

University of Idaho Cooperative Extension System FY 2000 Annual Report of Accomplishments

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A. Planned Programs

NOTE: Guidelines for this annual report require that our data be categorized into a specific classification scheme (major themes) that does not always fit well with our approved 5-year plan and reporting format. While we have made every effort to adjust our data to match this system, collection of the relevant data was completed long before reporting guidelines were finalized and artificial associations are inevitable.

GOAL 1 *An agricultural system that is highly competitive in the global economy*

Overview

The Idaho Cooperative Extension System 5-year plan of work identifies a strong linkage between Goals 1 (*an agricultural system that is highly competitive in the global economy*) and 4 (*greater harmony between agriculture and the environment*). The Idaho 5-year plan of work described three major program thrusts that are associated with Goal 1 for which accomplishment data have been collected. These are: *Plant Systems, Animal Systems and Range Management and Farm and Ranch Management*.

Extension programs brought research-generated knowledge to benefit over 8194 growers, consultants, crop advisors, Extension educators, teachers, scientists, agency land managers, federal and state agency representatives, stakeholders, vo-ag and high school teachers, fieldmen, seed dealers and other industry reps, NRCS and Conservation District staff, U of I and WSU students, faculty and staff. Topics of Extension education programs included pest management, conservation tillage, CRP planting, direct seeding, erosion control, new technologies, irrigation water management, seed treatments, storage management, forage quality, fertility issues, horticultural crops, end-use quality and included presentations to professional societies.

The total number of people in FY 2000 who completed non-formal education programs in Idaho to improve the productivity and global competitiveness of the U.S. agricultural production system was 5422. The number of participants who plan to adopt one or more new production techniques or practices after completing one or more of these programs was 1357 (25% of

participants). The number of people who actually adopted one or more new production techniques or practices within six months after completing one or more of these programs was 835 (62% of those who had planned to adopt).

One successful educational program that has yielded measurable impacts is the A to Z Retained Ownership Project which has resulted in a significant increase in vertical integration of livestock producing enterprises in Idaho. Since the program began, over 100 participating ranches have adopted practices resulting in retained ownership of nearly 4000 head of cattle throughout their production cycle. This practice has helped participants reduce risks associated with raising cattle caused by predictable and unpredictable fluctuations in the price of cattle and cost of feed. Many program participants (80%) have been able to improve the market value of their cattle by providing specific information to the buyer about carcass quality. A significant number of participants (15%) have further reduced financial risks through options and futures markets. In some cases, the practice of retained ownership has allowed producers to shift a portion of their loan portfolio from one of borrowing against future production to one of borrowing against existing production capacity (capital).

Total expenditures invested in Goal 1 include approximately \$2,163,083 from State of Idaho appropriations, \$667,686 from Smith-Lever allocations, \$589,356 from county appropriations and \$280,000 from other sources. These cumulative resources supported approximately 38.92 FTEs for faculty working on Goal 1 activities.

Key Theme – Agricultural Profitability/Risk Management

- a) Workshops, seminars and meetings provide a major forum through which information and education is provided to Extension audiences. The presentations summarized below were held at both topic-specific workshops, such as on grain marketing or retained ownership, as well as at the traditional commodity schools sponsored by Extension. Presentations covered a wide range of topics but, in general, fall under one of the following categories: risk management (19), marketing (25), leasing (2), commodity outlook (3), general economics (3) and cost of production (4). Some presentations were classified by more than one category.

The A to Z Retained Ownership Project has completed its eighth year, having served 108 different ranches and consigning 3981 head of calves. The extensive database from this program has been used to derive best management strategies for Extension programs throughout the western United States. The project has resulted in over 75 presentations, 8 field days, 14 processing plant tours, 12 magazine articles, 5 abstracts, 4 proceedings papers, 8 surveys, 5 Extension publications and 8 year-end summary reports.

An input-output model of Owyhee County, Idaho was constructed using crop and livestock enterprise budgets, local business survey data and secondary data. The model was used to assess the impact of a contentious federal resource management plan. The project integrated local, state and federal agencies and county residents in the process to help legitimize the analysis. A social assessment survey was also part of the project. Results of the study were

provided to the BLM and used in the final Owyhee Resource Management Plan. The county has used the economic model to evaluate alternative policies.

Publications are a major output for specialists. These are used both in their own programs as well as to support county-level programs. Publications cover a wide range of formats from less formal Extension publications (*Extension Focus*, *Spudvine and Potato Pointers*) to the peer reviewed publications from the College of Agriculture (Current Information Series and Bulletins) and the Department of Agricultural Economics and Rural Sociology (*Idaho Economics* and Agricultural Economics Extension Series). Publications are delivered in both traditional print format as well as in PDF on the AERS website. A three-ring notebook and CD-ROM were produced as part of the Pacific Northwest Risk Management Education Project. The notebook included materials and decisions tools focused on managing financial, production and price risk. PowerPoint presentations were also part of the resource material. All the materials are available on the Internet.

Publication Summary:

7 Informal Extension publications
93 College/departmental reviewed publications
91 PDF format on departmental website
1 three-ring notebook
1 CD ROM

Publications by Category:

The Enterprise Budget Bulletin series contains the costs and returns estimates (enterprise budgets) for the major crops and livestock produced in Idaho. These are revised and published on a biennial basis. They are available as a printed publication and as a PDF on the AERS website. During FY00, 81 Crop Enterprise Budget Bulletins were produced.

Idaho Agricultural Outlook is published as a departmental publication (AEE) and as a PDF on the AERS website. A summary of the detailed commodity outlook articles is also distributed to the media and appears in newspapers across the state and in regional agricultural publications in southern Idaho. Idaho Agricultural Outlook had three issues, a fall, a winter and a spring edition. Commodities covered included: wheat, feed grains, dry beans, forage and alfalfa, dairy and beef.

Dairy Economics Update is published on a quarterly basis as a PDF on the AERS website. In addition to a discussion about milk, cheese, dairy heifer and forage prices, cost of production estimates are also provided using both historical and projected costs.

Current Information Series: *Tools To Manage Price Risk in Grain Marketing*

Short-range and long-range commodity planning prices were published as a departmental publication and as a PDF on the AERS website. These are used in the financial management workshops where long-range budgeting and cash flow budgeting are taught. Many of these workshops use the financial analysis and planning software, FINPACK.

Other topics covered in the informal Extension publications and resource material prepared as handouts for farm management workshops included: leasing, cost of production, risk management, retained ownership and marketing.

County faculty are involved in farm business management programs and activities in four areas: 1) direct one-on-one contact with individual producers, 2) FSA Borrower Training Programs, 3) special topic workshops and 4) traditional Extension commodity schools. This report does not document the one-on-one contacts with producers that take place outside organized programs.

Program Objectives for County programs include:

1. Increase the use of new technologies, management practices and marketing practices that lead to improved levels of financial performance of business; and
2. Identify sources of risk, determine ability to withstand risk and develop acceptable risk management strategies.

The majority of farm business management programs offered by the counties in Idaho are designed to fulfill the requirements of the FSA Borrower Training. While a core group of farm management topics are covered in each program, each program is customized to match the interest of local farmers and ranchers, as well as to meet their time constraints. The FSA Borrower Training programs ranged in length from 40 to 72 hours of instruction. The programs used a variety of different teaching techniques, materials and methods in these programs, including lectures, video tapes (Business Management In Agriculture), computer programs (including FINPACK, Quicken and problem specific decision-aid programs), hands-on computer labs, case farm examples and farm simulation games.

The Western Integrated Resource Education Program, or WIRE, was modified and taught in two locations. WIRE is a six-day workshop on principles and practices of farm management taught by a team of instructors. Attendance by FSA borrowers was mandatory, but most programs allowed other interested clientele to attend the various sessions based on the client's interest and space availability. Programs were offered in Lewis/Idaho counties, Cassia County, Twin Falls County, Lincoln County, Butte County, Custer County and Bear Lake County. A program was also offered on the Duck Valley Indian Reservation.

Farm management programs outside the FSA borrower-training program included:

1. Livestock marketing workshops at two locations on the cattle cycle, cost of production and futures markets;

2. Risk management workshops for grain producers at six locations on factors to consider when evaluating the wheat market, wheat market trends and implications, futures market, crop insurance and a farm marketing simulation game;
3. Dairy options pilot program workshops were held in three locations and discussed the used of the new dairy option to help manage price risk; and
4. A program on evaluating alternative cropping systems were presented to agricultural lenders at one location.

Idaho potato growers lose significant revenue annually because of bruising of post-harvest crops. A bruising seminar was attended by local fresh pack, shed operators. They were familiar with the Instrumented Sphere and were very open to the results we had to show them. Most were aware of some of the problems in their sheds where bruising took place but, from the questions asked, there was a lot of areas that will be looked at more closely to insure that bruising is kept at a minimum. Several expressed an interest to have the sphere run through their sheds a second time when they have the problems corrected that were identified the first time the sphere was run through.

- b) Specialists gave 46 presentations to an audience of approximately 1225. Producers have had the opportunity to improve their management skills by attending and participating in workshops and seminars on a wide range of topics. Producers' willingness to voluntarily attend workshops and seminars on farm and financial management is an indication that they are interested and find the programs useful. While the ability of a farm or ranch to survive adverse economic situations is likely to increase with the adoption of sound business management practices discussed in these programs, there is no guarantee.

Approximately 40 percent of the participants in the A to Z Retained Ownership Program have initiated individual retained ownership programs and another 20 percent have improved existing programs. Eighty percent of participants have enhanced the market value of their calves by providing feedlot and carcass performance information to buyers. Approximately 15 percent have used hedging and options markets to manage price risk. Improved communications between industry segments have increased technology transfer, marketing efficiency and profitability for all segments.

Two hundred seven farmers attended various farm management and risk management programs presented by county faculty. Participants learned topics or practices related to budgets, financial management, financial statements, income statements, cash flow budgeting, marketing plans, crop insurance, risk management, obtaining and using credit, record systems, family budgeting, cost of production, hedging, setting goals, resource inventory, implementing and monitoring plans and strategic planning. Of those in attendance, over 75% indicated their intent to apply new knowledge gained from their experiences. Six

months following educational programs, on average more than half of the program participants had implemented various new knowledge and practices.

- c) Source of Federal Funds – Smith-Lever (3)b&c
- d) Scope of Impact – State specific and regional projects are described. See attachment for multi-state programs. **Goal One**

Key Theme – Animal Production Efficiency

- a) University of Idaho Extension developed and delivered an array of educational programs that loosely fall within this key theme. Programs and activities include shortcourses, workshops, field days, publications, media outreach and others. These activities generally aim to improve profitability, competitiveness and sustainability of large and small livestock and dairy operations.

A to Z Retained Ownership, Inc.

A to Z Retained Ownership has completed its eighth year, serving 108 different ranches. The ranchers have been active participants that have consigned 3981 head of steer and heifer calves to the program. Allied industries have supported the program from a monetary as well as technical support standpoint. Bruneau Cattle Company has provided an educational center at their feedlot for tours and demonstrations. Ranchers have learned the complete financial aspects of retained ownership, through securing a feeding loan, risk management and alternative marketing. Animal performance and health information has been obtained on an individual head basis and this information has been used in their future ranch management plans.

Cow-Calf Management Guide

The cow/calf management guide 2nd edition has been in press for 10 years with updates sent out annually, to date over 5,000 copies have been sold. An editor, 17 specialists and over 20 Extension educators have supported this manual. Included in the handbook are 1 CD-ROM, 747 pages and 205 fact sheets.

State Winter Beef Schools

The state beef schools success continues to grow with approximately 430 ranchers in attendance. Winter calf survival and beef quality assurance topics were integral in increasing rancher participation. Evaluations indicated that ranchers were enthusiastic over the return of traditional animal science topics to the winter schools. District IV has been busy meeting the needs of the livestock clientele. In January a multi-county beef school focused on changes

needed in the beef herd. Primarily talking about change and how to manage it into the future. Breeding, marketing and management were discussed.

The Panhandle Area Agricultural Seminar was to inform producers of available programming efforts. As a result of the Weed Free Hay and Straw Program, seven producers made further inquiries about participating in the program for the 2000 growing season. Four producers participated in the 2000 Beef Program conducted at the University of Idaho, Moscow, Idaho. Two producers further explored expanding and improving their marketing plans for the future. Nine producers contacted the Extension office and the county weed department for further advice on weed control plans for their operations.

Inside Beef Retained Ownership

Inside Beef Retained Ownership Program involved 52 livestock producers and carcass collection on 796 individual animals. Worked with two feedlots to provide participants with live animal performance and carcass data on their cattle. Discussed marketing, feeding strategies, hedging and retained ownership strategies with individual producers in group settings and one-on-one meetings. This is a multi-state effort with cooperation from Ron Torell from the University of Nevada. Many of the producers in the Inside Beef Program are from Nevada.

Dairy Extension Program

Dairy Extension program efforts improved profitability, competitiveness and sustainability of large and small dairy operations. Efforts included schools where free-stall design and use, U of I campus research and improving spousal relationships were addressed. Dairy producers were also assisted in the risk management option in a series of workshops that discussed dairy options, future markets and forward contracting of feed commodities. Dairy producer study groups helped members improve management as a result of information sharing at bi-monthly meetings. Dairy advisory committees located in each of the Extension districts provided the necessary guidance for Extension program direction. Individual dairy operations were aided in key management decisions relating to herd health, productivity and profitability.

Two very successful programs in beef cattle production this FY were a calving school in four locations and range monitoring workshops in six locations. These two programs were preceded by lengthy interaction with producers, industry representatives and animal health providers in nine counties. The Inside Beef Program has been a successful technique to acquaint producers with the feeding and carcass characteristics of their cattle. The "Inside Beef" program is the basis for a new planning effort that will give producers some experience in using futures and option marketing to protect their investment. Along with this planning with producers and allied representatives will be including beef quality assurance (BQA) measures. State livestock specialists have played a key roll in program development and delivery.

Other district programs that involved beef were the forage schools held in Gooding and Arco that were designed around introducing producers to alternative feeds. These two schools dealt with the declining range availability and the increased competition for high quality harvested feeds. Producers were given lists of alternative forages and how they could be produced and used. Another major forage success has been the Cassia County experience of using supplements on native rangeland to lower winter-feeding cost.

Bull Soundness Evaluations

These programs have turned from simple bull grading tours to full-scale soundness evaluations. Some of these were prompted by the mandatory “Tric” testing, others were developed to offer producers realistic appraisals of a bulls breeding condition and value. Six counties had producers using some type of formal bull evaluation where Extension was highly involved. No doubt all counties have producers using extensive selection and condition evaluation as the techniques are recognized by every major beef breed organization. Producers in at least three counties are using a new technique using ultrasound evaluation of muscling and fat. With the acceptance of the technique and requirements, major breed associations are using ultrasound to calculate the EPD of carcass characteristics. Extension professionals are providing this support with equipment and expertise. Three county Extension educators have been involved in this effort for six years.

Ultrasound Technology

- a) Ultrasound technology has become a major part of the program thrust in SE Idaho. Breeding stock was scanned to determine EPD’s and carcass characteristics. A research project using lambs was conducted to correlate live carcass measurements to carcass traits in the cooler. There was found to be a strong correlation. Many beef producers are using ultrasound carcass EPD’s to determine purchases of breeding stock.
- b) The database from the A to Z Retained Ownership Program has been used to derive best management strategies for teaching programs throughout the western United States. Over 75 presentations, 8 field days, 14 processing plant tours, 12 magazine articles, 5 abstracts, 4 proceedings papers, 8 surveys, 5 Extension publications, 8 year-end summaries and numerous Impact Statements have expanded the distribution of information obtained through this Extension program.

Idaho dairy producers were included in several research and demonstration projects to establish new information and management techniques relative to cow comfort and free-stalls.

In one county alone, four ranches were documented to reduce feed costs after applying new knowledge gained through Extension education, involving the use of nutrient supplements on native rangeland. The data shows over a 50% savings in winter feed costs from the typical

“hay to the cow herd” wintering. Similar experiences in other winter-intensive areas were observed in previous years with similar techniques.

- c) Source of Federal Funds – Smith-Lever (3)b&c
- d) Scope of Impact – State specific and regional projects are described. See attachment for multi-state programs.

Key Theme – Diversified/Alternative Agriculture

- a) There are a limited number of crops—potatoes, grain, alfalfa and sugar beets—that can be grown in eastern Idaho for cash. Nearly 60 percent of all potatoes grown in Idaho are produced in the eastern part of the state and short potato rotations generally produce a lower quality crop. Producers are interested in finding alternative crop rotations to enhance potato yield and quality. Sudangrass, in small-plot research, has been shown to minimize the effects of Verticillium wilt, a disease of potatoes that causes early dying of vines resulting in decreased yields. There is also some on-farm evidence to show that Austrian winter fieldpeas can be successfully used in a potato rotation. In 1998, Sudangrass and Austrian winter fieldpea were both successfully grown and harvested for forage, which could be used to feed cattle. Potatoes were planted in May, 1999 in the same location as the alternative crop plots and harvested in October, 1999. Potato yield and quality following these two alternative crops were compared with a traditional barley rotation, which was adjacent to the plots. Although not statistically analyzed, there were few differences in potato yield and quality following Sudangrass, Austrian winter fieldpea or barley. Average total yield of potatoes following Sudangrass was 284, Austrian winter fieldpea was 320 and barley was 320 cwt./a.

After successfully growing and harvesting a grain corn test plot in 1999, Extension was approached by Snake River Cattle Company for assistance in contracting with area farmers to grow high moisture corn for their feeding operation.

- b) The on-farm demonstration clearly demonstrated that Sudangrass and Austrian winter fieldpea could be successfully grown in eastern Idaho using a producer’s equipment. Although there was not a yield or quality benefit, there also were no detrimental effects to a following potato crop. Producers invited to visit this on-site demonstration learn that it is possible to grow these two crops for forage if there was a market for the forage or if the forage could be used in the farmer’s own operation.

The faculty member involved in the high moisture corn project mediated five separate negotiation meetings culminating in an agreement between Snake River Cattle Company and 13 Power County farmers to grow 2658 acres of high moisture corn in Power County in 2000. Our previous corn acreage for Power County is listed at 164 acres and was grown primarily for silage. If harvest is successful, growers expect to double their corn acreage in 2001 to nearly 5000 acres. High moisture corn has a definite possibility of becoming a profitable alternative crop for our area, as well as, adding a new crop to our irrigated crop

rotation sequence. This year we hope to identify which hybrids produce best in different areas of Power County and hope to measure a beneficial response to the following potato crop next year.

Total number of people completing non-formal education programs on new and value-added commodities and products: 297.

Number of people who plan to adopt one or more recommended practices or technologies after completing one or more of these programs: 180.

Number of people who actually adopt one or more recommended practices or technologies within six months after completing one or more of these programs: 100.

c) Source of Federal Funds – Smith-Lever (3)b&c

d) Scope of Impact – State specific

Key Theme – Innovative Farming Techniques

a) Program accomplishments included investigating the influence of alternative and rotation crops and composted manures on potato yield, weed control, etc., demonstrating scientific irrigation and siphon tube irrigation as well as subsurface drip irrigation, sustainable agricultural practices and potato seeding efficiency. Long-term potato, forage, sugar beet, grain and leafy spurge trials continue as do alfalfa production management trials and a program was undertaken to assist contracting opportunities with area farmers and the Snake River Cattle Company for high moisture corn for feed. Nematode trials in potatoes were started in St. Anthony area and four alternative crops are being investigated in the Franklin County area. Direct seeding of crops is being investigated to reduce erosion and pollution.

Presentations were made at the Idaho Cereal Schools and the Idaho Potato Conference. The first Annual University of Idaho Sugarbeet Conference was held on the College of Southern Idaho campus in Twin Falls on January 13-14, 2000 with over 400 people in attendance and a forage school was held in Franklin County. Additionally, the first annual Southern Idaho Bean School and Trade Show was held in Twin Falls. Topics there and in other forums included bruising of potatoes, groundwater contamination with nitrates and pesticides, new disease and insect alerts, forage production, noxious weeds and seminars were developed and or repeated to increase opportunities for recertification credits.

Suggestions for weed control, nematode control and fertility requirements as predicted by petiole tests continue to be made. A growing degree day model was used to assist growers in determining the emergence of the corn earworm and a website was developed to assist Treasure Valley growers with pest outbreaks.

- b) Increased knowledge about crop rotations, irrigation technologies, pest control and minimizing product damage has been achieved with hundreds of growers in Idaho during the reporting period. As these practices are adopted (at a rate of about 60% of those who demonstrate increased knowledge), the long-term financial benefits from this year's efforts could value over \$200,000 per year for Idaho's agricultural economy.
- c) Source of Federal Funds – Smith-Lever (3)b&c
- d) Scope of Impact – State Specific

Key Theme – Invasive Species (reported in Goal 4)

Key Theme – Plant Production Efficiency

- a) The first Annual University of Idaho Sugarbeet Conference was held on the College of Southern Idaho campus in Twin Falls on January 13-14, 2000 over 400 people in attendance.

A meeting on alfalfa production and management was held at Rick's College again with planning and input from Rick's College farm manager, industry representatives and Extension educators. The meeting involved Extension educators and specialists presenting topics important to the hay industry in Idaho. Several producers were assisted in predicting quality using the UC Intermountain Quality Prediction Stick.

The Potato School is always a big part of education for the growers in southeast Idaho and again this year it was very successful. The workshop I participated in was very well attended and several of the participants were verbally positive in their comments and questions and discussions on the topic.

The grain schools also were well attended. Most of those attending have already applied many of the pointers discussed in previous schools and appreciate the quality of the schools. The Cereal Sentinel newsletters continue to be the primary vehicle for delivering cereal information from Extension to growers and related supporting industries.

Presentations dealing with N fertilization of hard red wheat for yield and protein helped prepare growers opting to raise this new market class.

Variety performance testing and reporting of results continues to influence: (1) the inventory of small grains seed provided by seed dealers and (2) market class and variety selection by growers

Extension sponsored a Forage School in Franklin County for the cluster area (Franklin, Bear Lake, Caribou and Oneida counties). We had our best attendance ever for this year's school

with 68 producers attending. Several topics were covered including fertilizing forages, new chemicals for insect control, comparison of silage making methods, vole control, hay losses from harvest to storage and forage chopper comparisons. Participant evaluations indicated a high level of satisfaction with the program.

A variety of programs reported here are geared toward agricultural production systems. The cereal school, alfalfa training and the farm conference focused on improving efficiency of products, improving soil and water and are market driven. The weed programs and articles involved the general public to secure social awareness and acceptance of weed control goals and techniques. The potato and small fruit variety trials are providing growers with information on specialty and niche market products in order to broaden the economic base of Idaho agriculture. The cereal school featured irrigation and nutrient management practices to maintain and improve crop yields while protecting soil and water quality. At the farm conference, the extensive coverage of organic matter and soil health was aimed to improve both irrigation and nutrient management in local soils.

Butte, Custer and Lemhi counties in central Idaho exist in a high elevation environment with a short duration growing season. Farming in this area is inherently more risky than lower elevations. We are currently encouraging the development of additional irrigated pastures from land that is currently in cereal production. This land use would be more environmentally friendly and potentially lower off-farm input and high profitability than conventional cereal grain production in this area.

Wild oats are becoming an increasingly costly problem for cereal growers in Butte County. There is resistance to the use of effective herbicides because the cost and the high production risk factor. Local research has demonstrated that some wild oat herbicides can be used effectively at below label rate, resulting in increase profitability and reduced pesticide use on oat infested acres. A trial was repeated during the 2000 growing season to evaluate low rates and combinations of recently introduced wild oat herbicides. The large scale trial, in progress for four years, to examine the long-term effects on seed rain from the use of reduced rates of Assert was terminated when the field was planted to potatoes. While some late wild oats emerge in fields treated with ½ rates of Assert, we have not been able to detect a difference in barley or wheat yields from the use of lower rates of herbicide. A twilight tour was held at Arco during FY00 at the demonstration trial.

Harvested forages are a major product of central Idaho farms and ranches. A substantial cash-hay business is carried on with the dairy operators in the Magic Valley, as well as between cow-calf operators in central Idaho. Emphasis on techniques to improve economic and production efficiency are extremely important as there is a high level of inter-generational inertia to change. Many operators do not use soil testing, appropriate herbicides or the most effective seeding technique for establishing and optimizing production of forage crops. Four demonstration trials were begun in late 1999. These trials included two nutrient demonstrations, one seedling herbicide trial and one trial examining the use of companion crops when establishing alfalfa. Three of the trials are in the Arco vicinity and one was in

May. Twilight tours were held during the FY00 at Arco to examine the three forage trials located there. The fertility trial clearly demonstrated the importance of soil testing and appropriate fertility management, while the late season herbicide and companion crop trials were less clear cut.

While cereal production does not seem to be the most productive use of arable land in central Idaho, there is still considerable interest in growing grain. In cooperation with the crop management specialist, a cereal and forage trial was established in the Arco area. A tour of this location will also occur during the 2000 growing season (but in FY01).

In addition to trials, assisted individual operators with soil sampling, analysis and interpretation as requested. We also participated in invited presentation on forage production for the Idaho Hay Growers Association and the Lemhi Cattle and Horse Growers Association.

The Elmore County Extension Educator initiated ten years of on-farm studies involving potato growers in Elmore and Owyhee counties to determine the effect of planter efficiency and seed type on potato stand and yield. Efficiency in achieving the desired seed spacing was increased from the lowest of 32 to the highest of 91 percent. The average was 76 percent.

As a result of five years of field trials and training sessions, the number of water mark sensors used by growers increased from 6 to 200. I have given six invited presentations at the state and regional levels.

In 1999-2000, over 300 soil and petiole tests were performed and recommendations or confirmations provided for fieldmen and growers.

Since 1995, replicated plots were used to determine the efficiency of different rates of composted manure in potato production. For the past three years, we have had regional tours in Glens Ferry and Gooding to demonstrate the results.

In 1998-2000, six different applied research trials were conducted on potato, sugar beet, alfalfa and small grain to answer growers' questions and published the results.

Dry beans are a major commodity grown in Twin Falls County and some surrounding areas. In response to clientele desires, the Extension Educator organized the annual Southern Idaho Bean School and Trade Show. This winter commodity school allowed producers and agricultural professionals to stay abreast of new technologies and information in bean production. There were approximately 140 in attendance to listen to the school's first out-of-state guest speaker who addressed bean fertility needs and management. Additionally, attendees were present for the State Director of Agriculture who spoke on the state's agricultural economy. These guest appearances and other presentations were well received. Comments from a large percentage of attendees were made on the usefulness and informative nature of the school. Furthermore, a fair percentage of attendees declared they would implement practices learned at the school.

In Jerome, Minidoka and Cassia counties, educational programs were designed to strengthen competitiveness of agricultural production systems. Coordination of program development and implementation for the U of I Recertification Seminar, Southern Idaho Farm Conference and the Snake River Sugarbeet Conference were successfully completed with other educators and specialists. These programs stress agronomic practices to improve efficiency and improve wise resource management. Providing growers and field consultants with current research and new alternatives is especially critical because of the tough economic times growers are facing.

There are considerable concerns for growers being able to stay in business. A critical issues grant was secured to provide needed information to growers on specialty potatoes. Small quantities of specialty potatoes grown along with commercial large-scale production could provide the needed money to stay in business for a couple more years until prices hopefully improve. A replicated trial at Kimberly and an on-farm site in Jerome were planted. Growth, yield and consumer preferences will all be evaluated on eight potato cultivars. A potato field tour is planned. This project has provided positive teamwork opportunities with a project intern, potato specialist and both agriculture and family and consumer science educators. The goal is to provide a holistic approach to the situation and broaden the economic base for Idaho producers.

The Mini-Cassia Cereal Symposium during the winter and the cereal field tour in the summer were utilized to educate producers on cereal varieties, improving crop quality for selected markets, and improving soil and water quality. The cereal symposium is for the whole Magic Valley. The cereal school and tour both require extensive work with industry and U of I professionals. Working with Dr. Larry Robertson on the cereal variety trials provided opportunities to share information with growers throughout the year.

Lincoln County farmers produce 20,114 acres of alfalfa and 20,783 acres of grass. Lincoln and Blaine county extension offices sponsored a forage workshop on February 11, 2000. The workshop focused on alfalfa management and cereal grains as forages. Forty-two producers attended.

A Pesticide Recertification Seminar was held in Twin Falls on December 6th, 2000. The Lincoln, Twin Falls and Jerome county extension offices hosted the seminar. The intention of the seminar was to educate pesticide applicators in the following areas: Record keeping, sprayer calibration, weed control, pesticide labels and registration information. Ninety-one applicators were present to receive recertification credits.

- b) Forage producers in the west have adapted PM cutting to improve forage quality and researchers are now aware that the diurnal variation effect is important for research design and analysis --articles in: *Beef, Ag Weekly, Extension Focus, Hay and Forage, Drovers, Farmer Stockman, Hoard's Dairyman, Intermountain Farm & Ranch, The Furrow, South Idaho Press, Washington Hay Assoc. and California/Nevada Alfalfa Symposium Proc.* Idaho Forage Workshop Survey results indicate adoption increase from previous 51 to 69 of Idaho

respondents representing an increase from 84% to 95% adoption of respondent's acreage (31,000).

