other people and organizations.

What has been done

A pre-test was given to the 22 Master Gardeners in the spring class of 2008 offered at the Milner Butte Landfill in Burley. Thirty hours of instruction was followed by a post-test, which was the same as the pre-test.

Results

The overall score on the pre-test was 60% and on the post test it was 77%. This was a 28% increase in knowledge. The following question 'I (have, don't have) enough gardening knowledge to feel comfortable as a Master Gardener volunteer' was also asked on both tests. On the pre-test, 8% said they had enough knowledge. On the post test, 69% felt they had enough knowledge.

4. Associated Knowledge Areas

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

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 9900 | 9131 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The longer Master Gardener volunteers are involved in programs and ongoing training, the more capable they are as mentors, problem solvers and reliable experts with the skills and information to meet the community's gardening education needs. It is important that we retain highly skilled and motivated volunteers to build our programs and make them most effective.

What has been done

Meeting the minimum volunteer service requirement was continually discussed and encouraged in both the Canyon County Master Gardener and Advanced Master Gardener programs. Volunteers had an active role in determining how and when they would spend their volunteer time so it was effective for the Extension office and feasible for the volunteer. More accurate records were kept this year of actual contributed time as well.

Results

More Canyon County Beginning Master Gardeners were certified in 2008 than in 2007. Canyon County Advanced Master Gardeners joined a formal course program and began tracking their volunteer hours. More trained volunteers made it possible to engage in more opportunities for volunteer contributions, such as a booth at the Canyon County Fair and work at the Extension office on special projects. Steps were taken to reward and recognize service contributions. The result was that volunteer time increased by about one third from 2007.

4. Associated Knowledge Areas

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

Outcome #3

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 20000 | 189123 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

To meet educational needs of Idaho's increasingly urban population, many avenues of information flow are needed. Many people now use the internet as their dominant source of information. A general gardening and landscaping web site has great potential as an educational tool.

What has been done

The Idaho Landscapes and Gardens web site was maintained, improved, and advertised.

Results

General horticulture information was available to all of Idaho homeowners who utilize the internet for information. Site visits, meaning those hits that came through the front page and consisted of accessing information from multiple files, totaled 75,140 far outstripping expectations. Thus, up-to-date horticulture information was delivered indirectly to a large Idaho audience.

4. Associated Knowledge Areas

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

| | |
|-----|--|
| 216 | Integrated Pest Management Systems |
| 204 | Plant Product Quality and Utility (Preharvest) |

Outcome #4**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 2 | 3 |

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

Municipal water demand is increasing with continued population growth. Supplies are expensive to expand. In some cases new water sources are not available and existing water supply from junior groundwater sources is vulnerable to curtailment to satisfy senior surface and spring flow water users.

To improve homeowner awareness on water consumption issues in landscapes Extension partnered with United Water Idaho to teach a 7-week Water Efficient Landscaping Series offered annually.

What has been done

1. To improve homeowner awareness on water consumption issues in landscapes Extension partnered with United Water Idaho to teach a 7-week Water Efficient Landscaping Series offered annually.
2. In one county, surveys were administered before and after a water conservation education program to measure change in water conservation practices.
3. In another community, Extension worked with a local newspaper writer I worked with Melissa Davlin, a reporter with the Twin Falls Times News to develop a feature article on drip irrigation for water conservation.

Results

1. Attendance at the Water Efficient Landscaping Series in 2008 was 679 participants and in 2007 was 547 participants. It has been observed over the years that more xeric plant materials are being used in landscapes and offered by nurseries, more drip systems are being installed, more lawns are being reduced in size, and more mulches are being used by homeowners.
2. A statistically-significant number of respondents indicated they have performed a test of their sprinklers to determine how much water they are applying. Using this information, they have been able to adjust their irrigation practices to be more efficient.
3. Careful use of drip irrigation can reduce water use by 20-30% with no change in the number or types of plants watered. Based on informal surveys of the major non-ag irrigation suppliers in Twin Falls, sales of drip irrigation equipment continue to increase. Estimated rate is 2-3% /year for the last 5 years.

4. Associated Knowledge Areas

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

Outcome #5

1. Outcome Measures

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

Not reporting on this Outcome for this Annual Report

Outcome #6

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | {No Data Entered} | 1 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Anaerobically digested cattle biosolids used as potting mixes is highly successful.

What has been done

Four species of native plants, Rocky Mountain penstemon, mockorange, oceanspray, and golden monkey flower, could be grown successfully in potting mixes amended with up to 30% (by volume) of the cattle biosolids.

Penstemon and mockorange grew well in mixes containing up to 60% biosolids. There were some problems with the anaerobically digested cattle biosolids, which included high soluble salt levels in the 45 and 60% mixes and high chloride levels in the cattle biosolids. After initial stress due to the salt concentrations, the four species of native plants grew well in mixes containing at least 30% biosolids.

Results

This project has several important impacts including (1) using a waste product to produce landscape plants and avoiding disposal costs for cattle producers and biogas producers; (2) substituting biosolids for peat moss thereby reducing the need to mine peat moss from bogs; and (3) reducing production costs for nursery stock growers since bark prices are rising due to less available material because of competition for bark from various industries.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|--|
| 204 | Plant Product Quality and Utility (Preharvest) |
| 205 | Plant Management Systems |

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy

Brief Explanation

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

1. Evaluation Studies Planned

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

Evaluation Results

A pre- post-test is given to most Master Gardener classes. The average score on the pre-tests was approximately 44 percent, and the average score on the post-test was 64 percent, an increase in knowledge of approximately 45 percent.

In a retrospective evaluation of the Master Gardener class in Blackfoot, learners indicated their gain in knowledge using a scale of 1 to 5 where 1 equals understanding little to nothing about a topic and 5 equals being almost an expert. The beginning class average level of knowledge was 1.97 and increased to 3.38 at the conclusion of the course, an increase of approximately 72 percent.

Key Items of Evaluation

Program #6

V(A). Planned Program (Summary)

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 | 10% | | 10% | |
| 601 | Economics of Agricultural Production and Farm Management | 20% | | 20% | |
| 608 | Community Resource Planning and Development | 40% | | 40% | |
| 803 | Sociological and Technological Change Affecting Individuals, Families and Communities | 10% | | 10% | |
| 805 | Community Institutions, Health, and Social Services | 10% | | 10% | |
| 903 | Communication, Education, and Information Delivery | 10% | | 10% | |
| | Total | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 5.2 | 0.0 | 2.3 | 0.0 |
| Actual | 6.0 | 0.0 | 2.0 | 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 |
| 97928 | 0 | 127594 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 97928 | 0 | 127594 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 234605 | 0 | 453087 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

Local leadership steering committees were formed; committees and communities were trained, coached and mentored. 24 communities participating in the Horizons 2 project completed their community visioning processes and began the implementation phases of their development efforts. About 25 new communities from Southern Idaho were recruited to participate in Horizons 3 and leadership teams have been formed, early training has been completed.

Data Tools for Understanding Communities were updated, distributed, and discussed in public forums across the state, and a related peer-reviewed bulletin was published.

Economic Development, Diversity & Vitality Projects (Customer Relations, Business & Community Entrepreneurship, and Analysis of Economic Viability of Planned Businesses):

Nine small business workshops were developed and delivered in north and northcentral Idaho, the primary region for the Two Degrees Northwest program. Two regional models (I-O/SAM) were built with data for 2006 to explain linkages among economic sectors and to supplement trends analysis found in some web sites. A paper entitled "The Export Economy of Gateway Communities: Fremont, Madison, Teton Counties in Idaho." was presented in the 37th Mid Continent Regional Science Association.

Other economic development activities included customer service training, assistance with grant writing, assistance with building of a community center and a 4-H building, and engaged service on dozens of local development boards and committees.

2. Brief description of the target audience

- Small business owners
- Government organizations/and agencies
- Local community non-profit organizations
- Entrepreneurs - current and future
- Elected officials, decision makers, and key stakeholders
- State and local employees
- New leaders and individuals currently serving in leadership roles
- Small business and community and potential community leaders
- Future and current leaders.
- Local and state leaders, and homeowners
- Developers, real estate agents, landowners, citizens and communities
- County Commissioners and their staff and staff in the Mayors' offices
- Chambers of commerce, independent entrepreneurs and the Economic Development Councils and Economic Development Corporations in different counties.
- State and local employees
- Research scientists

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 847 | 0 | 43 | 0 |
| 2008 | 10335 | 25789 | 11208 | 685 |

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

Patent Applications Submitted

Year Target
Plan: 0

2008 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 0 | 1 | |
| 2008 | 7 | 4 | 11 |

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Steering Committees/Teams formed.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 24 |

Output #2**Output Measure**

- Materials/Curriculum developed.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 3 | 8 |

Output #3**Output Measure**

- Presentations/Workshops.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 34 | 71 |

Output #4**Output Measure**

- Trainings- Series/Short Courses.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 6 | 6 |

Output #5**Output Measure**

- Conferences organized or implemented.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 2 |

Output #6**Output Measure**

- Ind/Boards/Com- Mentored/Coached.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 13 | 25 |

Output #7**Output Measure**

- Communities served.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 20 | 46 |

Output #8**Output Measure**

- Counties served.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 32 | 32 |

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 & how to find it. (Retrospective Post) |
| 2 | O: Entrepreneurs: Current & future Idaho Entrepreneurs learn business practices and develop skills needed for starting a business I: Number of participants learning skills |
| 3 | O: Entrepreneurs establish or expand their business I: Percentage of business owners establishing or expanding their business. (Annual survey/3 yrs.) |
| 4 | O: Customer: Small business owners & government organizations in Idaho learn customer relation practices. I: Number of participants achieved a threshold level of knowledge. (Pre/post test) |
| 5 | O: Customer: Small business owners and government organizations adopt customer oriented operating practices I: Percentage of participants indicated adoption of 1/2 recommended practices. (6 mo. follow-up checklist survey) |
| 6 | O: Leadership: Incumbent and emerging leaders learn skills for leadership positions. I: Number of participants with increased skills |
| 7 | O: Leadership: New leaders will assume leadership roles I: Number of new leaders serving in communities. (2 yr. follow up checklist/count) |

Outcome #1

1. Outcome Measures

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 40 | 187 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Businesses, civic organizations and county/city government need knowledge of economic and demographic data and trends in order to identify community issues and to effect positive outcomes and changes. The public needs to have current information on economic development and policies.

What has been done

The Data Tools resources were updated and presented to leaders and citizens in numerous counties; theIMPLAN database was used to demonstrate different sectors in two regions comprising 5 counties and data was assambled in an Input-Output model to describe intersectoral linkages of aggregated sectors.

Results

Retrospective post shows all participants in the data tools workshops increased their knowledge. Follow up contacts show participants are using data when making decisions. The 8 collaborators in the IMPLAN project are able to discuss the difference between an accounting approach (trend analysis) and economic base approach to assess the role of different sectors in the regional economies.

4. Associated Knowledge Areas

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

Outcome #2

1. Outcome Measures

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 20 | 206 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

A small farm wishes to expand into value added products

What has been done

Extension worked to teach the owner how to updated the farm business plan, helped guide and perform a feasibility review, and coached the owner to secure funding including help writing final value added working capital grant.

Results

The bank would not loan for a barn previously, but with the updated business plan and feasibility review the business succeeded in acquiring the loan to build the sheep dairy barn. The working capital USDA value added grant was awarded to Blue Sage Farm.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|---|
| 608 | Community Resource Planning and Development |
| 803 | Sociological and Technological Change Affecting Individuals, Families and Communities |
| 601 | Economics of Agricultural Production and Farm Management |
| 903 | Communication, Education, and Information Delivery |

Outcome #3

1. Outcome Measures

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

Not reporting on this Outcome for this Annual Report

Outcome #4

1. Outcome Measures

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 60 | 90 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Knowing that quality customer service involves developing a relationship with the customer increases the likelihood that the service provider will provide the extra level of service that develops customer loyalty.

What has been done

Customer service programs were taught to groups of youth entrepreneurs, existing businesses, and to groups of business owners.

Results

Participants in the Idaho Gold Standard program remain enthusiastic and supportive of the curriculum. Follow-up requests for training and consultation continue to increase.

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 |

Outcome #5**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 60 | 20 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

20 past participants in one county reported that they have incorporated new practices into how they serve their customers.

4. Associated Knowledge Areas

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

Outcome #6**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 30 | 48 |

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

Small rural communities are fading away, leaving residents with reduced community services and business service, diminished school systems and degrading infrastructure. Communities are disheartened about changing the trend.

What has been done

Discusses the possible application of the Horizons community development program with people in the community and convinced a cross section of the community to attend showcase and eventually to make application and eventually be accepted as a Horizon community for purposes of growing local capacity.

Results

Approximately 60 residents in 2 communities banded together to enter into the Horizon community development program. Initially this has resulted in the training of 9 community members as facilitators for study circles to have a community discussion on poverty.

4. Associated Knowledge Areas

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

Outcome #7**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 15 | 11 |

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

Rural Idaho community members frequently have limited training, time or skills to meet the decision-making challenges their communities face. There are few processes to encourage, grow and support existing and emerging rural leaders as their communities face major economic, social, cultural and environmental changes.

What has been done

The Prairie Horizons program has encouraged and supported 3 new community leaders.

Results

These 3 women have provided active leadership for their action teams which has resulted in the development of a non-profit organization for seeking grants, way-finding signage to Pine Bar Recreation Area for increased tourism, partnerships with state and national experts to determine the feasibility and development of an assisted living center, rural community development block grant proposal for a community center renovation, and consistent communication/Horizons updates with the public through a newspaper column and a blog.

4. Associated Knowledge Areas

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

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Competing Public priorities
- Competing Programmatic Challenges
- Other (Budget)

Brief Explanation

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

1. Evaluation Studies Planned

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

Evaluation Results

Evaluation results for a series of small business workshops were as follows:

Non-extension faculty who taught as part of the workshop series received E's for Excellent 87% of the time and G's for Good, 12% of the time. Most report learning new skills and/or gaining a greater understanding of some business activity, such as marketing, than they had before the workshop. The few F's for Fair were because the classroom facilities in the rural communities where workshops were held, were not always ideal -- crowded and stuffy in one case. We won't hold workshops in that location again.

Participants overall liked the networking opportunity they had with other existing or future entrepreneurs in their own or nearby communities. They often wrote that they would not have been able to participate if the workshops had been held in more distant, larger communities.

Participants said they would like more one-on-one time with mentors or teachers during the workshops and they would like to see more classes offered in their communities, as well as follow-up clinics to support their efforts.

The impacts of the workshops include new knowledge and skills learned by participating Entrepreneurs and expanded networks of peers and service providers.

Key Items of Evaluation

Program #7

V(A). Planned Program (Summary)

1. Name of the Planned Program

Dairy

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|--------------|-------------------------------------|-----------------|-----------------|----------------|----------------|
| 301 | Reproductive Performance of Animals | 20% | | 20% | |
| 302 | Nutrient Utilization in Animals | 20% | | 20% | |
| 305 | Animal Physiological Processes | 20% | | 20% | |
| 307 | Animal Management Systems | 20% | | 20% | |
| 311 | Animal Diseases | 20% | | 20% | |
| Total | | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 2.1 | 0.0 | 2.9 | 0.0 |
| Actual | 3.5 | 0.0 | 2.3 | 0.0 |

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

| Extension | | Research | |
|---------------------|----------------|----------------|----------------|
| Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| 89699 | 0 | 59218 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 89699 | 0 | 59218 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 178719 | 0 | 700250 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

The UI Dairy Team delivered six milker schools (in Spanish), two feeder schools (in English and Spanish), two calving schools, a hoof care workshop, two artificial insemination schools (in English and Spanish), the Winter Dairy Forum, and a reproduction refresher course. Faculty created, delivered and/or contributed to a Dairy Trailer exhibit, the Treasure Valley Replacement Heifer Project, the dairy BQA project, the Dairy Xnet, and dozens of education and information articles in trade publications and local outlets.

Dairy researchers conducted work related to production, nutrition, animal health, and environmental impact mitigation. This led to increased funding from USDA-NRI, the United Dairywomen of Idaho, and DMI. Researchers made several presentations on proposals and progress reports to the UDI research committee.

2. Brief description of the target audience

Target Audiences included dairy producers, managers, and owners; a largely Spanish-speaking dairy workforce including feeders, breeders, milkers, and hoof trimmers; and members of allied industry.

These audiences serving on planning committees, attend workshops/schools, receive one-on-one consultations, read extension publications, and participate in on-farm projects.

UDI, Idaho Dairymen Association, and the UDI research committee.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 2000 | 220000 | 500 | 0 |
| 2008 | 8053 | 155876 | 3588 | 203 |

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

Patent Applications Submitted

| Year | Target |
|--------------|---------------|
| Plan: | 0 |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 3 | 2 | |
| 2008 | 4 | 7 | 11 |

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

- Winter Dairy Forums.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 2 | 1 |

Output #2**Output Measure**

- Milker schools.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 6 | 6 |

Output #3**Output Measure**

- Calf Schools.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 2 | 3 |

Output #4**Output Measure**

- Artificial Insemination Schools.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 2 | 0 |

Output #5**Output Measure**

- Feeder Schools.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 2 | 2 |

Output #6**Output Measure**

- Milk Quality trial (cooperators).

