A. PLANNED PROGRAMS

GOAL 1: An Agricultural System that is Highly Competitive in the Global Economy.

Washington State University Cooperative Extension has opted to include all our agricultural programming under ***GOAL 4, An Agricultural System that Protects Natural Resources and the Environment***. This does not suggest a lack of concern for production agriculture, but a change in perspective. Indeed it is because we realize the challenges facing the agricultural co mmunity that we do not separate out these two important goals. For Washington agriculture, competitiveness in the global economy requires that the agricultural community address environmental issues to be accepted by Pacific Rim nations as well as its own regional constituents.

We recognize that some our programmatic impacts fit Key Themes identified under Goal1. Those reports are included in Goal 4 and identified as Key Theme "Other" with the Goal1 Key Theme identifier in parentheses.

GOAL 2: A Safe and Secure Food and Fiber System.

Overview

The goal of Washington State University food safety education is to enable Washington residents to obtain knowledge and adopt behaviors that reduce risks of illness from foodborne pathogens.

At each stage of the food chain, those who grow, process, market or prepare food must abide by certain guidelines to protect the safety of the food supply. At Washington State University, we have focused on food safety education from farm to table for more than 10 years. Each year, food safety educators, researchers, and regulatory officials from the Pacific Northwest participate in the annual Food Safety Farm to Table conference. The excellence of this conference has assisted in maintaining this region as a national lea der in food safety regulations and education.

Washington State University faculty participated in USDA -funded research projects to develop key food safety messages for consumers. We are currently pilot -testing educational materials that were developed based on the research project and will be incorporating the results of this research into all of our food safety educational programs for consumers. Five major control factors that enable consumers to reduce their risk of foodborne illness have been identifi ed and key messages written for each of the control factors. The pathogen control factors (listed in order of importance) are:

* Practice personal hygiene
* Cook foods adequately
* Avoid cross-contamination
* Keep foods at safe temperature
* Avoid food from unsafe sources

Based on the Centers for Disease Control and Prevention estimates of the incidence of foodborne

illnesses, improper hand washing is considered to be the most frequent source of foodborne pathogens. Thus, we have focused much of our consumer food safety educational efforts on hand washing. Most people do not wash their hands as often or as well as needed. Research studies support the need for behavior change as well as for effective hand washing education. A team of Washington State University faculty developed an interactive exhibit to promote hand washing titled *Germ City*. More than 40,000 children and adults participated in this award-winning display in 2000. Response has been very positive, with many participants reporting knowledge gain and behavior change regarding hand washing. Other states are in the process of purchasing Germ City display units.

Much of our food safety education is targeted to specific groups. One group we have targeted is those who make fresh cheese (*queso fresco*) from raw, unpasteurized milk. After the development and widespread dissemination of a recipe for pasteurized-milk *queso fresco*, there was a reduction in reported rates of foodborne illness in at least one Washington county. In 2000, a video was developed that demonstrates the process of making *queso fresco*. The video, *Fresh Cheese made Safely in Your Own Kitchen*, and the flyer, *Fresh Cheese Made Safely*, are available in both English and Spanish. More than 800 people attended safe cheese workshops in 2000, where the making of the WSU pasteurized-milk *queso fresco* recipe was demonstrated.

Home food preservers are another targeted audience. Each year, more than 100 persons receive training and serve as master Food Safety Advisor volunteers. Through the use of these volunteers, we are able to provide answers to questions about safe food preservation techniques for thousands of Washington residents.

Another targeted audience is persons at high risk of foodborne illness such as pregnant women and diabetics. A USDA-funded research project "Safe Food for Moms and Tots" provided information and funding to develop a flyer *Food Safety During Your Pregnancy*. A grant proposal has been submitted for additional USDA funding for development of additional educational materials for high-risk audiences.

The food safety education team is developing inservice education targeted to teachers of 3rd to 5th grade students. We will pilot-test the workshop in summer 2001 and have the inservice education available on a statewide basis in 2002.

Several WSU faculty focus much of their time on food safety education for food producers and processors. They have received certification as HACCP instructors and are conducting numerous HACCP and sanitation workshops for food processors and processors of seafood, meat, canned foods and fresh produce. Demand for this programming is very high and we expect that the demand will remain steady or increase.

Most of the Washington State University faculty and staff who conduct food safety programming have multiple subject-area assignments. In 2000, 1341 days (less than six FTE) were reported to food safety by 28 people, with only 15 reporting that they spent more than 25 days on food safety programming. The number of people who received information about food safety from WSU faculty,

staff and volunteers was more 90,000, with about 20% of this number participating in an educational program and the rest receiving information by a food safety hotline, a display at a fair or similar experience.

Sources of Funding and FTE for Goal 2

FTE Smith-Lever 3b & 3c	= 0.4
FTE Smith-Lever 3d	= 0.0
Federal Extension	= $ 438,149
Non-Federal	= $1,128,535
Other Federal	= $ 48,610
TOTAL	= $1,615,294

Key Theme - Food Safety

a. Hand washing is a key, often overlooked, behavior important for disease prevention and food safety. Our hand washing display, Germ City, is a large, walk-through tunnel equipped with black lights developed by Washington State University food safety educators. Germ City provides immediate feedback regarding the thoroughness of hand washing. Educators squirt a small dab of the "glo-germ" lotion onto the hands of participants before they walk through the tunnel. The lotion glows under the black lights. After the educator gives tips on hand washing, participants wash their hands and then re-enter the tunnel and see how effectively they have removed the "germs".

b. Impact: More than 40,000 children and adults participated in the Germ City exhibit or in other hand washing educational programs. More than 90% reported that they gained knowledge about correct hand washing procedures. It is estimated that about 40% of these changed their hand washing procedure after participating in the displays.

c. Source of federal funds: Smith Lever, State, County

d. Scope of impact: State specific; but four other states are in the process of purchasing Germ City units to start their own hand washing education program.

Key Theme - Food Handling

a. *Queso fresco* is a type of fresh cheese traditionally made with raw (unpasteurized) milk. WSU developed recipes for pasteurized-milk *queso fresco* for home production and for commercial production. These recipes have been widely used and rates of foodborne illnesses have decreased in the areas where Hispanic grandmothers (abuelas) have conducted safe cheese workshops to demonstrate the pasteurized milk recipes.

b. Impact: More than 800 people learned to make the WSU-modified recipes. In a previous year's survey of safe cheese workshop participants, we found that 100% of those who were re-contacted 6 months after attending a workshop were using pasteurized milk to make *queso fresco.* To further expand the outreach, a video *Fresh Cheese made Safely in Your Own Kitchen* was produced and is available for purchase. Several small vendors of *queso fresco* (who were previously unlicensed) have

received assistance to enable them to become licensed and develop a business whereby they can legally sell pasteurized-milk *queso fresco.*
c. Source of Federal Funds: Smith-Lever, State, County, grants.

d. Scope of Impact: State Specific, but materials have been widely shared with other states and internationally.

Key Theme - Foodborne Pathogen Protection
Key Theme - HACCP
a. WSU has a focus on food safety from farm to table; thus we conduct a wide range of programs that fit under this theme. Our target audiences include produ cers and processors of meat, poultry, milk, and fresh produce; seafood processors; food service managers and workers; home preservers; health department inspectors and Food Safety Advisor master volunteers.

b. Impact: More than 35,000 people received information regarding the safe production of food at home and commercially, with about 20% (7000) of these people participating in an in-depth training (ServSafe, Food Safety Advisors, HACCP workshops, Quality and Safety Assurance programs). Of the 7000 who received in-depth training, it is estimated that 90% gained knowledge about protecting the safety of foods. When certification tests were given, the pass rate was very high, at least 90%. Between one-fourth and one-third of participants made behavior ch anges in their customary food practices to protect safety of food.

c. Source of federal funds: Smith-Lever, State, County.

d. Scope of impact: Primarily state specific. Some programs are conducted on a regional basis, with ID and OR. Some HACCP training is multi-state, national or international in scope. Food Safety Advisor materials have been shared with faculty in other states.

Key Theme - Food Recovery/Gleaning
Key theme - Food Security
See Goal 4

GOAL 3: A Healthy, Well-nourished Population

Overview
Poor nutrition has been shown to reduce children's ability to learn and increase the rate and severity of chronic disease. The nutrition education programs of Washington State University focus on improving the health and well being of Washington ians through nutrition education. Most of the nutrition education programs focus on low-income families who have the greatest struggle and the fewest resources available to them. In 2000, over 30,000 adults and youth have been reached through these programs.

The rate of hunger in Washington State is among the most severe in the nation to the extent that the state

ranks below Mississippi and Louisiana in the number of hungry people. A Washington State University survey of food stamp recipients confirmed that 75% of the families with children ages 5 to 11 had one or more "hungry" days a month and 25% had 7 or more "hungry" days. Nutritious meals are almost impossible for these families, a factor that contributes to chronic disease (heart disease, diabetes) and school absenteeism among low-income families.