The portion of spring wheat acreage planted to hard red increased about 4% in western Idaho. Fall planted HRS wheat resulted in increased yield for many producers. Many growers fall planted spring wheat for the first time based on local extension trial results. The first commercial planting of Vandal wheat was grown in the area.

Growers and seed dealers have better knowledge of variety performance as indicated by inventory of seed provided by dealers and acreage planted to new varieties.

Small grains industry in SW Idaho has recognized the UI Cooperative Extension Small Grains Program as a credible source of information for small grains production based on calls received and response to the *Cereal Sentinel* newsletter. Fall planting of spring cereals is beginning to be recognized for its potential for markedly improving yield and quality based on grower survey results.

- c) Source of Federal Funds – Smith-Lever (3)b&c
- d) Scope of Impact – State specific and multi-state (see specific program descriptions and attachment)

Key Theme – Precision Agriculture

- a) A \$2,500 grant from the Idaho Department of Water Resources (IDWR) was used to teach scientific irrigation. Faculty worked with two potato producers who were willing to have eleven irrigation plots to demonstrate scientific irrigation. An irrigation engineer from the IDWR agreed to cooperate with the farmers and send irrigation recommendations to the cooperators based on weather and plant evapotranspiration on a weekly basis. Before harvest we will hold a plot tour to explain what has happened and how this tool may be used in the future.

Subsurface Drip Irrigation of Alfalfa Seed: A grant from the U.S. Bureau of Reclamation was secured to install a five acre demonstration project whereby a local grower will use subsurface drip irrigation to irrigate five acres of alfalfa seed. The demonstration plots were laid out, the experimental design approved and equipment secured.

Key Theme - Other

- b) A priority for livestock-producer stakeholders is for Cooperative Extension to provide education that may lead to an improved image and social acceptability of livestock and dairy operations, through increased product safety, quality and public acceptance.

Owyhee County Socio-Economic Assessment

An integrated approach was undertaken in Owyhee County to provide local officials, federal and state agencies, county residents and others with social and economic information about the county. Contention over a federal resource management plan required our involvement to help specify the social and economic setting in the county. Ranch budgets were generated using four producer panels. Enterprise budgets for the crops grown in the county were also constructed. This information, along with a business survey and the use of secondary data sources, allowed us to construct an input-output model of the county's economy. A social assessment was undertaken through face-to-face interviews with county residents, as well as telephone survey of county residents. Results were provided to the Bureau of Land Management and the information was used in the final Owyhee Resource Management Plan.

The District II Beef Advisory Committee identified injection site blemishes as the major topic for the winter beef schools held in Cambridge and Caldwell. Also included were presentations on new beef products and educating the public on rangeland use. One hundred and seventeen people attended and indicated a high level of satisfaction.

The Bannock County Extension Advisory Council requested an effort to "get more agricultural related articles printed in the Idaho State Journal." An ag reporter was hired and a weekly Ag page was started. We assist the reporter in developing agricultural stories and write the information for the bug of the week section of the paper. These efforts have increased the opportunities we have to educate the public concerning crops and gardening.

Efforts were made by the county faculty to increase visibility of Idaho Ag by increasing coverage by local news media. The Displaced Farmer Retraining Videos were produced and visibility was maintained within the college through extensive variety and production trials.

- c) The Owyhee economic model has been used by the county to conduct economic analysis of alternative local and national policies (local: planning and zoning issues; national: resource allocation issues on state and federal rangeland). Public hearings were conducted in the county in February, 2000 to detail study results and provide the county and federal officials with the economic models for their use. The study is also part of Western Regional Research Project W-192.

Dairy Extension efforts helped to improve the image and social acceptability of dairy operations through increased product safety, quality and public acceptance. Data from waste quality and waste management workshops have been used to increase the use of best management practices in dairy operations.

- d) Source of Federal funds -- Smith-Lever (3)b&c
- e) Scope of Impact – State Specific

GOAL 2 *A safe and secure food and fiber system*

Overview

The Idaho Cooperative Extension System identifies two goals in their five-year plan of work that contribute to this national goal. They are: Goal 1: Improve food safety by educating people about foodborne risks and by promoting safe food handling practices for Idaho consumers, food providers and food processors; and Goal 2: Promote a safe, affordable and adequate food supply for Idaho consumers.

Approximately 5000 Idahoans interacted with University of Idaho Extension faculty, staff and volunteers through educational programs related to food safety. Thousands more individuals were contacted via newsletters, brochures and other one-way communications. The target audiences for these programs included home and commercial food handlers, children and teenagers, farmers/growers, low income individuals and families.

Near-term outcomes from food safety education programs are very positive with a very high proportion of participants (sometimes over 80%) reporting that they will adopt new safety precautions. Programs that target commercial food handlers and producers are also very effective resulting in 90% or more of participants who report adherence to safe food handling standards. While the long-term outcomes from these programs will ultimately include improved health and well-being, reduced healthcare costs and reduced loss of productivity, Idaho Extension does not collect data to document such far-reaching consequences.

In addition to helping people adopt healthier practices and habits, Idaho's objectives related to food safety include mobilization of increasing numbers of volunteers and wide-scale deployment of education to target the commercial sector. In this reporting year, we made significant progress toward both of these objectives. Idaho is well situated to meet five-year targets for food safety education.

Total expenditures invested in Goal 2 include approximately \$216,308 from State of Idaho appropriations, \$66,769 from Smith-Lever allocations and \$58,935 from County appropriations. These cumulative resources supported approximately 3.92 FTEs for faculty working on Goal 2 activities.

Key Theme – Food Safety

- a) Extension food safety programs involve training for youth, training included in ENP and EFNEP, training for food service workers, the Master Food Preserver program and general workshops and classes. Extension offices also answer questions on an individual basis, distribute fact sheets and bulletins on food safety and publish newsletter articles on food safety. Some special programs have also contributed to safer foods in Idaho.

Master Food Preserver/Food Safety Advisor is an outstanding Extension program extending research-based information to clientele. District II has a core of 50 Advanced MFPs and trained nine additional MFPs in FY00. District III has a core of 12 Advanced MFPs, some of whom have served with the program for over 20 years. These volunteers provide a valuable service to Idaho.

Extension Food Safety Specialist Sandy McCurdy and Cassia County Extension Educator Joan Parr taught a “train-the-trainer” 2½-day overview of the *MFP/FSA* class for eight Extension educators and county staff in March. This was of value to new Extension educators who will be teaching the *MFP/FSA* program for the first time, as well as to others who wished to refresh their knowledge. WSU’s *Food Safety Advisor Volunteer Handbook* was adopted as the *MFP/FSA* training curriculum, since it is updated annually by the Extension Food Safety Specialists in Washington and Idaho. The adoption of this resource led to a program name change -- certified volunteers may be called either ‘Master Food Preservers’ or ‘Food Safety Advisors.’ Joan Parr also initiated a new format for providing the *MFP* update in District III by asking the volunteers what they needed in training and resources and tailoring the updates to these needs.

New Educational Materials

- *Practical Food Safety for Food Service Supervisors/Workers*-curriculum for a four-hour workshop was distributed to all FCS Extension Educators, October 1999.
- *Drying Fruits and Vegetables*, PNW 397, revised April 2000.

Conferences - The jointly sponsored WSU/UI 7th *Annual Food Safety Farm to Table Conference* was held at the Best Western University Inn, Moscow, May 26-27, 2000.

- b) Food Safety and Youth - Food safety information was delivered to about 1708 youth via school and after-school programs, 4-H clubs, baby sitter training and the Expanded Food and Nutrition Education Program (EFNEP). A child participating in the Payette Westside School after-school program, where hand washing was taught, “reported that he observed the lady making sandwiches in a local restaurant did not wash her hands. He asked her not to make his sandwich until she had properly washed her hands!”

Food Safety and Nutrition Programs - Food safety is taught to low-income consumers in conjunction with nutrition information. For example, in District II a program on safe thawing of foods was taught to 69 ENP participants, food safety was included in all 35 nutrition programs presented in District III and food safety lessons were taught to 730 ENP and EFNEP participants in District IV.

Food Safety for Food Service Workers - The *Practical Food Safety for Food Service Supervisors/Workers* workshop curriculum materials developed by Idaho Cooperative Extension were completed, demonstrated and distributed to family and consumer sciences educators at the October 1999 family and consumer sciences in-service training. During

FY00 this workshop was taught seven times, to a total of 80 food service workers and 150 high school students (the source of workers for many fast food establishments). In a three-month follow-up, over 90% of workshop participants returning the questionnaire reported adhering to the food safety goal they had chosen.

One of our county extension educators taught 35 volunteers proper food handling procedures when serving food to the public. These volunteers, members of a local cattle producers group, prepared and offered samples of beef, about 400 pounds, at a regional home and garden show.

District III MFPs have given over 258 volunteer hours to provide consumers and families with accurate food safety information. One of the volunteers with a degree and experience in journalism, has started to write a monthly column for the Twin Falls *Times News Ag Weekly* on food preservation and safety issues. Extension educators and volunteers were involved in the testing of over 300 pressure canner gauges for accuracy at clinics and in county offices.

In addition to MFP activities, 28 food preservation workshops and trainings were offered, reaching 725 attendees. Although numbers were not logged, numerous individual food safety and preservation questions were answered and numerous bulletins and fact sheets on food safety and preservation were shared.

Newsletters - Thirty-nine newsletter articles on food safety and preservation were published in District newsletters. Two food safety questions/answers per month were prepared for *HomeWise*, a weekly Extension column distributed to newspapers throughout the state which offers practical information to consumers.

Radio/TV Spots - District III Extension FCS Educators Barbara Morales and Joan Parr completed a critical issues project designed to provide pertinent information and resources to district consumers. Media ads and information sheets were developed in the area of food and water storage and household safety. Short educational “spots” were prepared for radio and TV. The ads were shown from October through mid-December and were very successful according to public feedback.

Agricultural Food Safety and Quality - Dr. JoAnn Robbins, Blaine County agriculture educator provided safe food handling information, *Health Regulations for Value Added Products*, to 30 farmers at the Southern Idaho Farm Conference. At the request of home food preservers, she also researched available information regarding recommended cultivars for home canning and freezing, which was published in the District III newsletter.

Alfalfa Sprouts and *Escherichia coli* O157:H7 - Drs. Scott Minnich and Carolyn Bohach completed a critical issues project to develop rapid sensitive detection methods for *Escherichia coli* O157:H7 in dry peas and various types of sprouts. They worked with three Idaho sprout growers and the WA-ID Pea and Lentil Commission, to instruct workers on sanitary procedures and decontamination methods for growing sprouts. Dr. Minnich also

presented a *Food Microbiology Level II Short Course* to sprout growers and others at a workshop jointly sponsored by the Intermountain Section of the Institute of Food Technologists, University of Idaho and Boise State University.

- c) Source of Federal funds -- Smith-Lever (3)b&c
- d) Scope of Impact – State Specific and Multi-State with Washington

GOAL 3 A healthy, well-nourished population

Overview

Idaho Cooperative Extension System's major program thrust that supports Goal 3 is focused on *Well-being, Nutrition and Health*. Two nutrition and health goals are: 1) Optimize health by improving nutritional quality of diets/foods and improving choices of Idaho consumers and 2) Promote healthy lifestyles and access to quality health care for Idaho families. Idaho Extension faculty report that each of these goals was met this past year. Success was attained by providing nutrition information to the community through a variety of programs including: classes (group or one-on-one), exhibits and demonstrations at various health fairs and public events, responding to specific, individual needs and answering questions (e.g. on the phone, at health fairs) and outreach using various media (newspaper articles, newsletters, TV).

Several of the nutrition-related efforts in Idaho are geared toward under-served populations. An ongoing program funded by the food stamp nutrition program reached nearly 28000 Idahoans this year, teaching lessons on the food pyramid, food safety and nutrition, as well as family and financial resource management. The EFNEP Program, reported elsewhere, has also been very successful in reaching target audiences. A more recent effort by Idaho Extension specifically targets another audience, children of migrant farm families. This year the Summer Migrant School Program reached 120 young people in four counties.

Idaho Extension resources have also been redirected to address health concerns that are influenced by diet. Programs that teach people dietary practices recommended for specific health conditions, such as cancer, osteoporosis and diabetes, are increasing. Extension has initiated a sports nutrition program for young athletes. That program has been well received by the athletes, resulting in high demand by school teachers and coaches.

Total expenditures invested in Goal 3 include approximately \$375,359 from State of Idaho appropriations, \$115,863 from Smith-Lever allocations, \$102,271 from county appropriations and \$730,000 from other sources. These cumulative resources supported approximately 6.76 FTEs for faculty working on Goal 3 activities.

Key Theme – Human Health/Human Nutrition

- a) Community awareness of how to meet health needs was increased through the coalitions extension formed related to nutrition and health. Some examples include: Women, Infant and Children (WIC), Headstart, Evenstart, Idaho Department of Health and Welfare, local elementary schools, local high schools, Idaho State University, church groups, extension homemaker groups, Family and Children Services, Idaho Migrant Council, migrant school program, Idaho Department of Education, Diabetes Control Program, Community Service Provider meetings, Adolescent Pregnancy Prevention Coalition, Healthy Connections, Health Net Coordinator, SEICAA, Youth Health Net and Idaho Dairy Council.

The University of Idaho Cooperative Extension System also participates in the Food Stamp Nutrition Education Program, called the *Extension Nutrition Program (ENP)*. The Extension Nutrition Program operates in 22 counties throughout the state of Idaho. There are approximately 34 Nutrition Advisors, paraprofessionals who help administer the classes that cover nutrition, food safety and resource management. This past year, the ENP Nutrition Advisors made 27,229 contacts (17,582 were adults and 9,647 were youth) and graduated 205 clients in the program.

Multi-state planning/programming was conducted in the:

- (1) Extension Nutrition Program working with Washington and Oregon, the University of Idaho hosted a Tri-State Food Stamp Nutrition Education Program/Expanded Food and Nutrition Education Program in Boise June 16-18th, 2000.
- (2) Extension Nutrition Program, working with other Food Stamp Programs in the Western Region and participating in the Western Region EFNEP/FSNEP program in Las Vegas, NV in May 2000.
- (3) Working with other states to plan /develop/test diabetes materials. Thus far, the *Diabetes in Idaho* materials have been pilot tested in Idaho and Colorado. Other states that are interested in testing these materials include: Montana, Oregon and Michigan.

New or Revised Educational Materials Developed and Distributed to Clientele. The following new materials were distributed to Extension Educators involved in the pilot phase to develop:

1. *Diabetes in Idaho* – 4 classes for adults – developed by Dr. Martha Raidl
2. *Osteoporosis Prevention and Treatment* – 4 classes for adults – developed by Dr. Martha Raidl
3. *Got Calcium* – 4 classes for youth – developed by Dr. Martha Raidl and Rhea Lanting
4. *Fighting Cancer with Diet* – three classes – developed and revised by Dr. Berna Magnuson

- b) Overall, there were: (1) 2941 participants that attended nutrition classes (2) 641 nutrition-related questions were answered, (3) 61 newsletter and three newspaper articles on nutrition were printed and distributed and four television interviews on nutrition were broadcast.

(1) Plan to adopt nutrition practices

Of the 2,491 participants that attended a nutrition class, 1330 or 53% indicated they planned to adopt one or more nutrition practices discussed in the classes. Even though follow-up data collection was limited, 730 participants, or approximately 30%, actually adopted one or more of the recommended nutrition practices.

(2) Increase in knowledge on osteoporosis and calcium by adult and youth audiences

Pre- and post-test surveys were collected from 137 adults attending the osteoporosis prevention and treatment classes and the 50 youth attending the Got Calcium classes. Both groups showed an increase in knowledge. In two of the adult osteoporosis classes, pre- and post-test surveys were administered. Mean scores on the first survey, which covered general concepts on osteoporosis prevention and treatment, increased from 78% correct (pre-test) to 96% correct (post-test). Mean scores on the second survey, which covered osteoporosis and calcium intake, increased from 74% correct (pre-test) to 80% correct (post-test). In the 50 youth that filled out the pre and post-test survey, there was an increase in mean score from 68% correct (pre-test) to 80% correct (post-test).

(3) Healthy behaviors adopted—*Extension Nutrition Program* (ENP)

A behavior checklist was administered to these individuals before (pre) and after (post) completing a series of nutrition classes. The results showed these 73-86% of adult participants showed improvement in one or more nutrition practices: i.e., planning meals, making healthy food choices, preparing foods without adding salt, reading nutrition labels or having children eat breakfast. When these nutrition practices are analyzed individually, the majority (>50%) of changes homemakers made included: planning meals in advance and using the “Nutrition Facts” on food labels to make food choices.

c) Sources of Federal Funds – Smith-Lever (3)b&c, Food Stamp Nutrition Education Program

d) Scope of impact – State specific and multi state with Oregon, Washington, Western Region.

GOAL 4 *Greater harmony between agriculture and the environment*

Overview

Unique to this goal are Idaho major program thrusts for *environmental horticulture, woodlot and forest management*. Shared between Goal 4 and Goal 1 are also programs and programming accomplishments and results for *Agricultural Stewardship and the Environment* to encompass specific program areas of *Sustainable Agriculture, Integrated Pest Management, Water Quality, Waste Management and Pesticide Applicator Training*. Objectives are incorporated across

agriculture and natural resources programs and are mostly integrated with programs described in Goal 1.

Through agricultural stewardship and the environment programs, we are striving for an integrated approach to farm/ranch systems that: 1) implements technologies/techniques that reduce the use of non-renewable resources; and 2) preserve the quality of potentially degradable resources, while maintaining productivity and profitability at the family, community and national level.

Continued success has been made through Extension programming efforts and collaborations with other agencies and groups in this area over the past year. Numerous workshops, programs and demonstrations have highlighted efforts in water quality, sustainable grazing practices, management of dairy waste, marketing, noxious weed management, crop alternatives and rotations and integrated pest management, as well as traditionally environmentally sensitive programs in forest and rangeland management.

Significant resource reallocations have resulted in a concerted effort to reach small farms and small landowners, the largest “under-served” group identified with this thrust. Much of the education delivered to these clients is through offices in counties with rapidly expanding areas of rural/urban interface. Master gardener programs in the Coeur d’Alene, Boise and Pocatello areas lead the state in attracting new learners to programs about sustainable agricultural development. New collaborations and citizen organizations that support sustainable farming and organic production practices are becoming increasingly important to the delivery of Extension education programs.

Through PNW research and Extension materials and programs, growers and Ag support personnel are becoming increasingly aware of the benefits of direct seeding systems to improve farm profitability and global competitiveness, erosion control and soil productivity and protect environmental quality. Grower interest and adaptation of direct seed cropping systems has grown dramatically. Attendance at the Northwest Direct Seed Cropping Systems Conferences and Trade Shows have been from 600 to 980 each year from 1998 to 2000, a marked increase compared to 200-350 attending NW Conservation Tillage Conferences the previous 10 years. Evaluations from these three Conference showed that over 98% of the respondents felt that the Conference would help increase the success and adaptation of direct seed cropping systems in the northwest and that they would attend a similar conference the next year. Over 10 counties in the Inland Northwest dryland production areas had over 20% of their small grain production under direct seed systems, up from 3-10% in 1995.

Integration of research and Extension reaches its zenith in this goal area. Environmentally sustainable production requires development and adoption of new kinds of crops, new practices and alternative markets. Discovery, application and dissemination of new knowledge about such alternatives as small-scale berry production, plant-based fumigation alternatives and livestock odor management demonstrate the breadth of the problems and potential solutions to issues of agriculture and the environment. By all accounts, the University of Idaho agricultural research

and extension faculty have made great strides toward our goals and objectives for this topic. Rates of adoption of new knowledge are higher in this goal than in any of the other goals, except food safety!

The total number of people who completed non-formal education programs which had as their *primary* purpose to sustain and protect ecosystem integrity and biodiversity while improving the productivity of the U.S. agricultural production system: 1392.

Self-identified numbers of people who plan to adopt one or more recommended practices after completing one or more of these programs: 1017.

Number of people who actually adopted one or more recommended practices within six months after completing one or more of these programs: 926.

Total expenditures invested in Goal 4 include approximately \$1,208,781 from State of Idaho appropriations, \$373,118 from Smith-Lever allocations, \$329,346 from county appropriations and \$160,000 from other sources. These cumulative resources supported approximately 21.96 FTEs for faculty working on Goal 4 activities.

Key Theme – Agricultural Waste Management/Water Quality/Nutrient Management

- a) The focus of a number of holistic educational efforts in Idaho is to reduce environmental impacts of livestock and dairy operations by wise use (conservation) of natural resources, improved waste management and water quality practices and effective nutrient management.

Compost Education

Idaho was the lead for the multi-state SARE PDP project on Compost Education and Resources for Western Agriculture. This past year (the second for the project) we continued to provide resources and information to agricultural educators and advisors throughout the western region. CERWA team members developed and disseminated three additional issues of "Compost Connections" which went out to over 2000 Extension and NRCS employees in the west. The project also continued to maintain the CERWA web site and funded six composting/farm tours in five states. In response to a multitude of questions received from viewers of the two satellite broadcasts, we developed a publication (available on the website and distributed as a hard copy) titled 'CERWA Answers your Questions.' This publication provides answers to over 100 questions that are addressed by 18 experts in this field from throughout the country. We followed up the first two satellite broadcasts by developing a one-hour (three-part) video on the 'Future of Agricultural Composting and Compost Use.' The video addressed three major areas of interest and concern: new compost technologies/innovations, regulations and marketing of compost. The video was very well received and we have distributed over 150 copies to educators, composters, agencies and consultants all over the country. We are in the process of a project evaluation through the UI Social Survey Research Unit.

Dairy Extension Program

Dairy Extension program efforts helped to reduce environmental impacts of dairy operations by the wise use of natural resources, improved waste management and water quality practices and effective nutrient management. Statewide dairy programs focused on waste management and the protection of water quality on dairy operations. Efforts included individual assistance for determining the best system for waste containment and winter storm events. Workshops and demonstrations were used in education efforts. Projects included a dairy lagoon nutrient evaluation study and a regional urea nitrogen project to improve nitrogen utilization on dairies and reduce nitrogen excretion in feces and urine. Faculty cooperated with the Idaho Department of Agriculture, Natural Resource Conservation Service, Idaho Dairy Association and state and federal agencies in conducting education waste programs with the Idaho dairy industry. Efforts included participating in seven workshops to certify Nutrient Management Planners. Faculty were also involved in a nationally sponsored allied industry workshop to address manure management issues relative to expansion/relocation. Faculty are also involved in the development of an internet-based (CD) computer application program to assist in nutrient management planning.

Riparian Assessment, Monitoring and Grazing Management Training and Grazing Management Training for Vo-Ag Teachers

The many workshops on riparian assessment, monitoring and grazing management put on in recent years plus have provided agency personnel, ranchers and other private landowners with a better understanding of how streams function and how to manage them to enhance water quality. This has led to several ranchers/landowners modifying their management practices to improve riparian condition and water quality. It has also improved working relationships and built trust between public land agencies and ranchers.

Nutrient Management

The Twin Falls County Extension Educator completed requirements to become a Certified Nutrient Management Planner and Phase 1 toward becoming a Certified Assessor in the On-Farm Odor Environmental Assessment Program. He attended the Animal Waste Initiative meeting in Kansas City and was given the task of serving as a clearinghouse for manure management information. Since that time, he has been reviewing and storing a series of electronic messages dealing with waste issues. In addition, a great deal of time was spent this past year working as a team member on the nutrient management software, which will be a part of the Idaho One Plan website. While in this role, work was done with individuals from NRCS, EPA and Idaho Department of Agriculture, as well as other faculty members from UI.

Aquaculture

Aquaculture Extension programs in waste management and settling basin design have been successful over the last several years. Within the past one to two years, at least five earthen aquaculture facilities have converted to concrete raceways. They're settling basin design and in part, raceway design are based on aquaculture Extension's recommendations from the Waste Management Guidelines published in 1997. By converting to concrete raceways and using recommended design criteria, their fish production increased up to 40 percent, while their effluent water quality improved. A research project through the Western Region Aquaculture Center has resulted in the design of a prototype recirculating system for fish production.

Owyhee Borderlands Trust (OBT)

The Owyhee Borderlands Trust (OBT) is a new organization formed within Owyhee County with the mission *"Our goal is to restore the natural processes that create and protect a healthy, unfragmented landscape to support a diverse, flourishing community of human, plant and animal life in the Owyhee Borderlands region. Together, we will accomplish this by working to encourage profitable ranching and other traditional livelihoods, which will sustain the open space nature of our land for generations to come."* This group has been working with The Nature Conservancy to establish a relationship of trust and mutual understanding on how to achieve the goal of the OBT. The three areas of work that the OBT will be undertaking will include research, public relations and the development of a grass bank that will help with conservation projects for range improvements on public and private lands. The group has come a long way in a very short time.

North Central Idaho Program

In the North Central Idaho Program area several programs, activities and classes were conducted. A management intensive grazing demonstration was conducted. Water quality and CAFO regulations were addressed at five educational classes and field days. Marketing alternatives which included satellite video auctions and special association sponsored sales were conducted with the Clearwater Valley Beef Alliance and with the area cattle associations. Two nationally known experts on domestic and international marketing of beef cattle (Dr. Harlan Hughes and Leo McDonnell) spoke to area cattle producers at two separate beef schools. The Producers Pride Value Added Calf Program was also continued and promoted in the region.

- b) One specific riparian workshop was conducted within Camas County to help livestock owners reduce environmental impacts of livestock on pastures where creeks and streams are located. The workshop helped those in attendance understand proper functioning condition and monitoring of riparian areas. Thirty-three people from state agencies, ranches and environmental groups from the surrounding area were in attendance. Classroom information included topics on plant identifications, key species identification and Greenline monitoring. Clientele also gained hands-on experience in monitoring a creek bank.

Work continues with individual producers to assist them to meet requirements of zoning boards and the Idaho Department of Agriculture. Assistance was provided in system design and nutrient management to 39 producers. In addition, the educator worked with swine and beef producers and feedlot facilities to develop nutrient management plans. Work has also been done with county commissioners and planning and zoning administrators to educate them on the nutrient management planning process. One concern has been that Extension educators provide education, not service, to producers. The educator has made a point of incorporating one-on-one education to producers when working with them on waste issues.

Total number of people completing non-formal education programs on conserving, sustaining and/or protecting soil resources: 2484.

Number of people who plan to adopt one or more soil conservation practices after completing one or more of these programs: 1300.

Number of people who actually adopt one or more soil conservation practices within six months after completing one or more of these programs: 533.

- c) Sources of Federal Funds -- Smith-Lever (3)b&c, (3)d WRAC and SARE
- d) Scope of Impact – State specific and multi-state (see attachment).

Key Theme – Forest Resource Management

- a) Our Idaho Extension Forestry Program strives to increase the knowledge and skills of forest owners and managers. We focus on sustainable, increased productivity and use. Our programs are developed and conducted to holistically address ecology, biodiversity, health, fertility, genetics, water quality, economic and biological sustainability and other issues. This integrated approach reflects the multiple values and management objectives of forest owners and managers. We have built a solid base of continuing program participants and reach out to new, diverse audiences by offering programs in a wide variety of formats, locations and times in response to focus groups and evaluations. We also work in the background to help other agencies and educators make their programs and publications better.

New or revised educational materials developed and distributed to clientele:
Woodland Notes, Vol 11, No. 2 and Vol. 12, No. 1 (semi-annual pub) includes 13 original articles

UI-CES Extension Forestry Web Site update, additions (World Wide Web)

The Idaho Big Tree Record Book

News from the West—Quarterly regional report in National Woodlands Magazine

Special Forest Products – Experiences in the Inland Northwest---Proceedings 1999 SAF Convention

Idaho's Pro-Logger Program---A New Credential for Idaho Loggers (LEAP Program handout)

Weekend Warrior Logging—Are you SAFE? –NW Woodlands Publication

- b) Nearly 3000 (2807) landowners, foresters and other natural resource professionals, loggers, teachers, master gardeners, Extension educators and other clientele participated in our programs, including over 2000 hours of professional continuing education for 187 foresters and 424 loggers attended more than 500 hours of programs designed specifically designed for them or mixed audiences. On average, 90% of all program participants said they planned to implement improved management practices as a result of participation. Program participants own over 35000 acres of private forest land leading to potential production increases worth an estimated 8.2 million dollars.

Our Woodland Notes publication reached over 11000 private forest owners and managers with the latest information on management techniques, forest science, upcoming programs and articles on current forestry issues. Many recipients are absentee owners that value this remote link to their Idaho lands and to the professionals that can assist them. Woodland Notes is cited in evaluations as the number one source of NIPF program information and we regularly receive comments on the quality and usefulness of this publication. Woodland Notes is now available on our new UI/CES Extension Forestry web page that also includes many other references to publications, professional assistance and appropriate natural resources links, log price reports, a digitized photo album, feature articles, The Idaho and National Big Tree Programs and other up-to-date material and program announcements.