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 7 | 7 |

Output #7**Output Measure**

- Popular Press articles.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 10 | 9 |

Output #8**Output Measure**

- University Publications (peer reviewed).

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 2 | 5 |

Output #9**Output Measure**

- Abstracts and Proceedings.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 4 | 16 |

Output #10**Output Measure**

- Journal articles.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 2 | 7 |

Output #11**Output Measure**

- Heifer reproduction trials.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 2 | 1 |

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

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

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 200 | 517 |

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

Training dairy workers, owners, and managers is crucial to ensure dairy profitability and sustainability

What has been done

Spanish language schools presented included calf raising school, feeder school, hoof care workshops, artificial insemination workshops, and milker schools.

Results

Participants attending these schools are asked to self-report the value of the information and their own assessment of the learning that occurred. Evaluations consistently show a high level of customer satisfaction and significant new knowledge transferred to the learners.

4. Associated Knowledge Areas

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

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 20 | 0 |

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

Workers knowledge on the type of job they perform daily is very important for dairy operators. Increased worker knowledge would traduce in more uniformity, professionalism, and ultimately more production, less cow losses, and more safety in the workplace.

What has been done

Pre-post tests, post tests, or post surveys were used to measure knowledge gained at each workshop or school offered.

Results

Increase in knowledge ranged from about 8% to 95% for the various workshops and schools, with greater gains made in the areas of feeding management and animal comfort and care, and relatively less improvement in more technical subjects with a more skilled workforce (e.g., artificial insemination)

4. Associated Knowledge Areas

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

Outcome #3

1. Outcome Measures

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 20 | 172 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

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

Outcome #4

1. Outcome Measures

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

Not reporting on this Outcome for this Annual Report

Outcome #5

1. Outcome Measures

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 50 | 0 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Non-successful breeding is one of the most costly failures for dairies. Other costly failures include lameness, poor nutrient management, poor calf management, and poor milking technique and hygiene.

What has been done

A total of 517 dairy workers attended UI Extension dairy schools and classes; about half of whom received their training in Spanish. Dairy educational programs included calf-raising school, feeder school, milker school, artificial insemination school, hoof care workshops, and cow comfort classes. Approximately 1/3 of program participants were able to demonstrate mastery of certain critical skills following training.

Results

Although it is not feasible to measure the impact of learning for each dairy worker, we verify that each class transfers knowledge and skills that reduce costs and increase production for the dairy industry. For example, hoof care workshops will reduce the incidence of lameness in dairy cows. The cost of lameness has been estimated at \$9,000 per 1,000 cows per year and is manifested through reduced dry matter intake reducing milk production, increased days when cows are open, increased incidence of death, and increased culling losses. Application of best care practices has been shown to save producers 14% of the cost of lameness, an annual savings of nearly \$640,000 for Idaho's dairy herd.

The impact from 151 dairy workers who attended schools and then demonstrated mastery of artificial insemination best practices will also be significant for the industry. Trained insemination technicians will increase conception rates by 15-20%, thus reducing the number of days when cows are open (period from calving to conception), and increasing the profitability per cow by \$3.20 - \$5.40 per day. Thus, a 1,000 head dairy can increase their profit by \$8,600 per year with only a 2-day reduction in average open-period.

4. Associated Knowledge Areas

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

Outcome #6

1. Outcome Measures

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

2. Associated Institution Types

•1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 2 | 3 |

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

Milk fat provides fatty acids that have been shown to have beneficial and adverse effects on human health. Although there has been significant work studying how dietary factors change bovine milk fatty acids, our understanding of the regulation of fatty acid synthesis is surprisingly weak such that consistent alterations in fatty acid content of milk fat are not possible.

What has been done

A new protein meal (camelina meal) with supplemental lipid for dairy cow rations was found to support milk production without any negative impacts on rumen function. Camelina may be a good alternative to canola meal in dairy rations in the future as production of the crop increases. The biohydrogenation of vaccenic acid by ruminal microbes in vitro involves the formation of positional isomers of cis- and trans-18:1 and stearic acid. A greater understanding of factors affecting these intermediates could lead to a reduction of trans fatty acids in milk creating a healthier product. Milk contains many fatty acids that inhibit the growth of bacteria. The potential to alter milk fatty acid content to reduce the risk of mastitis would be of tremendous economic importance to the dairy industry.

Results

Milk contains many fatty acids that inhibit the growth of bacteria. The potential to alter milk fatty acid content to reduce the risk of mastitis would be of tremendous economic importance to the dairy industry.

4. Associated Knowledge Areas

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

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Economy
- Public Policy changes
- Government Regulations

Brief Explanation

Although milk prices were higher than operating costs for many dairy producers, operating costs were at record levels for the current reporting year, leading to belt-tightening throughout the industry.

License requirements to perform AI have increased demand for the AI schools.

Immigration issues have concerned stakeholders groups potentially impacting participation. Migration of Hispanic workers bring new workers constantly. Some workers choose to settle down assisting more workshops to increase their knowledge.

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

1. Evaluation Studies Planned

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

Evaluation Results

Feeder School was initially evaluated with retrospective questionnaires. Attendees were asked to indicate how often they used each practice before attending the school and how often they planned to use the practice as a result of what they learned at the feeder school. Participants in the Spanish version of the feeder school indicated they preferred to use a post/pre test format to evaluate their knowledge, so the Spanish questionnaire was replaced by a pre/post test. This test had 18 questions that covered various aspects of feeding management and was administered at the beginning (pre-test) and end of the class (post-test). Scores improved from 33.3% correct (pre-test) to 71.1% correct (post-test), indicating a significant increase in knowledge. Significant improvements in planned practice adoption were also observed in the English workshop for eleven out of twelve categories and for the overall school. To assess learning, we also asked each attendee to indicate how much they may have learned from the workshop. The feeder school received an overall rating of 3.2 on a 1 to 4 scale (1 being nothing new and 4 being a lot). Based on these responses, attendees increased knowledge and understanding of feeding management. Furthermore, attendees planned to adopt or increase the frequency of using several key feeding management practices. In the end, this educational program will increase revenues on dairies through improved feeding management, increased milk production, decreased feed cost, decreased metabolic diseases, decreased death loss, cows staying on the dairy longer, and reducing the number of culls.

Key Items of Evaluation

Program #8

V(A). Planned Program (Summary)

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% | | 100% | |
| | Total | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 3.3 | 0.0 | 0.0 | 0.0 |
| Actual | 6.7 | 0.0 | 0.0 | 0.0 |

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

| Extension | | Research | |
|---------------------|----------------|----------------|----------------|
| Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| 110511 | 0 | 0 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 110511 | 0 | 0 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 291588 | 0 | 0 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

In the area of Basic Financial Management, the Family Economics team delivered dozens of educational programs including the highly successful "Dollar Decision\$"and"Credit Cents" workshops.Guarding against identity theft was the topic of numerous workshops, and new offerings included "recognizing predatory lending," 12 sessions of "Building Your Emergency Savings" and the Smart Women Smart Money conference.Faculty also shared basic financial management knowledge through a statewide newsletter, numerous posters, and articles.

Youth Financial literacy programs included "Welcome to the Real World" was delivered directly in about a dozen schools and indirectly by dozens more school teachers who learned the program through Extension. Other programs for youth are delivered through the High School Youth Financial Planning Program; and new programs this year included the Making Change program for high school youth preparing for adulthood; and several targeted programs such as "How to Buy Your First Car", "How to Rent Your First Apartment" and "How to Find Your First Job and Keep It".

Financial management programs for seniors have included more than a dozen long-term care seminars, preparing for independence seminars, and estate planning seminars.

A special need in Idaho has been to assist Native Americans with new regulations related to the American Indian Probate Reform Act (AIPRA).Our efforts have included development and distribution of informational brochures and providing guidance and answers to affected parties.

2. Brief description of the target audience

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

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

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 4000 | 90000 | 1500 | 2000 |
| 2008 | 9886 | 646355 | 4105 | 10760 |

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

Patent Applications Submitted

| Year | Target |
|--------------|---------------|
| Plan: | 0 |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)**Number of Peer Reviewed Publications**

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 7 | 0 | |
| 2008 | 2 | 0 | 2 |

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Newsletters.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 22 | 71 |

Output #2**Output Measure**

- Extension bulletins.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 2 |

Output #3**Output Measure**

- Popular Press articles.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 6 | 119 |

Output #4**Output Measure**

- Refereed journal articles, peer reviewed abstracts.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 6 | 18 |

Output #5**Output Measure**

- Professional or paraprofessional trainings.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 4 | 21 |

Output #6**Output Measure**

- Classes, workshops.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 100 | 254 |

Output #7**Output Measure**

- Websites developed or updated.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 2 |

Output #8**Output Measure**

- EFNEP/ENP graduates taught financial education.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 500 | 126 |

Output #9**Output Measure**

- Lesson/curriculums developed and published.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 1 |

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 will reach new audiences through an Urban Extension website.I: Number of sessions and pages visited. |
| 5 | O: Extension family economics publications will be used by consumers and professionals.I: Number of publications distributed. |

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 1000 | 2268 |

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

Family Economics issues are targeted to youth, young families, mid-life and seniors, each of whom have a vested interest in financial management.

What has been done

Evaluations were conducted following dozens of classes, indicating awareness in the areas of credit cents, savings for emergencies, guarding against id theft, making change, and Retire Well.

Results

I know at least two debt repayment methods. Agree or Strongly Agree (Before): (60%) ; Agree or Strongly Agree (After): (96%) I understand how to prepare financial for emergencies Agree Before: (43%) Agree After: (80%) I know how to determine if I am a victim of identity theft. Agree Before (32%) Agree After (85%) I understand how to prepare financially for emergencies Agree Before: (20%) Agree After: (92%) Risks and rewards of investing your money 91%

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|---|
| 801 | Individual and Family Resource Management |

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 800 | 3469 |

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

Aging adults making plans to protect their finances against their health

What has been done

Administered evaluation surveys at the end of Planning for Independence seminars

Results

85% of participants reported increased knowledge of long-term care options 76% of participants reported increased knowledge about long-term care insurance

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|---|
| 801 | Individual and Family Resource Management |

Outcome #3**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 300 | 1362 |

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

Many young adults struggle to pay their bills on time and receive calls for collectors. Only 59 % of the roughly 23 million young adults in Generation Y, those aged 18-29, paid their bills on time every month. Only a minority of people kept close track of their expenses and spending, and a majority of the public did not have an emergency fund.

What has been done

A basic financial management curriculum, Dollar Decision\$, was developed by Idaho Extension Educators to target low- to middle income young adults. Three years later a Spanish translation was made available. During FY07 evaluation data was collected. It was analyzed by the SSRU in FY08 and an Impact Statement was written summarizing the data.

Results

From the 273 evaluations 41% of the clients indicated that they would track their spending; 36% indicated that they would ask themselves when purchasing 'do I really need this?' Sixty-two percent indicated that they would use a spending and savings plan, 57% would save money for emergencies and 49% indicated that they would set financial goals.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|---|
| 801 | Individual and Family Resource Management |

Outcome #4**1. Outcome Measures**

O: Extension Family economics will reach new audiences through an Urban Extension website. I: Number of sessions and pages visited.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 3000 | 63006 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

It is becoming difficult to attract learners to Extension classes, especially in rural communities. Extension has too few resources available on the web. Publication of educational resources on the web allows us to reach new audiences and allows client access to education 24/7.

What has been done

UI Specialist led multi-state team in revision and publishing of a user-friendly eXtension 'Legally Secure Your Financial Future' website. Site contains three learning lessons about getting records organized, Advance Directives for Health Care, and Estate Planning. Site also has 6 downloadable documents for consumer use.

Results

Extension reaches new audiences. Am awaiting eXtension data re. # sessions & pages visited.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|---|
| 801 | Individual and Family Resource Management |

Outcome #5

1. Outcome Measures

O: Extension family economics publications will be used by consumers and professionals. I: Number of publications distributed.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 1000 | 5795 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

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

Brief Explanation

shrinking economy and increasing number of retirement-aged people with insufficient savings or other resources.

V(I). Planned Program (Evaluation Studies and Data Collection)**1. Evaluation Studies Planned**

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

Evaluation Results

Money management is a critical life skill 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 taught how to manage their money. Yet, teens are active consumers, spending 98% of their money instead of saving it. Additionally, more than 1 in 5 youths ages 12 to 19 have their own credit cards or have access to parent's credit cards, and 14% have debit cards.

One faculty member taught 5 sessions of Welcome to the Real World, reaching 114 student in Malad and Preston High Schools. 91 Welcome to the Real World post surveys showed how many students learned new skills from the program: 57% open bank accounts, 39% write a check correctly, 66% use a debit card, 55% balance a checkbook, 76% budget for expenses, 83% balance income and expenses, and 94% reconcile a checkbook with a bank statement.

Key Items of Evaluation**Financial Security for Seniors**

A 2004 Martindale-Hubbell survey revealed that 70% of seniors lacked both a living will and medical directives and only 27% had filed powers of attorney for health care, although these legal documents are essential to preparing for financial security in later life. UI Extension teamed with community organizations and local attorneys to offer three *Legally Secure Your Financial Future* seminars in Boise and Nampa during 2008. In a two-session series, instructors guided participants through an evaluation of their important documents and legal affairs and suggested resources to contact for self-help or professional assistance.

Over 142 seniors attended the seminars in 2008. Participants reported numerous actions taken as a result of attending the series. "The seminars helped us focus attention on the need to revisit estate planning tasks." After the first week, participants reported that they sent for new passports, new social security cards and completed new advanced directives. Participants gave copies of living wills to their children and communicated their desires and wishes. One participant reported: "As a result of the seminars, I contacted a financial planner who in turn referred us to an attorney to establish health care directives and a family trust." Another 109 participants attended two Long-term Care seminars.

Program #9

V(A). Planned Program (Summary)

1. Name of the Planned Program

Family Life Education

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

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

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 1.5 | 0.0 | 0.0 | 0.0 |
| Actual | 2.5 | 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 |
| 36800 | 0 | 0 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 36800 | 0 | 0 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 99410 | 0 | 0 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

The 13 Parents as Teachers program sites were discontinued due to withdrawal of financial support from the Office of the Governor. The Married and Loving It! program was delivered as a train-the-trainer program to expand the impact of a very successful program. Following the training, the program was delivered three more times around the State.

Block Fest has been going strong over the past year, with events in southern, eastern and northern Idaho over the past year, with funding from the Micron and Verizon Foundations, and also with proceeds from our product sales. The Grandparents as Parents effort continued with a research project on kinship care in Idaho, in collaboration with Idaho KidsCount, which resulted in a publication and considerable media coverage.

Extension offered workshops on aging life issues (Four Generations in the Workplace), developed and delivered a Time Management Program to help families manage their individual time and time together, and collaborated on educational projects with numerous organizations including a Children's Mental Health Parent Support Group, the National Hospice Foundation, a Rural Caregivers network, several of our State's Area Agencies on Aging, and the Northwest Parenting Conference Planning Committee.

We have initiated our project to expand our presence on the web, with funding from the Urban Extension program for a comprehensive FCS website for the public.

2. Brief description of the target audience

Our programs have reached parents and children (Block Fest), couples (Married and Loving It), and grandparents and other relative caregivers (kinship care publications and forum). In addition, we target child care providers, policy makers, young adults, educators, and social service providers, parents, parents with special needs children, parent educators, disabled children and clients.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 270 | 5000 | 270 | 0 |
| 2008 | 4133 | 24017 | 440 | 4825 |

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

Patent Applications Submitted

| Year | Target |
|--------------|---------------|
| Plan: | 0 |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 0 | 0 | |
| 2008 | 1 | 0 | 1 |

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

- Maintain Parents as Teachers sites.

Not reporting on this Output for this Annual Report

Output #2**Output Measure**

- Offer Married and Loving It series.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 2 |

Output #3**Output Measure**

- Offer workshops on aging life issues.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 3 |

Output #4**Output Measure**

- Web-based educational materials.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 1 |

Output #5**Output Measure**

- Newsletter articles.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 5 | 29 |

Output #6**Output Measure**

- Peer reviewed publications.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 0 | 1 |

Output #7**Output Measure**

- Conference posters/presentations.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 11 |

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

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

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 150 | 335 |

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

The level of interest children show in science, math, and engineering can be affected by early learning strategies. Block fest shows both immediate and delayed impact on parents

What has been done

Parents and children are engaged in a 1-Hour session of block play and early math learning. This activity is supplemented with on-site discussions take-home learning materials.

Results

Parents report observing math and science-relevant behaviors in their children during Block Fest and that they understand the link between block play and math and science learning. Three months later they report that they have read the materials on block play and math learning, that they made blocks available to their children at home, that they use more math and science words with their children and play more activities with them.

4. Associated Knowledge Areas

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

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 200 | 380 |

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

When parents are knowledgeable about best practices, they have more confidence as parents and are more likely to use best practices -- they learn that these practices work.

What has been done

Parents learned best practices through the study at home course (work book and video and follow up with extension educator.)

Results

Parents reported that they were more knowledgeable, and could use the best practices they learned, and planned to raise their new babies differently than with the methods they had used with earlier children.