Focus groups with food bank recipients in nine locations of the state indicated that the families were very interested in learning to stretch their food dollars and to make low cost food taste good. Thus programs focus on how to prepare food that is low in cost, but nutritious and good tasting. (Listen to Us, Voices of Hungry People in Washington)

Another strategy to improve the nutritional status of low income families is public education to encourage families eating together. Family mealtimes have been shown to improve nutrition among family members and those children who eat with three families do better in school. The Nutrition Education Network of Washington, a strategic alliance of public and private concerns with leadership from Cooperative Extension, is promoting family mealtimes among low income families.

In 2000, the Network had two major activities. A direct mail campaign mailed the first in a series of newsletters that emphasize eating together and good tasting low cost foods to 13,000 food stamp recipients with children ages 5 to 11 years. The response rate was 6%. The 6% received the remaining 3 flyers in the series. Of those, 1000 food stamp recipients improved their practices around eating together within six months.

The Network's second activity was the development and early promotion of an Eat Better; Eat Together campaign. This included production of a Tool Kit, a notebook of ideas for developing and conducting community activities and development of a promotion through community education sources.

In addition to education on nutrition, Washington State University faculty address priority health issues in their programming. The Diabetes Awareness Education program is a current example (see **Key Theme - Human Health** below for program details). Diabetes is a chronic disease in which insulin deficiency and/or resistance to insulin leads to high sugar levels in blood. Without proper medical and self-management treatment, diabetes can lead to serious complications, such as kidney failure, blindness, lower extremity amputation and even death (Public Health Data Watch, November 1999, Seattle/King County Public Health Department (S/KCDOPH).

About one in eight adults aged forty or older has diabetes and almost one in five people sixty-five or older has this disease. The estimated number of Americans who have diabetes is fifteen to sixteen million. One third to one half of this number are unaware they have it. Each year 800,000 to one million people learn they have diabetes (Let's Talk Medicare, Pro-West quarterly newsletter, March 2000). The prevalence of and death rates for diabetes in people of color and people with limited incomes are substantially higher than whites. As a result, Extension's educational efforts in diabetes awareness are reaching traditionally underserved audiences.

Strong partnerships are fundamental to the success of Washington State University Cooperative Extension's health and nutrition programs. In 2000, faculty and staff involved in the Family Nutrition Program actively partnered with over 140 agencies and organizations. These organizations included public schools, English as a Second Language classes, alternative schools for teenagers, Head Start, food banks and other emergency feeding sites, homeless shelters, health departments, volunteer organizations (Master Gardeners), day care providers, county and city governments. The "Eat Better Eat Together" project was supported by a coalition of members including private partners: Continental Mills, Food Services of America, Washington State Dairy Council, Washington State Fryer Commission; and public agencies: Department of Social and Health Services, Department of Health, Office of Superintendent of Public Instruction, Community, Trade and Economic Development. The Diabetes Awareness Education project is supported through an alliance with the Joslin Diabetes Center at Harvard University and USDA/CSREES.

In relation to the goals in our Human Nutrition and Health Program of Work for the state, the work accomplished in 2000 furthers our commitment to providing education on using food resources for nourishing diets and to optimizing health through education. We are well-positioned in reaching the priority audiences specified in the plan which includes low income families and people with diabetes. Finally, we are achieving success in collaborating with the public and private entities we have targeted as partners in developing and delivering successful programs.

Sources of Funding and FTE for Goal 3

FTE Smith-Lever 3b & 3c	= 0.0
FTE Smith-Lever 3d	= 1.67
Federal Extension	= $ 941,972
Non-Federal	= $5,223,243
Other Federal	= $ 46,954
TOTAL	= $6,212,169

Key Theme - Human Health

a. The Diabetes Awareness Education project began in 1999 in collaboration with Joslin Diabetes Center at Harvard University in Boston Massachusetts. The long-term goal of this project is to reduce the incidence of complications from diabetes. The specific objectives of the project are to: (1) increase knowledge about management of the diabetes; (2) increase knowledge about the medical tests used for early detection and treatment of diabetic complications; (3) increase understanding of the medical tests and (4) motive program participants to seek regular medical assessment of their diabetes.

In FY 2000, in cooperation with Joslin, WSU project faculty outlined the educational process of the pilot program, and created the supporting materials for the program. These materials included: "Are You on the Road to Living Well with Diabetes", a booklet in English and English/Spanish (WSU arranged for the translations), a flipchart "Are you on the Road to Living Well with Diabetes" with English and Spanish scripts, all of the necessary human subjects releases and the questions to support the research effort. The WSU-Joslin team met three times in face-to-face meetings. Joslin drafted the initial booklet, WSU drafted the flipchart.

b. Impact: Participant numbers and impacts reflect the project's early phase of development. Faculty reported direct contact with 390 participants in educational workshops. Of those, 146 (37 percent) reported making changes in food preparation to accommodate diabetes. Programs were successful in reaching priority audiences, with 31 percent of all participants from African American and Native American communities.

c. Source of Funds: Smith Lever, State, County and Special Federal Appropriations Grant

d. Scope of Impact: State Specific. In 2000, 5 counties were involved in the program.

Key Theme - Human Nutrition

a. The purpose of the Family Nutrition Education Program is to improve the nutritional status of food stamp recipients and improve the families' ability to manage scarce food resources to reduce the number of "hungry" days that families experience. The program provides culturally relevant information and experiential learning on using food resources to maximum benefit, food safety, dietary quality, and food preparation. . Program topics include planning tasty, healthful, low-cost meals; food shopping; preparing food from basic ingredients; and food safety.

Creative programs include increasing the amount of food available for a family through gardening and gleaning, and helping families understand nutrition concepts through activities, games and experiences that involve and help them learn. These activities include nutrition bingo games, food preparation and tasting, teaching classes in public schools and sending information home, and grocery store tours.

b. Impact: In 2000, 30,808 people participated in the Family Nutrition Education Program (45% adults and 55% youth). Each participant was reached at least three times by the program. The following practice changes were reported:

* Planned meals: 887 responses evaluated; 46% improved
* Used Food Pyramid to plan healthful meals: 424 evaluated; 59% improved.
* Ran out of food, food money or food stamps before the end of the month: 445 evaluated; 28% improved.
*Used a list when grocery shopping: 788 evaluated; 41% improved.
* Limited amount of salt in food preparation: 539 evaluated; 42% improved.
* Read food labels to choose more nutritious foods: 523 evaluated; 51% improved.
* Ate more than one kind of fruit and vegetable daily: 561 evaluated; 47% improved.
* Choose low fat foods: 339 evaluated; 54% improved.

c. Source of funds: Smith Lever, State, County and City governments.

d. Scope of impact: State specific. In 2000, 16 counties in Washington were involved.

GOAL 4: An Agricultural System that Protects Natural Resources and the Environment.

Overview

Washington State University Cooperative Extension (Extension) has made significant progress toward its goal to increase agricultural profitability and competitiveness while preserving or enhancing natural resources and the rural environment. Multi-state programs have increased. Partnerships with Idaho, Oregon, and other states have yielded significant improvements to extension programming in risk management and in potato production. For example, fourteen WSU extension faculty and staff members collaborated with personnel from Wenatchee Valley Community College, USDA RMA, and USDA FSA to pilot Risk Management Education for Pacific Northwest Orchard Families. University of Idaho and Oregon State University collaborated in the development of the curriculum.

We continue to build interdisciplinary research and extension teams to address IPM and potato production as well as extension, research and teaching partnerships through our Center for Sustaining Agriculture and Natural Resources. That center now has a full-time director. In potato production, six extension faculty work with researchers in Washington, Idaho, California, Colorado and Texas to test the adaptability of new cultivars and extend that knowledge to Washington potato growers.

In Sustainable Agriculture, 9,400 producers adopted decision support systems that recognize and evaluate the economic, environmental, and social implications of alternative plant and animal production systems. Producers managed approximately 900,000 acres under improved sustainable stewardship practices. Natural resource owners and managers attended 244 programs reaching 35,000 people. 14,750 people increased their knowledge and skills in sustaining natural resource systems such as forests, windbreaks, range, and wetlands resulting in practice changes that sustained benefits on over 51 million acres.

Washington's producers continued to build upon past successes in IPM. 115 newly validated prevention-based pest management practices for use on targeted cropping systems may reduce the pesticide load in the environment to safeguard human health and the environmental health of Washington State. 1,914 production units used IPM strategies and systems thereby increasing the supply and dissemination of information about IPM strategies and systems to IPM staff, university faculty, local government, state agencies, and others. 83 public forums involving joint sponsorship or collaboration enhanced multi-party collaborations and the exchange of information among public, private, and non-profit stakeholders in order to foster the development and adoption of IPM strategies and systems among selected audiences. Educational programs to improve the use of IPM strategies and systems increased the range of benefits and opportunities achieved by enterprises and individuals. Audiences using IPM strategies and systems used 354 different IPM practices on selected cropping systems.