Publications include program brochures, articles in newspapers and regional forestry magazines and several in draft form, including “I want to log selectively—A landowner’s guide to partial timber harvest” and “After the fire—Assessing and managing your forestland after a wildfire”.

Program participants (clientele) express their satisfaction verbally and in written evaluation comment that universities, regulatory agencies, industries, environmental organizations and other private organizations work so cooperatively and share common visions for our forests during field trips and indoor programs. We consider our partners as important clientele and feel that our successful efforts to facilitate cooperation and trust is a major accomplishment resulting in cooperatively developed, sponsored and conducted program all over Idaho with diverse people and their federal, state, local government, industrial, consultant, environmental and lay organizations.

In a recent survey many school teachers attending our programs showed that they are implementing forestry education in their classrooms, often focusing on soils, water quality or wildlife habitat as well as forest products with their students. Private forestry consultants often comment that many of their new clients come as a result of attending our programs or reading our publications. Finally, our programs have elevated the level of awareness and stewardship responsibility of landowners and they feel more comfortable and compelled to seek professional advice about managing their land and are more likely to participate in public forums on important natural resources issues.

Specific Impacts or Results

- 1) 2144 people completed programs to improve the productivity and global competitiveness of private woodlot production systems, with 1402 planning to adopt one or more new techniques or practices and 722 actually adopting these as a result of these programs.
 - 2) 1717 people completed programs on sustaining and protecting ecosystem integrity and biodiversity while improving the productivity of private woodlot production systems, with 945 planning to adopt one or more recommended practices and 612 actually adopting practices as a result of these programs.
 - 3) 1213 people completed programs on public policy issues affecting forest production and ecosystem integrity and biodiversity, with 1131 planning to become actively involved and 981 actually becoming active as a result of these programs.
 - 4) 1884 people completed programs on public policy issues affecting the productivity and global competitiveness of the U.S. forest production system, with 1366 planning to become involved in one or more issues and 990 actually developing continuing involvement as a result of these programs.
 - 5) 1011 people completed programs on sustaining and/or protecting surface and ground water supplies, with 612 planning to adopt water management practices and 419 actually doing so as a result of these programs.
 - 6) 919 people completed programs on conserving, sustaining and/or protecting soil resources, with 812 planning to adopt one or more soil conservation practices and 446 actually adopting practices as a result of these programs.
 - 7) 601 people completed programs on new and value-added commodities and products, with 409 planning to adopt one or more recommended practices or technologies and 187 actually doing so as a result of these programs.
- c) Source of Federal Funds – Smith-Lever (3)b&c
- d) Scope of Impact – State specific and regional (mostly with Washington, see attachment).

Key Theme – Integrated Pest Management

- a) The "IPM Mini-Grants Program" was continued for an 8th year. IPM funding was awarded to five IPM educational projects involving six UI county Extension educators. Overall goal is to accelerate adoption of IPM by supporting local field days, demonstrations, workshops and seminars.

The Extension IPM coordinator organized and hosted the UI Plant Protection Seminar in cooperation with the Idaho State Department of Agriculture. One hundred thirty seven industry field staff, agency personnel and other ag and hort professionals earned 13 Pesticide Applicator Recertification Credits by attending the two-day intensive shortcourse in Nampa during February, 2000. In keeping with our Idaho Extension IPM Program goal of increasing adoption of biological control, the Plant Protection Seminar specifically included a three-hour session about the theory and practice of biological control for insects, plant pathogens and weeds.

The UI Sustainable Agriculture Bulletin Series was expanded by publishing three new brochures that summarize surveys of grower perceptions about pest problems and that quantify IPM adoption rates:

- SA-6 *IPM and the Idaho/Eastern Oregon dry onion industry*
- SA-7 *Wheat pests in Idaho — results of grower surveys*
- SA-8 *IPM and the Idaho wheat industry*

These survey summaries provide UI CES with baseline “snapshot-in-time” data against which we can assess the impact of Extension IPM programming as well as identify research and Extension priorities.

Growers in several southwest counties are learning new technologies to apply to the control of *Corn Earworm*: A growing degree day model was used to assist growers in determining the emergence of the corn earworm. After degree day data is tabulated the results were mailed to growers as well as over the telephone and in office visits.

The *Treasure Valley Pest Alert Network* is a collaborative project between four University of Idaho faculty members and three University of Oregon faculty members. We are in the process of establishing a website for use by Treasure Valley growers, Extension faculty and industry representatives. The site can be used to get the latest information on pest outbreaks occurring in the Treasure Valley.

- b) Over 1100 Idahoans learned about IPM philosophy and strategies by attending Extension presentations by UI IPM Coordinator in cooperation with UI-CES educators and Idaho ag/horticulture industries. The IPM Coordinator continues to provide IPM and entomology instruction to UI master gardeners at the request of northern Idaho UI county Extension educators and we increasingly deliver pesticide applicator training with the Idaho State Department of Agriculture. My overall commodity focus was ag crops (potatoes, sugarbeets, wheat) and landscape ornamentals (commercial greenhouses & nurseries, home & garden). Participants in these programs almost unanimously rated the Extension teaching methods, information content, organization and preparedness at the highest level of satisfaction. After attending these workshops, audiences routinely say they will put new IPM methods into practice.

In 1999-2000, Elmore County educator conducted workshops on "IPM's and Their Practical Implications" on sugarbeets, potatoes and small grains with 150 growers in attendance. In 2000, Elmore County again obtained a mini-grant for IPM projects. With the help of fieldmen, we utilized IPM on potato, sugar beets, alfalfa and grapes.

In Nez Perce County, 360 growers plant foot rot resistant cereal varieties to avoid costly fungicide applications in addition to improving the root biosphere. Using disease resistant crop varieties continues to be a sustainable, cost effective IPM practice.

Growers participating in the Corn Earworm Project had advanced knowledge about the emergence of the pest and were able to economically control the worm with reduced loss of crop value.

Sixty growers and fieldmen participated in scouting program survey collection of management/late blight; and updated the hotline and website with current information.

- c) Source of Federal Funds – Smith-Lever (3)b&c
- d) Scope of Impact – State specific and in collaboration with Oregon

Key Theme – Invasive Species

- a) Exotic plants pose an often unnoticed and severe threat to natural ecosystems. District III faculty are working with other agencies to coordinate education, inventory and management of exotic plants in non-agricultural and agricultural settings. These efforts include integrated approaches not only of agencies and people but also of techniques and strategies. Chemical management and the teaching of the most environmentally safe application techniques are linked with the practical implementation of biological control.

Major efforts were undertaken this year in Lemhi County to educate more people about noxious weeds and their effects on the land. Noxious weed town meetings, a joint effort between Forest Service, Bureau of Land Management, Lemhi County, Lemhi County Extension, State of Idaho, Fish and Game, Soil Conservation and Natural Resource Conservation District, were held at five different locations. A pre- and post-test was given covering plant identification, methods of control and safe herbicide usage. Of the 25 participants taking the test, 50% showed improvement in at least one area and many in two.

This year Twin Falls County initiated the Shoshone Basin Cooperative Weed Management Area. This program involves several agencies and private landowners. The purpose of this program is to eradicate, contain, control and prevent non-native invasive plants including noxious weeds on public and private lands in the Shoshone Basin drainage of Twin Falls County. An inventory of the weed biology and ecology within the management area was started.

Butte County and southern Custer County have been involved in a long-term cooperative program, with federal land management agencies and landowners to develop and implement integrated control of Leafy Spurge. During the last fiscal year, we began the process of formalizing and expanding this cooperation with a “coordinated weed management area” that covers the watersheds of the Big and Little Lost Rivers. We successfully applied for and received a \$9000 grant from Idaho Department of Agriculture for FY01 to use a helicopter to re-distribute the flea beetles to area that are highly inaccessible and to produce an instructional videotape on collection and distribution of flea beetles to manage Leafy Spurge.

This is the third year of a long-term leafy spurge study with various other agencies in the county. Extension is responsible for the experimental design, data collection and analysis. We are using goats as a biological control for leafy spurge. These types of studies with spurge take time due to the persistence of the plant, but we feel we are getting ready to see the results of the grazing. The study has lent itself to many educational opportunities including tours, field days and report seminars. A good portion of the county knows of these efforts and have profited from them.

On June 28, 2000, Extension sponsored the Franklin County Crop and Weed Tour. Twenty-one individuals attended the tour. We viewed the University of Idaho wheat variety plots and had Dr. Ed Souza there to explain the plots and answer questions. We looked at four new crops being planted in Franklin County: garbanzo beans; asparagus; soybeans and grain corn. The farmers growing these crops were there to explain their cultural practices and to answer questions. We also taught the participants about identifying scotch thistle, diffuse knapweed and dalmation toadflax. Dr. Don Morishita was there to discuss weed control measures in these crops and how to control the noxious weeds we were discussing.

Information on weed thresholds presented at Snake River Sugar Beet Conference was utilized by growers this year due to the poor agriculture economy. Information presented at several meetings regarding micro herbicide rates for weed control in sugar beets was timely and informational to crop advisors and growers.

One of our primary objectives in delivering weed management information continues to be teaching our clientele the importance of using an integrated approach to weed management. This includes preventive, cultural, mechanical, chemical and biological methods of controlling weeds. When discussing chemical weed control, we stress the importance of selecting and using the right herbicide for the weeds to be controlled.

- b) Management of prioritized weeds began in the spring in the Shoshone Basin project. The program promoted and implemented an integrated management system by using biological control on specific weeds in designated areas. Public awareness and education of the weed problem and the new program were emphasized. This was done through letters, newspaper articles and a tour of the Shoshone Basin Cooperative Weed Management Area. Many of the program’s first year objectives were accomplished. The program is off to a good start and it will be continued into the next year.

The Butte/Custer cooperative relationship resulted in the introduction of the bio-control agent, *Aphthona nigriscutis*, a flea beetle that attacks leafy spurge. During the last fiscal year a major local collection and public education effort was made that distributed approximately 250,000 of these insects, conservatively valued at \$37,000, to public and private landowners in the Big Lost River to establish additional colonies. This was done as part of a field day and tour attended by approximately 75 landowner, land managers and public officials. The bio-control program has been so successful that large areas that had been abandoned to solid stands of leafy spurge are now re-vegetating with a more normal collection of species.

In Nez Perce County, twenty-nine small farms have adopted sustainable pasture management practices by implementing long-range IPM principles to control yellow starthistle and other noxious weeds.

- c) Source of Federal Funding – Smith-Lever (3)b&c
- d) Scope of Impact – State specific

Key Theme - Pesticide Application

- a) In District III, three different classes were offered for pesticide re-certification credits. One class on plant identification and calibration was held with Cattlemen’s Winter School. The State of Idaho offered a six-credit class for those applying for their restricted use license. Lemhi County Extension and the Forest Service coordinated a mid-summer class. Calibration, herbicide action, personal protective clothing, herbicide safety and weed management was covered. Knowledge gained was assessed by the questions that participants wrote for the “weed jeopardy” game. All 17 participants learned at least one new thing.

In District IV, three-hour pesticide applicator training sessions were staged in Caribou, Bear Lake, Oneida and Franklin counties. These seminars were very successful. Many favorable comments were received concerning the content of the training, particularly in regard to the visual aids used for the presentations (computer projector with PowerPoint slides). In Bannock County, there were a few farmers who were not able to get enough pesticide recertification training this year. I along with the county weed supervisor and Stan Gortsema set up recertification seminars in the area. We were worried about having low attendance due to the many commodity schools which provide credits. We did, however, have good attendance at the schools and we feel that offering these classes covered a hidden educational need in the counties.

- b) Nez Perce County reports that 63 growers and agri-support personnel have indicated that they gained a better understanding of herbicide mode of action principles which will be used to enhance farm sustainability. Also 20 growers and fieldmen have obtained ISDA pesticide consultant licenses and will be able to make judicious, environmentally sound, on-farm pest control recommendations. One hundred twenty eight participants in the Bear Lake seminars increased their knowledge of pesticide regulations as well as IPM practices.

c) Sources of Federal Funds – Smith-Lever (3)b&c

d) Scope of Impact – State specific

Key Theme – Soil Erosion

a) Low Tillage/Direct Seeding in Wheat Cropping Systems. The 3rd Northwest Seed Cropping Systems Conference and Trade Show was held in Pendleton, OR in January, 2000 with an attendance of 600. It was provided as a service to PNW growers through the PNW STEEP Conservation Farming Research and Extension Program and co-sponsored by 12 Ag service companies in cooperation with 11 PNW grower organizations and Ag support groups and agencies. It featured 28 speakers including researchers, industry representatives and growers from across the Northwest, Northern Great Plains, Canada, Argentina and Brazil. It also included a commercial trade show with 25 exhibitors. An Extension conservation tillage specialist prepared the ‘Conference Proceedings’ which was distributed at the conference and added to the PNW Internet home page (<http://pnwsteeep.wsu.edu/DirectSeed>). He was also involved in the development of the series of four 3-4 hour videos from the conference, which were available through Extension for northwest winter educational programs within two weeks after the conference.

The Extension conservation tillage specialist directed the design and initiation of the Northwest Direct Seed E-mail List Server in November, 1999. The list of participants has grown to over 300 northwest growers, Ag service and agency staff, researchers and Extension faculty. Over 80 messages have been distributed by June 30 on a variety of topics related to direct seed cropping systems.

ClearWater Direct Seeders. Direct-seed cropping systems hold the potential of simultaneously increasing the Inland Northwest crop producer’s economic competitiveness *and* significantly improving the region’s environmental quality. However, the farmers’ transition to and adoption of direct-seed systems represents a complex change in Inland Northwest agriculture that could potentially impact the *entire* agricultural system. Farmers requested that the Latah county Extension educator work with their grass-roots effort to initiate a direct seed grower group. This group sees the need for more communication and cooperation between and among growers who are eager and willing to share their successes and failures in a direct-seed production system. This collaborative effort between producers and the university sets the stage for rapid information dissemination, shared learning and grower input into university research programs.

b) Thirty growers from six counties in Idaho (Latah, Nez Perce, Lewis and Clearwater counties) and Washington (Asotin and Whitman counties) attend monthly seminars. During the 1999-00 winter series, growers presented their insights and knowledge gained from farming under a direct-seed system. This exchange of success and failure resulted in a group dynamic that created a cooperative synergy and a shared interest in each growers’ future. Industry/UI

speakers also presented information on plant protection products and production practices. Latah and Whitman county growers hosted a tour in 2000 that was attended by 15 growers and university personnel. The formation of the ClearWater Direct Seeders helped lead to the formation of a regional growers organization called the “Pacific Northwest Direct Seed Association.

- c) Source of Federal Funds – Smith-Lever (3)b&c
- d) Scope of Impact – Specific state and multi-state (OR, WA)

Crop Management Rotations

- a) County Extension educators continue to champion the adoption of a variety of rotation technologies and to report specific examples of increasing use of crop rotations, variety selection and other crop management decisions which reduce the overall use costly off-farm inputs.

Sustainable agriculture activities in Bingham County included field demonstrations, presentations to farmer groups and a professional group and a special poster session to legislators. The Extension educator reports that there is growing interest in use of green manures for disease and nematode reduction as well as improved crop yield and quality. It is important that Extension demonstrate research findings to producers because they have expressed a desire to know how to implement these findings in their production systems. They are demonstrating when and how to plant the fastest growing crop, radish, incorporate it ahead of potatoes and help the producer document crop response. Producers said they need to reduce inputs and green manure has the potential of reducing fumigation as well as improve the return on the crop due to reduced costs.

Through PNW research and Extension materials and programs, growers and Ag support personnel are becoming increasingly aware of the benefits of direct-seeding systems to improve farm profitability and global competitiveness, erosion control and soil productivity and protect environmental quality. Grower interest and adaptation of direct-seed cropping systems has grown dramatically. Attendance at the Northwest Direct Seed Cropping Systems Conferences and Trade Shows have been from 600 to 980 each year from 1998 to 2000, a marked increase compared to 200-350 attending northwest conservation tillage conferences the previous 10 years. Evaluations from these three conferences showed that over 98% of the respondents felt that the conference would help increase the success and adaptation of direct seed cropping systems in the northwest and that they would attend a similar conference the next year. Over 10 counties in the Inland Northwest dryland production areas had over 20% of their small grain production under direct seed systems, up from 3-10% in 1995.

- b) Extension education promoted the adaptation of direct seed intensive cropping technologies through: five field days and tours with a total audience of 650; 23 meeting presentations to a total audience of 1,945; 15 publication and videos; and 18 articles for northwest ag publications.

Nez Perce County reports that 220 wheat growers are now using the IPM practice of lengthening crop rotations. Forty growers plant Ascochyta rabiei (chickpea blight) resistant chickpea varieties, which enhances production potential while promoting environmental protection and the emergence of a new potential chickpea industry. Twenty Nez Perce Reservation residents have a better understanding of corn smut disease and of maximizing corn production efficiency under varying fertilizer rates.

Elmore County Extension educator reports that his “Maximizing Grain Yield With Optimal Fertilizer Use” project created greater impact for agriculture profitability and sustainability and again received national recognition. Data obtained from fieldmen and growers show that since 1985 over 1,980,000 lbs. of nitrogen have been saved that otherwise would have been lost to surface and ground water, or by other chemical or physical processes. Last year in cooperation with fieldmen, we reviewed over 300 soil and petiole samples. UI fertility guides and our local data were used to eliminate excess fertilizer. We were able to reduce fertilizer application from 0-28% on sugar beets, potatoes, grain, mint and alfalfa.

Four hundred and twenty fertilizer and chemical association members and DEQ scientists and their clientele participated in workshops in Elmore County. The county Extension educator utilized data from a soil mineralization study and five different fertility trials as BMP recommendations. Also, with cooperation and financial support of Idaho organic growers and governmental grants, he conducted four large-scale compost and rapeseed field trials in Elmore, Gooding and Shoshone counties.

- c) Source of Federal Funds – Smith-Lever (3)b&c
- d) Scope of Impact – State specific and multi-state (Washington, Oregon)

Key Theme – Sustainable Agriculture

- a) The University of Idaho co-sponsored a sustainable agriculture program in Twin Falls called “Wholesome Foods and Farms Forever.” The two topics of focus were soil health and marketing strategies. Participants rated the program very highly. Attendance was very good; a variety of farmers, both organic and not, both small-scale and large, with everything from market gardeners to barley, potato, onion, alfalfa and fruit growers. The speakers received excellent evaluations. The Magic Valley Farmer Network will help sponsor another program this fall in Twin Falls.

"HerbsPLUS 2000: Opportunities in Value-Added Medicinal and Herbal Products," was a two-day event held in Moscow this past April. The conference featured a wide diversity of speakers who addressed topics such as using effective labels, legal aspects of selling herbs, uses of herbal products and consumer buying trends. The main focus was on marketing and developing value-added products. We helped sponsor this program because it holds some promise for diversification of crops, sustainable practices and local economic development.

Idaho Extension has been instrumental in the initiation and success of a regional association of farmers interested in sustainable and organic production methods. Together with “Rural

Roots (Inland Northwest Community Food Systems Association), Extension co-sponsored another program called "Values-Added Marketing: Telling Your Story through Labels and Brands." This was a very interesting workshop about how to 'market' your values, as well as your growing practices. It included presentations from The Food Alliance and AERO about their experiences with marketing sustainably grown food. We hope to incorporate this topic into a SARE professional development workshop we will hold next year as part of our participation in the project - "Sharing Resources to Help Connect Farmers to Direct Marketing Niches".

Butte County is a high elevation, short growing season area where the risk of crop production disaster from environmental causes is constant. Profitability and economic survival is a constant problem for most farm and ranch operators in the area. With this in mind, we continue investigating and promoting activities that are more ecologically suited to the area, such as grazing of livestock on irrigated pasture and improved grazing management strategies and tactics for ranch operators on public range, rather than cereal grain production.

In southeast Idaho, sustainable agriculture activities included field demonstrations, presentations to farmer groups and a professional group and a special poster session to legislators.

There is growing interest in use of green manures for disease and nematode reduction as well as improved crop yield and quality. It is important that Extension demonstrate research findings to producers in the form of field demonstrations. Producers need to know and have expressed a desire to know how to implement research findings in their production systems. What we are demonstrating is when and how to plant the fastest growing crop, radish, incorporate it ahead of potatoes and help the producer document crop response. Producers have told me they need to reduce inputs and green manure has the potential of reducing fumigations as well as improve the crop with lower costs.

A presentation to the Bingham County Grain Producers included research and Extension programming updates as well as new disease and insect alerts. Producers rely on evaluations of varieties from Aberdeen Research and Extension Center as well as information on cropping system improvements.

In south-central Idaho, all programs stress strengthening environmental stewardship and social concerns. Long term effects of dairy compost land application to agricultural crops research results were displayed as a poster at the National American Society of Agronomy meetings in Salt Lake City, Utah. Education on wise use of manure, often considered a waste product is a critical a resource for sustainable agricultural production in the Magic Valley is critical.

- b) Four educational farm tours and field days were held in Nez Perce County during FY00, attracting 228 people. These on-farm tours highlight significant accomplishments in weed control research, crop variety selection, cropping practices, sustainable agricultural innovations and IPM practices through the use of extended rotation concepts. Educational

components for these tours were comprised of coalition of Extension educators, USDA and University of Idaho researchers, crop consultants and representatives from private enterprise.

One summer tour demonstrated cost effective and environmentally sound direct-seed cropping strategies that sequester ozone depleting carbon particles while saving topsoil erosion and benefiting free-flowing streams. All of which provide significant economic benefit to north central Idaho residents.

Response by 70 attendees at the wholesome foods workshop spawned plans to build better connections between organic growers and the Department of Agriculture and to start a farmer-to-farmer network. Both of these plans have been implemented.

The Herbs 2000 Conference was a very successful conference and has initiated a grower's association to research the feasibility of starting an herbal company in the Lewiston, Orofino, Grangeville area of northern Idaho.

With increasing pressure on public land, by management of riparian areas for recreation, water quality and endangered species values, some ranchers are beginning to withdraw from public land ranching and examining alternative strategies for livestock production. We are working with interested operators and quasi-public entities like The Nature Conservancy to demonstrate improved pasture management tactics on range and in irrigated pastures.

Three farm tours were held, which demonstrated stripe rust resistant wheats that save Nez Perce County growers up to \$4.2 million annually in fungicide application cost. In addition, foot rot resistance demonstrated in the variety "Madsen" (soft white winter wheat--variety grown on more acreage than any other) saves growers up to \$1 million annually in fungicide application costs.

Over 60 students attended an off-campus University of Idaho credit course, "Herbicide Mode of Action." Ninety percent of the class students (primarily agriculture fieldmen, crop consultants and growers) reported in a class questionnaire that they learned new information that they would use in their profession and/or farming endeavors.

In-field educational programs provided discussion and demonstration of new alternative crops (e.g., canola, rapeseed, chickpeas, corn) adding valuable insight into methodology for lengthening rotations as an IPM practice to enhance farm sustainability and profitability. Growers are testing and often adapting these new alternatives annually.

c) Source of Federal Funds – Smith-Lever (3)b&c

d) Scope of Impact – State specific

Key Theme - Water Quality

- a) Water quality programming continues to be strong at both the state and county levels. County Extension educators reported on several efforts to address water quality and quantity over the past year.

For the past seven years in Elmore County, watermark sensors have been used to generate baseline information on irrigation scheduling in potato fields. As a result, the number of watermark sensors used by growers increased from six in 1993 to 300 in 2000. We adapted this program with NRCS conservation plans. Results of this data were presented at DEQ conferences and the Idaho Crop Production Association. Results impacted irrigation management and environmental quality of lands in Elmore and Owyhee counties.

Two projects were begun in Gooding County (and are currently ongoing) with respect to water quality. The first project is to detect water movement out of dairy lagoons. In this project, moisture sensors were placed under the floor of two newly constructed lagoons to determine the seepage rate of lagoon water and the sealing effect of organic matter in the lagoon water. Since the project was instituted in December of 1999, no conclusion can be drawn at this time. The second project involves determining the likely positive effects on irrigation water infiltration from the application of dairy compost to “tight” silt soils. There are few ways to monitor the effects, except by visual reaction and by changes in the soil organic matter.

In Custer County, water quality is a major issue with DEQ, EPA, NFWS and NMFS, especially with respect to endangered species. Implementation of Total Maximum Daily Load regulation on the Little Lost River has provided an opportunity to develop a cooperative project on private ground with livestock operators and The Nature Conservancy. The project will help to demonstrate good riparian management techniques that permit livestock use while allowing recovery and improvement of riparian areas. The groundwork for the project was laid with the cooperators and the TNC during this reporting period and implementation will begin in the fall of 2000. Livestock operators will be invited to tours to view improvements that they might make on their own operations with little cost or difficulty.

The majority of efforts in aquaculture focused upon effluent water quality and waste management, including feeds and nutrition. This continues to be a high priority in Idaho and now nationally for the U.S. aquaculture industry. Within this last year, the Environmental Protection Agency issued the new discharge permit for aquaculture. This permit is more stringent, requires more reporting and monitoring and is confusing and complex.

Another area that is showing impacts from efforts is managed aquifer recharge. This past year efforts were spent on promoting the video “The Invisible Drought.” Water quantity is a high priority in the Magic Valley because so many rely on spring water including canal companies, aquaculture and the city of Twin Falls.

Two workshops in Fremont and Madison counties taught participants about nitrate

movement through the soil. The history of nitrate contamination in the area, soil testing and scheduled irrigation were topics that were covered. The discussions were lively. Most of the participants agreed that changes must be made to protect the water. Lots of questions were answered.

Pesticide handling, record keeping and pesticide movement into ground water are important issues in Lincoln County. A Home & Farm*A*Syst Workshop was organized by the Lincoln County Extension Office on January 27, 2000. The topics included worker protection, record keeping, pesticide storage and handling, leachability worksheet and ISDA agrichemical monitoring project/pesticide movement into groundwater, etc. Twenty-one individuals participated in the workshop.

- b) The Extension aquaculture educator helped to address the aquaculture industry's needs in regard to the permit and issue of water quality. He brought the EPA and the industry together, organized and taught a workshop on the permit process; provided consultations; presented on ways to improve effluent water quality; developed a template for writing a QC/QA water sampling plan; and condensed the parameters, monitoring frequency and reporting requirements into easy to understand tables. The results of these efforts include increased understanding of the permit, which facilitates meeting the permit requirements and maintaining their operations. The quality of data collected through water quality monitoring will be improved because operators are more aware of proper sampling techniques, sample handling and QC/QA. Effluent water quality should improve due to increased knowledge on feeds and nutrition and waste management.

The Invisible Drought video has generated broad-based support. One of the goals of the Idaho Water Alliance has been met - the Idaho Department of Water Resources hired a new managed aquifer recharge coordinator. Diverse interests are coming together to resolve their differences over aquifer recharge. The video is even used on campus as a teaching tool for an introductory geology class.

Total number of people completing non-formal education programs on sustaining and/or protecting the quantity and quality of surface water and ground water supplies through crop production methods: 130.

Number of people who plan to adopt one or more crop-production related water management practices after completing one or more of these programs: 50.

Number who actually adopt one or more crop-related water management practices within six months after completing one or more of these programs: 40.

- c) Source of Federal Funds – Smith-Lever (3)b&c
- d) Scope of Impact – State specific

GOAL 5 *Enhanced economic opportunity and quality of life for Americans*

Overview

Two major program thrusts dominate the Idaho Cooperative Extension System's efforts in this goal area. They are *Family Resource Management* and *4-H & Youth Education*. Three additional Idaho thrusts fall into this category, including *Human Relationships*, *Volunteer and Leadership Development* and *Community Economic Development*. Accomplishments in each of these topics are described under respective Key Themes, below.

Total expenditures invested in Goal 5 include approximately \$2,398,477 from State of Idaho appropriations, \$740,345 from Smith-Lever allocations, \$653,491 from County appropriations and \$1,415,500 from other sources. These cumulative resources supported approximately 43.14 FTEs for faculty working on Goal 5 activities.

Key Theme – Community Development

- a) Program objectives in community development guide Extension faculty to:
 1. Develop, analyze and interpret economic and institutional factors affecting the economic, social and environmental conditions influencing Idaho citizens and communities.
 2. Pursue strategies to add value to agricultural and natural resource-sector products, including identification of alternative crops with value-added potential.
 3. Understand and explain to local decision makers and residents the economic impact of policy changes.
 4. Facilitate the development and operation of home-based and small businesses in the rural areas of Idaho.
 5. Increase the number of jobs and income opportunities in rural communities.
 6. Assist with the development of workforce preparation opportunities.
 7. Assist youth in developing career opportunities.

County faculty have recently been reassigned to community development responsibilities. Much of our investment in this area has been to further the skills of our faculty through numerous professional development opportunities. County faculty have attended and represented a variety of classes and workshops including business retention and expansion, microbusiness development, communication in rural Idaho and leadership for community planning and development.