4. Associated Knowledge Areas

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

Outcome #3

1. Outcome Measures

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

Not reporting on this Outcome for this Annual Report

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Appropriations changes
- Public Policy changes
- Competing Public priorities

Brief Explanation

Loss of funding for the Parents as Teachers program had a significant impact to shift the emphasis of our Family Life Education program

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

1. Evaluation Studies Planned

- Before-After (before and after program)
- Case Study

Evaluation Results

Participants in Married and Loving It! increased their knowledge - pre-test score were 64% and post test were 88%. Behavior changes described by participants included; communication is improved, ability to work together is improved, anger is managed better, we are resolving our conflicts more easily and more thoroughly.

Key Items of Evaluation

Program #10

V(A). Planned Program (Summary)

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 |
|---------|--|-----------------|-----------------|----------------|----------------|
| 601 | Economics of Agricultural Production and Farm Management | 35% | | 35% | |
| 602 | Business Management, Finance, and Taxation | 25% | | 25% | |
| 603 | Market Economics | 15% | | 15% | |
| 605 | Natural Resource and Environmental Economics | 15% | | 15% | |
| 606 | International Trade and Development | 10% | | 10% | |
| | Total | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 2.6 | 0.0 | 2.2 | 0.0 |
| Actual | 4.3 | 0.0 | 2.3 | 0.0 |

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

| Extension | | Research | |
|---------------------|----------------|----------------|----------------|
| Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| 98920 | 0 | 151434 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 98920 | 0 | 151434 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 209442 | 0 | 504473 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

Much of the work done by the Farm Management Team is conducted in partnership with other Extension activities. For example, Team members gave farm business management at cereal schools, the potato conference, and at other scheduled venues. In addition, Farm Management courses were delivered, including one in collaboration with Idaho State University that specifically targets members of the Shoshone-Bannock Tribe. Faculty worked with a dozen farmers to teach and help maintain records using FinPac, and with Farm Service Agency and other regulatory and assistance agencies and served as a conduit of information about new procedures and regulations to Idaho farmers.

The Farm Management Team also worked to update dozens of enterprise budgets that are maintained current and available for use by the related industries.

2. Brief description of the target audience

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

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 1200 | 5000 | 0 | 0 |
| 2008 | 5631 | 30377 | 214 | 60 |

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

Patent Applications Submitted

| | |
|--------------|---------------|
| Year | Target |
| Plan: | 0 |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 2 | 0 | |
| 2008 | 17 | 25 | 42 |

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

- Farm Management Classes.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 13 |

Output #2**Output Measure**

- Livestock Costs and Returns Estimates.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 20 | 20 |

Output #3**Output Measure**

- Crop Costs and Returns Estimates.

Not reporting on this Output for this Annual Report

Output #4**Output Measure**

- ID Agriculture's Economic Situation Pamphlet (develop and distribute no.).

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2000 | 0 |

Output #5**Output Measure**

- Media Contacts.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 30 | 48 |

Output #6**Output Measure**

- Workshops at Commodity Schools.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 6 | 32 |

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

| O No. | OUTCOME NAME |
|--------------|---|
| 1 | O: Clientele possess latest information to use in decision making.I: Number of publications and other resources distributed, or hits on website. |
| 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: Clientele possess latest information to use in decision making. I: Number of publications and other resources distributed, or hits on website.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 200 | 431 |

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

Many individuals/producers are interested in the livestock/crop enterprise budgets, cost of production guides and the Custom Rates Guide to assist them with farm planning and management.

What has been done

Farm management educational material was posted on the AERS department web site for broader distribution. Farm management educational material is also available in Extension offices for distribution through direct or indirect requests.

Results

The farm Safety web site received a total of 7346 visits and 10,470 downloads of farm safety publications in both English and Spanish. The Resource section of the AERS web site received over 3,000 hits.

4. Associated Knowledge Areas

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

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 1200 | 1166 |

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

Farmers, Ranchers, employees, Ag-Business, general public

What has been done

Presentations were given which provided new knowledge that directly affected growers' management practices: Soil, water and Nutrient Management, Irrigation Management to Reduce Water Use and Cost, Potato Performance: Varieties that are Most Effective, Understanding Crop Stress Points & Irrigation, Range & Pasture Management, Enhancing fertilizer efficiency, and Water Conservation Workshop

Results

Cost-effective skills were taught to help the producer grow crops more efficiently and reduce water costs, and provided tips on how to utilize chemicals and products.

4. Associated Knowledge Areas

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

Outcome #3

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 150 | 457 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Producers attended farm management education programs held as part of one of the traditional commodity schools. Farm management topics or principles were discussed. Decision-aid computer programs were demonstrated. Participant learning was measured using post-program survey instruments.

Results

Responses from growers attending the 2008 Idaho Potato Conference.

1. Calculating & analyzing potato production costs- Number of participants indicating that the information was useful: 26
2. Potato ground: how much should you pay to rent? Number of participants indicating that the information was useful: 14
3. Planting decisions: what and why? Number of participants indicating that the information was useful: 6

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|--|
| 601 | Economics of Agricultural Production and Farm Management |
| 603 | Market Economics |

Outcome #4**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 100 | 175 |

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

Producers attended farm management education programs held as part of one of the traditional commodity schools.

What has been done

Farm management topics or principles were discussed. Decision-aid computer programs were demonstrated.

Growers participating in programs were asked about their intentions to adopt recommended practices.

Results

Responses from growers, consultants and 'others' attending the 2008 Idaho Potato Conference. There were three workshops on farm management topics.

1. Calculating & analyzing potato production cost Workshop-- participants indicating that they will change practices: 16.
2. Potato ground: how much should you pay to rent? Workshop participants indicating that they will change practices: 8.
3. Planting decisions: what and why? Workshop participants indicating that they will change practices: 2.

4. Associated Knowledge Areas

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

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

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | {No Data Entered} | 3 |

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

The management of the risk associated with variable returns is becoming more complex and important for agricultural producers.

What has been done

The Apple Risk program was completed and a user's manual developed for use by apple producers in the Pacific Northwest (PNW). Apple Risk is an interactive risk evaluation program for organic apple producers. Apple Risk was developed in cooperation with Washington State University (WSU). The potential for using mustard seed as a biofuel input under the assumption that mustard seed meal can be used as an effective biopesticide was evaluated. Results suggest the biopesticide properties of mustard meal can provide a significant revenue source and contribute to the viability of mustard oil as a biodiesel feedstock. Additional work is needed to assess the efficacy of mustard meal in specific biopesticide applications. Work was completed to evaluate the rotational benefits of mustard versus dry peas in a three-year rotation for the Palouse region of the PNW using experimental data.

Results

Initial evidence suggests soil fertility or yield enhancements could not be identified from the initial three year's of data (one complete rotation). Additional work is continuing to collect additional experimental data.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|--|
| 601 | Economics of Agricultural Production and Farm Management |

V(H). Planned Program (External Factors)**External factors which affected outcomes**

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

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)****1. Evaluation Studies Planned**

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

Evaluation Results**Key Items of Evaluation**

Program #11

V(A). Planned Program (Summary)

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 | 15% | | 15% | |
| 308 | Improved Animal Products (Before Harvest) | 10% | | 10% | |
| 311 | Animal Diseases | 10% | | 10% | |
| 504 | Home and Commercial Food Service | 25% | | 25% | |
| 712 | Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins | 40% | | 40% | |
| Total | | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 3.0 | 0.0 | 2.3 | 0.0 |
| Actual | 5.1 | 0.0 | 3.3 | 0.0 |

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

| Extension | | Research | |
|---------------------|----------------|----------------|----------------|
| Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| 69342 | 0 | 174690 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 69342 | 0 | 174690 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 250289 | 0 | 2089505 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

Just in Time Food Safety - Educators and volunteers used teachable moments to respond to more than 4,500 telephone inquiries, by disseminating current researched-based information to consumers.

Consumer Food Safety Programs - Extension educators taught 152 classes and workshops on general food safety and food preservation topics.

Food Industry Assistance - The Extension Food Processing Specialist delivered general food safety and HACCP (Hazard Analysis Critical Control Points) workshops and provided specific food safety consulting (including on-site HACCP training, prerequisite programs training, preparation for food safety inspections and general food safety information) to 42 Idaho food processing businesses.

Food Safety Advisor/Master Food Preserver - UI Extension trained 23 FSA/MFP volunteers to share their expertise in their communities. Returning and newly trained food safety volunteers donated 1,724 hours of volunteer service in 2008.

Hand Washing Education - Hand washing technique and effectiveness delivered through Germ city to more than 7,000 learners in 2008.

Research projects focused on the ecology and prevention of E. coli and other zoonotic infections associated with food. In addition, other work assessed novel methods of food preservation and sterilization.

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 officeswith 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 PreserverConsumers 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 TrainingHigh school students in foods classes

Adult food service workers

Hand washing Education Elementary age children.

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)

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 9222 | 0 | 14160 | 0 |
| 2008 | 10510 | 10609 | 9347 | 10609 |

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

Patent Applications Submitted

| Year | Target |
|--------------|---------------|
| Plan: | 1 |
| 2008 : | 3 |

Patents listed

Provisional: Serial No. 61/117,894
 Provisional: Serial No. 61/132,642
 Provisional: Serial No. 61/070,662

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 2 | 1 | |
| 2008 | 1 | 3 | 4 |

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

- Number of food safety calls answered.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 4075 | 4503 |

Output #2**Output Measure**

- Consumer food safety classes taught.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 69 | 70 |

Output #3**Output Measure**

- food safety presentations in other classes.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 45 | 82 |

Output #4**Output Measure**

- Food industry consults.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 35 | 42 |

Output #5**Output Measure**

- Number of certified Food Safety Advisors (MFPs).

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 22 | 23 |

Output #6**Output Measure**

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

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 35 | 76 |

Output #7**Output Measure**

- Number of volunteer hours logged by FSA/MFPs.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1360 | 1724 |

Output #8**Output Measure**

- Students receiving a RSFS certificate.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 315 | 170 |

Output #9**Output Measure**

- Participants in hand washing education programs.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 10220 | 7034 |

Output #10**Output Measure**

- Number ENP/EFNEP graduates.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 550 | 1736 |

Output #11**Output Measure**

- Number ENP/EFNEP one-time classes.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1650 | 2690 |

Output #12

Output Measure

- Refereed journal publications

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 4 |

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

| O No. | OUTCOME NAME |
|-------|---|
| 1 | O: People use Just in Time Food Safety Information to help them make decisions about food preparation, storage, etc.I: Percentage of people who describe that they plan to use requested advice. |
| 2 | O: Consumer Food Safety Programs-People practice recommended food safety behaviors.I: Consumer Food Safety Programs-Program participants indicate their intentions to adopt recommended food safety practices. |
| 3 | O: Food Industry Assistance-Companies have appropriate knowledge to operate food safe businesses.I: Number of companies that achieve licensing. |
| 4 | 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. |
| 5 | 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. |
| 6 | 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. |
| 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. |
| 8 | O: Other scientists are aware of our research findings. I: Number of refereed scientific journal articles. |
| 9 | O: ENP-EFNEP Food Safety-Low income family members will practice safe food behaviors.I: Percentage of EFNEP graduates reporting intent to adopt practices. |
| 10 | O: ENP-EFNEP Food Safety-Low income family members will practice safe food behaviors.I: Number of one-time ENP participants reporting intent to adopt practices. |

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: Percentage of people who describe that they plan to use requested advice.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 2853 | 3790 |

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

A safe food supply is a priority for all families. Idaho has an extremely safe food supply, but foodborne illness still affects about 1 in every 4 persons annually. Food that is mishandled can cause serious consequences for all, but especially infants, the elderly, pregnant women and people with weakened immune systems.

What has been done

Faculty and advisers answered consumer questions over the phone and surveyed a sample of the 1/3 of the call-in population about their intentions to use the information received.

Results

On average, nine out of ten callers indicated their intentions to follow the recommended practices.

4. Associated Knowledge Areas

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

Outcome #2**1. Outcome Measures**

O: Consumer Food Safety Programs-People practice recommended food safety behaviors. I: Consumer Food Safety Programs-Program participants indicate their intentions to adopt recommended food safety practices.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 483 | 299 |

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

Not practicing safe food practices can lead to foodborne illness and economic loss.

What has been done

Preserve at home and a variety of 1-time classes such as Canning Basics, Canning 101, Pickling and Drying and Hunter Food Safety were held for specific audiences.

Results

Nearly half of the participants in the classes spoke to instructors directly after class or called a few days later to describe the difference the classes made in their food preservation habits. Several explained that they were going to get rid of old family recipes due to the unsafe nature of the ingredients.

4. Associated Knowledge Areas

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

Outcome #3

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 for this Annual Report

Outcome #4

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 57 | 99 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

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

Outcome #5

1. Outcome Measures

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 221 | 321 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

About one-third of employed youth 15-17 years of age work in food service. Over 70% of teens work in food service as their first job. Increasingly, the foods Americans eat are prepared by others, via a variety of food service formats. Half of the total food expenditures in 2004 were spent on food away from home. It is important to food service customers and owners than the youth employed are well trained in food safety procedures and perform well on the job.

What has been done

Ready-Set-Food Safe was taught by Extension faculty and staff in High Schools across the State.

Results

Participating students who completed the course were given an opportunity to take the safe food handlers exam required for a food service certificate. Of those who took the exam, the rate of passage of the exam (80% correct or greater) varied from about 49% to 81%. Those who passed the exam are eligible to work unsupervised in the food service industry,

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|----------------------------------|
| 504 | Home and Commercial Food Service |

Outcome #6

1. Outcome Measures

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 9198 | 6166 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Hand hygiene is a key often overlooked behavior important for food safety, personal health, and disease prevention. Most people do not wash their hands as often or as well as needed. Studies support that need for behavior change as well as for effective hand washing education.

What has been done

More than 7,000 young people in Idaho participated in the Germ City hand washing activity in 2008. After the learning activity, children are asked what practices they learned about that they plan to adopt or to do more frequently.

Results

More than 90% of young learners are able to describe the times when it is most important to wash their hands; and are willing to identify one of those times which they will focus on to improve behavior.

4. Associated Knowledge Areas

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

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 | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 2 | 7 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Foodborne diseases remain a major cause of morbidity and mortality. An estimated 76 million cases of foodborne illness, with 325,000 hospitalizations, occur each year in the United States, costing between \$6.5 and \$34.9 billion in medical care and productivity. Idaho's dairy industry is one of the largest agricultural industries in the state with cheese production being a major milk outlet.

What has been done

The project deals with the production of various bacteriocin preparations from dairy-based growth media and the concentration of these preparations by freeze drying. The freeze-dried bacteriocin preparations will be used to inhibit select foodborne pathogens, including *Listeria monocytogenes*, *Staphylococcus aureus*, and *Enterobacter sakazakii*. The relevant agencies of the US government can utilize the findings of the project to make recommendations on the appropriate incorporation of bacteriocins into select food products.

Results

The successful use of bacteriocins as biopreservatives in foods would help reduce the number of foodborne illness related hospitalizations, deaths, and economical loss due to medical expenses, lost income and productivity, cost of litigation and penalties, and loss of trade, benefiting the US government, the food industry, and the consumer.

4. Associated Knowledge Areas

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

Outcome #8**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 2 | 14 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

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

Outcome #9**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 385 | 0 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

According to public health and food safety experts, 76 million illnesses in this country can be traced to foodborne bacteria each year. Moreover, the Food and Drug Administration estimates that two to three percent of all foodborne illnesses lead to secondary long-term illnesses.

What has been done

ENP offers classes to food stamp recipients on safe food handling practices and good hand hygiene. We use a post-evaluation and ask about planned behavior.

Results

Three hundred eighty five graduates (approximately 56%) indicated their intentions to adopt new practices for safe food handling and storage.

4. Associated Knowledge Areas

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

Outcome #10

1. Outcome Measures

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 1320 | 401 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

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

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy

Brief Explanation

The recent economic downturn has impacted consumer confidence. Rising food and energy costs are causing stress on family budgets and families are looking for ways to extend incomes including preserving more of their garden produce and produce from other sources. We are also seeing an increased interest in food storage, food preservation and preparations for a possible recession. Because of people reverting to home preservation, old (pre 1989) food preservation publications and "Grandma's recipes" are resurfacing which are frequently unsafe.

V(I). Planned Program (Evaluation Studies and Data Collection)**1. Evaluation Studies Planned**

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

Evaluation Results

From the EFNEP Reporting System (ERS) EFNEP had 310 graduates. To graduate from the EFNEP a client must complete 6 core lessons, one of which is Food Safety. During FY 2008 EFNEP II used two EFNEP curriculums, Eating Right is Basic (Michigan State University), and Eat Right for Life-Keep Food Safe (University of Florida). Both curriculums covered the same themes; Florida's was updated to reflect the new dietary guidance of MyPyramid.gov.

The data from the ERS indicated that food safety practices of EFNEP graduates improved as indicated by the following: 22% (68 of 310) more often followed the recommended practices on not allowing meat and dairy foods to sit out for more than two hours. Furthermore, 19% (59) ALWAYS follow the recommended practice. Seventy percent (217 of 310) more often followed the recommended practice of not thawing foods at room temperature. Furthermore 54% (167) ALWAYS follow the recommended practice.

EFNEP clients improved in their food safety practices. From pre-tests taken at entry compared to post tests taken at exit 74% (229 of 310) of participants showed improvement in one or more of the food safety practices (i.e. thawing foods and storing foods properly). Eighteen percent (56 of 310) of participants showed improvement in both of the food safety practices (i.e. thawing and storing foods properly).