Extension is making a difference in the establishment of local food systems that are relevant to communities and enhance the economic, environmental, and social well being of those communities. We have improved our understanding of the value and characteristics of the major components of Washington's existing and emerging agriculture and food systems. This has led to programming that led to the addition of two new community supported agricultural enterprises and 32 new small farms. In addition, 130 new community garden participants, most of which were low income, facilitated the entry

of people into local food production systems, both commercial and non-commercial. Extension continues to provide education for the protection and improvement of Washington's water resources including flora and fauna water quality and quantity. Cooperative Extension provided technical expertise and educational programs in pollution prevention to reduce water resource degradation from contaminants such as failing onsite sewage systems, household hazardous waste, manure pathogens, nutrients, pesticides, soil erosion. 24,689 Washington residents will have a greater understanding of the interdependence of water resources, human health and the ecology of their region. 6,693 program participants made changes in practices that will protect water resources and aquatic life.

Extension has worked to help Washington residents have a clearly articulated set of public values that includes individual, organizational, and community responsibilities for preserving and enhancing our state's environment. 29,797 Washington adults and youths increased their knowledge of environmental and energy issues thus developing an enhanced environmental appreciation and environmental ethic through education programs conducted by WSU Cooperative Extension. Individuals, community groups, organizations, and governments strengthened their leadership, collaborative problem-solving, decision-making, and risk assessment skills in the environmental arena; thereby, preventing or resolving 244 specific conflicts through environmental education and collaborative approaches to problem solving.

Sources of Funding and FTE for Goal 4

FTE Smith-Lever 3b & 3c	= 7.25
FTE Smith-Lever 3d	= 2.91
Federal Extension	= $ 2,251,147
Non-Federal	= $ 9,458,297
Other Federal	= $ 1,096,912
TOTAL	= $12,806,356

Key Theme - Endangered Species
Key Theme - Water Quality

a. Rill irrigation, a source of water quality degradation identified as one of the main sources of excess sediment and water quality degradation in the Yakima River Basin, is thought to be one of the causes for the decline of salmon in the Yakima River. Established by the Washington Department of Ecology, a Total Maximum Daily Load (TMDL) allocation of suspended sediment with a turbidity target of 25 NTU's for the lower Yakima River must be achieved by the year 2002.

Extension faculty cooperated with irrigation districts by participating in three of the Roza-Sunnyside Board of Joint Control Water Quality Working group ad-hoc committees. The regulatory measures and erosion control plans needed by the irrigators that violated the water quality standards of the local TMDL and an innovative off-farm project to improve water quality from irrigation return flows - funded by a $250,000 grant to the Board from Department of Ecology - were discussed as well as the assessment of the viability of a wetland enhancement project in Morgan Lake with the participation of the Joint Board, Ducks Unlimited and Washington State Fish and Wildlife. A county publication entitled "Application of Polyacrylamide Dry Granules for Surface Irrigation Erosion Control" was made available through the Roza and Sunnyside Irrigation Districts and the Wapato Irrigation Projects to all

irrigators that needed information to implement a soil erosion conservation plan.

b. Impact: The collaborative effort with the Roza and Sunnyside irrigation districts indicate that 86 violators of water quality standards adopted and implemented management plans and practices, with addition of PAM technology in several cases. These practices improved the management of more than 4,000 acres of highly erodible soils and dramatically improved the water quality of irrigation return flows to the Yakima River. The implementation of these practices improved the sustainability and economic well being of irrigated farming operations by eliminating the penalties of reducing flows or cutting the water supply to those irrigators that incurred in water quality violations. Due to irrigation conversion from rill to drip or sprinkler methods and improvement of erosion control practices in rill irrigation, the trend of dramatic water quality improvement continued for the main stem of the Yakima River. For instance, the mean daily sediment flowing from Granger Drain into the Yakima River was 16 tons of sediment/day. Thus, the sediment loading decreased more than two-fold since 1999 (43 tons/day). Similarly, turbidity measurements indicated that the Granger Drain is rapidly approaching the TMDL goal of 25 NTU. Less soil loss also represents less loss of nutrients and productive soils from crop fields and reduction of DDT levels in the sediments of Yakima River.

c. Source of Federal Funds: Smith-Lever, State, USDA grant, WA Dept of Ecology grant.

d. Scope of Impact: State specific, integrated research and extension.

Key Theme - Forest Resource Management

a. Forest landowners and Forestland managers are looking for new products from the forest to provide funds to support their forestry activities and to maintain ownership. Residents of forest dependent communities need additional sources of funds to support their families now that traditional timber industries are out of business. Extension faculty met with the USFS Regional Staff and with Washington State Department of Natural Resources stewardship staff to develop a plan of work that would target integrating special forest products into traditional forestry management plans. Extension faculty also developed a plan of work that would target small business owners and operators giving them the skills to manage a sustainable Special Forest Products business. Extension faculty presented 31 workshops for landowners, 10 for small-scale manufactures, 3 major conferences, 2 seminars, and 7 classes at university and community colleges.

b. Impact: The Makah Tribe has received a five-year Ford Foundation Grant to establish a community forestry program based on Special Forest Products. They will be receiving over $150,000 per year. The Weyerhouser Family Foundation will be providing $35 ,000 per year to the Makah tribe to obtain educational support from the Land Grant College system.

Assisted in their organization were nine new family based businesses - they have 31 full-time and 41 seasonal employees. Their gross annual income is more than $720,000.

Six major special forest product manufactures are developing business plans to include provisions that bring them into compliance with the Farm Labor Act. Two major private industrial forest land managers

have implemented management plans that include Special Forest Products/Non-traditional Forest Products that will effect over 3 million acres in Washington.

Washington Department of Natural Resources has committed to over $25,000 in support for special forest products and stewardship educational programs in Washington State. The Rural Technology Initiative has dedicated over $30,000 to supporting ongoing educational programs for small landowners and family-based businesses in Washington. In addition, 579 non-industrial forest land managers/owners have included special forest products in their management plans representing over 319,000 acres. The Special Forest Products Worker Association, now recognized as a formal organization, meets quarterly to focus on worker safety and land access. The association has 387 members, of which 361 are Hispanic. The Special Forest Products web site, not linked to other sites, received over 6,723 visits and generated 623 follow-up visits.

c. Source of Federal Funds: Smith-Lever, Federal and State grants, Foundation gifts

d. Scope of Impact: Multistate, OR.

Key Theme - Integrated Pest Management
a. A high priority for cranberry growers, Extension specialists provided IPM training to 80% of the industry growers. Biorational pesticides, as replacements for organophosphates, were used to treat more than 600 acres of cranberries (30+ growers).

b. Impact: Based on success of the project, the level of participation will increase in 2001. Water quality concerns due to the use of organophosphates and registration cancellations were thereby averted, and $100,000-$200,000 in insect damage losses avoided.

c. Source of Federal Funds: Smith-Lever and State

d. Scope of Impact: State specific

Key Theme - Integrated Pest Management
a. Dryland agriculture in the Pacific Northwest region has traditionally been a wheat monoculture for over 100 years. The situation is rapidly changing due to a variety of factors including: economic value of cereal crops, emerging insect and disease pest problems, changes in crop rotations due to soil conservation strategies and a strong desire for new (alternative) crops to replace cereals in the rotation. In addition, grower awareness of Integrated Pest Management goals and the EPA's Food Quality Protection Act threat to eliminate older pesticides create a need for Extension research into these issues.

Extension faculty conducted on-farm testing research trials in cereals, peas, and lentils in addition to tours for growers at each testing site and three journal articles published on insect management research.

Presentations at 35 grower meetings covered research and management information. Topics addressed at meetings and tours included Agricultural Burning Best Management Practices, Hessian Fly

Management in Spring Wheat, Barley Yellow Dwarf Virus in Wheat, Using Spring Wheat as 'Alternative' Crop in Eastern Washington, and Insect Control in Dry Peas and Lentils.

b. Impact: Wheat growers in the intermediate rainfall areas adopted the use of seed treatment insecticides during early fall planting to control aphids on an estimated 15,000 acres in the Tri -County Area of Whitman, Garfield, Asotin with estimated returns from increased yield of over $200,000. 1500 wheat producers seeded WSU/WSCIA tested locally adapted varieties on 645,000 acres of wheat and 300,000 acres of barley in the Tri-County area for an average yield increase of ten bushels per acre. This increase is valued at over $20 million returned to the local economy because of information received by the team at meetings, tours and direct piece mailings. 275 individuals increased knowledge about pulse (dry pea) insect control using "soft" chemicals and expressed support for registration of new products. On Farm Testing research accelerated adoption of seed treatment insecticides use and experimentation in both cereal grains and pulse crops. This is enhancing the adoption of Integrated Pest Management into farming systems and is providing public and private research scientis ts with increased awareness of the potentials for incorporating newer classes of insecticides that are environmentally safer and provide minimal exposure to applicators. "Soft" classes of chemicals were shown to have equal efficacy and will be able to supplant the use of older classes of insecticides that are being closely scrutinized by provisions of the Food Quality Protection Act. On farm testing malting Barley trials at five locations in eastern Washington resulted in evaluations of a new cultivars by Great Western Malting, which can be utilized by the malt industry and provide economic incentives to producers. These trial results provided producers in the intermediate rainfall zones of eastern Washington the potential for 15,000 more acres of malting barley to be planted with an estimated gross market value of over $1 million.

c. Source of Federal Funds: Smith-Lever, State, County, Commission grants, service fees

d. Scope of Impact: State specific.