Extension educators participate on community development committees and with state and regional groups concerned with economic development in Idaho and in the west. They sit on local boards, work on local revitalization projects and infrastructure improvement projects. They work with local growers and business to promote ag-related opportunities and industry and coordinate educational programs and events. Community development faculty help local people identify appropriate state agency and university resource people and programs. They

provide assistance in locating and collecting relevant information to assist business and economic development.

- b) Formal studies of community economic environments have been conducted in several counties over the past few years. During FY 2000, the Valley County analysis was completed. Results from the study have been compiled in a report that has been delivered to county leadership and has been the subject of numerous citizen group, leadership and development meetings. Completion of this study has enabled Valley County residents to base community development decisions on research-based data, rather than some other source of information. To date, five Idaho counties have been involved with the University of Idaho to complete community economic assessments, leading to better decision making in numerous communities across the state. The activities of Extension faculty have been important in small communities devastated by the closing of local businesses (often sawmills) that have been dominant economic factors over extensive areas.
- c) Source of Federal funds – Smith-Lever (3)b&c
- d) Scope of Impacts – State specific

Key Theme – Family Resource Management

- a) Three Statewide goals for family resource management include: 1) promote sound family financial decisions; 2) improve financial security in later years; and 3) increase family disposable income. The following programs were conducted in support of these three goals.

Money 2000

The Money 2000 Program was designed to assist consumers in either saving money or reducing debt by the end of the year 2000. Program participants received materials for home study and/or attended a series of workshops on basic financial management. Workshops were presented in all regions of Idaho to a total of 195. In southeastern Idaho, topics ranged from budgeting to credit card use and one-on-one confidential financial consulting using the *PowerPay* computer program. This program helped people to analyze their debt and ways to reduce it.

A three-lesson series, *Money 2000/Rx for Financial Wellness Series* was offered in Canyon and Owyhee counties. In District II, several programs were offered for Money 2000 including:

- Insuring Yourself Against Financial Risk - 23 participants - January 19 by Dean Schmidt and El Gray
- Planning and Investing for Retirement - 27 participants - February 16 by Beverly Healy and Patricia Byron
- The State of Your Estate - 35 participants - March 15 by Janice Lawson, Attorney

Four quarterly newsletters were distributed. Brochures in English and Spanish and other print materials are available on the web site < www.uidaho.edu/fcs/money2000>.

High School Financial Planning Program

Last year 23 teachers new to the High School Financial Planning Program attended workshops and a total of 42 schools offered the program to 2,961 students. That enrollment reflects a 62% increase over the previous fiscal year.

Retirement Planning

A retirement planning critical issues grant was used to develop the PowerPoint presentation and handouts for the workshop called “*Too Soon Old: Don’t Be Too late Smart.*” The workshop was taught to 16 Marsing High School seniors. Another grant, this one from CSREES Smith-Lever Special Project by Linda Fox and Suzann Knight from the University of New Hampshire. Research project focus groups were held in Marsing and Moscow. Results are scheduled to be presented at regional (Western Region Home Management/Family Economics Educators [WRHM/FEE]) and national (Association for Financial Counseling and Planning Education [AFCPE]) meetings in fall 2000.

Basic Budgeting

In FY00 the *Extension Nutrition Program* operated in 22 counties throughout the state of Idaho. There are approximately 34 nutrition advisor paraprofessionals who taught classes that cover nutrition, food safety and resource management.

Marilyn Bischoff and Linda Gossett, District II, developed a new program *Put Your Skills to Work: Employment Training for Low Income Hispanics*. One-hundred-thirteen low-income Hispanic adults learned job search skills during 10 weeks of training (Garden City, June 13 - 15 participants, June 15 - 17 participants, June 20 - 23 participants, June 22 - 21 participants, June 27 - 20 participants, June 29 – 17 participants).

Child care providers sharpened shopping skills through workshops on *Supermarket Strategy* (53) in Ada County and through business management workshops conducted by Linda Fox (*What to do at tax time*) in Latah and Nez Perce counties (36).

Welcome to the Real World

For high school students, *Welcome to the Real World* is an active, hands-on, real-life simulation which gives young people the opportunity to explore career opportunities and make lifestyle and budget choices similar to those adults face on a daily basis. Sixty-six participants assume they are single, age 25, and have completed the necessary educational requirements to get a job. After investigating potential careers, program participants receive a monthly salary based on their career choice and then proceed through "Real World" activities, deducting taxes, determining savings amounts and spending their monthly "salary" on necessary and luxury items that reflect the career and lifestyle they have chosen. Using sample savings and checking account registers and deposit slips, participants learn how to record and manage their accounts. After making their deposits, participants then proceed through the "Real World" activity by making spending choices from the following categories: housing, transportation, insurance, utilities, groceries, clothing and entertainment. They also choose a "chance card" which represents the unexpected expenses and incomes encountered in the real world. After each choice, they make a deposit or write a check and balance their checkbook. Participants complete their "Real World" experience by evaluating the choices they have made. If they had a negative checking account balance, they may consider alternatives that might be made to achieve a positive balance. Both the students and the teacher really liked the class.

Goals of the "Welcome to the Real World" program are:

- Explore careers
- Investigate how career choices can be influenced by education and other factors
- Learn skills needed to manage finances
- Learn to manage a checking account and write checks
- Learn that saving money is important

Keeping Family & Farm Together

Seven farm families attended workshops held in response to economic constraints in the ag sector. *Keeping Farm and Family Together*, a stress management workshop was presented to Agri-Action participants in Twin Falls. This workshop included communication skills, family decision-making, stress management and decision-making. The livelihood of the farm business and survival of the family structure depends on carefully managing all resources to their fullest potential. This workshop opened the lines of communication to bring farm families closer together as they work through problems.

Financial Literacy Coalition

The *Idaho Financial Literacy Coalition* (IFLC), formed by Cooperative Extension System in 1994, engaged in an aggressive agenda in 1999-2000 in a continued effort to increase both public and legislative awareness of financial literacy. A Governor's Proclamation was signed by Governor Kempthorne, proclaimed March, 2000 as Idaho Financial Literacy Month, citing continuing increase in Idaho's personal bankruptcies. A press conference was held at the statehouse. The coalition coordinated another teacher's conference in August 2000. UI Extension efforts in the IFLC educational programs were recognized by a first place Western

Regional *Dean Don Felker Financial Management Award* from the National Extension Association of Family and Consumer Sciences.

New or Revised Educational Materials Developed and Distributed to Clientele

One new Extension publication (PNW) was completed and distributed last year: *Investing for Your Future. Investing for Your Future: A National Cooperative Extension Basic Investing Web-Course*. An 11-part home study and web-based course written and produced by a consortium of six land-grant universities (Rutgers, Cornell, Clemson, Virginia Tech, Michigan State University and the University of Idaho), the U.S. Securities and Exchange Commission (SEC) and CSREES. The on-line basic investing lessons can be found at < www.investing.rutgers.edu>. Accompanying workshop teaching materials (six PowerPoint lessons with script), promotional and evaluation materials were developed for distribution on CD-ROM in September, 2000 at in-service training.

- b) Last year nearly 4000 clientele were reached through family resource management programs. Of those, over two-thirds indicated that they plan to adopt one or more recommended practices to decrease consumer credit debt or increase savings after completing one or more of these programs. Within six months after completing one or more of these programs, over 25% reported actually adopting one or more recommended practices to decrease consumer credit debt or increase savings.

At mid-year, in District II, the 33 participating families in Money 2000 reported they had established a savings goal (cumulative) and a debt reduction goal of \$113,874.

The ENP nutrition advisors made 27229 contacts (17582 were adults and 9647 were youth) and graduated 205 clients in the program. Part of the education provided was in the area of money management. The major topics included basic budgeting, tracking your spending and food shopping. Many of the clients have accumulated debts, mostly with other family members or friends.

Since 1998, 171 high school students have participated in the “Welcome to the Real World” program. Participants were surveyed to measure skills learned, knowledge gained, attitudes toward future lifestyle, career and earning ability and choice satisfaction. Results of the survey are as follows:

96% agreed or strongly agreed that the program was interesting

98% agreed or strongly agreed that the program was useful

96% agreed or strongly agreed that the activities were helpful

94% agreed or strongly agreed that participating in the program will help me in the future

The survey asked students participating in “Welcome to the Real World” what skills they had learned that they didn’t know before. They reported as follows:

59% learned about career possibilities

26% learned how to write a check correctly

48% how to balance a check book
37% how to open a savings account
55% how to keep track of savings
75% how to balance income and expenses

- c) Sources of Federal Funds – Smith-Lever (3)b&c, Food Stamp Nutrition Education Program.
- d) Scope of impact – State specific, multi-state (see attachment)

Key Theme – Youth Development/4-H

- a) We are in our third year of the new strategic plan for Idaho 4-H/youth development. Our five primary objectives continue to be: (1) public relations and marketing, (2) provide innovative curriculum, (3) create partnerships and innovative programs, (4) enhance volunteer involvement and (5) increase financial support. This past year 544 programs were conducted in Idaho to improve public relations and increase the image of 4-H as a premiere youth development program. Of these presentations, 378 were of a general nature designed to promote the overall 4-H program and 88 were targeted at partnerships with schools to increase the number of youth being reached through 4-H school enrichment programs. Every county in Idaho now has some type of local coalition formed for the purpose of enhancing programs available to youth in the community. According to media market information almost 80% of Idaho residents were reached with media releases promoting 4-H.

Reaching a higher percentage of Idaho's youth with 4-H programs continues to be an on-going goal. Last year, 84 new delivery methods were used to try to reach more youth with 4-H programs. One-hundred-forty-nine adult/youth partnerships were organized to promote positive youth development and 4-H. Last year 4-H membership was increased by 2344 youth, which represents a 7% increase for a total of 34,560 members.

Volunteers are the backbone of the 4-H program. To provide support for our volunteers, 236 training sessions were offered. Last year 583 volunteers completed the orientation for new leaders and 1877 additional volunteers participated in training sessions designed to help keep them up-to-date. Our total 4-H volunteers increased by 136 to 4486 for a 3% increase.

This was a big year for Idaho 4-H in terms of providing innovative curriculum. In early February sixty-two faculty, 4-H program assistants and lay volunteers participated in a three-day, in-depth review of current 4-H curriculum. As a result of that session, eight on-going curriculum teams were formed and 54 pieces of curriculum were deleted from our state collection. Thirty-three pieces received major revisions and 113 new curriculum pieces were added to the state 4-H curriculum collection. Idaho is progressively transitioning to 4-H CCS national curriculum as our major source of curriculum for state approved 4-H projects.

This has been a year of steady progress toward our goal to increase financial support for Idaho 4-H. The Idaho 4-H Endowment Fund, which is managed by the University of Idaho

Foundation, has passed the one million dollar mark and a Campaign Cabinet is being formed to pursue an additional two million dollars as a part of the University of Idaho statewide campaign. In addition to the \$79,610 which went into the 4-H Endowment, an additional \$39,000 was received from donors for annual program support. Staff continue to be competitive in seeking financial support for programs through grants. This past year \$546,889 was received through grants that supported Idaho 4-H programs. Total support received was \$665,499.

District II has been establishing a curriculum with a Mountain Home business education teacher. The curriculum has been and will continue to enhance the life skills of approximately 450 students who are using the materials from the financial planning materials available through the District II Office.

- b) This past year 544 programs were conducted to improve public relations and increase the image of 4-H as a premiere youth development program. A total of 149 adult/youth partnerships were organized this past year to promote positive youth development in the 4-H/Youth Education Program. As a result of an in-depth 4-H curriculum review, 54 curricula were deleted, 33 revised and 113 new added to the state collection. Last year 583 new volunteers and 1877 experienced volunteers participated in training. A total of \$655,499 was received at the state level to support 4-H programs. Some examples of these programs and activities follow.

State 4-H Office: In July, the state met with the coordinator of the Congressional Award Program to discuss how 4-H and the Congressional Award Program could work together and be mutually beneficial. 4-H projects and activities can be used to fulfill goals and objectives for the Congressional Award medals and Congressional Award Program can provide an avenue for increased involvement in citizenship activities for 4-H members. We decided to provide information on the Congressional Award Program at the district meetings, State Leaders' Forum, Know Your Government Conference and Teen Conference. In January one of our faculty was asked to serve on the Congressional Award Board of Directors. This has given the unit an opportunity to enhance the image of 4-H to key leaders in the state (Supreme Court Justice, congressional aides, Award Board of Directors). At least eight 4-H youth from District I who attended the 2000 Know Your Government Conference have enrolled in the Congressional Award Program, with at least as many from the other districts.

Kootenai County: The Inland Northwest 4-H HUB (seven northeastern Washington and five northern Idaho counties) has made progress towards consolidated programming efforts. Our major accomplishment for this year was developing, implementing and conducting a youth

leadership camp program for 6th through 8th grade youth at Camp Roger Larson. In our first attempt, over 40 youth and adults were reached and we learned a number of strategies that we will incorporate into the next program to increase overall participation. Program evaluations showed this to be an extremely possessive experience for all participants. This year, Kootenai County reached its goal for the Idaho 4-H Endowment Fund.

Bonner County: The Sport Fishing Youth Program has become very popular with both youth and adults. The county was able to increase participation in the program from 37 youth in 1999 to over 50 youth participants in 2000.

Locally the county was successful in providing training in all areas of the 4-H program in Bonner and Boundary counties. Evaluations were very positive with statements like the following: "I learn something new at each of your livestock record book trainings.", "Need more program like this, very well thought out.", "Very helpful for a first time pig raiser like me.", "You didn't assume I already knew everything, thanks." and "I'm glad we are taking more educational approaches to swine. Good job, thanks!"

Partnerships developed with both local and regional business and associations interested in our youth development efforts. Partnerships include: The Pastime Sport Shop in Sandpoint; White Boot and Sports and Jerry's Lures in Spokane, Washington; The Walleye Unlimited Association of Washington. Bass Pro Shops, United States Coast Guard Auxiliary, Idaho Fish and Game and local fly casting organizations have all graciously provided time and resources to the program.

The Bonner County Extension Program worked in cooperation with Kootenai County, Dr. Jeff Goodwin, Washington State University, Oregon State University and the North Regional Cooperative Extension System in California to conduct a number of "Systems Approach" training opportunities for 4-H leaders, fair managers, 4-H participants, livestock judges and livestock industry leaders. The major goal was to increase the awareness of using industry promoted livestock standards in developing youth education programs. Program evaluations were very encouraging and indicate that collaborative educational efforts, using new technology, can and will continue to make a difference in the lives and attitudes of all participants.

As a member of Idaho's Sport Fishing training team, the county was able to conduct two state leader trainings for other areas of the state. Leader trainings were also conducted at the Western Region 4-H Leaders' Forum in Kona, Hawaii.

Clearwater County: This year the county tried several new ways to reach non-typical

4-H youth. A weeklong project camp was held in June that offered non-traditional 4-H projects. The camp was successful and 22 youth were enrolled. The county office also used 4-H placemats at local restaurants to advertise 4-H and help recruit youth and leaders. Extension Educator Randy Brooks spoke at the local elementary school to youth about what the 4-H program has to offer.

Idaho County: This past year was a successful one in Idaho County for 4-H program efforts. 4-H members serving as ambassadors made 40 presentations around the county on behalf of the 4-H program.

The 4-H Market Livestock Project in Idaho County experienced a 13% increase in the number of members, compared to 1999. Twenty-four new leaders joined the 4-H program and were trained to be volunteer 4-H project leaders.

Idaho County 4-H'ers participated in both the National 4-H Congress and the National 4-H Conference. It should be noted that Idaho County had the highest number of members attending the Idaho 4-H Teen Conference, held on the University of Idaho campus, than any other county in the state.

The 4-H Ambassador Program in Idaho County continued to grow and prosper. A sponsor for the program was secured at a contribution of \$1,000. Also, support of the 4-H Teen Conference by civic organizations and local clientele was tremendous as evidenced by the number of supporters at the county fair and with the support of scholarships and awards.

Kootenai County: The Inland Northwest 4-H HUB (seven northeastern Washington and five northern Idaho counties) has made progress toward consolidated programming efforts. The major accomplishment for this year was to develop, implement and conduct a youth leadership camp program for 6th - 8th grade youth at Camp Roger Larson near Worley, Idaho. In this first attempt, over 40 youth and adults were reached. A number of strategies were learned that will be incorporated into the next program to increase overall participation. Program evaluations showed this to be an extremely positive experience for all participants.

Another collaborative activity involved the North Idaho Brain Injury Association. District I and the association helped provide equestrian helmets for youth at a discount rate. Further, District I helped develop an after-school 4-H program for middle-school youth in cooperation with the Post Falls Alliance for Children and Families.

The new FCS Extension educator position contains a 20% 4-H/youth assignment to assist in providing leader training and to support related topics. This position will be providing a much greater level of active leadership in 4-H program areas.

Latah County: Extension educators worked with the Moscow's Promise Coalition to host a youth summit and administer the Search Institute Asset Inventory to local youth.

Valley County: The 4-H Ambassadors have been very involved with the community in projects such as the "Cheer Basket Program" for needy or underprivileged citizens as well as traveling to two of the local elementary schools and giving demonstrations on the 4-H Program (three ambassadors also gave individual demonstrations during a high school field tour in which they discussed the 4-H program in general and 4-H livestock projects). Approximately 325 children were exposed to 4-H opportunities through these efforts. In addition, several of the county clubs joined to participate in a clean up effort at the Mountain Home Reservoir in cooperation with the BLM.

Owyhee County: Suggested approaches to increase participation in 4-H were:

1. Recruit at schools with 4-H exhibits.
2. Use school enrichment to share knowledge.
3. Use Cloverbud projects to reach the 6-8 year olds who are not involved in sports and have an interest in getting started in 4-H.
4. Develop existing projects into "compressed" projects that are completed in one day.

The 4-H enrollment for 2000 is about the same as 1999. Volunteers, parents and children have shown areas interest in the one-day "compressed" 4-H projects.

Michael McGuire, movie producer, presented an "Auditions" workshop. The presentation included skill building in job interview skills and reached 225 high school youth at Homedale and Rimrock.

Awards to build self-esteem in Owyhee County were given in the areas of

Presidential Fitness Award
I DARE YOU Award
Prudential Spirit Award
Presidential Challenge

A big success this year was the active teen exchange group that was able to send 10 members to Pennsylvania for one week. The experience gained by the teens will be valuable to them the rest of their lives. Closer to home, we had 16 separate clubs covering many different project areas indicating that 4-

H is a valuable program in Valley County and serves the need for youth involvement.

Albertson's Partners Program was implemented in January 1998 with annual thank you letters and reminder notes to cardholders. The funds generated this year within the county totaled \$2,188.87.

An Idaho Tennis Association grant was received to fund tennis equipment and instructions which were offered with the Marsing Elementary After School Program.

A Laura Moore Cunningham Foundation Grant was secured with the first installment of \$50,000 received in August 1999 (three-year grant of \$150,000).

The goals of the project are going well and include having a program assistant hired, partnership with schools and partnerships formed and expanded with coalitions.

A U.S. Bank grant of \$7,500 was completed with success in reaching the goals set forth in the grant. 1349 children were reached with the 4-H Impact statement prepared for U.S. Bank and decision-makers.

Ada, Canyon, and Elmore Counties: Ninety-five children were enrolled in EFNEP 4-H during the spring of 2000. Clubs met at Whittier Elementary School in Boise. The Giraffe Laugh Day Care, The Boy's & Girl's Club in Garden City and at community centers in the Dan's Street Apartments and Oak Park Place.

One of our greatest successes was teaching EFNEP 4-H to interested children during the second part (playtime) of their lunch period. Thirty-six children participated and the principal was pleased with the project materials.

Another success occurred at the Boy's & Girl's Club. Not only did they schedule our program for regular weekly meetings they also assigned teen volunteers to help the nutrition advisor. Funds were finally allocated for all of the food purchased necessary for the lessons.

Washington County: Initiated, organized and coached a 4-H Wildlife Habitat Management Team. This team consisted of three members (14-18 age group) and was the first team from

Washington County to compete in the annual Wildlife Habitat Management Contest in Pocatello in June 2000. This program was introduced and promoted through the Washington County 4-H newsletter in an attempt to expand the choice of 4-H programs to youth in the county.

Cassia County: In July of 1999 the Extension educator took 42 youth plus leaders on a sugar beet tour, which was a great success. Realizing that there are more youth living on sugar beet farms, the Extension educator set out to improve this program. After many hours of talking and numerous farm visits, when enrollment time rolled around there was an increase of 35 new members for the sugar beet project with the youth ranging from Cloverbud up to seniors in high school. This program is running at a great pace and we are excited to have these new leaders and youth members.

The Cassia County 4-H Fair Communications Rodeo, a speaking and demonstration contest, is highly successful. This was the second year we used the expanded format and members and clubs have participated. Participation grew from less than 20 presentations two years ago to 20 members giving 43 presentations this year. One reason for the growth is the wider choice of classes. Public speaking and demonstrations categories have been expanded to include extemporaneous speaking, TV commercials and job interviews. Leaders from other counties expressed interest in this new format and our county event superintendent, Tonya Bowcut, was asked to give a presentation at the State Leader's Forum in Burley in November 1999. A promotional poster on the contest was also displayed at the forum and much interest was created. Cassia County 4-H leaders and parents like the new format and support this contest enthusiastically. It was decided by the Cassia County 4-H Leader's Council to invite the other year as invited guests. Lincoln County decided to use this event as their 2000 fair contest and Jerome County sent participants. Volunteers from Twin Falls, Jerome and Lincoln counties served on the planning committee with Tonya Bowcut. Registrations for the 2000 contest showed a major increase again in participation by numbers.

When the county project review committee got together to review the new CCS projects available to the youth it was decided to try these projects. By doing this we hope to get more kids involved in these new projects and spread awareness

about them. The project review committee developed a sheet to help each youth understand what the requirements of the project were and what they needed to exhibit. A Cassia County pilot record book was developed. We had approximately 57 total enrollment for these new projects taken for the 1999-2000 4-H year. We feel that there is a great success and with the response from the kids at the fair we should see a lot more taking these projects in the coming year.

Now if you want to talk about a wild time, let's talk about the 2000 4-H camp, "Wild, Wild West." With 62 youth participants, 12 youth counselors and eight adult leaders this camp was a wild time. This camp includes three different counties: Cassia, Minidoka and Lincoln. While at camp the youth learned about the ways of the old west with the main classes were roping, archery, Dutch oven cooking, edible plants, heritage toys and crafts. A teen individual who took the roping class seriously was invited and came to help instruct the roping workshop at camp and did a tremendous job. What a great opportunity for a teen leader. We also had a hike, went swimming, did campfires and a talent show, along with many other fun activities. There were a lot of comments on how happy the camp was and that the youth had a great time. There were several youth that wanted to stay there for a whole month and a few who wanted to stay for the summer.

Butte County: Alpine 4-H Camp was again a big draw, with increased participation by Butte 4-H members. A total of 29 members attended, including three teen leaders. The 4-H council provides partial scholarships to a number of participants. We also had two members attend the Know Your Government Conference and two attend Teen Conference. Participants in these programs received financial support from the Butte 4-H Council.

The new Dutch oven cooking project was offered during FY00 and capped off in FY01 by a Dutch oven cooking contest during the county fair. The products of the contest were used to entertain the buyers at the youth livestock sale.

A school enrichment program was developed cooperatively with the middle school administration to supplement the last period of the day every other week during one semester. The program enrolled 7 male and 43 female students and was administered by

teachers and 12 adult volunteers. Programs offered included: woodworking, dance, rocketry, art and leatherwork.

During this FY the Arco Horse 4-H Club completed their major community pride project of construction of 20 board stalls at the rodeo arena. The club raised this money through donations and by providing stalls and stall cleaning during local horse shows. They also obtained a community pride grant for this project.

Jerome County: This year we have been trying to promote not only 4-H, but also projects within the program that youth may not have been aware even existed. We visited the 3rd grade classrooms in Jerome to promote 4-H and invite them to an Exploring 4-H activity day. All youth were welcome to come and take part in the activities. We did enroll ten youth in the program through our efforts.

This year we formed a coalition with the Juvenile Justice Department on getting youth involved in a group activity. We wanted to teach them useable life skills. The youth had to work in a group atmosphere at a set time and place. This is something that was identified as lacking in their lives. We had ten youth complete two 4-H projects, ceramics and Dutch oven cooking. Comments from the youth indicated that they didn't know some of these activities could be done, such as cookies and pizza in Dutch ovens. The youth were surprised that they were able to do these types of activities. One response was that these projects were "way cool." Increasing self-confidence for troubled teens through the projects was a very positive impact. There were two individuals that showed more interest in hand building pottery by going to their art teacher at school for more information and by getting information about taking classes at the College of Southern Idaho. Many of them said they would be interested in other classes next year. As an added benefit they were able to see the school resource officer as a person/cook not a strict authority figure. The resource officer is also a volunteer 4-H leader with Dutch oven.

Gooding County: Four presentations were given to area school children during the noon hour, given by the Family and Consumer Sciences Extension educator and three 4-H youth ambassadors. A 4-H picture board was displayed and 4-H brochures and a flyer listing 4-H projects were handed out.

Questions from many school children and teachers were answered. This 4-H picture board had pictures of county 4-H youth in numerous 4-H activities and is a very popular tool and attracts attention from school children finding themselves and their friends in the activities. While this effort may not significantly increase enrollments, it is valuable to retain interest and enrollments for current members.

Mini-society, a 4-H youth entrepreneurship program, was conducted by Marie Baucum to 18 after-school students attending Kids After School Help (K.A.S.H) for 27 hours of on-site instruction and activities.

A substance abuse prevention grant obtained by Diana Christensen gave full camp scholarships to seven at-risk students who would not have had the experience otherwise. A total of 41 youth went to the camp.

Two Family and Consumer Science 4-H leaders held all day continuous summer camps at the Extension office meeting room to complete sewing projects. One leader had 31 members doing two levels of quilting and five levels of sewing for a total of six weeks from 9 am to 5 pm. The other leader used the all day summer camp idea for three girls completing two different sewing projects. They did the sewing itself in three days, with the demonstrations and completion of record books on other days. The sewing machines and other equipment are provided by the Extension office, with some new machines funded by a grant obtained from Health Net Coalition by the sewing leader and the sewing machines servicing and some supplies funded by grant money from the FCS Extension educator. Both leaders are enthusiastic about the summer camp concept and plan to work together next year combining both clubs in the summer sewing camp.

Blaine County: 4-H Camp (Boulder Mountain Youth Camp) continues to be a strong activity in Blaine County. About 90% of those attending are non-4-H members so a completely new audience is reached. Many of the adult volunteers from Blaine County are not 4-H leaders, or in two cases, not even 4-H parents. Campers attending the July camp in 1999 numbered 120. Scholarships from county services and the drug free schools help send low-income youth to camp. The new 4-H cooperative curriculum was discussed with leaders at a training, but only

2 of the 17 leaders attending that training opted to try the new materials.

A new program and partnership was formed with Katy Breckenridge who donated lambs to ten first- and second-year 4-H market animal members. This was a very positive program involving six children with their families who were new to 4-H and would otherwise not have been able to do a 4-H market animal project. The spring market/animal education nights drew good crowds and helped leaders, members and parents set goals for their 2000 projects.

The 4-H Leader base in Blaine County has increased. There were 15 4-H leaders in 1999 and 26 in 2000.

The county developed a comprehensive "Leaders' Manual" based on the Ada County manual and distributed copies to all 4-H leaders in February. Leaders were stepped through the various sections with club organization stressed. 4-H leaders were then able to cover the other sections at their own pace and on their own time .

Many of the adult volunteers from Blaine County who helped with the 4-H Camp at the Boulder Mountain Youth Camp are not 4-H leaders, or in two cases, not even 4-H parents.

Scholarships from County Services and the Drug Free Schools program help send low-income youth to 4-H Camp.

Twin Falls County. Ultrasound technology to aid in the live evaluation of market animals continues to be provided by 2 groups of technicians from Gooding, Lincoln, Cassia and Twin Falls counties. This technology was used on 2000 4-H project animals during 1999 at 12 county fairs in southern Idaho and eastern Oregon. This technology has resulted in improved quality of market animals exhibited at the fairs where the technology has been utilized over the past few years. Reduced fat and improved muscling of market animals has resulted from increased knowledge of what constitutes good animals versus poor animals. Evaluation of the animals has improved, with judges having an additional piece of information to be used in the evaluation.

The 4-H Sportfishing program went from a 16-county pilot project to a statewide project. This being a new project, there was a need for leader training and promotion of the project. Gary Fornshell, Multi-county Aquaculture Extension Educator helped organize two statewide leader trainings and taught aquatic ecology at both workshops. He also promoted and explained the project, including demonstration of aquatic ecology activities at the statewide 4-H Leader's Forum held in Burley. He received very high marks on his aquatic ecology teaching techniques and very positive comments from participants indicating future

implementation of those activities into their sportfishing programs. The number of youth enrolled and number of clubs implementing this program has increased, but no figures are available at this time. A number of youth and adult leaders have been taught various principles of aquatic ecology that should enhance their fishing experience and enjoyment in addition to increasing their appreciation and understanding of the aquatic environment. The ultimate impacts should result in greater family time spent together fishing and stewardship of the aquatic environment.