Key Items of Evaluation

Program #12

V(A). Planned Program (Summary)

1. Name of the Planned Program

Forages

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|---------|---|-----------------|-----------------|----------------|----------------|
| 203 | Plant Biological Efficiency and Abiotic Stresses Affecting Plants | 20% | | 20% | |
| 204 | Plant Product Quality and Utility (Preharvest) | 30% | | 30% | |
| 205 | Plant Management Systems | 40% | | 40% | |
| 215 | Biological Control of Pests Affecting Plants | 10% | | 10% | |
| | Total | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 2.2 | 0.0 | 0.2 | 0.0 |
| Actual | 4.5 | 0.0 | 0.3 | 0.0 |

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

| Extension | | Research | |
|---------------------|----------------|----------------|----------------|
| Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| 78700 | 0 | 21370 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 78700 | 0 | 21370 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 200032 | 0 | 113365 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

 Irrigated Pastures

Development of a curriculum package that presents a coordinated and consistent set of concepts for domestic pasture management under Idaho conditions.

At least one 4-day hands-on MiG workshop at the Nancy M. Cummings Research Extension and Education Center.

Pasture management classes and tours:

Plant material trial at the Nancy M Cummings Research Extension and Education Center

Develop a grant proposal to support research and demonstration projects on the NMCREEC to investigate the practicality of early summer calving, stockpiling and other methods to match animal nutrient needs to available feed resources at the lowest possible cost

Development of a curriculum for and "Advanced Grazing Academy"

Implement ranch scale power fencing demonstration(s) (NMREEC)

Continue development of a "summer calving" herd (NMCREEC) to research energy sensitive management

Web site with links to other related grazing sites

Web site with listing of resources

Physical archive/library for MiG related grazing related research and extension materials

Publication on paper and on the web site of literature search related to grazing systems

List server that permits experienced and novice MiG practitioners to interact over long distances.

Pasture walks (tours) on novice and established practitioner's operations to assist operators in developing innovative ways of solving grazing problems.

Ranch scale livestock water development demonstration(s)

Ranch scale comparison of conventional management to energy sensitive management

Research/demonstrations into alternative methods of wintering including annual and perennial pasture and crops for stock piling and alternative calving seasons to match grazing energy resources to livestock nutrient demands with a minimum of mechanically harvested feed.

Demonstrations of improved nutrient cycling from MiG managed pastures vs. continuous use

Produce popular articles, CIS's, bulletins and other literature describing management techniques and outlining reasonable expectations for pasture performance.

Develop curricula in cooperation with extension specialist in other western states for an "Intensive Pasture" workshop (Shewmaker, et al)

Complete and analyze survey of alumni of the Lost River Grazing Academy

2. Brief description of the target audience

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

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 990 | 1115 | 156 | 40 |
| 2008 | 5159 | 19024 | 95 | 5254 |

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

Patent Applications Submitted

| Year | Target |
|--------------|---------------|
| Plan: | 0 |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 3 | 0 | |
| 2008 | 6 | 3 | 9 |

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

- Demonstrations.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 5 | 9 |

Output #2**Output Measure**

- Extension educators trained.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 13 | 15 |

Output #3**Output Measure**

- Extension Publications (peer reviewed; e.g., CIS).

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 3 | 7 |

Output #4**Output Measure**

- Grants.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 8 |

Output #5**Output Measure**

- Media Interview Articles.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 9 | 13 |

Output #6**Output Measure**

- Operator Posters.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 2 |

Output #7**Output Measure**

- Operator Presentations.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 0 |

Output #8**Output Measure**

- Papers.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 4 |

Output #9**Output Measure**

- Popular Press articles.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 14 | 16 |

Output #10**Output Measure**

- Poster Papers.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 3 | 8 |

Output #11**Output Measure**

- Presentations.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 18 | 61 |

Output #12**Output Measure**

- Professional Education Opportunity.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 0 |

Output #13**Output Measure**

- Research Papers.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 1 |

Output #14**Output Measure**

- Research Presentations.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 4 | 0 |

Output #15**Output Measure**

- School (group of related presentations).

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 8 | 12 |

Output #16**Output Measure**

- Tour (Guided tour of producers practices).

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 9 | 7 |

Output #17**Output Measure**

- Workshops (Multi-day educational activity).

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 12 | 14 |

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

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

Outcome #1**1. Outcome Measures**

O: Clients will become aware of new or preferred production practices:

Number of clients attending schools.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 335 | 1161 |

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

Irrigation water supplies are limited due to drought, water allocation issues and higher pumping cost due to increased energy costs. Seasonal snowpack was sufficient to avoid groundwater pumping curtailment in 2008, but the issues will remain for future years. Under these conditions, many growers would be allocating limited water to achieve maximum income under reduced water supply.

What has been done

Information on optimizing alfalfa yield and quality under reduced-water conditions was presented at 4 UI schools and 2 additional meetings.

Results

Growers attending learned about the importance of matching system design to estimated peak ET, why irrigation management under center pivots must be different than that under set-move or solid-set systems, and information regarding crop production per inch applied water for a number of crops to aid in allocating limited water among crops. Putting these concepts into practice can improve total production of a mix of crops under limited water. Savings depend on cropping mix, timing and amount of water shortage, and flexibility of the irrigation system.

4. Associated Knowledge Areas

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

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 20 | 57 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Forage and grazing management strategies were in need of improvement in the north central region of Idaho.

What has been done

A grazing conference was held in 2008. A post conference survey was completed by 46 producers that attended the conference. The objective of the survey was to determine if information presented at previous conferences held the previous three years had been adopted and if so, did it improve pasture and range quality and livestock performance.

Results

Of the 46 respondents, 30 (66%) indicated that they had adopted the technology taught at previous conferences. They were also asked if they would adopt information shared at the 2008 conference. All 46 respondents indicated they would adopt what was taught.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|--|
| 205 | Plant Management Systems |
| 215 | Biological Control of Pests Affecting Plants |
| 204 | Plant Product Quality and Utility (Preharvest) |

Outcome #3

1. Outcome Measures

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 50 | 50 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Volatility in commodity markets and expanding dairy production in the Magic Valley have put stress on operators to produce more forages more effectively.

What has been done

A one day workshop was presented where presentations were made on sharpening up the use of current technology as well as increasing the use of sustainable practices such as the use of dairy compost for soil health and fertility.

Results

In evaluations, operators reported that they increased their understanding of irrigation, plant nutrition, testing and evaluation of forages, ipm and irrigation and that that they intended to explore the use of compost to improve soil health and fertility.

4. Associated Knowledge Areas

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

Outcome #4

1. Outcome Measures

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 14 | 19 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

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

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy

Brief Explanation

Water shortage due to drought and water allocation issues, and higher pumping cost due to increased energy costs determined the selection of topics for presentation at winter schools. In January 2008, with most reservoir carryover at near zero, and snowpack at average or below, the potential for full-season water supply was questionable.

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

1. Evaluation Studies Planned

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

Evaluation Results

Key Items of Evaluation

Program #13

V(A). Planned Program (Summary)

1. Name of the Planned Program

Forest Management

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|---------|---|-----------------|-----------------|----------------|----------------|
| 123 | Management and Sustainability of Forest Resources | 90% | | 90% | |
| 216 | Integrated Pest Management Systems | 10% | | 10% | |
| | Total | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 3.6 | 0.0 | 0.4 | 0.0 |
| Actual | 4.2 | 0.0 | 2.0 | 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 |
| 99025 | 0 | 48806 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 99025 | 0 | 48806 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 107139 | 0 | 573757 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

The Forestry Extension program developed and delivered the following educational materials in print form:

- Woodland NOTES regional newsletter (two 4-page issues, 10,000 households)
- Articles in Farm Bureau Gem State Producer (10 articles - 15,000 households)
- Articles in Farm Bureau Quarterly (4 articles - 61,000 households)
- After the Burn (CIS publication)
- Maples. Alternative Tree Crop Series No. 8, Idaho Forest, Wildlife and Range Experiment Station, Moscow, ID. (Publication)
- UI Extension Forestry web site (3,000 hits annually)

Family Foresters Workshop in Coeur d' Alene, Logger Education (LEAP) for Advanced Professionalism in Orofino, LEAP Update in Cascade on Thinning/Pruning, Fuel Management, Family Forest Owners and Managers Conference in Moscow, and was a presenter at the Wildland Urban Interface Conference in Coeur d' Alene, the national Society of American Foresters Convention in Portland. I wrote four peer reviewed articles, 2 for Woodland Notes, 1 for the Farm Bureau Quarterly, and 1 for the Gem State Producer. I contributed to 2 regional CES publications, wrote 1 Extension Bulletin, and 1 research publication. I served as the Program Leader for UI Extension Forestry, the State Contact and Leader for RREA-Renewable Resources Extension Act, Faculty Advisor for the UI Student Chapter Society of American Foresters. I was the State Leader for the Western Extension Forestry Coordinating Committee. I chaired the After the Burn Committee and served on the Leadership Team for the Living with Fire Community of Practice. I represented UI CES on the UI Forest Research Nursery Advisory Committee. I supervised the Associate Extension Forester in her activities and other contributions, including the UI Forest Problem Diagnosis Center, where over 100 state and regional clients received diagnosis and recommendations for tree problems.

In 2008 we held one session of Logger Education to Advance Professionalism ("LEAP") and three sessions of LEAP Update. Since 1993, the Extension Systems of the University of Idaho and Washington State University have cooperated to hold an annual forum for consulting foresters, state-employed service foresters, and other natural resource professionals working with family forest owners known as the Family Foresters Workshop, held this year in Coeur d' Alene. We also delivered a Wildland Urban Interface Conference in Coeur d' Alene and we collaborated with Washington State University to produce the 3rd annual "Inland Northwest Land, Water, & Fire Conference". We were able to offer university credit for K-12 teachers who participated in the Forestry Shortcourse this year.

UI Extension provided a series of workshops, field days and other educational activities titled "Strengthening Forest Stewardship Skills" (supported in part by grant funds from the USFS through the IDL). The activities are designed to strengthen forest owners' ability to implement practices that improve forest health and growth, and were offered in a variety of locations and times. In addition to Stewardship programs, many other Extension programs were given to groups requesting them, or in partnership with other agencies and organizations.

The Extension Forestry program also submitted a successful proposal to research, demonstrate and report on alternative fuels management techniques on forests lands of the Coeur d' Alene Tribe in northern Idaho.

2. Brief description of the target audience

Natural resource professionals (agency staffs, consulting foresters, etc.), loggers, family forest owners and other landowners, K-12 educators and Extension educators, and youth.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 500 | 15000 | 50 | 200 |
| 2008 | 6000 | 97926 | 1793 | 224 |

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

Patent Applications Submitted

| Year | Target |
|--------------|---------------|
| Plan: | 0 |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 2 | 0 | |
| 2008 | 3 | 2 | 5 |

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

- Number of workshops, field days, etc.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 30 | 40 |

Output #2**Output Measure**

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

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 750 | 3048 |

Output #3**Output Measure**

- Number of articles in popular press.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 15 | 21 |

Output #4**Output Measure**

- Number of web site "hits".

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 3000 | 10752 |

Output #5**Output Measure**

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

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 4 |

Output #6**Output Measure**

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

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2000 | 9390 |

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 Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 300 | 784 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Roughly 44% of the forests in Boundary, Bonner, Kootenai and Benewah counties are held by family forest owners . Family forests provide timber, water, wildlife habitat, and many other values. The annual timber harvest from these forests has been over 178 million bd. ft., worth \$107 million. UI Extension programs will help family forest owners increase wood available to local mills, maintain water quality, reduce fire risk, improve forest growth and health, and enhance biological diversity.

What has been done

UI Extension provided a series of workshops, field days and other educational activities titled 'Strengthening Forest Stewardship Skills' The activities were designed to strengthen forest owners' ability to implement practices that improve forest health and growth, and were offered in a variety of locations and times. In addition to Stewardship programs, many other Extension programs were given to groups requesting them, or in partnership with other agencies and organizations.

Results

In FY 2008, 524 owners of over 56,000 private forest acres attended Extension workshops and other educational activities in the Idaho panhandle. Based on evaluation results: 66 panhandle family forest owners will thin forest trees; 47 will manage to favor larch and pines; 42 will monitor for insect, disease, or animal damage; 40 will prune forest trees; 35 will attend additional forestry education programs; 34 will purchase a GPS receiver; 31 will use a GPS receiver for forest management; 29 will complete a forest management plan; 28 will use internet data sources to manage their forest; 23 will look into GIS to manage their forest; 21 will contact a forester for additional assistance; and 21 will reduce vegetation competing with tree seedlings.

4. Associated Knowledge Areas

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

Outcome #2

1. Outcome Measures

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 300 | 880 |

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)****What has been done****Results****4. Associated Knowledge Areas**

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

Outcome #3**1. Outcome Measures**

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 230 | 333 |

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

Loggers are a critical to forest management. Most Idaho forest product companies participate sustainable forestry certification, so many require loggers to take a UI Extension program titled Logger Education to Advance Professionalism ('LEAP') or participate in the Idaho Pro-Logger program, which requires LEAP plus 16 credits of continuing education annually. Extension logger training efforts help Idaho forest product companies access global markets for certified wood products.

What has been done

In 07-08 we held one session of Logger Education to Advance Professionalism ('LEAP'), which features over 20 hours of training designed to increase loggers' understanding and skills related to forest ecology, silviculture, and water quality. We also held three sessions of LEAP Update, an annual 2-day program in which LEAP graduates build on their professional development with in-depth training on a variety of forestry topics identified each year by loggers.

Results

Twenty-five people attended the one LEAP session held in the Idaho Panhandle in 07-08. Percentage increase in LEAP participants' knowledge of Forest Ecology & Silviculture was 23%. Percentage increase in LEAP participants' knowledge of Forest Water Quality and Streams was 28%. One-hundred fifty-four loggers attended LEAP Updates in the Idaho Panhandle. As a result of 2008 LEAP Updates, Loggers increased their knowledge of: biomass fuels potential by 54%; pre-commercial thinning & pruning by 50%; white pine silviculture by 41%; FPA stream alterations by 34%; and fire safety precautions by 25%. In addition to LEAP, 67 loggers attended other Extension forestry programs, such as 'Current Topics in Forest Health' and 'Using your GPS'.

4. Associated Knowledge Areas

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

Outcome #4

1. Outcome Measures

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 250 | 336 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Loggers are a critical to forest management. Most Idaho forest product companies participate sustainable forestry certification, so many require loggers to take a UI Extension program titled Logger Education to Advance Professionalism ('LEAP') or participate in the Idaho Pro-Logger program, which requires LEAP plus 16 credits of continuing education annually. Extension logger training efforts help Idaho forest product companies access global markets for certified wood products.

What has been done

In 07-08 we held one session of Logger Education to Advance Professionalism ('LEAP'), which features over 20 hours of training designed to increase loggers' understanding and skills related to forest ecology, silviculture, and water quality. We also held three sessions of LEAP Update, an annual 2-day program in which LEAP graduates build on their professional development with in-depth training on a variety of forestry topics identified each year by loggers.

Results

In total, UI Extension provided 2,300 contact hours of continuing education for panhandle loggers last year. As of October 2008, a total of 690 loggers (statewide) have maintained enrollment in the Idaho Pro-Logger program.

4. Associated Knowledge Areas

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

Outcome #5

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 250 | 563 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

There are over 500 professional foresters in Idaho. Foresters and other natural resource professionals must continually stay current with emerging scientific and technological developments to sustainably improve forest growth and health. To that end, the Society of American Foresters (SAF) has established new credentials to document foresters' continued professional development (e.g., SAF 'certified forester' program) that require continuing education credits.

What has been done

UI Extension and WSU Extension hold an annual forum for foresters working with family forest owners called the 'Family Foresters Workshop'. The two universities also held the 3rd annual 'Inland Northwest Land, Water, & Fire Conference', to give land use professionals and others an opportunity to learn about current research and experience applicable to rural areas. We have also sharpened the focus of selected forest stewardship programs to provide continuing education for graduate foresters.

Results

245 natural resource professionals attended Idaho panhandle Extension forestry programs in 07-08, for 1,429 total contact hours. Family Forester's Workshop participants noted percentage increases in knowledge of: Web soil survey (53%), Spatial Analysis project (50%), Forestry Carbon Footprints (36%), Hunting management (34%), Forest owner transition (33%), & Climate Change & forests (31%). Inland NW Land, Water, & Fire Conference participants noted percentage increases in knowledge of: Aquatic ecosystem service markets (50%), Shelter in place (45%), Conserving industrial forests (41%), SEEP program (41%) Water adjudication (31%), GPS (35%), Indian reservation land ownership (33%), Subsurface sewage & water quality (31%), Groundwater issues (30%), Evaluating multiple well use (30%), Green development standards (24%), Living with resort communities (19%), Land use planning process reform (19%), Alternative energy technologies (13%), & Managing people, wildfire smoke (11%)

4. Associated Knowledge Areas

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

Outcome #6

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 1 | 2 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

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

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 | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 2 | 2 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

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

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Competing Public priorities
- Competing Programmatic Challenges
- Other ()

Brief Explanation

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

1. Evaluation Studies Planned

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

Evaluation Results

In most sessions, fewer than half of the attendees indicated they had previously participated in various types of forestry education or assistance programs. In most programs, over 90% of the participants indicated they would implement improved management practices as a result of the program. Percent knowledge increase averaged over 75% for all program participants.