Key Theme - Natural Resources Management
Key Theme - Biological Control

a. Non-native, highly invasive weeds are overtaking the grasslands of Ferry County and surrounding counties. Approximately 60,000 acres have been lost to date in Ferry County and over 400,000 more acres infested across the four counties in northeast and north central Washington. Threatened in Ferry County alone are more than 540,000 acres of grasslands. Non-native noxious weeds are destroying the biological diversity throughout this area, decreasing forage for wildlife and live stock, increasing wind and water erosion, and decreasing land values. The health of these grasslands is vital to wildlife, livestock, and the watershed. Private landowners as well as local, state, and federal agencies show a vested interest in biological agents as a supplement, or alternative, to other weed management methods which is cost effective, sustainable, and environmentally friendly. The Quad County/Colville Reservation Bioagent Project, launched in June of 1999 by Extension and a group of colla borators including USDA APHIS personnel, provides collection, redistribution, monitoring, and education on biological agents and noxious weeds within Okanogan, Ferry, Stevens, Pend Oreille Counties, and the Colville Reservation. An advisory group of colla borative partners and financial backers determine project

prioritization.

b. Impact: Over 63,000 insects were redistributed for Diffuse and Spotted Knapweed, St. Johnswort, and Dalmatian Toadflax on over 136 new sites across Okanogan, Ferry, Stevens, Pend Oreille Counties, and the Colville Reservation. Characteristics recorded for these sites and mapped using a Geographical Positioning System are entered in a database for future monitoring and evaluation. Biocontrol adoption lead to a 25-30 percent reduction in herbicide applications on targeted knapweeds, with a much larger long-term reduction with reduced rate of spread of the invasive species. This will result in substantial weed control expenditure savings in the four counties and improved environm ental quality. Effective bioagents for Dalmatian Toadflax, Houndstongue, and Orange and Yellow Hawkweed have been identified by the collaboration as top priorities for future procurement and breeding in cooperation with Extension faculty. Biological adop tion has led to a 25-30 percent decline in herbicide applications to control knapweed and yellow starthistle, resulting in financial savings and improved environmental quality. The overwhelming positive response of the residents and agencies within the Quad County/Colville Reservation area and on a statewide basis shows the need for continuation of this project.

c. Source of Federal Funds: State, Smith-Lever, USDA Water Quality funds, Colville Tribe, Forest Service and WSDA.

d. Scope of Impact: State specific

Key Theme - Recycling
Key Theme - Yard Waste/Composting
a. The Spokane Valley-Rathdrum Prairie Aquifer is the sole source of drinking water for more than half a million people in Spokane and Kootenai Counties. The largest concentration of popu lation in Spokane County lives directly over this aquifer, which is vulnerable to contamination because an impermeable layer does not protect it as it recharges throughout its flow through the Spokane Valley.

The first Home*A*Syst lecture series, "It's Easy Being Green" was completed in the spring of 2000. Topics included Outdoor Air Quality, Composting, and Yard and Garden Care. Extension faculty also developed the three-part "Fall Home Series" including Composting, Cutting Your Heating Bill, and Improving Indoor Air Quality. Through the two lecture series, Extension reached 107 people.

Extension faculty worked with a team to develop the Master Composter Training for Spokane County. Extension faculty also provided vermiculture, materials, and buildin g compost pile training for the Master Composter volunteers. Reaching over 450 adults and youth, Extension faculty presented a series of lectures for the public and activities for juveniles in structured alternative confinement through horticulture classes, demonstrations, and community programs.

As members of the Green Zone, Extension faculty helped plan and host the Green Zone Open House. This program drew hundreds of families to activities including guided tours of compost demonstrations, and access to the resource library with exhibits and displays. The Worm Grower's support group for

individuals developing commercial vermiculture enterprises continues to meet.

b. Impact: Besides reporting increased knowledge in composting, moisture problems, radon, and other potential indoor pollutants, insulation, air leakage and duct problems, 50% of the participants planned at least one behavior change. These changes included testing for CO and radon, controlling humidity levels in their homes, learning more about native and drought tolerant plants, mowing less frequently, mulching, and composting.

As a result of the semi-annual compost demonstration programs and the Green Zone Open House, there was compost bin distribution to 366 Spokane County residents. Ninety-six individuals completed evaluations during the Green Zone open house. Participants reported knowledge gain in a number of areas including 41% in composting, 30% in grasses and alternatives to turf for lawns, and 7% in energy savings. When asked about changes they intend to make, respondents listed 39% will add composting and worm boxes, 22% will add more grasses to garden areas, 20% will save water, plant drought tolerant or native plants, 90% will use energy saving lights, and 7% will reduce garbage and recycle more.

c. Source of Federal Funds: Smith-Lever, State, County, WA State Dept. of Ecology.

d. Scope of Impact: State

Key Theme - Soil Erosion
Key Theme - Soil Quality
Key Theme - Other (Plant Production Efficiency)
a. Direct seed cropping systems can effectively control Pacific Northwest cropland soil erosion and associated water and air quality problems, and improve soil quality and productivity, while potentially increasing grower profitability and competitiveness. Even though research and grower experience with direct seed systems in the Pacific Northwest expanded in the 1990's, there was limited grower access to the research technology and experience base that is critical to the development of successful direct seed cropping systems. Previous Conservation Tillage Conferences in the 1990's only attracted audiences of 200-300.

A new conference approach called the Northwest Direct Seed Cropping Systems Conferences provides a larger number of growers with access to new management strategies and technologies. Several new organizational features dramatically improved the potential to attract much larger grower audiences and improve technology access. A newly created conference Web site (http://pnwsteep.wsu.edu/directseed) increased publicity and technology access. International and national speakers, few if any in the past, now numbers five to eight at each conference. The number of northwest grower speakers increased from an average 2-4 speakers to 10-16. Also new to this conferences are publishing detailed Conference Proceedings never before published in 22 years of PNW conservation tillage conferences, and producing videos of the conferences available for loan and sale. More than ten agricultural companies involved as financial co-sponsors cover additional costs of invited speakers, proceedings, videos, and expanded promotion as compared to no financial co-

sponsors in previous conferences. A new commercial Trade Show on direct seed systems held in conjunction with the conference increased attendance as well as actively involving Pacific Northwest grower commodity and conservation district associations, agricultural industries and other groups as cooperators assisted in developing and promoting the conferences.

b. Impact: Conference attendance grew from the typical 200-300 in previous Conference Tillage Conferences to 900 at the 1998 Northwest Direct Seed Cropping Systems Conference in Pasco, WA; 940 at the 1999 conference in Spokane, WA; and 620 at the 2000 conference in Pendleton, OR. Over 1,000 are expected to attend the 2001 Conference. Over 99% of the 1998, 1999 and 2000 conference evaluation respondents felt that the conferences will help increase the success and adaptation of direct seed systems in the Northwest. Expected to continue into the next decade is the trend of significant increases in use of direct seed systems in the Northwest.

c. Source of Federal Funds: State, Smith-Lever, USDA Special Grant, conference fees

d. Scope of Impact: Multi-state, WA, ID, OR. Integrated research and extension.

Key Theme - Sustainable Agriculture
Key Theme - Food Recovery/Gleaning (Goal 2)
Key Theme - Food Security (Goal 2)
a. In Pierce County alone Washington is losing three acres per day of farmland, only 200 families have access to community gardens, while the 60,000 people per month who go to food banks rarely receive fresh produce. Thus, the local food system is not sustainable nor does everyone have access to locally grown nutritious food. The following program areas were developed or enhanced to address these concerns: gleaning, community gardening, urban farming, and family farm support.

b. Impact: At the end of the year, the Tahoma Food System, a non-profit that Extension faculty founded and managed, became mostly self-sufficient. Extension faculty are continuing to write grants for the organization, but a successful working board manages the organization. Ext ension faculty raised $156,000 for operating funds and fleet enhancement.

Extension faculty successfully turned the management of the Guadalupe Gardens, a 2.5-acre organic farm in the low-income Hilltop neighborhood of Tacoma, over to the homeless shelter and homeless people that it serves.

Extension faculty maintained two community gardens in the lowest income areas of Tacoma for 60 families to raise food for themselves. The Children's Garden in the Salishan Family Garden taught gardening through hands-on methods by Master Gardeners to 25 youth.

Extension faculty built raised bed gardens for 100 low-income families in partnership with the Kitchen Garden Project. In 2001, the Tahoma Food System will take over the Kitchen Garden Project management in Pierce County due to grants that Extension faculty wrote. Ten of the raised bed gardens went to start a community garden for Hispanic families in Sumner.