Education programs for adult and teen leaders were provided in several different subject matter areas. Livestock record book training was given to dairy, swine and beef leaders involving 41 leaders. Training was provided in using the Idaho Livestock record books. Leaders were given instruction to help youth to understand and complete the record books accurately and completely.

A training session was provided to new leaders and returning leaders regarding the enrollment of members in 4-H, Civil Rights & Affirmative Action Requirements of the USDA and the University of Idaho. Child protection and child safety programs were given to all new leaders.

Lincoln County: In May we had a Sheep Field Day where 14 members and 4 adults participated in hands-on learning about fitting and showing and project selection and judging as well as attending a session about proper market lamb nutrition. One of the results of this Field Day was that only one lamb did not attain the minimum weight required at fair time.

Spring recruitment started in February and was carried out through May. In the 1999-2000 4-H year Lincoln County had 94 members enrolled in 224 projects. This is an 18% increase in membership from 76 members enrolled in 161 projects in 1998-1999. Leader enrollment increased from 17 in the 1998-1999 year to 19 in the 1999-2000 FY with 3 new leaders being trained.

Minidoka County: The objective behind the Minidoka 4-H Teen Association is to provide valuable learning opportunities about leadership, goal setting, community and the world beyond what they can learn from their normal 4-H clubs, while having fun. The teen association was involved in two exchanges during the past year. Seven Minidoka 4-H Teen Association members traveled to Malta, Montana in July of 1999. While there they learned a lot about the communities and agriculture in

Montana. These included ranching, canola production and their way of life in an isolated area. They also exchanged ideas about the operation of each teen association. As a result our teen association adopted their "Get Your Goat" fundraiser, which was very successful. In June of 2000, five members involved in the Montana teen association traveled to our neck of the woods. While here they toured Sun Valley, Twin Falls and Ogden, Utah. They learned about our agriculture, an alligator farm and the history of our area that included mining and development. They visited the Ore Wagon Museum in Sun Valley, the Penine Bridge, the Shoshone Ice Caves, Shoshone Falls and the Hill Air Force Museum in Ogden, Utah. The exchanges were very successful and the teens are in the process of planning their next exchange.

Bannock County: In an effort to raise the Pocatello community's awareness of 4-H, Skills Camp Projects were judged and displayed at two of Pineridge Mall's quarterly Community Days. At a third Community Days, an informational display was used to recruit leaders and members. To the delight of several leaders, home economics and miscellaneous project judging and displays returned to the South Bannock Fair after a three-year absence.

This year the county introduced the generic record book and more CCS curriculum to leaders. Home economics project resource kits were developed for leaders to checkout. The self-directed 4-H program increased Bannock County 4-H enrollment again this year.

An informal partnership was formed with Idaho State University's FCS Department to provide college students with youth development opportunities. One intern and two skills camp teachers were recruited. master gardener volunteers taught youth gardening in a self-directed format. This was a successful coalition from two different Extension programs. To enhance volunteer involvement in 4-H, a leader recognition program was instituted. Members, leaders and parents were encouraged to nominate leaders from their project subject areas that they felt had helped youth excel. Nine awards were presented to the outstanding 40H leaders at the awards night held in September.

Bannock County 4-H Leaders Council continues to be a member of the Albertson's Community Partner Card Program. Currently there are 125 cards in use. Volunteer leaders also help with the annual inventory of Pocatello C-A-L Ranch Store. Funds raised support youth scholarships to camp, district, state and national activities. Funds also support leader-training activities.

Bingham County: Extension faculty working with the Bingham County 4-H Advisory Council adopted new bylaws. The 4-H leaders training was resumed with the first semi-annual training session conducted in May.

Bonneville County: During the past year, Bonneville County has promoted 4-H through a display at a conference at EITC and with a presentation at a Family Issues Conference.

Franklin County: This year's efforts were focused on having 4-H more visible in the community. This was done by having a booth at the health fair and by participating in Franklin County's Old Time Christmas Fair. At the Christmas fair the 4-H booth showed 4-H in the past and what is expected in its future. A demonstration of making and pulling taffy was also part of the booth. To reach a new group of youth, the 4-H assistant also took some 4-H projects to the Preston Alternative High School.

Bear Lake County: Because of a lack of 4-H horse leaders, the number of youth participating in 4-H horse programs has dropped. Bear Lake County decided that the solution to the low number of 4-H horse leaders was to do a Horse Project Camp. The day-camp method allowed for seven different meetings to be held on a county-wide basis. Each meeting lasted about three hours and taught a minimum of four different riding or safety skills. Twenty youth were able to participate in the 4-H horse project in Bear Lake County due to the project-camp format.

Bear River Basin Cluster: In September 1997, the Bannock County Extension faculty presented a new format for doing "Self-Directed" 4-H projects with a new record keeping system they piloted in 1998. The Bear River Basin Cluster 4-H team also decided to pilot the new format with a few modifications.

Clark County: The county held their first ever market animal sale, added some school enrichment projects and sponsored four day camps, which tripled the enrollment in 4-H.

Fremont County: A school enrichment program is being worked on. The 4-H assistant taught Idaho history to 4th graders in the fall and spring.

Multi-County: The Eastern Idaho State Fair Dairy Program has shown steady growth. The program allows youth to buy a dairy heifer in the spring and train, feed and care for the animal through the summer. Participants attend workshops that help them learn proper nutrition, selection, handling, grooming and information about the dairy industry. Members who successfully complete the program can sell their heifer at the Eastern Idaho State Fair.

Livestock day camp programs were presented in 11 counties in Idaho, one in Utah and one in Wyoming. This year an evaluation instrument, new teaching methods and materials were developed to help strengthen the entire livestock program.

Fremont, Bonneville, Jefferson and Clark counties: These counties worked with the Idaho Fish & Game to collaborate in offering a 12-hour Wildlife Project Day Camp. Seventy youth and thirty adults attended, taught and/or coordinated this event.

c) Source of Federal Funds – Smith-Lever (3)b&c

d) Scope of Impact – State specific and multi state (see attachment)

B. Stakeholder Input Process

The University of Idaho Cooperative Extension System was engaged in a major, statewide process to gather stakeholder input in 1999, immediately prior to the development of the current five-year plan of work. That process invited and involved Idahoans from across all counties and interests to help determine the priorities of Cooperative Extension. Findings from that effort were used to identify specific customer needs and program expectations and were built into the plan of work as priorities.

In the period since that statewide effort, stakeholder input has been solicited and gathered in a variety of ways. At the state level, the Agricultural Consulting Council meets with Extension administration and College of Agriculture executives and department heads to provide specific recommendations as to program needs and priorities, for both research and Extension. That council is made up of representatives from 63 different (mostly) agricultural-interest organizations. In addition, Extension programs in family and consumer sciences are influenced at the state level through annual meetings with the Family and Consumer Sciences Advisory Council, a group with similar mission and organization as the ACC, made up of representatives of family, education, health science and community-based organizations. All state Extension programs are also influenced by state legislators who provide input through various appropriations, discussions and bills.

Discipline-based programs are influenced by stakeholders at both state and local levels. State groups interested in various commodities work collaboratively with Extension faculty to develop the programs for a variety of educational programs, including cereal schools, beef schools, potato schools, dairy schools, etc. State agencies and commodity commissions affect Extension programming through direct contact with faculty and through grant programs, normally focusing both research and Extension efforts.

At the local level, educators in every county assemble a variety of advisory councils including 4-H leaders' associations and expansion committees, agricultural producer committees, community development committees and FCS advisory committees. Local Extension programs are also influenced by local government, through the various county commissioners who preside over Extension accomplishment and budget hearings and appropriation processes. Annually each Extension educator also provides a formal opportunity for evaluation and feedback from stakeholders, in association with multiple programs.

Stakeholder input is incorporated throughout the development of Extension programs; from problem identification through evaluation.

C. Program Review Process

At the most basic level, all Extension faculty (and all other UI faculty) must develop annual position descriptions that outline their major programs for the year. These position descriptions are subject to merit review at a number of levels, beginning with division leaders and department heads and ending with associate deans and deans. Merit and program success of each faculty member is also thoroughly reviewed throughout the tenure and promotion process by a panel of faculty, at years 3, 5, 10, 15, 20, etc. Further merit review is conducted by review panels charged with specific program responsibilities. These review panels may include commodity interests, other academics, agency personnel and stakeholders. Last year, Extension faculty submitted 45 successful competitive grant applications for state critical issues funding and a similar number of other competitive applications for funding from other sources.

D. Evaluation of the Success of Multi and Joint Activities

Idaho Cooperative Extension System's involvement in multi-state and integrated activities is an integral part of our five-year plan of work. Individual faculty have described their efforts within the confines of the thirteen major program thrusts that form the framework for our planning and reporting process. The thirteen major program thrusts were identified and characterized following a statewide effort to generate stakeholder input. The cumulative total of investment planned in multi-state programming was reported in 2000.

- (1) Did the planned programs address the critical issues of strategic importance, including those addressed by stakeholders? Our efforts during 2000 have directed Idaho Extension resources toward issues of importance to stakeholders. Among the many programs described in section A Planned Programs (above), multi-state examples can be found to address most of the 18 critical issues identified during the statewide stakeholder input process conducted prior to the development of our current plan of work. However, it would be premature to proclaim that our programs have achieved their goals. Much of what we described to be our intended outcomes has yet to be accomplished, as we are not yet half-way through our plan of work.
- (2) Did the planned programs address the needs of under-served and under-represented populations of the state? Primary under-served populations in Idaho have been identified as Hispanics (<7% of the population), American Indians (1%) and economically disadvantaged persons. Programs that addressed the needs of under-served audiences were both planned and not planned. Among those planned efforts with the greatest influence on under-served residents are EFNEP, Extension Nutrition Program, EIRP and 4-H. Each of these programs directs significant resources to meet identified needs of under-served. Notable accomplishments include the establishment of new EFNEP/4-H clubs (interdisciplinary) and the expansion of traditional 4-H clubs into Coeur d' Alene Reservation communities in northern Idaho. Other planned programs were also re-configured and delivered with the intent of meeting the needs of under-served groups. These include the development and inclusion of a day of Spanish-language sessions at the international potato school (multi-state), establishment of raised-bed demonstrations on the Nez Perce Reservation,

establishment and delivery of non-traditional 4-H programs in Owyhee County and on the Duck Valley Reservation (multi-state).

Another important under-served audience includes small-scale farmers. Multi-state efforts with Washington and Oregon helped reach these groups in both northern Idaho and in the Treasure Valley with a variety of targeted programs including alternative farming and pest alert networks.

Unplanned efforts to reach under-served residents were also initiated to meet needs identified by stakeholders since our statewide input process two years ago. Among these, Idaho Extension has developed and delivered integrated and interdisciplinary programs to teach survival Spanish language skills to our faculty and to teach job-seeking and acquiring skills to Spanish speaking residents.

- (3) Did the planned programs describe the expected outcomes and impacts? Idaho Extension faculty and staff and the entire organization, are realigning into more outcome-focused approaches to program planning and documentation. As we undergo this transition, there is diversity in the quality and value of the outcomes described for different planned and unplanned programs. A number of the specific outcomes identified in the plan of work are measurable and sufficient. In other areas, new approaches to accountability are being explored and implemented. In most cases, multi-state activities describe outputs of collaboration rather than intended outcomes. Examples of such planned multi-state outputs include workshops, publications, conferences, databases and curricula.
- (4) Did the planned programs result in improved program effectiveness or efficiency? Collaborative efforts helped Idaho CES achieve efficiency and effectiveness, especially in the area of product development. Multi-state collaborations allow diverse faculty to combine skills, talents and resources to develop tools useful to each collaborator and their in-state colleagues. A notable multi-state collaboration to deliver education about feeding young children in group settings enabled University of Idaho to reach tens of thousands of learners at a distance, thereby reducing the per learner cost of the training to a fraction of what any state could accomplish on its own. Our involvement with the PNW publications effort enables Idaho, Washington and Oregon to develop regional products that meet the needs of multiple states, eliminating inefficiencies associated with duplication and reducing the per unit cost of production.

E. Multi-state Extension Activities

Multi-State activities – Idaho FY 2000

University of Idaho Cooperative Extension System: multi-state projects, investments and partners.

First Name	Middle Name	Last Name	Organization Name	Project Title	% of time on Multi-state	Salary/Bene \$/ Multi-state	Other \$ to Multi-state	Other States
[REDACTED]						\$0.00		
						\$0.00		
					10%	\$7,209.78	\$1,195.35	All US states except CT, HI, MA, MS, RI, VT
					2%	\$1,441.96	\$0.00	OR, CO, HI, CA, UT, WA
					2%	\$2,014.37	\$0.00	OR, WA
					5%	\$5,035.93	\$0.00	OR, WA
					10%	\$10,071.86	\$2,000.00	OR, WA
					5%	\$5,035.93	\$1,000.00	MD, NE, OK, CANADA
					6%	\$6,043.12	\$2,000.00	WA, OR, NV, MT

		\$0.00		
	5%	\$2,852.76	\$250.00	WA
	10%	\$5,705.52	\$300.00	WA
	2%	\$1,141.10	\$100.00	WA, OR
		\$0.00		
	2%	\$1,545.26	\$600.00	All western region states & US Pacific Island protectorates
	2%	\$1,545.26	\$0.00	OR, WA
	2%	\$1,545.26	\$600.00	CA, OR, WA, UT
		\$0.00		
	5%	\$3,286.73	\$0.00	NM, OR
	25%	\$12,494.91		MO, WI, FL, WA, NH, NV, UT, OR, CA, AR, PA, IL, VT
	25%	\$12,494.91		KS, MO, GA, MA, NJ
	5%	\$2,498.98		ALL 50
		\$0.00		
	20%	\$12,854.07	\$3,000.00	WA

	10%	\$6,427.03	\$1,085.00	OR, WA
	1%	\$562.03	\$0.00	WA, OR
	2%	\$1,142.70	\$150.00	MT
		\$0.00		
	3%	\$1,804.31	\$444.00	WA, MT
		\$0.00		
	1%	\$688.23	\$0.00	OR
	6%	\$4,129.38	\$0.00	OR, WA
	2%	\$1,376.46	\$0.00	OR
	0.5%	\$344.12	\$0.00	OR
	1%	\$688.23	\$0.00	OR
	1%	\$688.23	\$0.00	OR
	2%	\$1,376.46	\$0.00	OR, WA
		\$0.00		
	8%	\$8,494.12	\$932.00	AZ, CA, CO, HI, MT, NV, NM, OR, UT, WA, WY
		\$0.00		

		\$0.00		
		\$0.00		
	5%	\$3,276.08	\$0.00	OR, WA
		\$0.00		
		\$0.00		
	2.5%	\$1,248.67		AZ, WI
	2.5%	\$1,248.67		CO, OR
	0.75%	\$374.60		MO, WI, FL, WA, NH, NV, UT, OR, CA, AZ, PA
	2%	\$998.93		IN, MA, PA, WI, IL, GA, NC
	1%	\$773.69	\$683.00	WA, OR
		\$0.00		
	7%	\$9,344.49	\$1,000.00	WA
		\$0.00		
	8%	\$1,946.75		AZ, CA, COL, UT, NV, NM, WY, OR, MT
	7%	\$1,703.40		OR, WA
	5%	\$1,216.72		CO, TN, FL, HI, NY, KY, CA, CT, MO, TX, VT, MS, VA, IA

	5%	\$1,216.72		MD, PA, OK, KY, AZ, TN, AK
	3%	\$730.03		WA
		\$0.00		
		\$0.00		
		\$0.00		
	5%	\$4,531.40		WA, OR
	5%	\$4,531.40		WA, OR
	10%	\$9,062.81		WA, OR
	5%	\$4,531.40		CA, CO, OR, WA, AZ
	2%	\$1,812.56		UT
		\$0.00		

		\$0.00		
		\$0.00		
	2%	\$1,870.07		MT, WA, CA, UT
	1.5%	\$1,402.55		AK, WA, OR, CA, ID, NV, AZ, UT, MT, WY, CO, NM
	3%	\$2,805.10		CA, WA, AK, AZ, OR
	1.5%	\$1,402.55		WA, CA, AK
	1.5%	\$1,402.55		TX, OK, AR, LA, KY, TN, NJ, AL, VA, NC, SC, GA, FL
	6%	\$6,424.90	\$600.00	OR, WA
	6%	\$6,424.90	\$1,600.00	NJ, VI, SC, MI
	2%	\$2,141.63		All 50 states

	4%	\$4,283.27		NH
		\$0.00		
		\$0.00		
	6%	\$4,731.62	\$975.06	WY, UT, MT, NV
	5%	\$3,104.36	\$2,200.00	OR
	2.2%	\$1,847.97		CA
	3.5%	\$2,939.96		OR, WA
	3.7%	\$3,107.95		11 western states
	10%	\$8,399.87		National
	7.5%	\$6,299.90		MT, WA, Canada
	10.0%	\$6,706.59	\$285.00	AZ, CA, CO, MT, NV, NM, OR, UT, WA, WY
	5%	\$3,137.64		MT, OR, AK, WA, CA, NV, UT, AZ, WY, CO
	3%	\$1,882.58		WA, OR
	2%	\$1,255.06		WA, OR
		\$0.00		

		\$0.00		
	9%	\$6,912.92	\$401.12	WA, OR, CA, NV, UT, AZ, NM, MT, CO, HI
	13%	\$9,985.33	\$900.23	WA, OR, MT, WY, UT, CO, ND, SD, NE, KS, OK, TX, MN, IA, MO, AR, MS, MI, KY, TN, GA, VA
	2%	\$1,536.20		WA, NV, MT, UT, CO, AZ, MN, CA, OR, WY
	2%	\$1,536.20	\$451.36	WA, NV, MT, UT, CO, AZ, NM, CA, OR, WY
		\$0.00		
		\$0.00		
	5%	\$3,391.90	\$14,902.00	WA, OR
		\$0.00		
		\$0.00		
		\$0.00		
	2%	\$1,218.85		WY
		\$0.00		

	1%	\$659.74	\$139.92	UT, CO
	20%	\$13,194.85	\$3,011.06	OR, NV, NM, UT, WY, CO, WA, CA
	5%	\$3,298.71	\$349.67	WA, OR, CA, AZ, NV, MT, NM, UT, WY, CO, ND, SD, NB, MO, TX
		\$0.00		
	5%	\$2,630.45	\$300.00	UT, WY
	1%	\$552.45	\$600.00	AZ, CA, CO, HI, MT, NV, NM, OR, UT, WA, WY
	5%	\$3,381.25		WY, MT, UT
	3%	\$2,277.95	\$500.00	OR, MT, WA, CA, AK, Canada
		\$0.00		
		\$0.00		
		\$0.00		
		\$0.00		
	10%	\$10,460.57	\$2,603.00	NV

		\$0.00		
	5%	\$3,233.48	\$0.00	CO, OR, WA
	5%	\$3,233.48	\$1,000.00	CO
		\$0.00		
	1%	\$455.80	\$161.47	WA, OR
	0.5%	\$250.66		WA, OR
	5%	\$4,114.74	\$2,000.00	WA, OR
		\$0.00		
		\$0.00		
		\$0.00		
		\$0.00		
		\$0.00		
	5%	\$2,140.57		WA, OR
	3%	\$1,653.35	\$3,000.00	WA, OR
		\$0.00		
	1%	\$568.42		WY, MT
		\$0.00		

		\$0.00		
		\$0.00		
		\$0.00		
	1%	\$454.74		OR
	3%	\$1,364.21		OR
	10%	\$9,723.08	\$9,800.00	OR, WA, AK
		\$0.00		
		\$0.00		
		\$0.00		
	1%	\$627.53		WA, OR
	3.5%	\$2,196.35		WA, OR, WV, AS
	2%	\$1,255.06		WA
	4%	\$1,771.03		WA

	4%	\$3,795.52	\$450.00	WA, OR
	4%	\$3,795.52	\$864.22	AK
	5%	\$4,744.40	\$664.31	CO & Nat'l Offices AFT
	1%	\$948.88	\$0.00	NM, OR, NV, CO, UT, WY
	5%	\$4,266.50	\$2,500.00	CT, MA, MI, NY, NC, VA
	2%	\$1,706.60		OR, WA, CA
	7%	\$5,973.09	\$6,500.00	CO, FL, IL, MN, NY, OH, OR, PA, WI, WA
	5%	\$3,525.02	\$350.00	AZ, CA, CO, MT, NV, NM, OR, UT, WA, WY, HI
	10%	\$7,050.04	\$5,000.00	OR
	2.5%	\$1,918.26	\$750.00	WA, OR, UT, ND, WY, CA
	15%	\$11,509.56	\$1,000.00	UT, WA, OR, WY, CO, NB, KS, OK
	10%	\$7,673.04	\$1,500.00	WA, OR, CA, MT, WY, UT, NM, AZ, TX, OK, KS, NB, ND

	1%	\$767.30	\$300.00	MT, NV, UT, OR
	1%	\$767.30	\$2,000.00	AZ
	5%	\$3,836.52	\$600.00	OR, WA
	2%	\$961.66		OR, WA, WY, MT, UT, NV, NM, CA
	8%	\$4,055.37	\$3,164.00	WY, NB, IA, UT
	15%	\$15,291.49		43 states
	10%	\$10,194.33		All 50 states
	3%	\$3,058.30		All 50 states
	2%	\$2,038.87		16 states in western region
	10%	\$7,715.64	\$3,200.00	IA, VA
	30%	\$23,146.91	\$16,100.00	MT, WA, OR
		\$0.00		
	5%	\$2,987.21	\$456.00	AZ, CA, CO, HI, MT, NV, NM, OR, UT, WA, WY

	20%	\$13,982.92	\$0.00	OR
	20%	\$13,982.92		OR
		\$0.00		
		\$0.00		
		\$0.00		
	1.2%	\$969.33		UT, CO, TX, AZ, NM, CA, OR, WA, NV
	1.9%	\$1,534.77		UT, CO, TX, AZ, NM, CA, OR, WA, NV
		\$0.00		
	10%	\$6,355.15	\$5,000.00	ND
	5%	\$3,177.57	\$1,500.00	MN
	5%	\$3,177.57	\$18,000.00	MN
	15%	\$8,162.92	\$0.00	MT, UT, WY

	5%	\$2,735.62	\$1,600.00	OR, NV, IA
	1%	\$657.88		CA, CO, HI, GU, OR
	2%	\$1,315.76	\$576.46	National
	3%	\$1,973.64	\$0.00	WA
	6%	\$3,947.27	\$87.68	WA
	8%	\$5,263.03	\$1,004.56	US and Canada
	25%	\$16,446.98	\$301.93	WA
	2%	\$1,111.82		UT
	5%	\$4,388.97		OR, WA, WV, AS
	8%	\$5,867.93	\$1,725.00	AZ, CA, CO, HI, OR, MT, NV, NM, WY, UT, WA
	18%	\$13,202.84	\$3,350.00	OR, WA
	4%	\$2,933.96	\$1,080.00	All 50 states

	0.5%	\$260.65		WA, OR
	5%	\$2,599.83	\$160.50	WA, OR
		\$0.00		
	5%	\$2,494.67	\$630.00	WA, OR, CA, UT, WY
		\$0.00		
	2%	\$1,541.53	\$1,000.00	43 states w/ active state climatologists
	1%	\$618.74		WY, MT
	1%	\$618.74	\$150.00	WA, OR
	2%	\$1,237.48		WA, OR
	2%	\$1,237.48	\$500.00	UT, GU, NV, WY, MT, AZ, NM, CO
	2%	\$935.57		OR
		\$0.00		
		\$0.00		
	20%	\$18,732.65	\$5,000.00	MT, OR, WA
	10%	\$9,366.32	\$5,000.00	OR

	25%	\$23,415.81	\$1,200.00	CO, MO, NB, NV, NM, OR, TX, UT WA, WY
	5%	\$4,683.16	\$350.00	AZ, CA, CO, MT, NV, NM, OR, UT, WA, WY
		\$0.00		
		\$0.00		
	1%	\$990.68	\$0.00	OR, WA
	3%	\$2,972.04	\$0.00	ND, CA, MO
		\$0.00		
		\$0.00		
		\$0.00		
		\$0.00		
		\$0.00		
		\$0.00		
		\$0.00		
		\$0.00		
	10%	\$6,789.12	\$400.00	WA, OR, MT
2%	\$1,357.82	\$60.00	WA	
1%	\$678.91	\$110.00	WA	

	1%	\$678.91		WA
			\$0.00	
			\$0.00	
			\$0.00	
			\$0.00	
			\$0.00	
	20%	\$12,667.70	\$4,679.78	GA, NC, UT, NV, New Zealand
	5%	\$3,166.92	\$141.95	WA, MT, OR
	1%	\$633.38	\$141.95	WA, MT, OR
	5%	\$3,166.92	\$500.00	17 Western States, Canada, Mexico, Australia & several other nations.
			\$0.00	

	10%	\$7,362.05	\$1,500.00	WA
	2%	\$1,355.69	\$604.00	NM, NV, CA, WA, GU, CO, MT, WY, AZ, WI, HI, UT, OR, Micronesia
	6%	\$4,067.08	\$166.00	WA, OR
			\$0.00	
			\$0.00	
			\$0.00	
	1%	\$525.82	\$100.00	WA
	1%	\$525.82	\$100.00	WA
	1%	\$760.65	\$0.00	OR, WA,
			\$0.00	
			\$0.00	

	15%	\$13,310.67		OR, MT
	3%	\$2,662.13		
	2%	\$1,774.76		OR, WA, UT, CA
	20%	\$13,391.87		NV, OR, WA, WY, NB, WI, CA
	5%	\$3,347.97		WA
	10%	\$6,695.94		OR, WA, CA, CO, NB, WY
	6%	\$2,825.87	\$900.00	WY, UT, NV, MT
	2%	\$941.96	\$500.00	WA, OR, MT, UT, CA, AK, Canada
	2%	\$937.70	\$1,980.00	OR, WA
	25%	\$10,882.56	\$3,000.00	OR, CO, HI, CA, UT, WA
			\$0.00	

						\$0.00			
					4%	\$0.00	\$0.00	WA, OR	
						\$0.00			
					8%	\$5,385.34		OR, WA, MT, UT, NV, NM, AZ, CA, CO, HI, AK, WY	
					5%	\$3,346.64		OR, WA, CA, NV, AZ, UT, MT, WY, NM, CO, AK, HI	
					2%	\$1,338.65		OR, WA	
						\$0.00			
						\$0.00			
						\$0.00			
					1.25%	\$596.38	\$75.00	AZ, CA, CO, MT, NV, NM, OR, UT, WA	
					10%	\$5,987.74	\$323.37	WA	
					7%	\$3,855.95	\$500.00	CO, OR	
						\$0.00			
						1080%	\$772,378.73	\$170,515.95	

Ed Bechinski participates in the following multi-state projects:

1. WCC-69. Activities with the WCC include a. Chair, 2001 -- assisted 2000 Chair Ray William to author and submit a renewal petition for the regional project -- critiqued/reviewed FY01 RFP - - planning agenda & making local arrangements for up-coming annual meeting 9-10 April 01. Collaborating States: AZ, CA, HI, ID, MT, NM, NV, OR, UT, WA, WY and Pacific Basin Territories.

2. 2000 PNW insect control handbook. a. Associate Editor, 2001 Handbook; b. author, 2001 sugarbeet insect control -- updated insecticide use recommendations -- incorporated new IPM advice about scouting and thresholds. States collaborating include Idaho, Oregon, Washington .

3. PNW insect management conference. a. participated in 2-day conference b. presented oral paper about insect pest management. Participating States: CA, ID, OR, UT, WA.

Craig Baird contributed to a multi-state project focused on Bee Poisoning. Our Current bee poisoning publication is a 1999 or newer version so we have only begun a revision, although there is new pest efficacy data and bee toxicity data toward a new one. ID, WA.

Progress was made toward another PNW Handbook. My contribution to the new 2001 version of the handbook was to revise the sections on insects of field corn, silage corn, popcorn and sweet corn. Many cooperating states: WA, OR, ID, mainly.

Idaho entomologists participated with the Entomology Society Handbook on Forage Insects: Dr. Baird prepared sections on 3 pests and 3 pollinators to be included in the book and sent them to the team leader. All states will benefit although the editors are from Maryland, Oklahoma, Nebraska, Idaho and Canada. We are now in the review process for all sections of the handbook. First draft is due to ESA by fall of 2001.