Key Items of Evaluation

Program #14

V(A). Planned Program (Summary)

1. Name of the Planned Program

Health and Human Nutrition

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|---------|--|-----------------|-----------------|----------------|----------------|
| 206 | Basic Plant Biology | 5% | | 5% | |
| 301 | Reproductive Performance of Animals | 10% | | 10% | |
| 311 | Animal Diseases | 10% | | 10% | |
| 701 | Nutrient Composition of Food | 10% | | 10% | |
| 703 | Nutrition Education and Behavior | 35% | | 35% | |
| 722 | Zoonotic Diseases and Parasites Affecting Humans | 10% | | 10% | |
| 723 | Hazards to Human Health and Safety | 10% | | 10% | |
| 724 | Healthy Lifestyle | 10% | | 10% | |
| | Total | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 4.5 | 0.0 | 7.4 | 0.0 |
| Actual | 7.3 | 0.0 | 9.6 | 0.0 |

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

| Extension | | Research | |
|---------------------|----------------|----------------|----------------|
| Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| 89700 | 0 | 278477 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 89700 | 0 | 278477 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 417414 | 0 | 7365990 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

ENP: Delivered hundreds of nutrition education lessons to low-income audiences resulting in more than 13,000 teaching contacts across the State.

EFNEP: Adults: Delivered lessons on MyPyramid to 839 families.

Delivered approximately 28 lessons on MyPyramid to about 1,200 adults and 2,200 youth participants.

SENP: Delivered 204 nutrition lessons for 320 seniors.

Diabetes: Conducted 22 classes to reach 432 adults.

Physical Activity: Conducted 81 Strong Women classes (784 teaching contacts) and 16 Fit and Fall Proof classes (110 teaching contacts).

Meal Time In Less Time: Conduct 10 classes for 97 adults and youth.

Got Calcium?: Delivered lessons to 1815 youth.

MyPyramid/Dietary Guidelines: Conduct 23 classes to 670 adults; Conduct 35 classes to 1043 youth.

Miscellaneous Health and Nutrition classes included lessons about osteoporosis, hunger and satiety, nutrition education for parents of young children, and others.

Several key signature research programs fall under this category. Major research efforts were devoted to infectious diseases, cell biology, developmental genetics, and congenital diseases. This encompasses roughly equal effort toward basic and applied/translational research.

2. Brief description of the target audience

The target audience includes individuals with an interest in or need for health and nutrition information. the ENP and EFNEP programs focus on limited resource families and children, the Senior Nutrition program focuses on dietary issues for seniors, got calcium is delivered to children through schools, and strong women targets mature women to prevent muscle loss.

Research target audiences included NIH, biotechnology and pharmaceutical, the general research community, and USDA-ARS.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 3335 | 3000 | 6100 | 6000 |
| 2008 | 27648 | 190680 | 29175 | 14630 |

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

Patent Applications Submitted

| | |
|--------------|---------------|
| Year | Target |
| Plan: | 1 |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 0 | 2 | |
| 2008 | 5 | 22 | 27 |

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Conduct classes on nutrition and health and physical activity.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1000 | 1641 |

Output #2

Output Measure

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

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 5 |

Output #3

Output Measure

- Submit refereed journal articles.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 22 |

Output #4

Output Measure

- Submit other publications (non-peer reviewed).

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

| O No. | OUTCOME NAME |
|-------|---|
| 1 | O: People have increased awareness of the importance of nutrition, health, and physical activity.I: Number of participants in nutrition and health classes. |
| 2 | O: Change in level of physical activity of individuals enrolled in a walking or resistance activity program.I: Number of individuals who changed their daily steps or increased their weights (resistance activity). |
| 3 | O: Adult ENP participants will plan to change a dietary or activity behavior after completing a nutrition or physical activity class.I: Number of adult ENP participants who indicate their intention to improve their diet or physical activity. |
| 4 | O: Approximately 87% of Adult EFNEP participants will improve their diets after completing 6 core lessons.I: Number of adults that improve their diets by at least one food group (determined through pre/post 24 hour recalls). |
| 5 | O: Steps To A New You participants will change their attitude toward body image, eating, and physical activity.I: Number of Steps To A New You participants that show improved attitude (through pre, post, and follow-up surveys). |
| 6 | O: Kalispel children will improve their eating habits.I: Number of children changing their calorie, protein, fat, and vitamin intake. |
| 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: People have increased awareness of the importance of nutrition, health, and physical activity. I: Number of participants in nutrition and health classes.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 550 | 2190 |

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

Overweight prevalence has increased by 30% since 1991. Some of the health risks associated with obesity include an increased risk of diabetes, heart disease, liver disease, some types of cancer, arthritis and other health programs. Scientific evidence shows that physical activity done at a moderate-intensity level can produce health benefits. Strength training enables adults to improve their overall health and fitness.

What has been done

Two classes of The Stronger You were conducted in Cassia County, with 10 participants in one and 16 in another. One class of Steps to a New You was conducted 14 people completed this class.

Results

Participants indicated an increase in strength and knowledge. They indicated they understood the benefits of physical fitness and many indicated they planned to continue either walking or working with weights.

4. Associated Knowledge Areas

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

Outcome #2**1. Outcome Measures**

O: Change in level of physical activity of individuals enrolled in a walking or resistance activity program. I: Number of individuals who changed their daily steps or increased their weights (resistance activity).

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 50 | 1139 |

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

According to a report published in 2004 – Bone Health and Osteoporosis: A Report of the Surgeon General – 10 million Americans over the age of 50 mostly women, have osteoporosis, a dangerous thinning of the bones. Another 34 million have low bone density and are at risk for developing the condition. When you have this disease, your bones become so fragile they could break from a minor fall, from lifting a baby out of a crib, or even from an exuberant hug.

What has been done

Multiple StrongWomen workshops were taught in Ada and Owyhee counties

Results

Participants showed an 85% to 207% increase in arm and leg strength from the first class to class 12. Participants increased their intake of fruits, vegetables, whole grains, and milk. There was a minimal increase of 8% in whole grain intake. There was a greater (24-26%) increase in fruit, vegetable, and milk consumption.

4. Associated Knowledge Areas

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

Outcome #3

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 350 | 2567 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Nutrition education is critical for limited income families that have a poor dietary intake. Under-nutrition can have serious effects on overall health, most notably in children. National and state data has shown that low-income individuals have a higher prevalence of diabetes and heart disease, overweight/obesity, and are less likely to be physically active.

What has been done

The ENP program serves 9 counties in District III. Food stamp participants and those eligible for food stamps receive classes, through Arbor, South Central Community Action Partnership and other agencies that work with food stamp individuals and families.

Results

Surveys taken following the classes reveal that 1,121 program participants in district III said they would consume more fruits and vegetables, more whole grains and more low-fat/nonfat milk products. They also planned to be physically active at least 30 minutes/day.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|------------------------------|
| 701 | Nutrient Composition of Food |
| 724 | Healthy Lifestyle |

Outcome #4**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 330 | 428 |

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

Obesity, poor nutrition, and limited physical activity are significant health concerns. Poor health disproportionately affects minority and low-income populations. Education opportunities and resources are limited.

What has been done

EFNEP brings together federal, state and local resources to target two primary audiences: low-income families with young children and low-income youth to improve their nutrition, food safety practices and increase their physical activity.

Results

From the ERS EFNEP2 graduated 310 clients. From the Summary of Dietary Improvement at exit 47.7% ate 6-9 oz servings of grains (up from 46.5% at entry), 35.2% ate 2 cups of fruit (up from 23.5%), 24.8% ate 3 cups of vegetables (up from 10.3%), 61% had 3 plus servings of dairy (up from 18.7%), 41.3% ate 5-6 oz equivalents of meats and beans (up from 31%) and 49.7% were more physically active.

4. Associated Knowledge Areas

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

Outcome #5**1. Outcome Measures**

O: Steps To A New You participants will change their attitude toward body image, eating, and physical activity. I: Number of Steps To A New You participants that show improved attitude (through pre, post, and follow-up surveys).

Not reporting on this Outcome for this Annual Report

Outcome #6**1. Outcome Measures**

O: Kalispel children will improve their eating habits. I: Number of children changing their calorie, protein, fat, and vitamin intake.

Not reporting on this Outcome for this Annual Report

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 | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 3 | 11 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Obligate intracellular parasites such as *Toxoplasma gondii* are important human and animal pathogens. Since this type of parasites require to enter and exit cells in order to disseminate and survive in an infected individual, inhibiting either of these processes would lead to death of the parasite. Thus, a better understanding of the mechanisms by which the parasite enters and exits cell will lead to the identification of possible drug targets. Accordingly, our work aims at elucidating the genes involved in egress and invasion using a combination of genetic and cell biology studies.

What has been done

In the past year, we made significant progress on our investigations into the regulation of the parasite's motility as it exits and enters host cell. Specifically, we have isolated various mutants that misregulate motility. The study of these mutant strains will allow us to determine the proteins involved in this process. The preliminary analysis of these mutants was the basis for an American Cancer Society grant funded this year and lasting until 2012.

Results

The study of these mutant strains will allow us to determine the proteins involved in this process. The preliminary analysis of these mutants was the basis for an American Cancer Society grant funded this year and lasting until 2012.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|--|
| 311 | Animal Diseases |
| 722 | Zoonotic Diseases and Parasites Affecting Humans |

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Competing Public priorities

Brief Explanation

Faculty reported increased attendance in fitness classes as a result of financial pressures on families that limit expenditures on commercial gym memberships.

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

1. Evaluation Studies Planned

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

Evaluation Results

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. One faculty member taught the Strong Women Program twice a week for six weeks in Bear Lake and Franklin County. There were 24 adult participants.

There was an increase between 153-188% in weight being lifted from the beginning of the program to the end of the program. Exercise Pre (Mean weight) Post (Mean weight) Standing Leg Curl 4.85 lb 9.14 lb Knee Extension 4.85 lb 9.14 lb Side Hip Raise 4.76 lb 8.93 lb Bicep Curl 3.35 lb 6.05 lb Overhead Press 3.35 lb 6.10 lb Bent Forward Fly 3.35 lb 5.14 lb

Key Items of Evaluation

Program #15

V(A). Planned Program (Summary)

1. Name of the Planned Program

Nutrient and Waste Management

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|--------------|--|-----------------|-----------------|----------------|----------------|
| 101 | Appraisal of Soil Resources | 20% | | 20% | |
| 102 | Soil, Plant, Water, Nutrient Relationships | 10% | | 10% | |
| 133 | Pollution Prevention and Mitigation | 20% | | 20% | |
| 205 | Plant Management Systems | 10% | | 10% | |
| 403 | Waste Disposal, Recycling, and Reuse | 30% | | 30% | |
| 601 | Economics of Agricultural Production and Farm Management | 10% | | 10% | |
| Total | | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 1.4 | 0.0 | 1.2 | 0.0 |
| Actual | 2.6 | 0.0 | 0.5 | 0.0 |

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

| Extension | | Research | |
|---------------------|----------------|----------------|----------------|
| Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| 54339 | 0 | 19388 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 54339 | 0 | 19388 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 116287 | 0 | 146388 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

Nutrient Management Team organized and delivered the 2008 biannual Nutrient Management Conference and presented educational programs as part of composting schools, pasture management workshops, Potato Conference, a regional FWAA conference, and three field days. A training for Certified Irrigation Designers was delivered and certification credits awarded to participants.

Team members were involved in numerous research/demonstration projects investigating anaerobic digesters, drag hose injection, copper removal systems, corn P uptake, and field trials for numerous crops including onions, wheat, sugarbeets, and alfalfa seed.

The team also initiated recycling programs in local schools and a pilot project for Master Composters.

The team published the first issue of a new Nutrient Digest newsletter, and reported eight other articles written for trade publications. Team members published eight articles included in abstracts and proceedings, two peer-reviewed Extension publications, and three refereed journal articles.

2. Brief description of the target audience

Dairy producers and their associations, beef cattle producers and any other livestock producers, small farmers, irrigation designers, farmers using organic fertilizers, crop consultants and advisors, elementary school administrators, teachers, and students, agency regulators, and county and State officials.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|------|---------------------------|-----------------------------|--------------------------|----------------------------|
| Year | Target | Target | Target | Target |
| Plan | 500 | 750 | 20 | 20 |
| 2008 | 4734 | 74214 | 1365 | 220 |

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

Patent Applications Submitted

| Year | Target |
|--------|--------|
| Plan: | 0 |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|------|-----------|----------|-------|
| Plan | 0 | 0 | |
| 2008 | 5 | 1 | 6 |

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

- NWM Conference.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 1 | 45 |

Output #2**Output Measure**

- NM Field Day.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 1 | 0 |

Output #3**Output Measure**

- NWM Training and Recertification.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 40 | 0 |

Output #4**Output Measure**

- Odor Workshops.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 50 | 0 |

Output #5**Output Measure**

- CCA Credits, Online Testing.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 20 | 12 |

Output #6**Output Measure**

- Precision Ag Field Day.

Not reporting on this Output for this Annual Report

Output #7**Output Measure**

- CID Training.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 40 | 41 |

Output #8**Output Measure**

- Industrial and Municipal Land App. Training.

Not reporting on this Output for this Annual Report

Output #9**Output Measure**

- R&E Center Field Days.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 1 | 3 |

Output #10**Output Measure**

- Commodity Schools.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 700 | 761 |

Output #11**Output Measure**

- MiG Workshops.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 40 | 0 |

Output #12

Output Measure

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

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 0 | 5 |

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

| O No. | OUTCOME NAME |
|-------|---|
| 1 | O: Adequate skilled workforce to work on waste management problems.I: Number of people certified (irrigation designers, waste management planners, etc.). |
| 2 | O: Producers apply recommended nutrient management principles on farms.I: Percentage of course attendees that develop NM plans with recommended practices. |
| 3 | O: Water quality is protected through compliance with nutrient management regulations.I: Number of NMP violations cited (from yearly survey). |
| 4 | O: Producers adopt practices to reduce the risk of lagoon discharges.I: Reduced number of discharges or freeboard conditions based yearly survey. |
| 5 | O: Producers and consultants have access to relevant, research-based information.I: Number of publications distributed, downloaded, accessed. |
| 6 | O: Pasture managers use nutrient management practices that contribute to the efficient and effective use of nutrients.I: Number of students adopting recommended practices (soil testing, MiG, etc.; survey). |
| 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. |
| 8 | O: Improve application of odor and emissions control principles for confined animal operations.I: Percent adoption of odor and emissions control practices by course attendees. |
| 9 | O: Reduced nutrient levels in soil and water.I: Number of sensitive areas with improved average soil and water test values. |
| 10 | O: Irrigators understand how to Improve water and nitrogen use efficiency under reduced water conditions.I: Number of People attending UI extension classes in water and nitrogen-use efficiency. |

Outcome #1**1. Outcome Measures**

O: Adequate skilled workforce to work on waste management problems.
I: Number of people certified (irrigation designers, waste management planners, etc.).

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 20 | 21 |

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

Properly designed systems are essential if lagoon effluent is to be uniformly and properly applied at the assumed rate. Movement of water-soluble nutrients offsite by surface runoff or deep percolation can be minimized by proper irrigation system design. Improper design or management can result in potentially large offsite movement of nutrients. A certification process such as CID, gives some basic level of competence to designers.

What has been done

A 6-hour review session for those wishing to take one of the CID exams was held in Burley at the Idaho Irrigation Equipment Association winter show. I planned another concurrent training session for irrigation equipment employees and USDA-NRCS employees and taught one segment. This course was designed to provide training on topics selected by USDA-NRCS and irrigation dealers to improve the competency of their employees.

Results

Feedback solicited by the IIEA Executive secretary indicated the review session was helpful in passing the CID exam. Feedback from the dealer/ NRCS employee training also indicated that the training was helpful and improved the knowledge base of the employees.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|--|
| 403 | Waste Disposal, Recycling, and Reuse |
| 133 | Pollution Prevention and Mitigation |
| 101 | Appraisal of Soil Resources |
| 102 | Soil, Plant, Water, Nutrient Relationships |

Outcome #2**1. Outcome Measures**

O: Producers apply recommended nutrient management principles on farms.
I: Percentage of course attendees that develop NM plans with recommended practices.

Not reporting on this Outcome for this Annual Report

Outcome #3**1. Outcome Measures**

O: Water quality is protected through compliance with nutrient management regulations.
I: Number of NMP violations cited (from yearly survey).

Not reporting on this Outcome for this Annual Report

Outcome #4

1. Outcome Measures

O: Producers adopt practices to reduce the risk of lagoon discharges.
 I: Reduced number of discharges or freeboard conditions based yearly survey.
Not reporting on this Outcome for this Annual Report

Outcome #5

1. Outcome Measures

O: Producers and consultants have access to relevant, research-based information.
 I: Number of publications distributed, downloaded, accessed.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 300 | 200 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Effective nutrient management is essential for maximizing economic returns and minimizing risks to the environment.

What has been done

Ext. Bull 0851 was developed and published on-line

Results

The bulletin was accessed and downloaded by 200 clients.

4. Associated Knowledge Areas

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

Outcome #6

1. Outcome Measures

O: Pasture managers use nutrient management practices that contribute to the efficient and effective use of nutrients.
 I: Number of students adopting recommended practices (soil testing, MiG, etc.; survey).