The Cascade Gleaning Network had its best year ever due to two important grants from the Employees Community Fund of Boeing and the Fuchs Foundation. Boeing bought a new ¾ ton pickup and Fuchs paid for a project assistant. The project involved 161 mostly low-income volunteers who picked food for themselves and the food banks. This is more volunteers than ever before. Nearly 350,000 pounds of otherwise wasted produce, salmon, and bread were picked, which is more poundage than ever before -- 80% went to emergency feeding sites. Post-project surveys show that 100% of the gleaners preserve food for later use and 80% learned some food skills (gardening, food preservation, and/or preparation). The News Tribune ran a large story on the project.

c. Source of Federal Funds: Smith-Lever, Local Grants, Gifts

d. Scope of Impact: State

Key Theme -Sustainable Agriculture
Key Theme - Other (Plant Production Efficiency)
a. Although the most productive in the world on a per unit basis, the Washington potato industry must continue to increase productivity and quality and/or reduce production cost to maintain com petitiveness. New cultivars that require low input of resources or produce more with the same inputs can address part of these objectives while utilizing practices that assure sustainability and protect the environment.

Viable material identified from s uccessful potato breeding program cultivars and clones are assessed for their adaptability for production. The evaluation of the cultural practices places special emphasis on material that gives economical returns to the producers and is acceptable to the market while being adaptable to lower input of nutrients, pest control materials, and water.

b. Impact: Cultivar use has changed significantly. The use of Russett Burbank, the standard cultivar ten years ago, now makes up less than 50% of the acreage with over 40% of the remaining acreage made up of cultivars demonstrated acceptable by the cultivar evaluation program. This program is a cooperative effort between the county and state Extension faculty in state and across seven potato producing states in the western United States.

c. Source of Federal Funds: State, Smith-Lever, ARS, Potato Commission.

d. Scope of Impact: Multi-state Research and Extension, CA, CO, ID, OR, TX.

Key Theme - Sustainable Agriculture
a. Washington is the number one state in cherry production with over 20,000 producing acres. Sales in 1999 produced over $115 million in farm-gate income to Washington growers. With the depressed prices in the apple industry and with other commodities, there is high interest by growers in diversifying into cherry production. The highest priorities for educational programs for cherry growers are planting systems, pruning and training, pest management and cost studies. A summer tour was held to study systems and to demonstrate method of bring orchards into early bearing. Extension faculty chaired and

organized the Cherry Institute, a daylong educational program for cherry growers from five different states and two Canadian Provinces. Governor Locke was invited and addressed this conference.

b. Impact: In addition to the cherry enterprise bulletin (EB1877) distribution to over 100 growers, 216 growers attended three Extension/Big Bend educational sessions, and 430 constituents attended the Cherry Institute. Evidence of the information usage is the additional 2,000 acres of tree fruit planted in the past year in south central Washington. A post seminar questionnaire of the Cherry Institute indicated that 90% of attendees would make practices change. There was also a strong consensus that programs contain more grower-oriented material. About 210 growers attended the cherry field tour - 50% indicated they would use techniques observed.

c. Source of Federal Funds: Smith-Lever, State

d. Scope of Impact: Development was state specific, but benefitted several states and Canada.

Key Theme - Sustainable Agriculture
Key Theme - Other (Risk Management)
a. According to Extension faculty, the 1997, 1998 and 1999 production seasons have brought the most serious economic crisis since the great depression of the 1930's to many Washington apple producing families. This sharp drop in economic returns has multiple, interrelated causes, including the economic crisis in important Asian markets, new export restricti ons initiated by other primary export markets, and a large crop in 1998. Record-breaking poor weather in the summer and fall of 1998 caused storage difficulties, which prevented the orderly marketing of the larger than usual crop.

There are about 4,500 apple orchards in Washington State—2100 in the Chelan, Douglas, Grant, and Okanogan Counties area. The 75,000 acres of apples grown in the region also provide 350,000 days of work yearly to employees who live in the farming communities. More than 3200 (ne arly) full-time employees work for apple storage, packing, and marketing businesses. As farm incomes dropped into negative figures, many growers had to reduce their workforce. As unprofitable blocks of apples are removed, further reductions in work avail ability can be expected.

In late 1999, Extension faculty brought together a group of stakeholders who identified issues needing addressed, and identified possible educational responses. As a result, a series of workshops held in Okanogan, Chelan, Quincy, East Wenatchee, and Wenatchee during February 2000 brought Dr. Farmer, a nationally recognized expert, to address coping with the problems associated with farm crises.

b. Impact: Over 300 people attended the five meetings with 119 completing a forma l evaluation. Responses showed that 80% felt the information would help them keep their family working together and strong, 76% indicated the workshop would help them improve their relationship with their spouse, 75% felt it will help them better communic ate with their family and business partners, and 68% felt that the information will help them take better care of their personal health and well being. Two thirds felt that the information they learned will help them cope and move ahead in tough times and that the

information they learned will help them realize the importance of seeking and accepting help from others. Over half felt the information they learned would help them understand what children and youth are experiencing and how they can help.

c. Source of Federal Funds: Smith-Lever, USDA Risk Management Special Grant.

d. Scope of Impact: State (pilot for multi-state extension program with ID, OR)

Key Theme - Sustainable Agriculture

a. About five years ago, a small lavender industry began developing around Sequim, WA. It continued to grow and has spawned an annual Lavender Festival. The number of local lavender growers continues to increase, and many of these new growers have very little knowledge or experience about growing, processing, or marketing lavender. Extension faculty receive dozens of inquiries annually from people throughout the country who want information about lavender. In an attempt to satisfy the demands of local growers, and in an attempt to further the growth of the North American lavender industry, Extension faculty decided to hold the first North American Lavender Conference. This two-day conference, held in Sequim, WA in July immediately following the annual Lavender Festival, featured workshops and a field tour that demonstrated numerous aspects of lavender production, processing, products, uses, marketing, etc. Featured keynote addresses were by David Christie, owner of Jersey Lavender from the Isle of Jersey, Dr. Arthur Tucker from Delaware State University, Andy Ven Hevelingen owner of Van Hevelingen Herb Nursery, and Anthony Lyman-Dixon a renowned herb and lavender expert from England.

b. Impact: Just over 300 people attended this first of its kind conference. People came from all across the United States, Canada, Mexico, and New Zealand. Evaluations of the conference indicated that it was a huge success, with virtually all participants responding that they had learned a great deal. Almost all said that they wanted to hold another conference in two years, and that they would love to see this become a regular event. Based on responses, it is also likely that a North American Lavender Association develop. Local growers gained considerable knowledge and skills, and several new lavender farms have developed as a direct result of this conference.

c. Source of Federal Funds: State, Smith-Lever, conference fees

d. Scope of Impact: International (Canada).

Key Theme - Water Quality,
Key Theme - Other (Animal Production Efficiency)

a. Dairy farms continue to face economic hardships as farm input costs continue to increase while milk prices remain marginal. To compensate, dairy farmers must continue to increase management efficiency in farm technology involved in herd health, labor, breeding, feeding, raising crops and milking while responding to consumer's concern over food safety, controlling pollution of water resources by animal wastes, animal rights, and urban encroachment on farm land. Informatio nal programs targeted dairy farmers in southwest Washington, agribusiness personnel, agricultural lenders, the general public, 4-H

youth, heifer raising operations and dairy employees. Meetings and workshops, held in southwest Washington, addressed dairy waste management regulations and production management techniques. The Northwest Dairy Shortcourse discussed various dairy management topics and farm management tours.

b. Impact: Seventeen farmers reduced non-point source pollution to surface water and twelve farmers filed a waste management plan with NRCS. One hundred and eleven dairy farmers, consultants, and veterinarians increased farm profitability through improved management of farm resources. Participant evaluations showed over 89% learned information to incorporate into their farm management.

Dairy herds improved annual production per cow by 105 pounds for 2000 over 1999 representing an additional $176,715 for 85 dairy farms located in Clark, Cowlitz, Klickitat, Lewis, Pacific, Thurston, Grays Harbor, and Wahkiakum Counties.

c. Source of Federal Funds: Smith-Lever, State, County.

d. Scope of Impact: State

Key Theme - Wetlands Restoration and Protection
Key Theme - Water Quality

a. The Environment 2010 Citizen's Guide to Washington's Environment reports "60-70% of the lakes and rivers do not meet clean water standards" and "50% of our wetlands are gone." Documented repeatedly, over half of Washington's commercial shellfish beds are contaminated above acceptable harvest levels, and serious contamination of ground well drinking waters in Snohomish County exists. Extension programming to increase the appreciation for and the importance of maintaining adequate quality and quantity of our waters and their associated environments have bee n a major focus. Extension agents assisted local agencies, educators, and communities in creating and implementing local water quality education and action programs -- including Stewardship Volunteer training programs in Snohomish, Skagit, King, and Pierce Counties. Extension co-sponsored Salmon and Amphibian workshops for Snohomish and King County residents. Attended by over 3200 people, Extension co-sponsored the "Festival of the River," two days of appreciating and conferring about "The Stillaguamish River Watershed, It's Resources, The People, Their History and Ways;" that included 20-30 events, 14 water quality related educational booths.