Integrated Pest Management on alfalfa grown for seed is a multi-state effort in which Idaho participants (1) made presentations to the Agronomy Society of America, Lygus Bug Summit, Alfalfa Seed Growers reviewing our results with biological control of Lygus using a newly discovered parasite. We are in the 5th year of this effort and continue cooperating with Washington, Delaware (USDA, Oregon, California and most recently Wyoming. We serve on the graduate committee of a PhD student at WSU who is researching this parasite. We are cooperating with a private consultant who is surveying several areas of Idaho to determine how wide spread the Lygus parasite is. We have made an additional release of the parasites in Idaho alfalfa. (2)We have evaluated an additional 4 experimental insecticide compounds that are safer than traditional insecticides to determine how well they fit in an IPM program. (3) I currently serve as the chairman of the search committee to select a new IPM faculty member. We are in the interview stage. (4)I meet periodically with the alfalfa seed grower organizations to offer guidance and recommendations concerning pesticide and IPM matters. (5) I have begun a

revision of our Current Information Series 231 on insect control recommendations for alfalfa grown for seed which includes IPM and biological control recommendations. (6) Forage insect handbook listed above is IPM oriented.

Dave Barton participated in the following three projects.

1. Clearwater Direct Seed Group. Collaborating States: Idaho (five counties) and Washington (three Counties) Progress: Attendance to meetings has increase 50% this year (to about 30 per meeting). Growers from seven counties in Idaho (Latah, Nez Perce, Lewis and Clearwater counties) and Washington (Asotin and Garfield and Whitman counties) attend monthly meetings that are held in a central location (Lewiston, Idaho). We are meeting 5-6 times throughout the winter and will have a summer field tour - most likely taking place in Nez Perce, Asotin and Garfield counties.

The group is becoming more formalized with the idea that there will be opportunities to apply for grants to facilitate additional shared learning opportunities and to promote the direct-seed systems approach to area producers. The group also hopes to be able to travel to other direct-seed system areas such as the world-renowned Dakota Lakes Research Farm on direct-seed cropping systems in South Dakota and the Lethbridge Research Center in Lethbridge, Alberta, Canada. In addition to the monthly breakfast meetings during the winter season, other future plans include informational news articles, field tours and community educational efforts.

Also, five of the growers in the group are now Idaho's directors on the newly-formed Pacific Northwest Direct Seed Association. Breakfast is sponsored by the Nez Perce County Farm Bureau and Farm Credit Services.

2. UI Master Gardener Training. Collaborating States: Idaho (two counties) and Washington (one county) Progress: In 2000, one Latah Co. Master Gardener participant resided in Washington. In 2001, 5 of the 16 total participants are Washington residents. The currently enrolled 16 Master Gardeners will participate in at least 40 hours of service to the community. That translates in to the equivalent of 80, eight-hour work days of public education and assistance.

3. Producing hay to diversify your farm. Collaborating States: Idaho, Oregon and Washington Progress: We are conducting the 2nd annual North Idaho Hay Growers Workshop in 2001. There are no speakers from Washington this year. However, a speaker from Oregon will participate. We anticipate 20-30 growers in attendance, with 25% being from Washington. Growers will learn about selecting varieties, fertilization, harvesting, marketing, export requirements, hidden costs of improperly stored hay and standards/requirements for shipping hay into Canada. Workshop sponsored by UI Latah County. CES and the Idaho Hay Association.

Carol A. Benesh reports progress on the following multi-state projects:

1. A palette of fun with arts & crafts 4-H CCS curriculum. We have completed the pilot/evaluation process in over 22 states and submitted it to 4-H Jury Review. Over 13 states have been involved in the design of the curriculum, as writers, editors, etc. We have submitted the final corrected draft to Northern Design to have the layout completed and sent back to us for review. The curriculum will go to the printers before May. The curriculum will be made available to order for summer use and must be ordered between April 1 and May 1 to receive it. We are marketing the curriculum this spring at CYFAR and NSACA in addition to previous marketing efforts.

VACC-Idaho, Missouri, Florida, Washington State University, University of New Hampshire, University of Nevada Reno, Utah State University, Oregon State University, University of California, University of Arizona, Pennsylvania, Western Illinois University, and the University of Wisconsin-Madison are collaborating on this project.

2. Air Force internships. We are in year two of the project and will be moving from the pilot phase with six Air Force bases to adding approximately 40 new bases to our web site. We are working with land-grant universities across the U.S. (currently six, but will be adding universities as well) to connect them with the Child Development and Youth Internship Program. We have participated in local, state and regional career fairs and national conferences such as NAEYC and NRPA. This is an ongoing project with USDA through the National Child Care Initiative and the Air Force. Idaho serves as the project coordinator and director. The U.S. Air Force, University of Missouri, University of Massachusetts, Rutgers, University of Georgia, University of Idaho and Kansas State University are collaborating.

3. National Childcare Initiative. The National Child Care Initiative participation has been through the Air Force Internship Project and through the Extension conference” - National Roll-Out Conference” that was conducted to present the initiative to all of the land grant Universities. I was a facilitator/presenter at that conference in school age programming.

Marilyn Bischoff is involved with two multi-state projects:

1. Partnership 2020 Hispanic Employment Education Program in Ada County. Extension and EFNEP implemented and evaluated two ten-week (40 hours) workforce preparation training courses for low-income Hispanic adults residing in Ada County. A third session is in progress. A one-on-one workforce prep training program in the homes of Hispanics is ongoing in Power County. The Ada County program provides child care with learning activities to the children of the participants. We shared information about the Ada County workforce program during a concurrent session of the National Extension Association of Family and Consumer Sciences meeting in Baltimore, MD. Both programs were shared at Partnership 2020 meetings in Washington State at summer 2000 and fall 2000 meetings. Partnership 2020 provided funding for the Hispanic workforce training programs. Partnership 2020 members are the U of I, WSU and smaller colleges in WA, ID and Montana.

2. Portland 2001 National Association of FCS Annual Meeting. Ten Idaho members of NEAFCS assisted with promotion of the 2001 Portland NEAFCS Annual Meeting at the October 2000 annual meeting held in Baltimore, MD. Four Idaho FCS educators chair Portland 2001 committees and two educators serve on the Annual Meeting Steering Committee.

Randy Brooks reports progress for the Inland Empire Natural Resource Youth Camp as follows: This is an ongoing program. The camp is held annually near Harrison, ID, on Lake Coeur d'Alene. He is currently a board member for the camp. Board meetings are held monthly, alternating between Spokane, Coeur d'Alene and Moscow. Approximately 65 youth ages 13 to 16 attend the camp each year (held in June). Youth come from Idaho, Washington and occasionally Montana. The Board consists of members from Idaho and Washington, each representing one of the following agencies: University of Idaho Cooperative Extension System, Washington State University Cooperative Extension, Society of American Foresters, The Wildlife Society, Society for Range Management., Soil and Water Conservation Society, Idaho and Washington Conservation Districts and the Washington Society of Professional Soil Scientists. At the present, there are about 28 Board members (three representatives for each agency/entity).

Brad Brown participated in the Treasure Valley seed dealer/elevator annual meeting. This meeting was conducted last September 22, 2000 at Ontario, OR, in conjunction with Ben Simko, Oregon State University Extension educator in Malheur County, Oregon

Bob Carver participated in the Western Extension Regional Middle Managers project. The Western Extension Middle Managers Conference was held in Lake Tahoe in July, 2000 and the committee continues to plan for the 2001 Annual Educational Conference. The planning committee, with representatives from the 13 western states, meets formally twice a year, plus three-four teleconference meetings to discuss issues and challenges that face today's Extension

administrators and educators. The 2001 Western Extension Middle Managers Conference will be held July 17-19, 2001 at the Beaver Run Resort, Breckenridge, Colorado. The conference theme is *Thriving in the 21st Century*, with input from a national and state perspective. Also included are "Tips on Balancing Work and Family", "Alternative Funding Pros and Cons", Legislative Issues in Today's World" and "Marketing and Public Relations". Participants are invited from across the United States. This conference is one of the products of cooperation by Extension Middle Managers representing the western states of: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming.

Chad Cheney participated in the WIRE program, a multi-state effort coordinated with faculty in Wyoming. In December 2000, he participated six days with other instructors to provide a WIRE workshop at Salmon, Idaho. Provided instruction in a variety of areas including tactical planning, principles of profitability and forage production and utilization

In December 2000, faculty participated in a two-day workshop for WIRE instructors to develop a multi-year program for WIRE or similar integrate farm business management program. Subsequently met with instructors in person and by phone to develop a concept of using the "Farm Game" as the "study ranch" giving operators a change to keep record and do financial analysis on a known but changing data set (probably about two days). The team is currently planning a WIRE or other similar integrate farm management program for Lost River Valley. We are developing a WIRE II class and met as a state planning group (15) and a sub committee meeting (7) plus have corresponded on the phone. Included in this planning process are Wyoming, Montana and Utah, with Idaho taking the lead. University of Idaho Cooperative Extension faculty hosted five Australians this summer who were on an international exchange associated with WIRE. They joined us on a river tour in conjunction with a NRCS tour about weeds, environmental issues and progress toward preserving what we call the 12 mile stretch.

Mary Jean Craig reports progress on several multi-state efforts:

1. Public adventures 4-H CCS curriculum training. Mary Jean taught a workshop at Western Regional 4-H Leaders' Forum in Hawaii, March 26, 2000. Co-presented with Lisa Lauxman, Arizona.
2. National Association of 4-H Agents 2000 Conference Planning Committee. Co-chair with Linda Webb of the awards banquet for NAE4-HA. Worked with Colorado and Oregon on the overall planning committee.
3. Visual Arts & Crafts CCS curriculum. In March and April I piloted several activities for the VAC curriculum.
4. National Association of 4-H Agents Public Relations and Information Committee.

At the NAE4-HA meeting in Denver, Mary Jean participated in the Public Relations and Information Committee distinguished Alumni Task Force and was appointed co-chair of this task force. Since the meeting she drafted guidelines for the 4-H Hall of Fame which will be dedicated in April 2002. She worked with people from National 4-H Council, Maryland and Kitty-Sue Schlink, Idaho to develop the guidelines. Others states represented on the task force or committee that working together with Idaho were North Carolina, Florida, Wisconsin, Arizona, Washington, Colorado and Oregon.

Janet Edwards reports involvement in the following multi-state projects:

1. Western Region Teen Leadership Conference. Western Region Teen Leadership Conference was held at Utah State University in Logan, Utah on January 11-15, 2001. Idaho was represented by seven teens and their advisor, Janet Edwards. The Idaho team served as hosts for the Sunday evening banquet in which they presented information about Idaho teen programs. Janet Edwards served as a member of the adult planning team for the conference which included working with the Share Fair activity, planning and organizing Idaho's role as a meal host, supervision of activities with other chaperones, assisting workshop presenters with logistical details. The states that participated were: Washington, Oregon, Idaho, Montana, Utah, Wyoming, California, New Mexico, Arizona, Nevada and Colorado.

2. 2000 PNW Faculty & Staff Conference. Janet Edwards served on the planning committee for the PNW Conference that was held in Portland Oregon, May 15-18, 2000. Janet worked with the program committee that was responsible for workshops. The planning committee was made up of representatives from all three states. The states involved were Washington, Oregon and Idaho.

3. CYFAR Conference Planning Committee. Janet Edwards is a member of the CYFAR Conference Planning Committee for 2000 which was held in Charlotte North Carolina in March 2000 and the 2001 conference which will be held March 22-24 in San Diego, California. Janet is co-chair(with Robyn Caruso of California) of the Interact Committee which is planning and organizing round table discussions as part of the program.

All fifty states and territories are involved in the conference. The planning committee includes representative from USDA, Colorado, Tennessee, Idaho, Texas, Vermont, Mississippi, Virginia, Iowa, Maryland, Washington, Oregon, Massachusetts, South Carolina, West Virginia, South Dakota, North Carolina, Illinois and Alabama.

4. Mini Society. Janet Edwards took a team of six people to Washington DC in January 2000 for training in the entrepreneurial education program (Mini Society) from the Kauffman Foundation in Kansas City. Idaho received a grant to implement the program in several after school programs around the state between spring 2000 and summer 2001. The resources from the program are provided by the Kaufman Foundation. The 4-H programs in numerous states share

implementation and evaluation strategies to help implement the Mini Society in a non formal setting such as after school programs.

Idaho has worked with staff from numerous states to gather input into successful implementation of the program. Ohio, Maryland and Nevada have partnered with Idaho in the process. This partnership is not a formal organized relationship but more one of mentoring.

5. Japanese 4-H Exchange. Idaho participates in the 4-H Japanese Exchange Program that is implemented across the country. Specifically Idaho has worked closely with Washington state to implement the home stay program that brings Japanese youth to spend one month with Idaho families during the summer. In January 2000, Idaho partnered with Washington to hold a "mid-term" event for year long high school students from Japan who were living with families in Idaho and Washington. The event was held in Spokane. In summer of 2000, Idaho partnered with Washington to find host families for Japanese youth in both states. In 2001, the two states will again partner to bring the host families and high school exchange students together for a mid-year event.

Partner states are Washington and Idaho. Oregon also shares resources with both states to help with orientation of host families and guidance in administering the program.

Five multi-state efforts by Dean Falk include:

1. Web-based management information system for the PNW dairy production industries. I have responded to several requests for information in 2000, with no activity occurring recently. I am not aware of the status of this project.

2. 2001 Northwest dairy shortcourse. A successful dairy workshop was completed January 18/19, 2001 in Skamania, Washington. Registration totaled 118 persons, with 106 from Washington, Oregon and Idaho. The remaining registrants were from other states. The program was well received with speakers from across the country and the Pacific Northwest. Idaho will host the 2002 Tri-State Northwest Workshop in March 2002 in Boise. Preliminary plans for the program have been initiated.

3. Nutrient management of dairy and beef operations featuring the feed-to-watershed continuum. Research and Extension faculty from Washington, Oregon and Idaho prepared and submitted this proposed project to the Initiative for Future Agriculture and Food Systems (IFAFS) Competitive Grants Program. This particular project was not funded, however, it did receive a ranking of "High Priority".

4. On-line market cattle food safety education. Progress on this project is moving forward well. Our ultimate purpose is to improve the quality and safety of Western dairy cattle marketed to

slaughter and entering the food chain. Our first purpose is to create the educational segments of a dairy market cattle food safety program that speaks to the dairy producer and herdsman. Our second objective is to create, from the above materials, a continuing education offering to dairy veterinarians and farm advisors and provide the educational tools for them to deliver to their clients. The program will be web based. Team members represent the western US and include: Mike Looper – Arizona, John Marchello – Arizona, Mike Payne – California, Mike Poe – California, Bob Sams – California, Don Klingborg – California, John Kirk – California, Dennis Wilson - CDFR, California, Frank Garry – Colorado, Bill Wailes – Colorado, Dean Falk – Idaho, Don Hansen – Oregon and Jan Busboom – Washington.

5. The effects of altering protein efficiency of lactating dairy cows on the whole-farm nitrogen efficiency of dairy farms. I cooperated with a graduate student from Utah State University in this project. I helped identify appropriate Magic Valley Idaho dairy herds, made original contacts and provided follow-up data. On-site Idaho data has been collected and is being summarized as a part of her graduate program.

Gary Fornshell participates in the following multi-state projects:

1. Development of economical, high-performance low-polluting feeds and feeding strategies. This is a WRAC project. States included are Alaska, Washington, Oregon, California, Idaho, Nevada, Arizona, Montana, Utah, New Mexico, Wyoming and Colorado. This project is in its final year. General responsibilities include advising the project team on clientele needs, what brought about those needs (example: environmental concerns, regulations, etc.) and applying their research/findings in addressing clientele needs. Specific things done since July, include three invited presentations where results of this project were presented – SRAC Effluent Project, Roanoke, Virginia; 62nd Midwest Fish & Wildlife Conference, Environmental Strategies For Aquaculture Symposium (includes a proceeding & abstract), Minneapolis, Minnesota; World Aquaculture Society, Environmental Regulations of Aquaculture: Permitting, Siting and Operating Standards - What's Around the Corner?, Orlando, Florida. Gary spoke to about 250 people (all three meetings) that included researchers, regulators, environmentalists, producers and Extension specialists. He also was invited to write for Fish Farming News, a national trade publication and wrote a column on nutrient-dense feeds of about 1500 words. The issue that had my column was in the registration package at the World Aquaculture Society meeting, attendance between 3500-4000 from all over the world.

2. Aquaculture Extension subcommittee WRAC. Duties include prioritizing research needs within WRAC, review of research proposals and prioritizing those proposals and allocating funding.

3. WRAC fliers. Ongoing project. Wrote two fliers three-four years ago. Currently have one near completion, another about midway done and one on the horizon.

4. Control of IHNV in commercially reared salmonoid fishes. Have \$9,000 grant to develop Extension products, however, the key research components from where the products were going to be developed from weren't completed. During the next couple of months, this project will be reevaluated.

5. Southern Regional Aquaculture Center Project, publications, video and computer software. Fornshell usually receives three to four fact sheets per year to review. Since last July, SRAC sent the following for technical accuracy review, "Pesticides in Farm-Raised Channel Catfish, Rainbow Trout and Red Swamp Crayfish." SRAC states include Texas, Oklahoma, Arkansas, Louisiana, Kentucky, Tennessee, Mississippi, Virginia, North Carolina, South Carolina, Georgia,, Florida, Alabama and the Virgin Islands and Puerto Rico.

Linda Fox participates in the following multi-state projects:

1. Tri-state 4-H Youth and Family Conference. Washington, Oregon and Idaho jointly planned and implemented a tri-state FCS and 4-H conference in Portland, Oregon May 15-18, 2000. Registrations exceeded expectations, over 200 participants from the three states. Keynote speaker Dr. Clara Pratt, Oregon State University opened the conference with "Speaking on the State of the Family" address. Three super-seminars, 16 roundtable topics, 11 workshops and 6 off-site "workshops on the move" made up the conference. The closing session offered 3 hours of multi-state program planning and networking, lead by Arlinda Nauman, University of Idaho, Peter Bloome, Oregon State University, and Sally Horton, Washington State University . Dr. Lyla Houglum, Oregon State University, Dean and Director of Extension, closed the conference with the final challenge to tell our story and market Extension efforts. Plans are underway for a tri-state 4-H conference in 2001 to be hosted by Washington State.

2. Investing for your future curriculum and web site development. *Investing for Your Future* is a complete 11-unit home study course on investing basics. Each unit contains a glossary of terms and suggested "Action Steps" to guide you in accomplishing your investing goals. Topics covered include financial goal setting, basic investment principles such as diversification and "finding" money to invest. Other topics covered are specific types of investments, including stock, fixed-income securities and mutual funds. There also are units that focus specifically on tax-advantaged investing, resources to assist investors and investment fraud. UI faculty Dr. Linda Kirk Fox teamed with Extension colleagues at Rutgers University, University of Michigan, Clemson, Virginia Tech and New Mexico State University and the U.S. Securities and Exchange Commission to produce *Investing for Your Future*.

The 158-page publication is designed as a home study course or to be used as a class "handout" for a six-part series of Extension sponsored workshops. Check with the UI Extension offices for the workshop offerings.

PowerPoint slides with detailed script were developed by the team and distributed on CD-ROM. UI Extension educators received all print materials and CD-ROM at a training in September 2000.

A web version of the same course can be found at { HYPERLINK <http://www.rutgers.investing.edu> } www.investing.rutgers.edu and features an interactive “Ask the Expert” e-mail query to provide answers to individual questions.

The Foundation for Financial Planning grant will expand the IFYF nationally in 2001. The team will develop a study guide, fact sheets and put the presentation materials online. An in-depth training will be offered as a pre-conference at the Association for Financial Counseling and Planning Education in November 2001.

3. High School Financial Planning Program. The HSFPP efforts included training in Idaho with offer to attend extended to Oregon teachers and training in Spokane, Washington, with offer to attend extended to northern Idaho teachers. Cooperation in planning took place for both these trainings. The Idaho Financial Literacy hosted a two-day in-service for approximately 50 teachers in Boise, Idaho called "Financial Smarts for Teachers and Students" using the HSFPP materials throughout. Pre- and post-evaluations and follow up activities with the teachers tracked knowledge gained and new lesson incorporated into their classrooms as a result of the training. Enrollment in the HSFPP has increased to over 1,500 (from 800 the previous year).

4. Extension connects generation Xers and baby boomers with retirement planning. Generation Xers and Baby Boomers present unique challenges in the design of methods to teach retirement planning. Numerous seminars, publications and web sites exist that focus on retirement planning exist. What is unknown is how to most effectively connect retirement education with the Baby Boom Generation and Generation X in a format that they will use and ultimately adopt the skills gained through the education. Before plans are made to provide retirement planning education, it is necessary to learn how to better reach the Baby Boomers and Generation Xers so that retirement planning education is delivered in such a way that it can make a difference in their lives. Our sample is comprised of two groups: 1) professionals working in the field of retirement education and 2) representation from both the Baby Boom Generation and Generation X. The professional group responded to a web survey. The generations gathered into focus groups in Extension sites in New Hampshire and Idaho (Owyhee and Latah counties). There are similarities between the two states: 1.2 million residents, 96% white and rural. The median income for Idaho is \$39,000 and for New Hampshire is \$42,511. The industries for Idaho are primarily agriculture, natural resources and electronics. The top three industries in New Hampshire are high technology manufacturing, tourism and health services.

Survey design was presented at ACCI (American Council on Consumer Interests) in San Antonio in March 2000. Recommendations on how to enhance Extension education efforts in retirement planning were presented at refereed paper sessions in Fall 2000 at Western Region Home Management/Family Economics Educators (WRHM/FEE), Denver and Association for Financial Counseling and Planning Education (AFCPE), St. Louis. The results will be shared with the Cooperative Extension System and will be used in designing retirement planning materials that will motivate each generation to plan for their retirement. The USDA Cooperative State Research, Education and Extension Service funded this project.

Richard Garrard and Ron Thaemert taught a WIRE class on the Duck Valley Indian Reservation at Owyhee, Nevada. This class was taught from March through May of 2000. We are planning on teaching Year 2 of this education program during the same time period this year. This WIRE Program is one that has worked in the following states: Idaho, Utah, Montana and Wyoming.

Gene Gibson reports progress on the following multi-state projects:

1. Panhandle Weed Management Area. The Panhandle Weed Management Area (PWMA) encompasses the five northern counties of Idaho, Lincoln and Sanders counties in Montana, Spokane and Pend Oreille counties in Washington and the East Kootenay District in British Columbia. Our office participated in monthly steering committee meetings to support weed management efforts of the PWMA. Accomplishments for 2000 include: Prepared and distributed 35000 Regional Noxious Weed Brochures; prepared and sent flyers, in local tax notices, emphasizing owner responsibility for weed control and management; prepared and helped man noxious weed displays at five northern Idaho county fairs; sponsored weed identification and an information station at the Idaho Forestry Contest to help increase understanding and awareness of noxious weeds with junior high school and high school students; hosted weed awareness bus tours in Bonner and Boundary counties; and published the PWMA quarterly newsletter.

2. 2000 Pacific Northwest Livestock Judges and Show Management School. This school is a cooperative effort between the University of Idaho Cooperative Extension System, Oregon State University Cooperative Extension Service, Washington State University Cooperative Extension and Department of Animal Sciences.

There were a total of 108 participants representing seven states and one Canadian province. Eighty participants were involved in the judge's track and 28 in the show manager's track. These 108 participants influence an estimated 50,000 individuals each year through youth livestock programs and through their roles as livestock judges, show managers and Extension/vocational agricultural educators. This multi-state cooperative Livestock Judges and Show Management School was held in 1998 and 2000 with another being planned for 2002.

3. Western Regional 4-H Leaders' Forum 2000, Hawaii. Leaders from eleven western states and

one Canadian province participated in this training. Programs presented were: "Livestock Evaluation for Youth Development" "Youth Livestock Systems Approach Training" "Sport Fishing, the Catch of a Lifetime" and "Youth Project Camps, One Week of 4-H Fun For All."

An estimated 75,000 youth will be impacted through participation in these four trainings. Manitoba 4-H Council and Manitoba Agriculture and Foods are following Idaho's lead and will be initiating major changes in their educational approach to the 4-H livestock program. These changes will be piloted by selected 4-H beef clubs in 2000 and implemented province wide in 2001.

4. NACAA Western Regional Director. Serve on the national board of directors for NACAA representing and conducting business as a representative of the eleven western states. Served the last year of a four-year term with NACAA. Conducting and planning the Western Regional Leadership Conference in Tucson, Arizona, conducting the annual Western Region State Presidents Workshop held at the national meeting in Jackson, Mississippi and serving and conducting all other business as deemed necessary by the national president of the association.

5. North Region Youth Animal Science Education Conference and Sheep Field Day 2000. University of California Cooperative Extension, Colusa, California. Prepared and presented two programs and led one discussion group: "Transforming Youth Livestock Education Programs;" "Production-Based Youth Livestock Shows" and "Straight Talk from the Trenches." Presentations were given to approximately 400 youth, parents and volunteer leaders at a two-day conference. We have continued our involvement with California in establishing this important youth development program. We are consulting with and providing program support to Bill Dale, Chief Executive Officer of the State of California 20th District Agricultural Association, with this effort.

Benton Glaze continues to serve as a member of the Western Beef Resource Committee. Responsibilities include the review of new and revised fact sheets. Currently serve on sub committee that is exploring CD- ROM and Web versions of the Cow-Calf Handbook. Glaze has contributed as an author and plans to do so in the future. States participating: Arizona,, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming.

Brief Statements of Progress of multi-state efforts submitted by Jeff Goodwin include:

1. 4-H Shooting Sports Workshop. The national workshop conducted in Donnelly, Idaho in August of 2000 had 100 participants from 17 states in attendance. Post-workshop multi state activity includes the cooperative nature of 4-H Shooting Sports Programs of states in our immediate area. Idaho, Oregon and Washington are adopting similar 4-H Shooting Sports

instructor certification requirements to enable the three states to attend state-level trainings offered in all three states and have that training recognized in all three states.

The first implementation of this effort came in November of 2000 as the 4-H Shooting Sports Training in Lewiston was held. There were four volunteer leaders from Washington and four Volunteer leaders from Oregon in attendance at the training, along with 14 from Idaho. The next Idaho training will be in May in the Boise area and we are expecting several leaders from Oregon to attend.

2. PNW Livestock Judges Training. Idaho, Oregon and Washington continue to share judges for county fairs that utilize the Systems Approach of Livestock Evaluation. The judges training in 2000 gave a larger pool of judges in the three state area from which to draw. University of Idaho and Washington State University are finalizing a new judges list to share with Extension offices in the three states.
3. 4-H Sportfishing Project Training. As leader-training opportunities for this project are conducted in Idaho, Extension offices in Oregon, Washington, Montana and Utah are notified. The next such training is planned for April 14 in Boise, Idaho and we anticipate participants from Utah and Oregon.

Wilson Gray is active with the following multi-state projects:

1. Western Beef Resource Committee. The WBRC is a loosely knit group of county Extension faculty and specialists from most of the western states. The primary function of the group is the annual review and modification of the Cow-Calf Management Guide. Neil Rimbey and Wilson Gray have been involved with this committee for a number of years. A number of other specialists and Extension educators within our system also participate. Several articles were updated this past year and the entire book was put on CD ROM.
2. Livestock Marketing Information Center. The LMIC's primary function is to support situation and outlook activities related to cattle and feed grains in participating (23) states. Resources from LMIC have been used in several Situation and Outlook articles this fall and winter and the bi-weekly newsletter "Livestock Monitor" is distributed to counties and other interested faculty and livestock industry parties.
3. Western Farm Management Extension Committee. The WFMEC and the Western Extension Marketing Committee merged at the latest meeting. WEMC and the LMIC (above) have been working on an update of the publication "Managing for Today's Cattle Market and Beyond" that will be available later this year.

4. Western IRM – SPA. This NCBA sponsored group is working on data analysis for determining Critical Control Point factors (CCP's) for production and financial management of western beef operations.

Stephen Guy has worked with field trials in Idaho and Washington, conducted in 2000. This work evaluated dry pea and spring wheat varieties under direct seeding and in a replicated experiment comparing no-till and conventional till variety performance. There were interactions and performance differences between the tillage treatments and among varieties. This is new information not previously available to growers and is being featured at six or more crop schools drawing growers and other ag professionals from the region. This information also appears in several progress reports being distributed in the region and available on the WWW. This should enable growers to make better variety choices depending on the tillage systems they are using.

Ken Hart serves as an associate member of the Western Farm Management Extension Committee, to provide input for program planning and development through our state's regular committee member, Paul Patterson. The committee's actions have resulted in an area farm financial management training every other year. The next training should be in calendar year 2001 and Idaho will continue to provide input as this is developed.

Bill Hazen participated in PNW Forage Workers Project that reviews forage programs in Idaho, Washington, California, Oregon, British Columbia, Alaska and Alberta. Yearly meeting (2000 in Vancouver, British Columbia.) to review forage programs. Idaho is conducting demonstrations on affects of moisture in one-ton hay bales. We have completed all the trials on annual forages with PowerPoint Presentation completed. Annual forages will play a big role in this year's short irrigation water year. PNW Forage Workers have agro-eco zone grass trials in all locations except Idaho. Glen Shewmaker's work in afternoon cutting of hay will impact all the northwest both from a hay production standpoint as well as an animal production standpoint.