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 20 | 43 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Soil sampling is important to know soil conditions before applying fertilizers and before planting crops. Knowing soil conditions after applying compost or manures can reduce the amount of synthetic fertilizers used by farmers

What has been done

Soil sampling recommended at Composting School and Small Pastures Workshop

Results

40% of participants at the Composting School and the Small Pastures Management Workshop indicated that they will be adopting or increasing usage of soil sampling techniques.

4. Associated Knowledge Areas

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

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 | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 3 | 0 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|----------------|
|---------|----------------|

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

Outcome #8

1. Outcome Measures

O: Improve application of odor and emissions control principles for confined animal operations. I: Percent adoption of odor and emissions control practices by course attendees.

Not reporting on this Outcome for this Annual Report

Outcome #9

1. Outcome Measures

O: Reduced nutrient levels in soil and water. I: Number of sensitive areas with improved average soil and water test values.

Not reporting on this Outcome for this Annual Report

Outcome #10

1. Outcome Measures

O: Irrigators understand how to improve water and nitrogen use efficiency under reduced water conditions. I: Number of People attending UI extension classes in water and nitrogen-use efficiency.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 80 | 4 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Water mismanagement often leads to poor N use efficiency and optimal use of each improves economic returns and reduces risks to water quality

What has been done

Water and N management for potatoes was featured in an on-line quiz, offered for CCA credit, of information provided in a CIS Extension publication.

Results

The quiz has been available on-line and four individuals passed the quiz in 2008, demonstrating proficiency, and gained CCA credit.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|--|
| 102 | Soil, Plant, Water, Nutrient Relationships |
| 205 | Plant Management Systems |

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Other (loss of personnel and restart with new team members)

Brief Explanation

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

1. Evaluation Studies Planned

- After Only (post program)

Evaluation Results

Key Items of Evaluation

Program #16

V(A). Planned Program (Summary)

1. Name of the Planned Program

Other Idaho Commercial Crops

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|--------------|---|-----------------|-----------------|----------------|----------------|
| 111 | Conservation and Efficient Use of Water | 10% | | 10% | |
| 204 | Plant Product Quality and Utility (Preharvest) | 10% | | 10% | |
| 205 | Plant Management Systems | 15% | | 15% | |
| 211 | Insects, Mites, and Other Arthropods Affecting Plants | 5% | | 5% | |
| 212 | Pathogens and Nematodes Affecting Plants | 10% | | 10% | |
| 215 | Biological Control of Pests Affecting Plants | 10% | | 10% | |
| 216 | Integrated Pest Management Systems | 15% | | 15% | |
| 403 | Waste Disposal, Recycling, and Reuse | 10% | | 10% | |
| 404 | Instrumentation and Control Systems | 10% | | 10% | |
| 711 | Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources. | 5% | | 5% | |
| Total | | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 2.7 | 0.0 | 5.3 | 0.0 |
| Actual | 7.5 | 0.0 | 6.8 | 0.0 |

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

| Extension | | Research | |
|---------------------|----------------|----------------|----------------|
| Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| 114273 | 0 | 246207 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 114273 | 0 | 246207 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 154857 | 0 | 2767246 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

Professional invited and submitted presentations (e.g. professional scientific organizations such as the Weed Science Society of America and the Entomological Society of America)

Professional submitted presentations (e.g. professional scientific organizations such as the Weed Science Society of America and the Entomological Society of America)

Workshops, field tours, demonstration projects and presentations (commodity schools, research reports, grower workshops)

Extension Publications (Current Information Series, Proceedings of Winter Commodity Schools, Pacific Northwest newsletters, websites, pest management strategic plans, crop profiles)

Professional Publications (book chapters, journal articles)

Crop variety development and selection

Applied and basic laboratory and field research experiments (pesticide residue and efficacy field trials, soil fertility and irrigation trials, biology and ecology of crops experiments)

Research projects defining novel uses of specialty crop byproducts

2. Brief description of the target audience

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

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|------|---------------------------|-----------------------------|--------------------------|----------------------------|
| Year | Target | Target | Target | Target |
| Plan | 6230 | 55125 | 0 | 0 |
| 2008 | 3096 | 101048 | 211 | 0 |

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

Patent Applications Submitted

| Year | Target |
|--------|--------|
| Plan: | 0 |
| 2008 : | 2 |

Patents listed

Provisional patents filed Serial Numbers 1: 61/070,662 (Biopolymer-Biodegradable/Edible Films and Coatings from Mustard Meals) and 2: 61/134,695 (Phytotoxic Landscape Fabrics and Mulches)

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|------|-----------|----------|-------|
| Plan | 9 | 2 | |
| 2008 | 19 | 8 | 27 |

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Professional invited presentations.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 39 | 4 |

Output #2**Output Measure**

- Professional submitted presentations.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 93 | 4 |

Output #3**Output Measure**

- Workshops, field tours, demonstration projects and presentations.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 259 | 89 |

Output #4**Output Measure**

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

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 9 | 13 |

Output #5**Output Measure**

- Other Professional Publications.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 52 | 12 |

Output #6**Output Measure**

- Applied and basic laboratory and field research experiments.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 89 | 46 |

Output #7**Output Measure**

- Refereed journal articles

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 8 |

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

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

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 250 | 738 |

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

Continuing education of the fruit industry growers, packers, and workers is essential to the competitiveness of Idaho's fruit industry in the Pacific Northwest.

What has been done

Workshops, schools, and newsletters were organized for grower participation. A Spanish pesticide education workshop was provided to Hispanic workers to help them protect themselves from harmful exposure.

Results

Specialists and educators taught growers new technologies and methods implemented in the Pacific Northwest to control insects and diseases. Growers are looking for ways to implement these new strategies.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|---|
| 404 | Instrumentation and Control Systems |
| 216 | Integrated Pest Management Systems |
| 205 | Plant Management Systems |
| 212 | Pathogens and Nematodes Affecting Plants |
| 211 | Insects, Mites, and Other Arthropods Affecting Plants |
| 711 | Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources. |

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 100 | 290 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Growers of seed and specialty crops require science-based information on the identification, biology and ecology, and management of insect and mite pests, natural enemies, and other beneficial insects such as pollinators in order to maintain economic and ecological viability of their farm operation.

What has been done

UI faculty conducted applied experiments testing new pesticides and pesticide use patterns for efficacy on pest arthropods and safety to beneficial arthropods. Results of experiments were published and presented to agricultural industry personnel

Results

2 pesticides received registration for use Idaho. Surveys indicate most growers are using newer insecticides.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|---|
| 205 | Plant Management Systems |
| 216 | Integrated Pest Management Systems |
| 404 | Instrumentation and Control Systems |
| 212 | Pathogens and Nematodes Affecting Plants |
| 211 | Insects, Mites, and Other Arthropods Affecting Plants |
| 215 | Biological Control of Pests Affecting Plants |

Outcome #3**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 2 | 1 |

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)****What has been done****Results****4. Associated Knowledge Areas**

| KA Code | Knowledge Area |
|---------|--------------------------------------|
| 403 | Waste Disposal, Recycling, and Reuse |

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Economy

Brief Explanation

High fuel prices and high prices for some commodities (e.g. hops) affected (reduced) grower attention to pest management issues. Loss of UI faculty increased the number of commodity groups receiving services. Low pest arthropod populations prevented completion of three pest management experiments.

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

1. Evaluation Studies Planned

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

Evaluation Results

In the Spanish speaking Pesticide Handler workshop, we surveyed the audience before instruction to get a better idea what education our audience possessed. We also asked a few of the same questions after the workshop to measure learning. After the third year of the Spanish Speaking Pesticide Handler training, we gathered existing data and results and wrote a publication for the Journal of Pesticide Safety Education.

Key Items of Evaluation

Program #17

V(A). Planned Program (Summary)

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 | 10% | | 10% | |
| 202 | Plant Genetic Resources | 10% | | 10% | |
| 203 | Plant Biological Efficiency and Abiotic Stresses Affecting Plants | 10% | | 10% | |
| 204 | Plant Product Quality and Utility (Preharvest) | 10% | | 10% | |
| 205 | Plant Management Systems | 20% | | 20% | |
| 212 | Pathogens and Nematodes Affecting Plants | 10% | | 10% | |
| 216 | Integrated Pest Management Systems | 10% | | 10% | |
| 503 | Quality Maintenance in Storing and Marketing Food Products | 10% | | 10% | |
| 603 | Market Economics | 10% | | 10% | |
| Total | | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 3.9 | 0.0 | 5.0 | 0.0 |
| Actual | 4.8 | 0.0 | 5.8 | 0.0 |

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

| Extension | | Research | |
|---------------------|----------------|----------------|----------------|
| Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| 119122 | 0 | 161677 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 119122 | 0 | 161677 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 195828 | 0 | 2672135 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

Members of the UI Potato Team completed development and delivery of the following educational programs:
 Coordinated and distributed nine issues of the Spudvine newsletter;
 Conducted workshops at the Idaho Potato Conference;
 Answered individual questions via personal contacts, phone calls, and email;
 Prepared two manuscripts and published one cultural management Extension bulletin for new potato cultivars;
 Conduct the Potato Taste Testing Project;
 Presented new information at county grower meetings, chemical dealer workshops; field man trainings;
 Established and demonstration plots and shared the results with stakeholders at field days;
 Co-sponsored a second workshop for the organic potato PMSP (held January in Portland, OR);
 Conducted 18 Potato weed management field research studies at the Aberdeen R & E Center and throughout Idaho potato production regions;
 Conducted 2 Laboratory and greenhouse potato weed management studies at the Aberdeen R & E Center;
 Held 2 annual weed control tours (Aberdeen and Kimberly R & E Centers);

- Provided stories and information for trade magazines (e.g. Potato Grower);

Gave 3 presentations at the annual Western Society of Weed Science meeting;
 Presented at ag industry meetings, at various Potato Growers Conferences;
 Prepared and distributed 19 research reports.
 Participated in the Tri-State Variety development program
 Conducted basic and applied research involved with variety development and analysis, storage, agronomy, marketing, and disease threats

2. Brief description of the target audience

- Idaho and other PNW potato production area growers including growers leasing Shoshone-Bannock Tribal Reservation land
- University of Idaho County Extension Educators and Extension Specialists
- Other weed and potato scientists (national and international)
- Idaho and PNW crop consultants
- Ag chemical and fertilizer dealers (Idaho, PNW, and other potato production areas in the U.S. and Canada)
- Ag chemical manufacturer representatives (sales, research, national product managers)

- Processing industries, producers, Idaho Crop Improvement Association, the Idaho Potato Commission, National Potato Council, Potato Variety Management Inc.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|------|---------------------------|-----------------------------|--------------------------|----------------------------|
| Year | Target | Target | Target | Target |
| Plan | 9500 | 140000 | 0 | 0 |
| 2008 | 10193 | 331529 | 396 | 400 |

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

Patent Applications Submitted

| Year | Target |
|--------|--------|
| Plan: | 0 |
| 2008 : | 2 |

Patents listed

VVP for Ivory Crisp, Serial No. 200200157
 Provisional patent: Serial No. 61/130,871 (Necrotic Determinant of Potato Virus Y)

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|------|-----------|----------|-------|
| Plan | 3 | 1 | |
| 2008 | 7 | 19 | 26 |

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Newsletters.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 9 | 21 |

Output #2**Output Measure**

- Extension bulletins.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 13 |

Output #3**Output Measure**

- Workshops and Seminars.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 150 | 0 |

Output #4**Output Measure**

- Popular Press Articles.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 40 | 58 |

Output #5**Output Measure**

- Field Days.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 4 | 9 |

Output #6**Output Measure**

- Individual Consultations.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 100 | 458 |

Output #7**Output Measure**

- Refereed Journal Articles.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 9 | 26 |

Output #8**Output Measure**

- Graduate Students.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 1 |

Output #9**Output Measure**

- Professional Meetings.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 11 | 13 |

Output #10**Output Measure**

- Email Information Dissemination.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 200 | 1428 |

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 incidencel: 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: Number of growers adopting recommended practices

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 130 | 473 |

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

Approximately 82% of the Idaho potato crop is stored for some duration. It is imperative that proper conditions are maintained in these storage facilities to ensure quality year-round potatoes. Current research and education needs to be disseminated in a timely manner to growers, fieldmen and other industry representatives.

What has been done

Two storage workshops were held at the 2008 University of Idaho Potato Conference. These workshops included topics on managing storages for proper airflow, disease and sprout control and options for storing newer varieties. Approximately 75 people attended each workshops (75 per workshop).

Results

Of the approximately 150 people who attended the workshops, 51 filled out a survey indicating that 96% (49/51) agreed that the information was useful. 33% (16/48) indicated that they will adopt all or most of the practices discussed at the workshop. 54% (26/48) indicated that they would adopt some practices. Therefore a total of 42/48 (88%) people indicated they would adopt some or all of the practices discussed at the workshops.

4. Associated Knowledge Areas

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

Outcome #2**1. Outcome Measures**

O: Growers are aware of pest incidencel: Number of Subscribers to pest alert website

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 340 | 554 |

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

Growers generally initiate pest control measures based on field scouting for each field. However, certain pests, such as potato late blight, need to be managed before the disease is found in a field. Growers need a way to become informed about pest outbreaks that may impact their operation. Increased communication to growers and field representatives will help them make better pest management decisions.

What has been done

The Pacific Northwest and Treasure Valley Pest Alert Network is a web-based pest alert network that set up to inform growers about pest situations. It is a multi-state effort between UI and OSU Extension faculty. Grant funds have been secured to develop and maintain the website designed to increase communication and provide timely pest outbreak information to growers and field representatives. The website also delivers research based information that growers can use to help control pests

Results

Based on a survey for 2007, 8 percent of website subscribers reduced the number of sprays applied to their crops, 29 percent said their spray applications were more effective because they received timely information they could use to help them make pest management decisions, and 45 percent of website subscribers reported they have increased their use of field scouting to document pest levels before implementing control measures. The 2004 through 2007 surveys indicate that subscribers are using on average 4.5 percent less chemical on their crops than they were before they used the pest alert network.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|--|
| 212 | Pathogens and Nematodes Affecting Plants |
| 216 | Integrated Pest Management Systems |
| 204 | Plant Product Quality and Utility (Preharvest) |
| 205 | Plant Management Systems |

Outcome #3**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 75 | 788 |

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

One important aspect of best potato management practices pertains to food safety. The Idaho potato were mandated to have a USDA Good Agricultural Practices Audit if selling crops to the USDA Food Programs and it was required by some processors for growers to secure contracts. Therefore the Idaho Potato Industry needed information to ensure they would properly and easily pass the required GAP audits.

What has been done

One Good Agricultural Practices (GAP) workshop was held at the 2008 University of Idaho Potato Conference. This workshop included topics on intricacies of the USDA GAP audit and methods of organization to ensure a successful completion. Approximately 85 people attended the workshop. We created a Good Agricultural Practices (GAP): Potato GAP Audit Organizational Manual that can be downloaded from the internet site(<http://www.kimberly.uidaho.edu/potatoes/gap.htm>) for easy access by potato growers.

Results

At the University of Idaho Potato Conference in 2008, a Good Agricultural Practices (GAP) workshop was conducted and included topics on intricacies of the USDA GAP audit and methods of organization to ensure a successful completion. Of the 85 people who attended the workshops, survey respondents indicated that 100% agreed that the information was useful. 79% indicated that they will adopt all or most of the practices discussed at the workshop. 21% indicated that they would adopt some practices. In all, 100% of respondents indicated they would adopt some or all of the practices discussed at the workshops. The University of Idaho GAP website was accessed 1,196 times since its inception in April 2008.

4. Associated Knowledge Areas

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

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

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 1 | 1 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The potato industry in Idaho and the US is currently being affected by aphid-transmitted viruses such as Potato virus Y (PVY) (Potyviridae: Potyvirus). PVY reduces yields and is jeopardizing the seed production industry.

What has been done

This research has demonstrated that hairy nightshade, a prevalent weed in the same family as potato, is an important host for PVY and its insect vectors. Results from this research suggest that the basis of any virus reduction program in Idaho and the PNW should be reevaluated to place more emphasis on hairy nightshade control. Impact 1. The symptoms produced in hairy nightshade upon infection with necrotic and non-necrotic PVY strains were determined and the percentage of infection and titer accumulation of these strains were studied. Description of these symptoms might facilitate the early detection of the virus in potato fields. Hairy nightshade was similarly infected compared to potato plants (cv. Russet Burbank) using the PVYO and PVYN:O strains. Percentage infection by PVYNTN was higher in hairy nightshade plants than in potato plants. The necrotic strain PVYNTN reached higher titer in hairy nightshade than in potato plants when compared to PVYO and PVYN:O. Impact 2. The influence of hairy nightshade as a virus inoculum source in the epidemiology of PVY in Idaho potato fields was determined. In the three years of this research, transmission of PVY by the three aphid vectors was higher in plots that had a PVY-infected hairy nightshade plant as source of virus inoculum than in plots that had a PVY-infected potato plant. Thus, hairy nightshade is an important component in the potato pathosystem affecting the epidemiology of PVY in Idaho and should be considered in PVY management plans.