b. Impact: Nineteen of 42 persons completing wetlands stewards classes reported adopting a wetland, completing a formal survey of this wetland, and providing monthly monitoring data to a central collection system. Eight K-12 teachers reported 75 students involved in three near-school wetlands protection and rehabilitation projects. The Corridor Management Plan of the Stevens Pass Greenway designated specific locations of the Skykomish and Snohomish Rivers as protected areas. 125 program participants effected a change in practice to protect water resources affecting 1,000 acres.

c. Source of Federal Funds: Smith-Lever, State, County.

d. Scope of Impact: State

Key Theme - Other (Plant Production Efficiency)
a. Producers and fieldmen constantly request information about cereal variety development and adaptation for their specific production areas in addition to assistance to diagnose cereal production problems. Two hundred twenty-five cereal producers and fieldmen received information concerning varieties during three field days. Agricultural consultants were involved in sampling DNS wheat flag leaves for nitrogen and then obtaining protein from the crop following harvest.

b. Impact: An analysis of two years of data suggests that sampling flag leaves for nitrogen may predict grain protein to some extent. Grain with 14% protein normally sells for 75 cents to $1 more per bushel. Income per acre from increased quality may range from $100 to $150 per acre. With 30,000 acres produced in the area, this can increase farm income by at least $3 million. With 100,000 acres of production in central Washington, the increased income is at least $10 million. Ag consultants and producers are beginning to use this technique that results in improved protein levels.

c. Source of Federal Funds: Smith-Lever, State

d. Scope of Impact: State

GOAL 5: Enhanced Economic Opportunity and Quality of Life for Americans

Washington State University Cooperative Extension offers a wide array of youth, family and community development programs that impact economic opportunity and quality of life for the people of Washington. Included are programs in the state Plan of Action that address *strengthening life skills for youth and adults, workforce preparation, character education, parenting, building strong communities, leadership for public decision making*, and *economic and social change*. In addition, Extension maintains its commitment to ongoing youth and family programs that are both volunteer-based and directly delivered by faculty and staff. Writing a short overview of all the work in this important arena is a challenge.

Life skills programming is a major strength of Extension's outreach to youth and families statewide. Approximately 192,000 contacts were reported to life skill program indicators. Of those, the largest number were in programs teaching self-responsibility skills (25 percent), skills in using resources wisely (21 percent), skills for making healthy lifestyle choices (18 percent), and communication skills (13 percent). Approximately 58 percent of contacts demonstrated increased skills as a result of Extension programs. Of those demonstrating changes, the largest numbers showed gains in decision making skills (42 percent), followed by improvements in communication skills (14 percent) and using resources wisely (13 percent). About 10 percent of those demonstrating changes had gained skills in leadership and another 10 percent in making healthier lifestyle choices. Given that not all programs conduct follow-up evaluations to document skill changes, the fact that the majority of contacts reported positive

changes is illustrative of the success of Extension's life skills programs.

The intended audiences identified for adult life skills programs are traditionally underserved and include low income families and families of color. Reports general ly indicate that programs served the intended audiences in 2000. Latino families were reached by a number of bilingual life skills programs (see **Key Themes - Family Resource Management**). An urban volunteer program teaching basic clothing care, repair and construction reached a diverse audience that averaged 75 percent ethnic/racial minority participation. Extension partnered with a local Army base, a low-income public housing development, homeless shelters, and other social service providers to deliver t he program. Educational materials were translated into Cambodian, Spanish, and Vietnamese. Volunteers provided about 1130 hours (141 days) of education and reached 1053 adults.

In the area of *youth life skills*, WSU CE's 4-H Youth Development Program (4-H) continues to strengthen its outreach statewide, positively impacting the lives of 93,000 (9%) of our state's age-eligible youth with critical life-skill education. Over the past five years, 4-H membership has gown in Washington State by nearly 33%, made possible through the efforts of over 11,000 trained adult volunteers. Last year these adult 4-H volunteers contributed over 1.8 million hours of volunteer service to Washington State youth. If that service had been provided by paid staff, it would have cost in excess of $26.6 million dollars. In addition to the fiscal impact, the young person's sense of personal value was increased because an adult cared enough to give his or her free time to support that young person's growth. CEOs, youth and family professionals collaborate with a broad spectrum of partners from family and youth-serving organizations to maximize outreach and effectiveness. Washington 4-H has made significant strides to reach all of Washington's youth with high quality life skills education. Last year, 25% of all 4-H members in Washington were youth of color, exceeding the state profile by nearly 9%. Planned outreach efforts for increasing Hispanic volunteer recruitment and retention are currently underway.

Through a statewide input process of faculty and staff, 4-H has identified eight major life skills to focus our efforts: leadership, marketable skills, self responsibility, healthy life style choices, decision making, wise use of resources, communication and accepting differences. These life skills are emphasized throughout our 4-H educational outreach, but especially in our focus areas of: workforce preparation, ethics/character education, and science and technology literacy.

One example of 4-H's community effectiveness is the C.O.P.Y. Kids after school program in the Larson neighborhood of Moses Lake, Washington. C.O.P.Y. stands for Community Opportunities and Programs for Youth. The program features a partnership between 4-H and the schools and community groups of the Larson neighborhood to provide a safe and fun educational environment for local youth. Program evaluations indicate that youth increased their skills in teamwork and conflict resolution while also increasing their ability to communic ate more effectively. Grant County sheriff's records indicated that for the seven months after the start of the C.O.P.Y. Kids program, there was a 47% decrease in juvenile problems in the Larson neighborhood as compared to the seven months prior to the program's start.

Parenting educational programs for caregivers and parents are a key component of Extension's outreach to families. A ten-person Parenting Team that consists of county-based faculty and a specialist leads efforts in this area. This group annually organizes a regional conference for parent educators and caregivers (see **Key Themes - Parenting, Child Care** for details). The team also oversees development of new parenting curricula and purchase of publications from other states, selection and piloting of model program approaches, and related staff development efforts. In 2000, the team completed development and training for the Caring Families, Parenting Choices (CFPC) curriculum designed for the Expanded Food and Nutrition Education Program. It has been translated into Spanish and is being piloted in a county with a predominately Hispanic population (Yakima). Parenting Team members also began piloting the Strengthening Families curriculum (from Iowa State University) in two sites, and two faculty members became national trainers in 2000. Finally, the Parenting Team gave attention to improving consumer access to parenting materials. Their web site at http://parenting.wsu.edu expanded in 2000 to include a separate section for Relatives as Parents, and includes linkages to CYFERNET (the USDA/CSREES Children, Youth and Families Network).

In *Responding to Economic and Social Change*, Cooperative Extension faculty and specialists delivered educational programs and provided technical assistance to foster the development of 271 new home-based business in Southwest Washington. They also conducted economic analyzes for cranberry industry producers in Southwest Washington. A financial crisis in the cranberry industry led faculty to seek tax relief and crop disaster relief for producers. Through this program there were also alternative crop scenarios for the industry that helped support farmers during the hard financial times.

Extension Specialists conducted over 800 social, economic and demographic analyzes in response to requests from social service agencies, planners, local businesses, and the media. This information was critical to those planning local programs, to local community planners and for those submitting grant applications. In rural Northeast Washington, a local Extension faculty member and community partners have played a key role in obtaining high speed Internet access and developing a local Tech Center with five computer stations. Residents in this isolated and rural part of Washington had few opportunities outside of formal classrooms to learn new technologies, and many residents did not have access to computers to update their technology skills.

Extension also delivered 408 workshops or training sessions on *Leadership Development for Public Decision Making* in FY2000. The training focused on leadership for professional growth, strategic planning capacity building, and technology skill development. There were 4,961 participants in 15 specific county programs and in programs offered through the Program for Local Government Education (PLGE) for statewide participation. As a result of this work effort, 136 new collaborative efforts were established among local government entities and/or community groups, and 604 local government and community leaders have augmented their strategic planning skills. At least 304 low-income and minorities have become involved in community decision making through this program.

WSU's extension specialist in food processing has worked closely in partnership with Washington Manufacturing Service. Through this partnership we have worked with 113 companies and at least 115 people who are in the process of starting new companies. This work has had an economic impact in

excess of $1 million and has helped foster the creation 60 new jobs.

Sources of Funding and FTE for Goal 5

FTE Smith-Lever 3b & 3c	= 8.44
FTE Smith-Lever 3d	= 0.22
Federal Extension	= $ 1,189,947
Non-Federal	= $ 8,458,738
Other Federal	= $ 1,127,772
TOTAL	= $10,776,457

Key Themes - Parenting
Child Care

a. The Northwest Regional Parenting Conference is an annual event targeted to reach professional and volunteer parent educators and caregivers. Ten Washington State University faculty organized as a Parenting Team to offer the first conference six years ago, and continues to give leadership to this annual event. In 2000, the Conference attracted 335 participants from eight states. The keynote presentations focused on parent-child attachment and becoming media-wise parents. Thirty-five workshops covered a range of topics from grandparents raising grandchildren to fathering to early brain development. The conference was co-sponsored by a number of government agencies and non-profit organizations.

b. Impact: Participants gave consistently high ratings to 95% of the workshops at the event. In a six-month follow-up evaluation, 70 surveys (22 percent response rate) provided the following information:

* 56 percent of respondents reported increased confidence, ability and skills in providing parent education.
* 34 percent of parent educators report their programs are using new materials/techniques in existing programs.
* 41 percent of respondents reported increased confidence and satisfaction in their own parenting.
* 64 percent of all respondents indicated some form of personal change had taken place as a result of attending the conference.

c. Source of funds: Smith-Lever, State, County plus over $12,000 in external funds.

d. Scope of impact: Multi-state Extension with primary focus on OR, ID and WA.