Dan Hinman participated in two multi-state projects:

1. Inside Beef-Ranch to Rail risk management. This a joint Idaho-Nevada program. Ron Torell, Extension livestock specialist, Elko, Nevada and Hinman are the leaders of the effort. We currently have about 350 head of cattle on feed in feedlots in Idaho. These cattle are owned by individuals in both Nevada and Idaho and we are teaching risk management as it is related to cattle feeding. There are approximately 45 producers in Idaho and 55 producers in Nevada participating in the 2000-2001 program. Classes are taught monthly in several locations in Idaho and Nevada. This program will continue until the summer of 2001 and will most likely be repeated next year.

2. Managing and Marketing cull cows through retained ownership. In 2000 a group of cull cows were placed in an Idaho feedlot. Economic, carcass and feeding data were collected and presented in the winter of 2001 to producers in Idaho (55) and Nevada (500).

Pamela Hutchinson participated in several multi-state projects that are intended to improve weed management practices and technologies in potatoes. Progress in laboratory and field trials has been made in a multi-state study of herbicide efficacy and potato tolerance study: flumioxazin, with: Colorado, Oregon and Washington. The purpose of the project: To determine weed control and crop tolerance to a new herbicide being developed for use in potatoes in a multi-state area: Colorado, Idaho, Oregon, Washington. The University of Idaho faculty member is directing one efficacy and one tolerance trial at the Aberdeen Research and Extension Center, Aberdeen, Idaho and has been involved in developing the protocol for herbicide rates and data collection.

A second effort by Dr. Hutchinson involves a multi-state growth regulator study for Apogee, in collaboration with Colorado. The purpose of the project is to determine effectiveness of Apogee for tuber size regulation in Russet Norkotah potatoes in a multi-state area: Colorado and Idaho. For this project, Dr. Hutchinson is directing one trial at the Aberdeen Research and Extension Center, Aberdeen, Idaho and is also involved in developing the protocol for rates and data collection.

Shelly Johnson has been involved with two multi-state activities.

1. National Extension Association of FCS National Conference 2001 Planning Committee. Collaborating States: Oregon, Washington and Idaho. Update: An informal meeting took place between Shelley Thorpe, Lorie Later, Marilyn Bischoff, Joey Peutz and Shelly during Mini-conference regarding the upcoming national conference for NEAFCS in Portland. Shelly has been developing an agenda and invitations for the 1st Timers Event and to research gift options to be given out during this time.

2. Tri-State FSNEP/EFNEP Conference Planning Committee. Collaborating States: Oregon, Washington and Idaho. Update: The Tri-State FSNEP/EFNEP Conference took place on June 13-15, 2000. Based upon evaluations, this was a very successful conference.

Tom Karsky reports progress on the farm safety series that has been completed. The series was in cooperation with Oregon, Washington and Idaho. A set of 15 publications were produced and distributed in the three states. These are available as print masters, CD-ROMS and on the web. Both English and Spanish versions were produced. We may add to the publications as interest in additional topics occurs.

Another multi-state project has been fly-ins where agricultural aerial applicators fly into a site and we test aircraft for spray patterns. Last year we conducted one fly-in in Idaho and two fly-ins in Washington. About 30 pilots and operators attended the fly-in in Idaho last spring and 58

pilots and operators attended the fly-in in Washington last fall. The Washington fly-ins were sponsored by Monsanto and an Extension agricultural engineer from North Dakota brought their equipment for analyzing droplets to the fly-in that compliments the system for analyzing patterns that we have.

Rhea Lanting reports that the Extension Nutrition Program Tri-State conference was completed in June 2000. Cammie Jayo (ENP coordinator District III) and Lanting were in charge of coordinating the roundtable discussions on the first day. There were eight different groups, each session lasted 20 minutes and was repeated four times. Sessions included: Working with Single Parent Families, Working with Low-Literacy Groups, Working with Hard-To-Reach Audiences, Working with Youth, Working with Hispanics, Working with Families with Limited Resources, Working with Clients with Diabetes and Working with the Elderly. Sessions were facilitated by group leaders from Oregon, Washington and Idaho. Participants rated the sessions from very good to excellent. They also rated the organization of the sessions as excellent.

Audrey Liddil reports on the WIN the Rockies Project that received the \$4.3 million grant for a health improvement project to work in the states of Wyoming, Montana and Idaho. Wyoming was the lead state and we have hired an over-all coordinator for the project and an over-all education specialist for the project. All three states are in the process of hiring a state coordinator for their state. In Idaho we have had 37 applicants and the search committee is working on these at this time. The search committee is Martha Raidl (Chair), Audrey Liddil, Mike Laskowski, Stuart Parkinson and Lynn Harris. We have identified two communities that we will be using for our project in Idaho. Preston, Idaho will be the intervention community and American Falls, Idaho will be the comparative community.

The 4-H Cooperative Curriculum System. Linda Webb, Carol Benesh and Maureen Toomey, all from the Idaho state 4-H staff, are involved in design teams to develop 4-H curriculum as part of the 4-H CCS System. The 4-H Visual Arts and Crafts curriculum is in the final stage of piloting and will be off the press in May and ready for use in summer programs.

The Leadership Curriculum Design Team, chaired by Linda Webb, has just begun work and will not have a completed project for two years.

Sandy McCurdy and Joan Parr have identified involvement in a multi-state project "hosting" Germ City (an interactive hand-washing experiential educational booth) at the Cassia County Fair this August. Results from this pilot will be provided to faculty in Washington who are developing the curriculum. In addition, they have worked in reviewing needed revisions for the Master Food Preserver/Food Safety Advisor Handbook. The actual revisions will be done next fiscal year.

Sandy also reports on the following multi-state efforts:

1. PNW 397 Drying Fruits and Vegetables. Project completed April 2000. Idaho, Washington and Oregon
2. Bridging the Gap: Food Safety Education. Project not funded. Idaho, Washington, Oregon, West Virginia and American Samoa.
3. Annual Food Safety Farm to Table Conference. Project on-going. Conference is held annually in May. This year's conference is the 9th and will be held May 30-31, 2001. Idaho and Washington.

Neil Meyer reports progress on the following multi-state efforts.

1. Idaho's Vanishing Vista's. This project was completed in August 2000. It was a joint project with American Farmland Trust Western Office in Denver, Colorado and Idaho Resource Conservation and Development Association. At this point no further effort is being planned.
2. Western Public Lands. This project is being headed for Idaho by Neil Rimbey. The center is up and running. They are funded for two years and are dealing with issues effecting public land use.
3. Asian Flue-Effect on Northwest Aquaculture. Meyer is the process of writing the final report for this Farm Foundation Funded project which will be completed in March, 2001.

Patrick Momont participates on the Western Beef Resource Committee (WBRC) which met in February and agreed to provide the Western States Cow-Calf Management Guide and Cattlemen's Library, as an electronic resource, to ADDS (Agricultural Databases for Decisions Support). This is one of the largest single enhancements to the National Beef Web Database. In addition, the WBRC will oversee the gathering of individual state-based information to incorporate into the national beef database.

The WBRC group reviewed each manuscript in the 1999 manual and provided input on revisions and updates. The 2000 manual is now available as a hardcopy text, CD-ROM digital version with search capabilities, as part of the national beef database and on a subscription web site version. The 2000 manual has recently expanded and includes a section on beef quality and safety. An annual review is scheduled for late February, 2001 with county, area and state university faculty from the 12 western states, serving as the peer reviewers.

Don Morishita participates in the following multi-state projects:

1. Weeds of the West Revision Committee Meeting. A revised edition of the Weeds of the West book has just recently been published. Washington, Oregon, Utah, California, Wyoming, Colorado and North Dakota.

2. Integrated Management of Jointed Goatgrass. This project is ongoing and will terminate in 2002. Washington, Oregon, Utah, Montana, Wyoming, Colorado, Nebraska, Kansas and Oklahoma.

3. Western Society of Weed Science Meeting. This is an annual meeting to present and discuss findings from weed science research and Extension. The next meeting will be held in March in Coeur d'Alene. Hawaii, Washington, Oregon, California, Arizona, Montana, Wyoming, Utah, Colorado, New Mexico, Texas, Oklahoma, Kansas, Nebraska, North Dakota, and Alberta, Canada.

4. Bureau of Land Mgmt Integrated Pest Mgmt Training Program. Morishita was invited to present a lecture on soil-applied herbicides to BLM personnel at one of their annual training meetings. Montana, Utah, Nevada, Wyoming, Oregon, and Washington.

5. Vegetable Crops Short Course. Morishita was invited to present a lecture on managing for herbicide resistant weeds in cropping systems at a summer seminar series for agricultural professionals. Arizona.

6. PNW Weed Control Handbook. This is an annual publication that I collaborate on with several other weed scientists in Oregon and Washington. Responsibilities have been the chapters that cover weed control in barley, spring wheat and dry beans.

Eric Morrison participates in the multi-state effort: Western Beef Resource Committee Cow-Calf Management Guide Annual Review. The states involved are: Idaho, Washington, Oregon, Montana, Wyoming, Nevada, Utah and New Mexico. California and Arizona at times have also participated in the review and revision process.

Rick Norell is active with the following projects:

1. Western States Large Herd Management Conference. The Western States LHM Conference has been planned for April 4-6, 2001 in Las Vegas. The committee has met to establish the agenda, identify speakers and set up promotional activities. States involved: Washington, Oregon, California, Arizona, New Mexico, Utah, Idaho, Montana, Wyoming, Colorado, Oklahoma, Texas and Kansas.

2. Western States Dairy Specialists Conference. The Western States Dairy Specialists Conference was held last summer. A western states newsletter is under development and will

begin this spring. States involved: Washington, Oregon, California, Arizona, New Mexico, Utah, Idaho, Montana, Wyoming, Colorado, Texas and Kansas.

Arlinda Nauman currently serves as the administrative liaison to the 4-H CCS Steering Committee, which requires two face-to-face meetings annually and monthly conference calls. We spend five days a year in face-to-face meetings, a minimum of 36 hours a year on conference calls and a minimum of 12-15 days a year writing and reviewing reports and draft curriculums. In addition to her administrative liaison role, Dr. Nauman serves on the board of directors for 4-H CCS which requires two face-to-face meetings annually, quarterly conference calls and substantial reading and responding to questions and recommendations. She also contacts other state 4-H administrators to promote membership in 4-H CCS. Nauman is hosting the fall meeting of the 4-H CCS Steering Committee this September. The 4-H CCS now has over 40 states as members and sells over one million dollars in publications annually.

Extension's National Child Care Initiative. Idaho is represented by Dr. Nauman on the management team for this initiative and participated in two conference calls per month for this group. She is on the School Age Care Sub-Committee and the Evaluation Sub-Committee. The total management team has two face-to-face meetings annually. She co-taught a workshop on School Age Care Programs at the National CYFAR conference as part of her role on this team. She assisted with three Bidder's Conferences for groups seeking 21st Century Learning Community Grants for School Age Care Programs. She participated in a Kids Care listserve discussion group and get a lot of questions to answer. Carol Benesh is also active in this initiative.

National 4-H Impact Study. Dr. Nauman is on the steering committee for this national project. She participated in monthly conference calls, drafts and edits reports and seeks funding for printing reports. She participated in the national workshop training for states randomly selected to be included in this study. She will assist in the dissemination of the results of this study at the 4-H Program Leader's National Meeting in April.

Western Region 4-H Marketing Project. Drs. Goodwin and Nauman initially started meeting monthly with the UI Marketing Team to identify a plan for marketing 4-H in Idaho. We ultimately chose the Boise media area and decided to target our marketing efforts to awareness and volunteer recruitment. After this decision was made Linda Webb, Barb Abo, Nate Helm and Katie Kerby became involved and we decided to utilize the Western Region 4-H Marketing Materials designed for volunteer recruitment. Idaho was a contributor to the original project to develop these materials. I did participate in identifying themes for the campaign and press coverage. Nauman invited Idaho's First Lady, Patricia Kempthorne and Larry Branen to participate in the press conference in Boise to kick-off this campaign. Our goal is to recruit 1,000 new 4-H volunteers in Idaho. Idaho is part of the Western Region Project to evaluate the impact of this marketing effort.

WELD (Western Region Extension Leadership Development). Dr. Nauman is the Idaho representative on the planning committee for WELD. The group has had one face-to-face meeting plus monthly conference calls to plan the two-year leadership training for the western Region. Our first class has 35 participants from 11 states and the first session will take place this March. She is responsible for the leadership inventory for all participants and will serve as a mentor for some of the participants for the two-year period.

Jerry Neufeld participates in the following multi-state projects:

1. Treasure Valley Interactive Pest Alert Network. The Treasure Valley Pest Alert Network is on line and operating (TVPestAlert.net). This upcoming field season will be the first year for this project. At the present time, team members are busy promoting the site to growers and industry people by making presentations at numerous winter meetings. When the growing season starts we will be ready to post information related to pest alert outbreaks throughout the Treasure Valley.

2. Innovations with Subsurface Drip Irrigation to Enhance Crop Production & Environmental Protection. Last summer he received funding from the U.S. Bureau of Reclamation to install a subsurface drip irrigation demonstration project in an alfalfa seed field. The hardware (filters, valves, etc.) has been purchased and is out at the site. In addition, the materials donated by Netafim Irrigation Inc. (tape, couplers) are also at the site. Last fall we started the installation process, but were delayed by well and pump problems and rainfall. The well and pump are now ready to go and we will finish the installation in the spring so that 2001 will be a full production year.

Clint Shock at the Malheur Experiment station is conducting a subsurface drip irrigation trial in alfalfa seed. In that project he will be using a subsurface drip system to induce different amounts of stress to the alfalfa plants and determining the yield response. Jerry will be working with Clint to transfer information that he is learning in that project to Idaho growers through his subsurface drip project. Jerry submitted a proposal to the Idaho Alfalfa Seed Growers Commission to secure additional funding for the project.

Nora Olsen is actively involved in an Evaluation of Chlorine Dioxide for Post-Harvest Management of Potato Diseases. This project focuses on chlorine dioxide which has been shown to be effective at low concentrations against potato disease organisms in the laboratory. Although, many experimental tests did not demonstrate any effectiveness on potatoes and in storage environments with tubers inoculated with late blight, dry rot and silver scurf. Inconsistency in the effectiveness of the product in research may be due to a combination of several factors: the concentration of the active ingredient (dependent upon activation/dilution method), rate of application, dispersion of the chlorine dioxide gas with air and inactivation due

to reaction with the tuber and organic matter. All of these factors have been researched and have shown to reduce the effectiveness of the product. Our collaborative research with North Dakota State University (Drs. Gary Secor and Neil Gudmestad) have identified both collectively and independently the difficulties associated with using this product in the potato industry as well as the need for five to ten times the allowable rate to shown some effectiveness.

Nora also is working on an Evaluation of Effectiveness of Late Blight Fungicide Application in which methods of aerial applications of late blight fungicides apply higher levels of fungicide residue on the upper and lower parts of potato plant compared to two chemigation methods (continuous and one-week). The two chemigation methods acted similarly in terms of residue levels on both the upper and lower parts of the plants. Aerial applied plants had stem residue levels similar to chemigation residue levels. Aerial application resulted in fewer late blight infections than chemigation when these leaves were challenged with late blight. Dr. Jeff Miller of the University of Minnesota is a collaborator on this project. Jeff Miller recently (January 15) started working for the University of Idaho

Vickie Parker-Clark is actively involved with a number of multi-state projects.

1. "Sharing Resources to Help Connect Farmers to Direct Marketing Niches" SARE proposal was funded. Cinda Williams and Vickie are meeting February 8th to start planning Idaho's conferences and are communicating with the rest of the states on details within the grant. California, Idaho, Washington, Colorado, Oregon and Hawaii are states involved.
2. ESP Professional Development Committee. We organized a successful national conference in Salt Lake City in December, 2000. During her term, they also started organizing the 2001 conference which will be in Albany, New York. Vickie's term on that committee ended in December (after 3 years) and she is now on the National Membership Recruitment and Retention Committee.
3. "Linking Inland NW Small Acreage Farmers to Buyers." Cinda Williams is the Idaho contact on this grant which was funded. We are waiting for funding to come down from USDA. Washington, Idaho and Oregon are involved as well as Rural Roots.
4. Northeastern Washington and Northern Idaho Extension Small Farm Team. NEWNIE has monthly meetings and has secured funding from Washington State University and the University of Idaho for the team (about \$3000 from each university). NEWNIE supported team members participation in several workshops this year including the sustainable agriculture conference in Portland and the NAFDMA conference in Arizona. We are currently developing a video on small acreage blueberry production as well as are involved in the planning of several workshops this spring. We are updating the bulletin "Resources for Small Acreage Producers" which we developed last spring.

5. North American Farmers Direct Marketing Association BOD. NAFDMA has members from the U.S. and Canada. We held a successful conference in Mesa Arizona in January, 2001. She co-hosted a daylong workshop for Farmers' Market managers as well as facilitated a session on cooperative selling during the conference. She is currently chair of the policy manual committee and am involved in the membership committee. The board meets face-to-face twice/year and via email regularly.

6. Rural Roots Association. Vickie is an advisor to the Rural Roots Association. Rural Roots is a major participant on the grant "Linking Inland Northwest Small Acreage Farmers to Buyers". Rural Roots and University of Idaho secured a Partnership 2020 grant to develop an On-Farm Education program. This is where I am spending the majority of my time in association with Rural Roots. We are developing or selecting curriculum, developing farmer teacher certification criteria and selecting farms to be certified as teaching farms. Vickie has stepped down from the association's quarterly newsletter editorial team. Rural roots membership primarily is in Idaho and Washington.

Multi-State Activities reported by Paul Patterson include:

1. Western Farm Management Extension Committee. During the January, 2001 annual meeting, the Western Farm Management Extension Committee and the Western Extension Marketing Committee merged to form the Western Marketing and Management Extension Committee. The projects and activities listed below reflect the efforts of both committees since Farm Foundation no longer directly supports the committees. Farm Foundation supports the committees indirectly by funding projects. The WM&MEC develops educational material, analyzes management and marketing strategies, analyzes alternative policies and conducts educational programs.

The Farm Foundation umbrella project under which the WMMEC functions is titled the "Integrated Risk Management Education and Information for Agricultural Managers and Educators in the Western United States." Sub-projects this last year include:

a. Risk Evaluation of Enterprises Outside the Usual Mix. Participants and cooperators developed written drafts on four case studies of managers pursuing enterprise alternatives outside the usual production agricultural mix. These case studies will be published in 2001. The project is continuing and will develop additional case studies.

b. Western Agricultural Employer's Guide. Work during the past year focused on identifying case farms, interviewing farm managers, writing a draft of new material and reviewing existing material for inclusion. A draft was reviewed at the January, 2001 meeting. Publication is expected by December, 2001. The guide will include five main parts: 1) employer roles and

responsibilities, 2) employee selection and hiring, 3) supervision and leadership, 4) performance management and pay and 5) communications and problem solving.

c. Virtual Risk Management Library. The first priority of this project was to assess and to summarize the risk management materials available in the western region or materials that were relevant to risk problems in the western region. Suitable material was either placed directly on the Western Farm Management Extension Committee or linked to the WFMEC web site. Lease materials prepared for the county faculty in-service training held in 1999 were placed in the library as was the material developed by the PNW Risk Management Education Project which was initiated by WFMEC members. The URL for the Western Farm Management Extension Committee web site (soon to be renamed the Western Marketing and Management Committee) is <http://agecon.uwyo.edu/wfmec/default.html>

d. Manager and Educator Education In-Service. The Western Farm Management Extension Committee has traditionally provided in-service education to county faculty. A three-year curriculum was developed and delivered using biennial workshops between 1995 and 1999. Over the past year the In-Service Committee developed a proposal to offer an in-service program in Colorado during the second week of October (subject to availability of suitable facilities). The four-day workshop will cover the following topics:

- 1- Dealing with producers suffering acute financial stress and bankruptcy.
- 2- Estate planning for farm families, including human elements.
- 3- Managing machinery service costs.

e. Estate Planning and Retirement Issues. This project was focused mainly on a literature review and assessment of existing material. Material reviewed or developed by this subproject will be used in the in-service workshop mentioned previously.

2. PNW Risk Management Education Project. This project involved economists from the three Pacific Northwest Land Grant institutions: Idaho, Oregon and Washington. Other partners in the projects included: USDA's Risk Management Agency, Intertribal Agricultural Council, Columbia River Bank, Farm Credit Services, Country Hedging, Idaho Grain Producers Association, Oregon Wheat League, Washington Association of Wheat Growers and the Northwest Farm Management Instructors. The project both conducted risk management workshops for grain producers in the Pacific Northwest and developed an extensive curriculum of risk management materials for use in educational programs. The material were published in a three-ring binder, placed on a CD-ROM and placed on the PNW Risk Management Education web site. The project is no longer active since the one-year funding from USDA has expired. Under the leadership of Jon Newkirk, Washington State University, an effort is being made to revise selected resource material and to develop new material on high priority items that were not included in the initial printing.

3. American Agricultural Economics Association Extension Section. The American Agricultural Economics Association is a professional organization for agricultural economists. The major focus of the association has been the publication of the American Journal of Agricultural Economics and the sponsorship of the annual association meeting. The Extension Section was authorized under a recent change in the association's bylaws and was an attempt to better serve a group of agricultural economists that were being underserved by the association.

Patterson was elected to represent the western region for a three-year term on the Extension Section Executive Committee. The Extension Section conducted a survey of members and this was presented at the 2000 annual meeting and served as a point of discussion in free session. The Extension Section has been working on an Extension Track for the 2001 meeting composed of sessions of interest to Extension economists. A pre-conference proposal was also developed and submitted. The Extension Section also oversees the evaluation of nominations for two awards given by the AAEA specifically for Extension economists.

Russell Qualls, Idaho's state climatologist, reports that he is involved in the State Climatologists Annual Meeting. The American Association of State Climatologists (AASC) is a professional scientific organization composed of state climatologists (one per state), directors of the six Regional Climate Centers and associate members who are persons interested in the goals and activities of the association. State climatologists are individuals who have been identified by a state entity as the state's climatologist and who are also recognized by the director of the National Climatic Data Center of the National Oceanic and Atmospheric Administration as the state climatologist of a particular state.

During the August, 2000 State Climatologists Meeting, we drafted a document to define the requirements and procedures for each state's State Climatologist Office to become an AASC Recognized State Climate Office (ARSCO).

Joey Peutz has participated in the NEAFCS National Meeting Planning 2001. She and Marilyn Bischoff met with Oregon and Washington committee members then reported this information to Shelly Johnson and Peutz at an informal meeting during fall mini-conference. We were assigned 1)the invitations to first timers' event and 2)research first-timers' gift. The invitations will be completed and mailed in early fall. We are contacting Camille Beckman Products for negotiations on product cost.

Martha Raidl is working on the following multi-state projects:

1. WIN the Rockies: Collaborating states: Idaho, Wyoming, and Montana. Progress report: (1) Currently chairing the search committee for the State of Idaho Project Coordinator position at the University of Idaho, (2) Participated in three conference calls that covered positions to be hired in all three states and criteria, (3) Idaho has identified the two communities that will be used for

the experimental and control groups: Preston and American Falls and (4) Will attend meeting in Laramie, Wyoming, February 26-March 1, with the other states to determine logistics of the grant: (a) community capacity-building, (b) assessment instruments/procedures and record keeping and (c) intervention programs and materials.

2. Tri-State Diabetes Project. Collaborating states: Idaho, Oregon and Washington. Progress report: (1) Oregon expressed interest in the "Diabetes in Idaho" materials developed by the University of Idaho Cooperative Extension System. As a result, the Oregon Cooperative Extension Service and the Oregon Diabetes Control Program requested training on these materials. Of the 75 individuals signed up for the training, some are Extension educators, paraprofessionals and members of "Health Teams" in Oregon that conduct diabetes education and come from 12 counties in Oregon. Three University of Idaho Extension educators - Rhea Lanting, Shelly Johnson and Joey Peutz are participating in the six-hour training which will be held in Portland, Oregon on February 15th, 2001. There will also be a Spanish translator who will translate the training into Spanish. (2) Washington dropped out of the Tri-State Diabetes Project because of a grant they received from the Joslin Clinic.

3. Western Region FSNEP/EFNEP Conference. Participating states: Idaho, Oregon and Washington. Progress report: The conference was hosted by Idaho, June 13-15th, 2000 and approximately 100 individuals attended. The next multi-state conference will be held in Oregon in 2002. Idaho will participate in the planning process.

Steve Reddy participates in the Treasure Valley Interactive Pest Alert Network. The Treasure Valley Interactive Pest Alert Network website has been designed and constructed and is now operational. Collaborating states in this project include Idaho and Oregon. Beginning this spring, crop pest alerts will be posted to the website as infestations are recognized and reported. In the meantime, project collaborators have been spending the winter months informing growers, specialists and industry personnel of the website through presentations and other promotional materials.

Neil Rimby is active in several multi-state projects, including:

1. A to Z Retained Ownership, Inc. entered its 9th year as an educational program. The multi-state aspect of the program primarily involves the cattle producers from Idaho, Montana, Oregon and Washington who have consigned cattle to the program. Information on the program is shared with cooperating states involved in the Livestock Market Information Center. Annual reports are available on the web via the Caldwell R&E Center site.

2. The Riparian Grazing Management Project is a cooperative, multi-disciplinary and agency effort involving University of Idaho (Animal Veterinary Science and Agricultural Economics and Rural Sociology), Oregon State University (Agricultural Economics and Animal Science)

and USFS Research (Entomology). The two separate two-year projects involved graduate student research (one in animal/range science at UI and one in agricultural economics at OSU), dealing with animal behavior, economics, water quality, range, water and salt location and bugs. Momont and Rimby were involved from UI. John Tanaka, Tim DelCurto and Mike McInnis from OSU and Jim McIver from USFS Research also cooperated. Three theses have been published at the institutions of higher education and one is still in the works. Theses available are: Amy Stillings, OSU; Marni Dickard, UI; and Cory Parsons, UI.

3. WCC-55 is a western regional coordinating committee on range economics research. It has been in place since the early 80's. Recently, we have sponsored symposia with published proceedings at the Society for Range Management meetings in Omaha, NE and Kona, HI. Members of WCC55 have also instituted western regional research project W192 that is resulting in integrated social, economic and regional analysis of counties in seven western states (Idaho, Oregon, Nevada, Colorado, Wyoming, New Mexico and Utah) that is using common methodologies to assess the impacts of policy on county residents and local economic and social systems. WCC-55 members were also instrumental in the proposals to establish a Policy Analysis Center for Western Public Lands.

4. The Western Beef Resource Committee is a loosely knit group of county Extension faculty and specialists from most of the western states. The primary function of the group is the annual review and modification of the Cow-Calf Management Guide. Wilson Gray and Rimby have been involved with this committee for a number of years. A number of others within our system are also involved.

Chris Schnepf participates in the development of a publication Logging Selectively (PNW Pub). Collaborating states: Oregon, Washington and Idaho (plus Montana – via the USFS, Region 1). The publication is complete and has been distributed to the three PNW universities. For the NIPF Foresters Workshop, Schnepf collaborated with Washington. During the period July 1999 – June 2000: 1 meeting, numerous phone calls and e-mails. The annual event was held in Spokane, WA, January 21, 2000 [61 participants]. July 2000 – June 2001: One meeting, numerous phone calls and e-mails. Event was held in Coeur d'Alene on January 26, 2001 [110 participants].

The Eastern Washington and Northern Idaho Forest Owners' Field Day was a joint effort by collaborating states: Washington and Idaho. July 1999 – June 2000: Event was held in Chewelah, WA, Sept. 18, 1999. [300 participants]. Idaho faculty co-presented five times a one-hour session on thinning & pruning five times. Harold Osborne did five one-hour sessions on small scale logging equipment. July 2000 – June 2001: three meetings, two field visits, numerous phone calls and e-mails. Event was held near Coeur d'Alene, Idaho on September 9, 2000 [170 participants]. Idaho presented two 3-hour sessions on Forest Regeneration and Pre-commercial Thinning along with a couple of graduate students and Wayne Stewart from Wilbur

Ellis. Harold Osborne did 6 1-hour sessions on small scale logging equipment. We also set up a UI Extension booth for the day with information set out.

Schnepf contributed to the project: Continuing forestry Education Coordination for Inland Empire Society of American Foresters with Collaborating states: Washington and Idaho. July 1999 – June 2000: Served as Inland Empire SAF Continuing Forestry Education (“CFE”) Coordinator and on IESAF Executive Committee (2 meetings); Drafted IESAF CFE committee charter; Evaluated CFE certificates for four foresters; Evaluated CFE credit applications for nine programs held in region. July 2000 – June 2001: Served as Inland Empire SAF Continuing Forestry Education (“CFE”) Coordinator and on IESAF Executive Committee (one meeting); Evaluated CFE certificates for one forester; Evaluated CFE credit applications for five programs held in region.