Results

A growing national and international interest in weed research related to virus management in potatoes was observed. Presentations of this work has increased the working knowledge of farm workers on virus-vector-weed management. The 250 growers, consultants, industry representatives, university researchers, and extension specialists and county educators attending the workshop 'Nightshade & Aphid Management to Control Potato Virus' were surveyed afterwards for their interest in and perceived usefulness of the information presented. Of those surveyed, 100% found the workshop useful and said they definitely would use the information presented. Of the growers surveyed, 100% said that they would change their practices based on that information. 60% commented that the workshop was the best that they had attended and getting the nightshade, aphid, and virus information all together made them realize how important an IPM approach is for managing this major problem in potatoes. This demonstrates that our agricultural audience in Idaho is now aware of the problems with hairy nightshade as virus and aphid reservoir.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|--|
| 202 | Plant Genetic Resources |
| 216 | Integrated Pest Management Systems |
| 205 | Plant Management Systems |
| 212 | Pathogens and Nematodes Affecting Plants |
| 204 | Plant Product Quality and Utility (Preharvest) |

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy

Brief Explanation

Idaho growers received record-high prices for potatoes and the grains and forages that are part of their crop rotation. At the same time production costs increased dramatically. Since the record highs, prices have tumbled and become more volatile. Currency exchange rates have also become quite volatile, which impacts international trade. These economic forces have made it more challenging to be in the potato industry. Under this umbrella of uncertainty some growers focus on improving their balance sheets in anticipation of declining profit margins.

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

1. Evaluation Studies Planned

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

Evaluation Results

Nightshade & Aphid Management to Control Potato Virus Workshop 2008 Idaho Potato

Conference:150+attended this workshop. Number of evaluations returned: **24. Growers-3** Did you find this presentation useful? Yes-**3**; Will you use information presented today? Most-**2** Some-**1**; Will you change any of your practices or recommendations based on today's information? Yes-**3. Consultant-5** Did you find this presentation useful? Yes-**5**; Will you use information presented today? All-**5**; Will you change any of your practices or recommendations based on today's information? Yes-**4** No-**1. Fieldman-2** Did you find this presentation useful? Yes-**2**; Will you use information presented today? Most-**2**; Will you change any of your practices or recommendations based on today's information? Yes-**2**.

Comments: KEEP AHEAD OF THE NIGHTSHADE! Excellent presentation! THIS WAS THE BEST WORKSHOP THAT I ATTENDED! Good Job! GOOD INTERPLAY BETWEEN THE INFORMATION ON THE TWO PESTS. Nice balance between the two specialists feeding questions to each other to bring out some of the baseline knowledge that gave the research much more impact. LIKED THE INFORMATION ON THE APHID OVERWINTERING AND LIFECYCLES.

Weed Management Workshop 2008 Idaho Potato Conference. Over 200 people attended 2 workshops-this survey is from 1 workshop. Number of evaluations returned:18. Grower-8

Did you find this presentation useful? Yes-8; Will you use information presented today? All-1 Most-2 Some-5; Will you change any of your practices or recommendations based on today's information? Yes-4 Maybe-4; Consultant/Other-10 Did you find this presentation useful? Yes-8 Yes-Interesting but N/A-2; Will you use information presented today? Most-2 All-2 Most-2Some-2 N/A-2; Will you change any of your practices or recommendations based on today's information? Yes-2 Maybe-4 N/A-4;

Key Items of Evaluation

Program #18

V(A). Planned Program (Summary)

1. Name of the Planned Program

Range Management

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|--------------|-------------------------------|-----------------|-----------------|----------------|----------------|
| 121 | Management of Range Resources | 50% | | 50% | |
| 213 | Weeds Affecting Plants | 25% | | 25% | |
| 307 | Animal Management Systems | 25% | | 25% | |
| Total | | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 2.6 | 0.0 | 0.6 | 0.0 |
| Actual | 4.5 | 0.0 | 2.0 | 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 |
| 90462 | 0 | 60093 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 90462 | 0 | 60093 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 163378 | 0 | 933822 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

Members of the Range Topic Team worked with local Coordinated Weed Management Areas, with the Fort Hall Tribal Range Department, with county weed supervisors, and with State and Federal agency personnel to create, promote and deliver classes and workshops, conduct a rangeland inventory, put on a noxious weed education classes, conduct and teach as part of several rangeland tours, create a Tribal youth noxious weed program, deliver weed awareness programs and materials, conduct tech transfer workshops, and edit, write, and publish weed management materials.

Programs about range and grazing management were delivered as part of the Cattlemen's winter schools, Lost River Grazing Academy, and in personal visits and consultations.

2. Brief description of the target audience

The target audience includes Ranchers and other livestock producers, local government and resource management agency personnel, tribal leaders and professionals, youth, and local service clubs.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 3000 | 500 | 100 | 200 |
| 2008 | 5807 | 12942 | 551 | 72 |

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

Patent Applications Submitted

| Year | Target |
|--------------|---------------|
| Plan: | 0 |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 1 | 0 | |
| 2008 | 3 | 2 | 5 |

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Range and weed tours.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 4 | 16 |

Output #2

Output Measure

- Range monitoring and grazing workshops.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 9 |

Output #3

Output Measure

- Weed workshops and presentations.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 49 |

Output #4

Output Measure

- 7th grade science school.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 0 |

Output #5

Output Measure

- BEHAVE training.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 0 | 0 |

Output #6

Output Measure

- Extension publications.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 7 |

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

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

Outcome #1

1. Outcome Measures

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 270 | 1690 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Producers have a vested interest in proper grazing management. If resources are abused, their livelihood will suffer. Poor grazing management and noxious weeds can degrade rangeland and decrease forage availability for livestock and wildlife. Proper management of grazing and noxious weeds is a win-win situation for all stakeholders.

What has been done

Several workshops and tours were conducted this year on grazing management and noxious weed management. Individual ranch/farm and home visits were also conducted to assist with grazing management strategies and/or noxious weed identification and management.

Results

As a result of programming, more intensive grazing management practices are being utilized on reservation rangelands. In addition, more ranch and home visits have been conducted to assist producers with identifying noxious weeds. Approximately 75% of these visits have resulted in landowners and/or users implementing some noxious weed control on land they own or use.

4. Associated Knowledge Areas

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

Outcome #2

1. Outcome Measures

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 100 | 110 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)**What has been done****Results****4. Associated Knowledge Areas**

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

Outcome #3**1. Outcome Measures**

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

Not reporting on this Outcome for this Annual Report

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Economy

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)****1. Evaluation Studies Planned**

- After Only (post program)
- Retrospective (post program)

Evaluation Results

At the 2008 Roadside and Range Weed Control Seminar, a post evaluation was given.

95% of surveyed audience agreed to strongly agreed that the information shared met audience needs, seminar was organized, seminar date and time was appropriate, speaker topics were relevant, and speaker/audience interaction was encouraged. 5% of surveyed audience was neutral to strongly agreed in these questions. Most surveyed said they would put into practice at least one item that was presented. Also most gave good suggestions for topics to be taught at future seminars.

Key Items of Evaluation

Program #19

V(A). Planned Program (Summary)

1. Name of the Planned Program

Small Acreages and Emerging Specialty Crops

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|---------|--|-----------------|-----------------|----------------|----------------|
| 102 | Soil, Plant, Water, Nutrient Relationships | 20% | | 25% | |
| 202 | Plant Genetic Resources | 20% | | 25% | |
| 205 | Plant Management Systems | 20% | | 25% | |
| 212 | Pathogens and Nematodes Affecting Plants | 15% | | 25% | |
| 305 | Animal Physiological Processes | 5% | | 0% | |
| 307 | Animal Management Systems | 10% | | 0% | |
| 311 | Animal Diseases | 10% | | 0% | |
| | Total | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 2.3 | 0.0 | 1.8 | 0.0 |
| Actual | 5.9 | 0.0 | 1.0 | 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 |
| 101209 | 0 | 62827 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 101209 | 0 | 62827 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 1609280 | 0 | 370807 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

Extension programs include small acreages, emerging specialty crops, and other livestock including aquaculture.

- Collaborated with Rural Roots to plan, organize and facilitate eight Small Farm Food Safety workshops throughout Idaho including videocast delivery to remote sites, and to develop Legal Liability for Direct Farm Marketing handbook;
- Presented the Cultivating Success program to producers, educators and agricultural professionals at the Washington Tilth conference in November; organized and delivered Cultivating Success workshops in Boise, Moscow, Caldwell and Sandpoint, and participated with cultivating Success leadership teams;
- Co-sponsored Direct Farm Marketing workshop in Asotin Washington;
- Conducted three Living on the Land (LOTL) courses in the Treasure Valley (Caldwell, Parma and Fruitland) and one LOTL farm tour in 2008; Conducted site visit consultation/interviews with five of this year's graduates;
- Conducted one Pasture Management course;
- Conducted vegetable variety trials at the Parma R&E Center;
- Presented to the Caldwell and Nampa Farmers' Market vendors and attended Nampa Farmers' Market Board Meetings in 2008.
- Hosted a meeting of Nampa, Caldwell and Middleton Farmer's Market managers in order to assess needs and explore federal grant opportunities.
- Organized the First Annual SW Idaho Organic Producer's School with Idaho State Department of Agriculture;
- Awarded a \$15,000 grant from WSARE to conduct a *Multi-faceted Approach to Managing Powdery Mildew on Organic Table Grapes in Southwest Idaho* with collaboration from Extension faculty, specialists and a cooperating producer and hosted a tour in September to highlight preliminary results of that research;
- Provided technical advice for WSARE producer grant *Harvest Frequency, Yield, and Economics of Summer Squash*; Planned and supervised ongoing SARE project looking at on-farm participatory learning. Six farmers involved in eight different types of on-farm learning models have been interviewed regarding the effectiveness of the learning opportunity. Case studies are being written to provide guidance to other farmers wanted to conduct on-farm learning events;
- Served on the Idaho Green Expo Planning Committee and Planning Committee for the 2008 Idaho Hunger Summit.
- Contributed updates to the Small Farms website, created a Canyon County Horticulture and Small Acreages resource page, worked one-on-one with small acreage producers on topics ranging from cover crop selection, marketing, season extension and irrigation;
- Authored *Community Supported Agriculture (CSA) Programs: A Marketing Strategy for Small Acreage Producers in Idaho*, one in a series of peer-reviewed Extension publications on small acreage direct marketing of vegetable crops; and a publication titled *Protecting your Farm and Ranch: A Guide to Direct Farm Marketing in Idaho*;
- Taught 2 pesticide recertification workshops for applicators, presented one research report to growers and researchers, and made 2 seminar presentations on huckleberry production for growers;
- Contributed to Diversified Agriculture conference planning committee meetings and promoted the conference in Southeastern Idaho held at Utah State University in Logan, Utah on February 20-22, 2008;
- Organized and facilitated "Pasture and Animal Management for Small Acreage Landowners", "Legal Liability for Farms" workshop, "Good Agricultural Practices" for nutrition advisors, and composting schools.

2. Brief description of the target audience

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

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

Relevant State Commodity Commissions

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 1500 | 10000 | 50 | 200 |
| 2008 | 5241 | 338940 | 368 | 5609 |

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

Patent Applications Submitted

| | |
|--------------|---------------|
| Year | Target |
| Plan: | 0 |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 0 | 0 | |
| 2008 | 2 | 4 | 6 |

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

- Small Farms Conference in southern Idaho.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 0 |

Output #2**Output Measure**

- Small Farms Conference in northern Idaho.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 0 | 0 |

Output #3**Output Measure**

- Small Acreage Farming Course.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 5 |

Output #4**Output Measure**

- Ag Entrepreneurship Course.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 0 |

Output #5**Output Measure**

- Direct marketing shortcourse.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 4 |

Output #6**Output Measure**

- Pasture management shortcourse.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 6 |

Output #7**Output Measure**

- Living on the Land course.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 3 | 4 |

Output #8**Output Measure**

- Living on the Land Tour.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 2 |

Output #9**Output Measure**

- LOTL 5 year report.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 0 | 0 |

Output #10**Output Measure**

- Vegetable variety trials.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 4 | 7 |

Output #11**Output Measure**

- Specialty fruit crop trials.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 3 |

Output #12**Output Measure**

- Field days at demonstration plots.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 2 | 2 |

Output #13**Output Measure**

- Small fruit workshops - Huckleberries, etc.

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 2 |

Output #14**Output Measure**

- Web site - developed on vegetable varieties.

Not reporting on this Output for this Annual Report

Output #15**Output Measure**

- Publication revisions - raspberries and huckleberries.

Not reporting on this Output for this Annual Report

Output #16**Output Measure**

- Agricultural tour in Franklin County.

Not reporting on this Output for this Annual Report

Output #17**Output Measure**

- Refereed scientific journal articles.

Not reporting on this Output for this Annual Report

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

| O No. | OUTCOME NAME |
|-------|--|
| 1 | O: 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 Univeristy of Idaho extension programming.I: Number of producers indicating they did (or intend to) adopt recommended land management, production and/or marketing practices after attending an educational class, workshop, one-on one contact or reading UI information. |
| 4 | O: Landowners and farmers achieve success in protecting their natural resources and/or maintaining a successful business.I: Number of past class participants who volunteer to host tours of their farm or speak to new students in classes, workshops or at conferences. |
| 5 | O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team. |

Outcome #1

1. Outcome Measures

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 100 | 156 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Small-acreage farmers are seeking ways to bring economic viability to their operations. One method is to produce unique vegetable crops that can be marketed locally and establish identity to the farm.

What has been done

Seven variety trials were grown across southern Idaho, a mix of on-farm and research station trials. Growers and other interested individuals were invited to tour the trials during the summer. Comprehensive reports are being completed to provide information for farmer decisions and future educational efforts.

Results

Small-acreage farmers were educated and provided with new ideas for utilizing vegetable production to bring operational viability to their farms.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|--------------------------|
| 205 | Plant Management Systems |
| 202 | Plant Genetic Resources |

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 Knowledge Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 50 | 1018 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Growers and landowners who are trying to be more sustainable by protecting natural resource and operating viable farm businesses need accurate information and guidance on how to implement the recommendations on their property or farm.

What has been done

In District 1 Extension for reporting period: Three Sustainable Small Farm and Ranch classes Pasture Management workshop Sustainable Livestock Production workshop Two Direct marketing workshops Three legal liabilities workshops Three food safety workshops and one on-farm tour and food safety demonstration Three Entrepreneurship trainings including some agricultural producers (12)

Results

More than 80% of students taking the Sustainable Small Farm class indicated they increased their knowledge in each of the following categories: principles of sustainability, production practices, identifying goals and evaluating resources. 90% of participants surveyed at workshops indicated a somewhat to great increase in knowledge on subject matter content.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|--|
| 202 | Plant Genetic Resources |
| 102 | Soil, Plant, Water, Nutrient Relationships |
| 212 | Pathogens and Nematodes Affecting Plants |
| 205 | Plant Management Systems |

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

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 10 | 159 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Adopting best management practices (BMP) protects the resources of the landowner and benefits the environment

What has been done

Training on BMP's and reference publications were provided during the LOTL class.

Results

During site visits following the LOTL class, 15 landowners indicated they had or were in the process of adopting 128 BMP's and may implement 25 more BMP's in the future

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|--|
| 102 | Soil, Plant, Water, Nutrient Relationships |
| 205 | Plant Management Systems |

| | |
|-----|--|
| 212 | Pathogens and Nematodes Affecting Plants |
| 202 | Plant Genetic Resources |

Outcome #4**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 1 | 0 |

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

Having alumni host tours or speak to the class shows fellow landowners what can be accomplished and gives them new ideas, and builds the confidence of the person hosting or teaching.

What has been done

Alumni were invited to host tour stops and become instructors for the LOTL class and at the sustainable livestock production course.

Results

Two past and current class participants volunteered to host tours of their property, one past class participant became an instructor in 2008. One past student has started a small farm was able to share her experiences to help 50 other beginning livestock producers assess methods for fencing and facilities, animal husbandry and processing.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|--|
| 202 | Plant Genetic Resources |
| 102 | Soil, Plant, Water, Nutrient Relationships |
| 205 | Plant 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

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 2 | 0 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|--|
| 205 | Plant Management Systems |
| 202 | Plant Genetic Resources |
| 102 | Soil, Plant, Water, Nutrient Relationships |
| 212 | Pathogens and Nematodes Affecting Plants |
| 305 | Animal Physiological Processes |
| 307 | Animal Management Systems |
| 311 | Animal Diseases |

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy

Brief Explanation

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

1. Evaluation Studies Planned

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

Evaluation Results

Knowledge Change:

Post event evaluations were conducted at the Food Safety, Legal Liability, Direct Marketing, and Sustainable Livestock Production workshops and the Sustainable Small Farming and Ranching courses. The evaluation includes gauging knowledge before and after the educational event. Comparing the knowledge before and after has resulting in these outcomes.

- More than 80% of students taking the Sustainable Small Farm class indicated they increased their knowledge in each of the following categories: principles of sustainability, production practices, identifying goals and evaluating resources.
- 90% of participants surveyed at workshops indicated a somewhat to great increase in knowledge on subject matter covered during the event.

Increased knowledge about recommended practices will enhance the likelihood of adoption and will result in:
1) improved quality of natural resources (soil and water) and 2) improved success rate of small farm businesses.

Adoption of practices:

- The Food Safety, Legal Liability and Direct Marketing workshops included a six month retrospective phone interview. This provided valid information on actual adopted practices: 38 producers have adopted recommended food safety, legal liability or direct marketing practices as indicated by phone surveys 6 months following the educational event.
- The Sustainable Small Farm course introduced the process of developing a farm management plan. 100% of the 44 students taking the class in Sandpoint and Boise presented their farm plan as part of the course. The Sustainable Livestock Production short course asked participants if they planned to implement what they learned on their farm; 100% of the 30 producers who completed the survey indicated they will implement practices they learned at the training.