Key Theme - Family Resource Management

a. Life skills programs in central Washington are focused to reach the needs of Latino families, who are the majority population in many communities in the region. A variety of p rograms are offered directly to families, through the training of volunteers and service providers, and through Spanish language newsletters. Several examples follow.

The Families Have Choices program is a 6-week series of life skills classes that includes information on time and household management; food safety and nutrition; interpersonal communication; money and

credit management; stress management; and parenting. The program is delivered by a team of Extension Educators and volunteer teachers. Materials are provided in both Spanish and English, and collaborators who facilitate effective outreach include Even Start, ESL programs, Head Start, and Community Action Programs.

The Money Management Advisor (MMA) program provides 24 hours of training to volunteers and agency staff that work with low income families. Outreach is focused on underserved audiences, including Latino families.

Para Su Familia is a newsletter published 6 times per year free of charge to low income audiences. The newsletter information is in both English and Spanish languages. Topics focus on the management of family resources (including food and money) and parenting. Subscribers include social service personnel, school district employees, and Cooperative Extension programs in 25 states. Subscriptions now cover 100 percent of production costs.

b. Impact: The Money Management Advisors program and the Families Have Choices program reached nearly 300 people, with 62 percent of the latter program participants identifying as Hispanic. In Families Have Choices, participants reported improvements in all areas of life skills after attending classes. The largest improvements were noted in listening skills, handling stress, feeling good about parenting, and saying encouraging and loving things to children. In the MMA program, 98 percent of the 230 consumers reached indicated they learned at least one way to use their resources more wisely, and 77 percent indicated they had learned at least 3 ways. Over 2100 copies of each Para Su Familia newsletter issue were distributed in 2000. Subscribers reported using the newsletter in literacy programs, as part of home visiting programs, and in agency newsletters and mailings.

c. Source of funds: Smith-Lever, State, County.

d. Scope of impact: Multi-state Extension, with emphasis on Northwestern states.

Key Theme - Youth Farm Safety

a. Agriculture-related injuries and fatalities are among the highest of any occupational group in the U.S. (National Safety Council, 1992). At least 23,5000 children suffer nonfatal agriculture-related trauma each year. More than 100 children and adolescents die each year in the U.S. from farm injuries. Most farm accidents are preventable through proper use of farm equipment, use of personal protective equipment, and adequate training. Extension faculty collaborated with Mount Vernon High School VoAgDept, University of WA Environmental Health Department, and Barnett Implement Company to organize the seventh Northwest Washington Youth Safety with Farm Machinery workshop. Surveys were sent to 264 graduates of the 1992-1998 workshops, with a 22.4% response rate.

b. Impact: Twenty-nine high school students, including three 4-H club members, passed driving and written tests on farm machinery safety at the Youth Farm Machinery Workshop. Six parents increased their awareness and understanding of safety through active participation. Average pre and post-test scores reflected a 7% increase in knowledge. Students learned how to start, mount, drive, and

dismount tractors safety, mount. Surveys of graduates showed an 87% correct-response to safety questions. Graduate respondents showed a 67% positive attitude toward farm safety. Because of the survey, instructors will be able to make improvements in future workshops. Local employers are now giving employment preference to graduates of the program. There have been no major tractor accidents involving youngsters in Skagit Coun ty since the program began in 1992. Quote by University of Washington Environmental Health report: "Youth Farm Machinery Safety Workshops conducted by the Skagit County Cooperative Extension office are clearly meeting a need."

c. Source of Funds: Smith Lever, State and County

d. Scope of Impact: State specific.

Key Theme - Youth Development/4-H Adolescent Growth and Development Training

a. Many Extension faculty and staff and their community partners are responsible to train adults who work with youth. A new national curriculum to train trainers was developed by Cooperative Extension and the Army. The curriculum, "Moving Ahead Together . . . Adolescent Growth and Development" prepares trainers to teach a range of subjects on youth developme nt such as diversity, communication, the ecology of families, working with "at-risk" youth, and youth-adult partnerships.

The Adolescent Growth and Development (AGD) Team attended a five-day training in Washington D.C. The Washington team developed a plan to provide the training in this state and adapted the Moving Ahead curriculum and lesson plans to the needs of Washington State WSU CE faculty, staff and volunteers. The first of four full day training sessions was offered in November 2000 at two locations in western Washington and one location in eastern Washington. Subjects and corresponding learning activities taught were: About Youth, Caring Adults and Current Roles, Colors I.Q., Setting Ground Rules, the Experiential Model, and Group Building.

b. Impacts: Thirty-four Extension faculty, staff, volunteers and partners attended the first sessions. Participants reflected on how the training applies to their jobs. Several people believe that the t raining will help them work with and better understand the needs of their volunteers. Others felt that the learning activities could be integrated into several training and program areas. Nearly all participants said they would use the materials in their programs. Impacts will be reported in the future.
c. Source of Funds: Smith-Lever, State, County

d. Scope of the impact: Multistate (National)

Key Theme - Consumer Management/Consumer Education For Youth
a. Studies show that children without adul t supervision are at significantly greater risk of truancy from school, stress, receiving poor grades, risk-taking behavior, and substance use. Children who spend more hours on their own and begin self-care at younger ages are at increased risk (Dwyer et al, 1990; Pettit, 1997). The good news is that researchers have found that children who are under adult

supervision, in programs or at home, have better social skills and higher self-esteem than their peers who are unsupervised after school (Witt, 1997). Other studies have found that children who attend quality programs have better peer relations, emotional adjustment, grades, and conduct in school compared to their peers who are not in programs. They also have more learning opportunities, academic or enrichment activities, and spend less time watching television (Posner & Vandell, 1994; Baker & Witt, 1995).

In addition to the need to provide quality out-of-school time programs, children are in need of learning consumer skills. Younger school-age children learn money management and consumer skills at a young age that influence their ability to handle money through adolescence and adulthood. School-age children study many subjects in school, but often time to teach real life skills, such as money managem ent and wise use of resources is limited. Children learn about using money by seeing how decisions about money are made within the family and the world around them (White & Cavanaugh, 1996).

The project goal was to establish and sustain a statewide system that provides quality, non-formal educational opportunities in consumer skills for youth (ages 9 - 11) during out-of-school time. This goal was attained through the following actions: Eighteen regional mini-grants were offered statewide, to a variety of out-of-school time providers including church programs, Girl Scouts, YMCA, YWCA, 4-H clubs and 4-H Leaders Council, and community run programs. Each mini-grant consisted of $400.00 in cash to use for program costs, and $100.00 worth of materials and supplies to support consumer education.

Training was made available to nearly 200 providers of after-school care in consumer education, using the Consumer Critter Crew as a foundation for teaching. Family pages were translated into Spanish and Russian in order to reach those families who do not speak English. "Family Nights" were organized by several sites to showcase the activities and posters created from the Consumer Critters, and provide consumer education to adults as well. After-school time providers partnered with local area businesses and industries in an effort to introduce young people to their local economy and consumer issues. The YMCA in Richland, Washington worked closely with the Wallula Wildlife Refuge in order to create hands-on activities that instilled a respect for our environment and wildlife. They saw for themselves the effects of product waste and pollution on their environment. In Waterville (Douglas County), school children were able to visit the Bainbridge Manufacturing Company to see economics in action, while the After School Activities Program in Willapa Valley (Pacific County) created a series of posters showcasing their activities in consumerism and displayed them in the window of their local newspaper office. Crossroad Kids in Yakima were able to visit the Dalles Dam to learn about hydro-electric power and natural resource, the Columbia River.

b. Impact:

Individual level

Approximately 750 youth wee directly reached through the Consumer Critter Crew grant recipients. An estimated addition 500 youth learned from the curriculum through organizations that received training in the program outside of those named grant recipients. The estimate of 1250 total youth were reached. Youth evaluations that re completed by grant recipients show that through the Consumer Critter Crew

project, youth gained skills in shopping and money management, environmental sensitivity in making consumer decisions, and greater understanding in the economic flow of money.