Harriet Shaklee is involved with the Family History Project. In that capacity, Harriet developed a workshop on family history as a shared resource be used at the county level. Presented this workshop to county educators at a train-the-trainer session at the 2000 Pacific Northwest Faculty and Staff Conference, 4-H Youth Development and Family Consumer Science, Portland, Oregon, May, 2000. Idaho, Oregon and Washington participated. This workshop will also be presented at the PNW Parenting Conference in Spokane, Washington May 8-9 of this year. Oregon, Idaho and Washington will participate.

Harriet has also worked in a project Evaluating and Selecting Parenting Curricula. Reviewed several curricula and chose three for comparison in identifying a parenting curriculum for use. Presented to in-service training in Boise, ID October 1999 with Idaho and Washington educators in attendance. Harriet has also made progress on a tri-state parenting planning team report.

Glenn Shewmaker invests considerable time in multi-state projects including:

1. Forage Cues for Animal Preference and Intake. Studies are currently underway in Idaho and Utah. This project has resulted in several publications: H.F. Mayland, G.E. Shewmaker, P.A. Harrison and N.J. Chatterton. 2000. Nonstructural carbohydrates in tall fescue cultivars: Relationship to animal preference. *Agron. J.* 92:1203-1206.
2. N-P-K Remediation of Dairy Soils Using Various Forage Crops. We are still in the planning stage (WCC-091) with Washington, Utah, Montana and Idaho. There is a problem getting seed of ineffective nodulating alfalfa.
3. Developing a Web-Based Dynamic Mapping Capabilities for Spatially Variable Data Lending to Improved Forage Species Selection. David Hanaway from Oregon is leading this effort. Washington, Idaho, Montana and Utah are involved. This project needs funding to be achievable.

4. Society for Range Management Annual Meeting Program Co-Chair and Finance Committee. Shewmaker was co-chair of the program committee for the international meeting of the Society for Range Management in Boise, Idaho in February of 2000. We organized the plenary session, 21 special symposia and technical sessions. This involved working with people throughout the United States and several countries. He currently chair the finance committee for the Society for Range Management. He has worked this past year with people from Colorado, Oregon, Nebraska, Nevada and Montana to develop a financial plan for the SRM.

Larry Smith is involved in the following multi-state projects:

1. Plant Diagnostic Clinic in Nez Perce County has worked cooperatively with master gardeners from Asotin County , Washington. Continue to dialogue with our counterparts in Asotin County and the newly hired Washington State University Extension educator. Anticipations for the 2001 growing season are to continue cooperative efforts to more precisely identify and define each county's role in providing plant diagnostic service to the citizens of the Lewiston, Idaho/Clarkston, Washington (Lewis Clark) Valley and to describe how we may work together to amplify this service to residents of the valley. Initial contact has been made with the new Washington State University Extension educator and follow up meetings are planned to insure ongoing success.

2. Spring Rose Clinic, Banana Belt Horticulture Seminar. The spring rose clinic which was held in the spring of 2000 and was sponsored cooperatively with Asotin County master gardeners was a success. Currently, plans are on the drawing board to once again facilitate and cooperate with our counterparts in Asotin county to plan, coordinate and implement another spring rose selection, culture and husbandry clinic for the citizens of Nez Perce County, Idaho and Asotin County, Washington (the local region).

Rosa Smith reports that the following multi-state activities have been completed:

1. Western Region EFNEP/FSNEP Conference: Represented our state as a delegate-supplied input about ENP in our district. I asked about evaluation and reporting - just now are we getting information related specifically to Food Stamp Grant.

2. Tri-State nutrition Meeting for EFNEP/FSNEP Programs: The Tri-State (Idaho, Oregon and Washington) meeting was held. Kris Spain and Rosa did the main coordination of the meeting. Rosa also was in charge of identifying speakers from Health & Welfare and for Idaho Food Stamp Information.

Robert Stoltz reports on the following multi-state projects:

1. Novel Potato Management Strategies. Data was developed that has led to registration of insecticides used as potato seed piece treatments that provide excellent control of Colorado potato beetle and green peach aphid. This allows these products to be used at very low rates and they are very environmentally friendly. Thus, they are cost effective and are very good substitutes for the organophosphate and carbamate insecticides being targeted by FQPA. Along with these new registrations, I cooperated with research, Extension, consultants and industry personnel to develop a PNW-wide green peach aphid/potato leaf roll virus management plan. These new chemicals and uses were incorporated into that plan.

2. The Insect Field Keys were made available on CD so now that information for crops in the Pacific Northwest is available in printed form, web interactive and in CD. This should give PNW farmers very good access to means to identify insect pests. This CD won third place award in the national Ag publications contest.

3. We presented six papers at the Pacific Northwest Insect Management Conference in Portland. We shared information on our demonstration plots in potatoes, peas, sugarbeets and cereal grains. We discussed these with people from the other states and the information was made available in abstracts that are referred to by Extension, research and consultant personnel.

Garth Taylor reports for the following multi-state activities:

1. Community & Regional Economics: CPAN, NE-162. He is continuing research on a Hatch proposal, which is related to the CPAN efforts.

2. Integrate Nutrient Management Modeling for Dairy Production Systems Featuring Dynamics and Optimization is a research project which is continuing.

3. Western Regional Research Committee -- Water & Irrigation. This research project, funded by USGS, on the Platte River Basin will be completed in March. A final report is being prepared. Professional papers (six to nine) have been presented. Web page has been constructed.

Ron Thaemert is involved in three projects with multi-state partners:

1. W.I.R.E. Richard Garrard and I will be completing a follow up report on the outcome of our modified WIRE program presented to the Native Americans on the Duck Valley Indian Reservation in Owyhee, Nevada.

2. Pacific Northwest Forage Workers. One ton alfalfa bale quality data collection will be completed following the first cutting of alfalfa in the Magic Valley. Collected data will be added to the existing database and conclusions will be affirmed as to the validity of the new one ton

bale sampling technique. Results of study will be shared with the PNW forage workers as well as local dairymen and Idaho hay producers.

Shannon Williams completed a paper titled "Calf Marketing Pools" with Ron Carlstrom of Montana State University, to be included in the Cow Calf Management Guide & Producer's Library. They will meet again in February and hope to agree upon another article to write.

Jim Wilson reports that the Inland Northwest 4-H HUB consists of five northern Idaho counties (Benewah, Bonner, Boundary, Kootenai & Shoshone) and seven northeastern Washington counties (Adams, Ferry, Lincoln, Pend Oreille, Spokane, Stevens & Whitman). Our focus has been on developing a network to share educational resources throughout the region, regardless of geographical boundaries.

Faculty from Idaho and Washington have collaborated to conduct a youth leadership development camp for middle-school age youth; presented 4-H/youth educational programs a various leader training programs throughout the region, are in the process of developing a marketing program for the HUB and are investigating ways to provide greater uniformity to the curriculum used to further enhance our ability to share faculty member's subject-matter expertise throughout this region.

We have also brought together the state 4-H program leaders from both states (Arlinda Nauman and Pat Boyes) to strengthen this partnership and suggest holding bi-state educational programs, such as Teen Conference, etc. We expect that as a result of this meeting, some consideration is being given to moving forward with this and other concepts that we shared with our state leaders.

F. Integrated Research and Extension Activities

Integrated Activities: Idaho Cooperative Extension System Faculty with Joint Extension/Research/Teaching Appointments. Values Represent Smith-Lever Appropriated and State Extension Dollars.

Name	Name		2000	2001	2002	2003
		56.00%	\$40,374.76	\$41,586.01	\$42,833.59	\$44,118.59
		45.00%	\$30,107.75	\$31,010.98	\$31,941.31	\$32,899.55
		39.00%	\$47,130.07	\$48,543.97	\$50,000.29	\$51,500.30
		50.00%	\$34,411.52	\$35,443.87	\$36,507.18	\$37,602.40
		10.00%	\$13,349.27	\$13,749.75	\$14,162.24	\$14,587.11
		25.00%	\$27,609.09	\$28,437.36	\$29,290.48	\$30,169.20
		75.00%	\$70,127.62	\$72,231.44	\$74,398.39	\$76,630.34
		51.00%	\$54,611.68	\$56,250.03	\$57,937.53	\$59,675.66
		75.00%	\$56,888.83	\$58,595.50	\$60,353.36	\$62,163.96
		60.00%	\$42,412.03	\$43,684.39	\$44,994.92	\$46,344.77
		70.00%	\$64,632.42	\$66,571.40	\$68,568.54	\$70,625.59
		80.00%	\$54,270.36	\$55,898.47	\$57,575.43	\$59,302.69
		50.00%	\$42,997.76	\$44,287.69	\$45,616.32	\$46,984.81
		90.00%	\$54,848.10	\$56,493.55	\$58,188.35	\$59,934.00
		60.00%	\$39,584.56	\$40,772.10	\$41,995.26	\$43,255.12
		50.00%	\$52,302.85	\$53,871.93	\$55,488.09	\$57,152.73
		80.00%	\$56,719.77	\$58,421.36	\$60,174.00	\$61,979.22
		70.00%	\$57,606.35	\$59,334.54	\$61,114.58	\$62,948.01
		45.00%	\$43,753.88	\$45,066.50	\$46,418.49	\$47,811.05
		65.00%	\$40,789.30	\$42,012.98	\$43,273.37	\$44,571.57
		70.00%	\$59,730.94	\$61,522.87	\$63,368.56	\$65,269.62
		80.00%	\$56,400.28	\$58,092.29	\$59,835.06	\$61,630.11
		75.00%	\$57,547.78	\$59,274.21	\$61,052.44	\$62,884.01
		80.00%	\$61,725.08	\$63,576.83	\$65,484.14	\$67,448.66
		90.00%	\$58,897.61	\$60,664.54	\$62,484.48	\$64,359.01
		80.00%	\$50,841.19	\$52,366.43	\$53,937.42	\$55,555.54
		80.00%	\$49,499.34	\$50,984.32	\$52,513.85	\$54,089.27
		80.00%	\$74,930.59	\$77,178.50	\$79,493.86	\$81,878.67
		70.00%	\$44,336.95	\$45,667.06	\$47,037.07	\$48,448.18

		12.00%	\$11,821.06	\$12,175.69	\$12,540.96	\$12,917.19	\$13,304.70
		90.00%	\$79,864.01	\$82,259.93	\$84,727.73	\$87,269.56	\$89,887.65
		50.00%	\$33,479.68	\$34,484.07	\$35,518.59	\$36,584.15	\$37,681.67
		43.00%	\$49,559.78	\$51,046.57	\$52,577.97	\$54,155.31	\$55,779.97
			\$1,613,162.27	\$1,661,557.14	\$1,711,403.85	\$1,762,745.97	\$1,815,628.35

The following summaries were provided to characterize the integrated nature of our Extension faculty positions which have a joint appointment with the Idaho Agricultural Experiment Station. In addition to these formal examples of integration, many of our faculty with 100% Extension appointments are actively involved with stakeholder-driven demonstration research projects, as noted throughout the annual report.

Erik Anderson's research area is the design of effective mediated instructional programs. He works with video and computer-based instruction. His primary focus is the application of Internet technologies to support Extension education programs. These technologies include synchronous interactive environments, such as chat rooms and asynchronous communication tools, like threaded discussion groups. He is also exploring the application of web course management software to non-credit instructional programs. Another area of research is the use of the Internet and disk-based systems (e.g., CD-ROMs, DVDs, etc.) to distribute high quality instructional video programming.

Anderson helps Extension specialists and educators design effective educational programs using instructional technology. He often serves in the role as instructional designer for their programs. In this role, he coordinates project development teams that consist of media specialists, multimedia designers and computer technicians.

Danny Barney works at the Sandpoint Research and Extension Center, where the role for the past 88 years has been to help farmers develop practical solutions to cultural problems and to investigate new crops adapted to northern Idaho. During the past decade and continuing today, we have focused on high-value specialty crops. Recent activities and results include:

Research: A study of the adaptation of small fruit crops to northern, high elevation sites.

Extension Applications: Extension publications include recommended small fruit cultivars: grape cultivar and site selection recommendations; production guides for blueberries, grapes, strawberries, raspberries and blackberries; enterprise budgets for blueberries, strawberries and raspberries; and overviews of potential for commercial production of strawberries, blueberries and raspberries. Individual and group training was provided to prospective and established farmers. Information from the trials is published on a University of Idaho website and the Northwest Berry and Grape Information Network administered by Oregon State University. On-line production guides include currants, gooseberries and jostaberries.

Impact: North Idaho has experienced a marked increase in the number of small fruit growers and processors. Research: Huckleberry management and Domestication Extension Applications: A huckleberry production guide has been published in print and on the Internet. Numerous presentations have been made on huckleberries.

Impact: In 2000, huckleberries were named Idaho's state fruit. Several people have contacted us expressing interest in commercial huckleberry production. Technical support has been provided to them. U.S. Forest Service personnel in the Gifford Pinchot and Mount Hood National Forests have collaborated in the work and are using the information to improve forest management activities designed to enhance the value of special forest products. A consortium of university researchers, timber industry representatives, Native American nations and the U.S. Forest Service are sponsoring a 2001 conference in Spokane on special forest products, including huckleberry management and domestication.

Research: True fir trials for Christmas tree and ornamental applications. Extension Applications: Published guides for fertilization of grand fir and selection of concolor fir seed sources for both Christmas tree and nursery stock production. Presentations were made at national and regional industry meetings and symposia throughout the northern United States.

Impacts: Grand fir Christmas tree production costs have been decreased. Concolor fir are now being grown throughout the northern United States and have proven to be a valuable tree for wholesale growers.

Richard Battaglia is the head of the Animal and Veterinary Science (AVS) Department. The role and mission of the AVS Department is to conduct focused, comprehensive and integrated research-Extension-teaching programs which specifically and directly support animal agriculture.

There are 29 faculty in the AVS Department, conducting problem-resolving educational programs at one or more of the twelve College of Agriculture Research and Extension Centers, strategically located throughout Idaho. Each AVS "program" is a reflection of the integrated input(s) of advisory boards, students, breed associations, state agencies, peers from professional societies and myself. Our goal is to provide programs that resolve complex, real-time and real-world issues for our various clientele.

To accomplish this, I work with multi-disciplinary research, Extension and teaching faculty and staff to provide a seamless flow of information from stakeholder input to end-user implementation. Everything that I do as Department Head is directed toward integrating the activities of our faculty and staff.

Bradford Brown's research in soils and plant nutrition and small grains management provides information useful for our clientele that they can use to increase the sustainability of their enterprises and the communities in which they reside. Whether it be the development or evaluation of soil and plant tests for better predicting the need for plant nutrients, evaluating small grain varieties and market classes for their agronomic potential in diverse management systems, or fine tuning production practices for small grains. The research information we provide helps to establish us as credible resources for our producer and industry clientele.

This information does not serve our clientele very well if it resides only in technical journals that few if any of the agricultural community access. The Extension appointment allows Brown to integrate the research derived information into easily accessible and understood formats for our clientele to use. The primary vehicles I use for providing my research based information to our clientele is the Cereal Sentinel newsletter, oral presentations at grower and fieldmen workshops and the popular press.

James DeShazer is involved in integrated programming. He administrated in developing programs in hydrologic engineering with special attention to water management. Programs include the development of hydrologic modeling, field testing, development of systems and demonstration of water systems for conservation and appropriate use of water for increased water quality. These activities are part of both our research and Extension programs and are related to clientele through workshops, publications, field days and individual consultation.

Jerry Exon's research area comprises the effects of chemicals on immune function and cancer (immunotoxicology and immunotherapy). The research is primarily directed to naturally occurring carcinogens or anticarcinogens in food, especially those that involve immune mechanisms and the role of diet in cancer causation or prevention. Extension functions related to this research would include providing information on many aspects of food safety but more specifically, chemical food safety or other toxicology issues

Bob Forster identifies plant disease problems that are called to his attention by Extension educators, consultants or growers and provide recommendations for management and control. Those recommendations come from research conducted by our own faculty, from my network of contacts, or from the literature. Where those recommendations are inadequate to solve the problem due to lack of sufficient information on the nature of the disease, etc., I may set up a research project to develop that information. A good example is my black chaff project on wheat that I worked on in the 1980's. Black chaff was a curiosity for us for many years, but in 1979 it became epidemic in many area fields and one of my cooperators almost picked me up by the shirt collar and said "you've got to do something about it." We secured funding from the IWC

and started to work on it. I also presented information at the cereal schools across southern Idaho, prepared a CIS and became active in the International Seed Testing Association (chairman of the black chaff working group).

"A good example of responsiveness is the case of High Plains disease of sweet corn. This disease was unknown to science prior to its detection in Idaho and three other states in 1993. It is very destructive and can readily cause crop failures. Idaho produces about 90% of the domestic supply of sweet corn seed and exports large amounts abroad. The sweet corn seed industry needed to know if this new virus disease was transmitted through seed and after securing funding from the American Seed Research Foundation, we conducted surveys and grow-out tests which demonstrated the seedborne nature of the pathogen. This work was done cooperatively with Dallas Seifers (Kansas State University), Stan Jensen (University of Nebraska) and representatives of the sweet corn seed industry. A manuscript "Seed Transmission of High Plains Virus in Sweet Corn" has just been accepted for publication in *Plant Disease*. An Extension publication (CIS 1038) describing the Disease was published previously and numerous presentations (training sessions and formal meeting papers) have been made to audiences locally, nationally and internationally.

Another example is Bean Common Mosaic (BCM). Idaho produces about 85% of the garden bean seed which is planted in the U.S. and ranks seventh among the states in production of dry edible beans. In 1989 he had just returned from a sabbatical leave in which he studied novel detection methods for bacterial pathogens, an area he wanted to pursue in his research on black chaff of wheat and bacterial blight of barley. Instead, a phone call informing him that all of our foundation bean seed fields at Caldwell had just been rejected for certification due to BCM changed his research plans completely. A strain of bean common mosaic virus (NL-8) not previously known to occur in Idaho was infecting bean varieties that were resistant to the prevalent strains in the state. For the next three years, BCM was his primary research objective. We prepared an Extension article (PNW 358) describing the disease shortly after the detection of the new virus strain and he has made numerous presentations on the topic. The Idaho bean industry largely followed our recommendations of assaying seedlots for presence of the virus and not planting susceptible varieties and thereby minimized the losses of this serious disease.

Although our objectives in this project have evolved toward a study of the genetics of resistance in cooperation with breeders Jim Myers and Shree Singh, this project remains a major thrust, currently Conducted primarily by Dr. Strausbaugh. We recently published a paper (*J.Amer.Soc. Hort. Sci.* 124:644-648. 1999) which describes RAPD markers for Bc-1 and Bc-u alleles which will be useful in breeding programs here and elsewhere. Currently, we are close to completing work that documents the existence of two previously unreported resistance genes.

A third example is late blight of potatoes, a potentially devastating disease. We are the leading potato producer in the U.S. and for decades Idaho growers have enjoyed freedom from late blight and therefore the savings in cost of fungicide sprays. When late blight was detected in southwestern Idaho in 1995, all plant pathologists on our faculty were drafted to assist with educational efforts informing the potato industry about this disease. We initially created the

Idaho Plant Disease Reporter (<http://www.uidaho.edu/ag/plantdisease/>) to disseminate timely reports on late blight occurrences in the region and provide frequent updates on control recommendations (currently, it has a greatly expanded scope). Forster's lab became the diagnostic center for potatoes in the Magic Valley and continues in that role today. We receive requests to diagnose hundreds of samples per year for late blight and other problems and he responds to numerous phone inquiries for disease control recommendations. These responsibilities (disease diagnosis and consultations on disease management and control across all crops) demand the single largest commitment of time during the year. These efforts have raised the level of understanding of plant diseases in the agricultural community throughout the state."

Marlene Fritz is an agricultural communications specialist. Fritz develops news releases, magazine articles and other written materials for external distribution that describe the college's research and Extension programs to our various clientele groups. She conducts outreach by interpreting our research efforts in lay language and by conveying the potential impacts of our Extension efforts to both rural and urban readers.

John Gallian - Integrating Research and Extension in the Idaho Sugarbeet Program. The sugarbeet position is 70% Extension and 30% research. Information developed in the research program is used to educate growers, county Extension faculty and sugar company fieldmen. Working directly with innovators in these groups both in classroom settings and in the field and on an individual basis or in groups, Gallian teaches them to put the information to commercial use.

The UI Sugarbeet Working Group meeting each year results in informal dialogue that allow researchers to identify problems that require research for solution and develop coordinated programs. I consider this working group activity as one of the most important factors contributing to the success of this program. For example, within two years after rhizomania was diagnosed in Idaho, clientele groups were receiving and utilizing research generated information. This program has allowed Idaho to continue growing sugarbeets when one U.S. sugarbeet area is no longer in business and another now has been reduced by 50%.

Sandra McCurdy's research area is on motivating consumers to use thermometers to measure endpoint temperature when cooking ground beef patties and other thin meats. This supports and extends USDA's Thermo TM Campaign. Val Hillers (food Extension specialist at Washington State University) and she has applied to USDA's NRI program for support for this research project which will measure thermometer use, assess consumers "readiness" to use thermometers and develop a program to motivate and teach consumers to use thermometers.

Patrick Momont's applied beef cattle research projects associated with this appointment have sizable Extension components. Major program efforts with both research and Extension functions are the "A to Z Retained Ownership, Inc.," and "Cattle Behavior in Riparian Areas" programs. The A to Z project involves over 110 cattle ranchers from four northwestern states that actively participate by consigning cattle to a custom feedlot in order to evaluate appropriateness

of breeding programs for existing and new markets. Active participation by the ranchers enhances the education value of the data generated as the group investigates production methods as they relate to beef quality. The cattle behavior in riparian areas is a SARE (Sustainable Agriculture Research and Education) project investigating grazing management practices that affect cattle behavior along mountain stream segments and the subsequent habitat effects. This is a collaborative effort with University of Idaho, Oregon State University and the Blue Mountains Natural Resource Commission (USDA Research). The Extension component of this project has been extensive, not only in terms of output (field days, publications and producer involvement) but also in terms of outcomes (rancher adoption of best management practices). Both of these programs were identified and initiated through local and regional advisory boards made up of ranchers, allied industry representatives and outside agencies and groups. In addition, both projects have had active producer participation from the start.

Phil Nolte strives to perform research that is of immediate benefit to the clientele that I serve here in Idaho. That target group includes potato producers as well as potato industry personnel like fieldmen and even people in the processing industry. Most of my efforts are seed potato orientated but I am also heavily involved in late blight and pink rot management. Several of my research efforts have involved the effect of potato virus Y on yield in three potato varieties, a project which was completed in 1997. This research was performed to investigate whether or not our potato virus Y tolerances for seed certification were realistic. Ongoing research includes testing of fungicides for effectiveness against late and early blight and testing of seed piece treatments for effectiveness against seed decay. A new project investigating the effect of potato virus A on yield is in the first of a planned three years. The goal of the project is again to validate our certification tolerance levels.

Nora Olson's current research activities are integrated with my Extension programming. Specific programs to outline include evaluating disinfectants, in particular chlorine dioxide, for the use on potatoes in storage. This is a relatively new product available to the potato industry that lacked efficacy and application methodology information for our industry. Our research focused on efficacy evaluation in the laboratory, on potatoes in storage and manipulation of application methods. All of the experiments were replicated and repeated and will be submitted to a referred journal. But since this information was vital and immediately needed in the potato industry, a great deal of my Extension programming served as explaining the research, background on chlorine dioxide and recommendations based upon the research to the industry via oral presentations, trade journal articles, interviews and an Extension bulletin. All other research activities in progress integrate Extension into the program in a similar manner. Evaluating storage management practices for newer potato varieties as a research activity allows me to disseminate the information in a timely manner to an industry that needs immediate data, results and interpretation. This is primarily critical when these newer varieties are being used in the industry with not a great deal of knowledge base on storability. Evaluating various newer varieties for seed storage management and physiological age also is a major research and Extension program. All of these programs include strong scientific experimentation but also help to answer immediate questions being asked by the potato industry via Extension programming.

Martha Raidl has incorporated research into Extension by conducting the following four research projects:

1. Got Calcium - I developed a four-part curriculum on teaching children about calcium and how to increase the calcium content of their diet. Two University of Idaho Extension Educators tested this curriculum with 50 school-age children. The results showed a the children had a significant increase in calcium knowledge from 68% (pre-test scores) to 80% correct (post-test scores). Also, a majority of children planned meals and snacks that met calcium intake recommendations.
2. Osteoporosis Prevention and Treatment -I developed a four-part curriculum for adults that focused on osteoporosis prevention and treatment. Six Extension educators taught the classes to 137 adults. The results showed participants had significantly increased their knowledge based on mean pre-test score of 78% to a mean post-test score of 96% correct. Also, the majority of participants were able to correctly plan meals and snacks that were high in calcium.
3. Diabetes in Idaho - I developed a four-part curriculum that focused on how Extension could teach individuals about the diabetic diet. The materials were piloted by seven Extension Educators to approximately 70 individuals. The results showed that by the end of the fourth class that >80% of participants planned their diabetic meals correctly.
4. Team Nutrition: A series of eight nutrition classes that were developed by USDA for school-age children were taught in 11 different schools throughout Idaho by Extension educators and Nutrition Advisors. Approximately 300 school age children participated in this project. Data is currently being analyzed. The results will determine whether or not nutrition education classes change eating behaviors of school-age children.

Glenn Shewmaker's research with Forage Cues for Animal Preference and Intake Studies is currently underway in Idaho and Utah. Research on this project began while he was employed by USDA-ARS at Kimberly, Idaho. His supervisor, Hank Mayland, soil scientist, had initiated a study to determine the palatability of 'HiMag' tall fescue (registration just submitted to crop science) compared to seven other tall fescues. The relative preference study was reported by him: Shewmaker, G.E., H.F. Mayland and S.B. Hansen. 1997. Cattle grazing preference among eight endophyte-free tall fescue cultivars. *Agron. J.* 89:695-701. The effect of nonstructural carbohydrates (NSC) on animal preference was reported: H.F. Mayland, G.E. Shewmaker, P.A. Harrison and N.J. Chatterton. 2000. Nonstructural carbohydrates in tall fescue cultivars: Relationship to animal preference. *Agron. J.* 92:1203-1206. Because sampling for these studies occurred between 8 am and 10 am, the nonstructural carbohydrate levels (determined by the USDA-ARS Forage and Range Lab, Logan, Utah) were lower than literature values. This led to characterization of the NSC levels in alfalfa and tall fescue during the day: Shewmaker, G.E., H.F. Mayland, C.A. Roberts, P.A. Harrison and D.A. Sleper. Daily and seasonal carbohydrate accumulations in tall fescue. Draft for Forage and Grassland Sci. Roberts and Sleper are at the Univ. of Missouri, Columbia. Roberts evaluated the efficacy of detecting NSC with Near

infrared Spectroscopy. This begged the question of whether ruminants could determine different levels of NSC.

It was obvious that this information could be adapted immediately by growers with little cost, so we actively promoted these management ideas even before the research was published in referred journals. Shewmaker has given numerous Extension presentations.

As a result we measured the following impact Improved Quality and Value from Afternoon-cut Hay. Situation: Demand for high quality hay has increased because the dairy industry has greatly expanded in Idaho. Alfalfa hay growers have traditionally cut hay in the morning as well as the afternoon. However, plant physiologists have known for more than fifty years that sugar and starch concentrations in forages increase during the day because of photosynthesis and decrease during the night because of plant respiration. This research information has generally not been adopted by forage growers.

Jeffrey Stark conducts an integrated research and Extension program in the area of water and nutrient management systems for southern Idaho crops including potatoes, small grains, sugarbeets and alfalfa. Program components include the design and coordination of interdisciplinary field research studies conducted at research centers and producer field sites. Specific objectives are to develop and demonstrate management components and systems which increase agronomic and economic efficiency and improve environmental quality. New management systems and technologies are demonstrated in producers fields and results are presented at Extension field days, workshops and conferences and published in newsletters, magazines and Extension bulletins.

A recent area of focus has been the Cooperative Fertilizer Evaluation Program which is a joint project conducted by the University of Idaho, growers and crop advisers designed to Increase and update the nutrient management database for Idaho. Data produced from over 120 cooperative on-farm fertilizer trials have been used to revise the UI fertilizer guidelines for potatoes and sugarbeets. Joint ownership of this new nutrient management database has resulted in much wider acceptance and use of the guidelines by producers. The guidelines are also an important component of nutrient management plans developed for Idaho farming systems.

Robert Stoltz uses data from our efficacy/demonstration trials and incorporates the new data and/or registrations into our insect management systems as part of the potato program. A major Extension effort for potatoes to get research information to growers is the Insect Management Workshop at the Potato School. We usually have 300 or so producers, consultants and fieldmen in those sessions. We do the same for sugarbeets, peas, beans and small grains. In cereals, we released cereal leaf beetle parasites and recorded how the established over a couple of years. Now we can take that information and those parasites to other locations and start educational efforts on using and conserving the parasites. The recent PNW leafroll white paper was a direct result of taking research from our area and incorporating it into new management recommendations