Key Items of Evaluation

Program #20

V(A). Planned Program (Summary)

1. Name of the Planned Program

Sugarbeets

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|---------|--|-----------------|-----------------|----------------|----------------|
| 205 | Plant Management Systems | 40% | | 40% | |
| 212 | Pathogens and Nematodes Affecting Plants | 40% | | 40% | |
| 213 | Weeds Affecting Plants | 20% | | 20% | |
| | Total | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 1.4 | 0.0 | 0.9 | 0.0 |
| Actual | 2.3 | 0.0 | 1.4 | 0.0 |

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

| Extension | | Research | |
|---------------------|----------------|----------------|----------------|
| Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| 39519 | 0 | 17545 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 39519 | 0 | 17545 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 103482 | 0 | 771687 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

Team members contributed to revisions of three sections of the 2008 Pacific Northwest Insect Management Handbook: Sugar Beet Insect Pests (pp. 28-38), Sugar Beet Seed Pests (pp. 383-385), and Table Beet Seed Pests (pp. 385-387). Members collaborated and contributed to the Idaho Sugar beet conference and four winter commodity schools, nine weed control studies and a weed research tour, two articles for trade publications, eight research progress reports, a Spanish-language section for sugar beet school.

Specific research projects related to production practices, pest control, productivity of new transgenic varieties.

2. Brief description of the target audience

Target audience includes sugarbeet growers, sugar company fieldmen and agronomists, private consultants, and chemical and seed company representatives Snake River Sugarbeet Growers Association.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 3976 | 4467 | 0 | 0 |
| 2008 | 2056 | 1701 | 84 | 0 |

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

Patent Applications Submitted

| Year | Target |
|--------------|---------------|
| Plan: | 0 |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 1 | 0 | |
| 2008 | 1 | 0 | 1 |

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

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

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 21 | 0 |

Output #2**Output Measure**

- Web publications as lead author.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 10 | 2 |

Output #3**Output Measure**

- Presentations.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 44 | 13 |

Output #4**Output Measure**

- Newsletters.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 6 | 1 |

Output #5**Output Measure**

- Organizing schools or conferences.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 2 | 3 |

Output #6**Output Measure**

- Organizing field days.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 5 | 4 |

Output #7**Output Measure**

- Field tours.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 8 | 5 |

Output #8**Output Measure**

- Individual face-to-face contacts.

Not reporting on this Output for this Annual Report

Output #9**Output Measure**

- Telephone contacts.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 1028 | 571 |

Output #10**Output Measure**

- Web page visits.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 2700 | 1160 |

Output #11**Output Measure**

- Extension publications (peer reviewed; CIS, bulletins, etc.) as lead author.

| Year | Target | Actual |
|------|--------|--------|
| 2008 | 1 | 1 |

Output #12

Output Measure

- Research publications as lead author (peer reviewed; journals, book chapters, etc.).

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 1 |

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

| O No. | OUTCOME NAME |
|--------------|--|
| 1 | O: Adoption of best management practices for sugarbeet production will maximize cost-effectiveness while minimizing potential harm to environmental resources, benefiting sustainability of the agro-ecosystem and human health.I: Percentage reduction in input costs (survey). |
| 2 | O: Target audiences will gain knowledge and an awareness of sugarbeet publications and other sources of information.I: A percentage increase in knowledge measured by pre- and post-tests, presentation evaluations, field day attendance, etc. |
| 3 | O: Development of new research information.I: Research publications (peer reviewed). |
| 4 | O: Development of new research information.I: Number of research presentations. |

Outcome #1

1. Outcome Measures

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

Not reporting on this Outcome for this Annual Report

Outcome #2

1. Outcome Measures

O: Target audiences will gain knowledge and an awareness of sugarbeet publications and other sources of information.I: A percentage increase in knowledge measured by pre- and post-tests, presentation evaluations, field day attendance, etc.

Not reporting on this Outcome for this Annual Report

Outcome #3

1. Outcome Measures

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

Not reporting on this Outcome for this Annual Report

Outcome #4

1. Outcome Measures

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

Not reporting on this Outcome for this Annual Report

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Other (loss of key personnel)

Brief Explanation

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

1. Evaluation Studies Planned

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

Evaluation Results

Key Items of Evaluation

Program #21

V(A). Planned Program (Summary)

1. Name of the Planned Program

Water and Environmental Quality

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|---------|---|-----------------|-----------------|----------------|----------------|
| 102 | Soil, Plant, Water, Nutrient Relationships | 10% | | 10% | |
| 104 | Protect Soil from Harmful Effects of Natural Elements | 5% | | 5% | |
| 111 | Conservation and Efficient Use of Water | 20% | | 20% | |
| 112 | Watershed Protection and Management | 20% | | 20% | |
| 132 | Weather and Climate | 5% | | 5% | |
| 133 | Pollution Prevention and Mitigation | 10% | | 10% | |
| 215 | Biological Control of Pests Affecting Plants | 10% | | 10% | |
| 315 | Animal Welfare/Well-Being and Protection | 5% | | 5% | |
| 723 | Hazards to Human Health and Safety | 10% | | 10% | |
| 803 | Sociological and Technological Change Affecting Individuals, Families and Communities | 5% | | 5% | |
| | Total | 100% | | 100% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 0.8 | 0.0 | 6.8 | 0.0 |
| Actual | 1.3 | 0.0 | 6.8 | 0.0 |

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

| Extension | | Research | |
|---------------------|----------------|----------------|----------------|
| Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| 46467 | 0 | 250290 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 46467 | 0 | 250290 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 62854 | 0 | 1890101 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

Faculty participated to help evaluate and prescribe ensuing policy changes by the Big Wood Canal Company. A number of recommendations required a shift in traditional thinking and the way the BWCC has been doing business, and Extension helped motivate the BWCC Board to implement all 17 recommendations.

The impact of changes implemented last spring (2008) to the shareholders is estimated to be at least a 1.6 million dollar savings across the whole system, based on current crop prices. This savings comes from the conservation practices and recommendations put in place by the BWCC Board. The days of water for the whole BWCC system has been extended by at least 10 days x \$160,000 per day = \$1.6 million. Teamwork, communication and a willingness to try new ideas has been critical for progress forward.

Book chapter, workshop, session organized at national conference, presentations, numerous one-on-one

The team leader was provided for the OnePlan IPM planning tool. The planning tool is currently in functioning for potatoes, small grains, dry bulb onion, and sugarbeet. A pesticide recordkeeping tool has been developed to record pesticide usage, notify producer of Worker Protection Standard regulations and record-keeping requirements. Additional pesticide safety information is presented.

Twenty-four PNWWATER UPDATES were produced and distributed. Our regional web site (PNWWATERWEB.COM) was updated, expanded and enhanced. A regional satellite conference on watershed management was conducted. A regional training on the NEMO program was held for county faculty. A regional training on best education practices was held for county faculty. Two papers on water activities were published in the Journal of Extension.

Six presentations were made to growers and others regarding better matching irrigation system design to local ET and soils, and to better management of irrigation systems to avoid mid-season water stress while minimizing surface runoff or deep percolation and 4 presentations were made at Idaho Water User's Association Ditch-rider workshops across Southern Idaho.

Other Team members developed a poster presentation on onion nitrate and water use efficiency shown at the Idaho Nutrient Management Conference, the Water Connections Conference, and the Annual Extension Conference; submitted a paper on onion nitrate and water use efficiency that was included in the Idaho Nutrient Management Conference Proceedings, submitted a paper on onion nitrate and water use efficiency that was published in the NACAA Online Journal and the NACAA Annual Meeting Proceedings, gave a water quality presentation to several audiences for the Living on the Land program, and a training class to grower cooperators on the use of soil sensor equipment.

2. Brief description of the target audience

Target Audiences include

Agricultural audiences: Farm/ranch managers, landowners, employees

Government agencies/personnel: Federal agencies

Mass media audiences

University faculty: Colleges of Agriculture, Natural Resources and other colleges

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 1200 | 220000 | 200 | 40000 |
| 2008 | 120081 | 0 | 290 | 4192 |

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

Patent Applications Submitted

| | |
|--------------|---------------|
| Year | Target |
| Plan: | 1 |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)**Number of Peer Reviewed Publications**

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | 7 | 1 | |
| 2008 | 2 | 24 | 26 |

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Satellite Conferences delivered

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 1 |

Output #2**Output Measure**

- WQ Updates

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 24 | 25 |

Output #3**Output Measure**

- Number Commodity Schools including water-quality presentations (including applicator training)

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 6 | 2 |

Output #4**Output Measure**

- Delivery of Regional Water Quality Conference

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 1 | 1 |

Output #5**Output Measure**

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

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 5 | 2 |

Output #6**Output Measure**

- Number of Popular press articles published

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 12 | 9 |

Output #7**Output Measure**

- Number of Refereed journal articles published

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 3 | 24 |

Output #8**Output Measure**

- Number of water quality workshops and seminars

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 10 | 23 |

Output #9**Output Measure**

- Number of professional meetings attended

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2008 | 10 | 20 |

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

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

Outcome #1

1. Outcome Measures

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

Not reporting on this Outcome for this Annual Report

Outcome #2

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 500 | 65 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

BMPs on fish farms help minimize solid and nutrient discharge

What has been done

workshops, a book chapter, and numerous one-on-one consultations have led to the implementation of BMP for water protection by out aquaculture industry.

Results

according to EPA & DEQ - we are experiencing a high rate of compliance rate with NPDES permitting standards

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|---|
| 133 | Pollution Prevention and Mitigation |
| 102 | Soil, Plant, Water, Nutrient Relationships |
| 112 | Watershed Protection and Management |
| 111 | Conservation and Efficient Use of Water |
| 104 | Protect Soil from Harmful Effects of Natural Elements |
| 215 | Biological Control of Pests Affecting Plants |

Outcome #3

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 7 | 2 |

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

There is a lack of analysis tools to aid in identifying sources of impairment in agricultural and forest watersheds. Lateral flow and saturation excess dominate upland hydrologic processes causing sediment and nutrient contributions to streams. This project includes a series of studies on the effects of lateral flow on soil erosion, sediment delivery, sediment transport in channel systems, and phosphorus transport in agricultural and forest watersheds in Idaho.

What has been done

Data collection continued in Paradise Creek Watershed (PCW), and in Mica Creek Experimental Watershed (MCEW) to support development of a GIS-based approach for the evaluation of disturbances in agricultural and forest watersheds. Lateral flow and saturation excess dominate upland hydrologic processes in PCW and MCEW causing sediment and nutrient contributions to streams. The GIS-based modeling package includes the Soil Moisture Routing (SMR) model and the Water Erosion Prediction Project (WEPP) model for upland processes, and CCHE1D and CONCEPTS for stream processes. The WEPP model was updated further to simulate saturation excess runoff, and snowmelt. Further stream-cross sections were measured both in the agricultural and urban area of PCW. A trend analysis confirms statistically reduced sediment loads in PCW as a result of conservation practices. Phosphorus data for four water years (WY) were analyzed for correlation with turbidity and total suspended sediment (TSS). During storm events and high flow periods sediment-bound phosphorus (P) is the dominant form of P. Total P (TP) and Particulate P (PP) had better correlations to TSS than to turbidity. No significant relationships between turbidity or TSS and soluble forms of P (Soluble Total P and Soluble Reactive P) were identified. The relationship between TSS and turbidity improved by separating data on the rising and falling limb of storm events, however, the correlation of both TP and PP to TSS were not greatly improved by separating the rising from the falling limb of the hydrographs over four WYs. An inverse relationship was observed between the TP to TSS ratio and flow (Q) during WY 2005 - 2008 and coupled with corresponding changes in the slopes of the straight line fit of TP and TSS during different time periods. This project addresses the lack of analysis tools to aid in identifying sources of impairment in agricultural and forest watersheds. Improved understanding of pollutant transport and cumulative effects (e.g., delay of sediment transport and storage of pollutants in streams) assists in interpretation of stream monitoring data used to assess progress in water quality management. Results from this work contribute to the evaluation of Best Management Practices (BMPs) for achieving water quality goals at the watershed scale. Particularly the long-term effects of BMPs for a cleaner environment are targeted in this research. Research in the forest watershed also helps understand the short and long-term effects of disturbances on water yield.

Results

Project results were disseminated in presentations made at the CSREES National Water Conference in Reno, Nevada, the Annual Idaho Department of Environmental Quality Conference in McCall, Idaho, the South Fork of the Palouse River Watershed Advisory Group meeting in Moscow, Idaho, the American Geophysical Union Conference in San Francisco, CA. The research results from this project are becoming known in the scientific community through our publications as well. Maps, streamflow, and water quality data can be accessed on a web-based database: <http://pcw.ag.uidaho.edu/>. Users can select sampling location and time-period using simple data queries. The website graphs the data and provides simple descriptive statistics.

4. Associated Knowledge Areas

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

| | |
|-----|---|
| 132 | Weather and Climate |
| 104 | Protect Soil from Harmful Effects of Natural Elements |

Outcome #4

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
| 2008 | 100 | 50 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

There is a need to encourage producers to write NRCS/EQIP pest management plans to try and reduce overall pesticide usage. Pest management has not traditionally been covered by EQIP.

What has been done

Extension has presented pest management information at the Idaho State Technical Committee meetings, and NRCS has allowed EQIP payments for pest management. NRCS were trained in pest management practices, including IPM and possible ways to reduce pesticide use. Using UI-developed guidelines and tools, NRCS field staff wrote pest management plans with producers

Results

110,839 acres were awarded EQIP funds for pest management planning and implementation.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|--|
| 112 | Watershed Protection and Management |
| 215 | Biological Control of Pests Affecting Plants |
| 133 | Pollution Prevention and Mitigation |
| 102 | Soil, Plant, Water, Nutrient Relationships |

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Other ()

Brief Explanation

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

1. Evaluation Studies Planned

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

Evaluation Results

Yard Water Use

Based on the survey results over 83% of Pacific Northwest resident's water some part of their yards in the summer. Of the respondents that indicated that they water their yards, almost two-thirds (66%) water their lawns, more than half (53%) water their gardens, and almost half (48%) water their landscaping. State of residence had a significant effect on yard watering. Idaho residents were the most likely to water their yards (96%), followed by Oregon (86%), Washington (77%), and Alaska (70%). Idaho residents were also most likely to water their lawns (90%) and landscaping (60%) in the summer compared to residents of Alaska, Oregon and Washington.

Water Conservation Practices

The regional survey was designed to gauge the use of water conservation practices in yards in Alaska, Idaho, Oregon and Washington. The survey found that the majority of homeowners used at least three water conservation practices in their yards. The most frequently used water conservation practice was watering only in the evening or early morning (71%), followed by sweeping sidewalks, driveways and decks instead of washing them down with water (57%), and less lawn watering (53%). Other water conservation practices frequently used by Pacific Northwest residents in their yards include: (1) using an irrigation system timer (34%), (2) using native or drought tolerant plants in their landscape (29%), (3) decreased lawn area (28%), and (4) the increased use of drip irrigation for gardens and landscaping (25%).

Key Items of Evaluation

Program #22

V(A). Planned Program (Summary)

1. Name of the Planned Program

Miscellaneous programs including Publications, IT, Evaluation, and Other management functions

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|---------|--|-----------------|-----------------|----------------|----------------|
| 901 | Program and Project Design, and Statistics | 10% | | 0% | |
| 902 | Administration of Projects and Programs | 60% | | 0% | |
| 903 | Communication, Education, and Information Delivery | 30% | | 0% | |
| | Total | 100% | | 0% | |

V(C). Planned Program (Inputs)

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

| Year: 2008 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | | | | |
| Actual | 19.7 | 0.0 | 0.0 | 0.0 |

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

| Extension | | Research | |
|---------------------|----------------|----------------|----------------|
| Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| 391496 | 0 | 0 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 391496 | 0 | 0 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 391496 | 0 | 0 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

Pacific Northwest Publications program

Extension Publications

Extension Computing

Extension Administration

2. Brief description of the target audience

These programs support our faculty and staff.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | {NO DATA ENTERED} | {NO DATA ENTERED} | {NO DATA ENTERED} | {NO DATA ENTERED} |
| 2008 | 0 | 0 | 0 | 0 |

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

Patent Applications Submitted

| Year | Target |
|--------------|---------------|
| Plan: | |
| 2008 : | 0 |

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | | | |
| 2008 | 0 | 0 | 0 |

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of Counties with Strong Extension programs.

| Year | Target | Actual |
|-------------|-------------------|---------------|
| 2008 | {No Data Entered} | 42 |

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

| O No. | OUTCOME NAME |
|-------|--|
| 1 | O: UI/CALS provides adequate administrative support for research and extension faculty needs. I: Faculty productivity as measured by grants received, publications delivered, etc. |

Outcome #1

1. Outcome Measures

O: UI/CALS provides adequate administrative support for research and extension faculty needs. I: Faculty productivity as measured by grants received, publications delivered, etc.

Not reporting on this Outcome for this Annual Report

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Other (reduction in force)

Brief Explanation

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

1. Evaluation Studies Planned

-

Evaluation Results

Key Items of Evaluation