Family level

The consumer Critter Crew also an effect on families. The enthusiasm the children gained in learning critical real-world skills generated conversation amongst family members. Children shared their learning with grandparents; in a grocery store, one little girl reminded her grandmother how important it is to review the labels on cans before making her choice. An 8-year old was able to correct herself while explaining to her mom and dad that the pair of swimming goggles she wanted for her swimming lessons was a "want", not a "need". Young people began to understand the importance of comparing prices while shopping, and began to use these skills with their families. They also began, according to Wapato Community Center Director, Nancy Story, to understand why parents often say they have no money. Children here learned that their families live according to a budget, and they began to see the difficult decisions their parents have to make in their spending. But perhaps more importantly, as noted by many of the participating groups, youth learned that they already knew more about consumerism than they realized. A greater sense of confidence and self-esteem in their ability to make wise and responsible choices was a result.

Community Level

Many partnerships within communities were established, resulting in greater learning. Youth became actively involved in a variety of community-based projects aimed at promoting wise consumer choices. Washington State University 4-H Youth Development has adopted the Consumer Critter Crew curriculum as a part of their Publications and Projects, made available now throughout the state of Washington to all 4-H programs as well as all out-of-school time providers and organizations.

c. Source of funds: Mainly Washington State Attorney General Office grant $70,650 and small amount of Smith Lever, State.

d. Scope of Impact: State Specific

Key Theme - Character/Ethics Education

a. Ethics refers to standards of conduct, standards that indicate how one should behave based on moral duties and virtues, which themselves are derived from principles of right and wrong. The Aspen Declaration on Character Education concludes that because the character and conduct of our youth reflect the character and conduct of society, "Every adult has the responsibility to teach and model the core ethical values and every social institution has the responsibility to promote the development of good character. Although the responsibility for developing the character of young is first an obligation of families, it is also an important obligation of faith communities, schools, youth and of other human service organizations." Character development is best achieved when these groups work in concert in entire communities. In order to satisfy the 4-H goal of developing youth to their greatest potential, we cannot overlook the importance of thinking, talking and modeling ethical behavior. Youth leaders are in an ideal position to help develop and nurture ethical character in young people.

A state mini-grant program assisted counties in character education programming. Various character education curricula (Workplace Ethics, Animal Science Showing Character, Character Counts, Focus

on Character) were distributed statewide to support county programming. Basic character education information packets have been distributed at numerous presentations. Character Education curricula were introduced to 4-H leaders and youth during Leader Training, Super Saturdays and Marvelous Mondays in Whitman, Stevens, Pierce and other counties. Character Education activities were incorporated into the three summer day camps in Whitman County.

A Character Education display and presentation was given at the State 4-H Forum. Three Character Education presentations were given to School District Personnel and Character Education resources and materials were displayed at the Partnerships in Education 2000 Conference. Character Education resources and materials were displayed at the All Extension Conference. The Character education theme and activities were incorporated into the State 4-H Teen Conference. A presentation and county implementation plan was shared with staff and county chaperones at the State 4-H Teen Conference.

Character Education resources and materials were displayed at the "Family Fair" in Pullman. Character education presentations and materials were shared with 4-H volunteers at 4-H Council meetings in Klickitat County. Character education presentations and materials were shared with daycare providers in Klickitat County. Character Counts! topics were included in numerous county 4-H newsletters and on radio shows. Character Counts! materials have been incorporated in the Fort Lewis Teen Council. Character education has been introduced in schools in Pierce, Ferry, Whitman, and Spokane Counties.

Displays of character education were featured in county offices and at fairs. A curriculum on manners and etiquette was developed in Pend Orielle County and used in several counties. The National Show Ring Code of Ethics Statement has been included in numerous premium books throughout the state.

b. Impact: 58 4-H Leaders became familiar with the Character Education materials through leader training. 55 youth improved skills in regards to the six pillars of character: respect, responsibility, citizenship and fairness at three summer day camps. 65% of the day camp youth demonstrated respect and responsibility towards camp assistants and each other for the duration of the camp. Over 150 4-H volunteers and staff at State 4-H Forum became familiar with the various character education materials and learned different ways to use the materials in clubs and other settings. Over 250 school teachers and school district personnel became familiar with two character education curricula and participated in age appropriate activities for the various stages of youth development. Over 2000 students Pierce and Spokane School districts gained skills in ethical decision -making using character education models. Sixteen teen ambassadors and twenty chaperones became familiar with several different character education curricula. Each county delegation at teen conference received a character education starter packet to help them incorporate character education into their county 4-H program. 200 State 4-H teens demonstrated the six pillars of character through the Passport to Character: Discover Character activity at State 4-H Teen Conference.

Over 200 WSUCE personnel became familiar with the Character Education materials and resources through the display at the extension conference. 300 families learned that 4-H is more than cows and cooking and has many different curricula including character education. Daycare providers and school personnel are displaying the six pillars of character posters in their facilities. As a result of the state mini -

grant program, additional counties were able to acquire curricula to support their character education programming. As the result of the enhanced awareness of the need for character education programming, the state budget for character education programming was doubled. 125 Focus on Character packets and 200 Workplace Ethics Curricula were printed and distributed to county staff and volunteers. Twenty counties are incorporating character education topics in their newsletters and radio show that reached approximately 20,000 households. Youth teen councils in at least two counties (Pierce and Whatcom) have operating procedures because of practicing the six pillars of character. Youth and adults have gained a heightened awareness of ethical decision making involved in animal science projects.

c. Source of Federal Funds: Smith-Lever, State, County

d. Scope of Impact: Multistate

Key Theme - Community Development (Responding to Economic & Social Change)
a. Extension faculty and specialists developed educational programs and provided information to assist counties and communities in Washington dealing with economic trends and social changes.

Some of the efforts in FY 2000 focused on working with, home-based development owners, cranberry business owners in financial crisis, and local policy makers dealing with changes brought by economic change and the implications of technology on businesses and communities.

In Southwest Washington, home-based business development is one means of increasing family financial resources in rural agricultural communities. A faculty member worked with the local community college to provide business management skills training to potential home-based business owners; to enable them to increase economic viability. They also taught business and marketing workshops in Lewis and Clark counties, and designed and coordinated food product business training for Extension Educators in the Pacific Northwest.

The cranberry industry in Southwest Washington is facing a major financial crisis. Several programs were developed by Extension faculty to help in dealing with the financial difficulties in the industry. Extension faculty also worked with the Department of Revenue and USDA to secure tax and crop disaster relief. Through this program there were also alternative crop scenarios for the industry that helped support farmers during the hard financial times.

Specialists conducted over 800 social, economic and demographic analyzes in response to requests from social service agencies, planners, local businesses, and the media. Local area populations and social trends in Washington are continually changing and the information provided by the specialists are important to persons planning local programs, for local community planning and for those who need local information to justify programs and apply for grants.

In rural Northeast Washington, a faculty member collaborated with the school district, hospital, television association, forest service, public utilities district, economic development district and other

community organizations to bring high speed Internet access to an isolated area of the state. Residents had few opportunities outside of formal classrooms to learn new technologies, and many residents did not have access to computers to update their technology skills. The local Extension office and community partners have played a key role in the development of a local Tech Center with five computer stations.

b. Impacts: The home-base business development education efforts in Southwest Washington have paid off with the establishment of 271 new business enterprises. Individuals and families have increased self-confidence in starting a home business and 28 existing businesses have incorporated technical assistance received from Extension. Individuals and families have increased their personal income as a result of business and marketing information provided by Ext ension. Youth Extension faculty have received Youth Entrepreneurial information and program development assistance. Eleven youth are interested in starting income generating businesses and requested technical assistance from Extension. Two rural high school instructors have received home-based business curriculum and are using it in home economics classes. Forty-two wool producers participated in a Business/Marketing workshop. Through this workshop, linkages between producer and consumer have been devel oped in five situations.

A faculty member in Southwest Washington worked with the Cranberry producers to conduct two social, economic and demographic analyzes for the industry, in response to the financial crisis the industry was facing. This Extension faculty also provided technical assistance to industry producers and ten businesses have incorporated this assistance into business practices.

Two extension specialists conducted over 800 analyzes of social and demographic trends, and delivered this information via print and web site to individuals, agencies and organization across Washington. They heard from 220 organizations who reported the use of the economic and demographic information in their work. This information was used to assess the need for programs, for community planning, and to write justification statements to accompany grant applications.

A new technology center in remote, rural Northeast Washington served 230 users per month and hosted technology training sessions to increase skills o f county staff and saved the county nearly four thousand dollars in training expenses. The center is now operating 7 days a week, staffed by volunteers. The Extension agent worked with the Cable TV Association when they purchased and installed equipment to provide higher speed Internet to businesses, government, and individuals over an upgraded cable system. The extension agent coordinated a demonstration site at the Tech Center for potential users of the new high speed cable based Internet system. There were 70 subscribers willing to sign on to the new system for Internet access. Expansion of this service to the extended service area is planned in the future.

c. Source(s) of Funding - State, Smith Lever and local funding sources

d. Scope of Impact : State specific and OR, ID, WA

Key Theme - Leadership Training and Development (for Public Decision Making)

a. The *leadership training and development programs* developed and delivered by Extension in FY 2000, served 15 counties in Washington and statewide to local appointed and elected officials through programs offered by the Program for Local Government Education (PLGE). The goal of these programs is to assist agencies, community organizations, business associations and non-profit groups with skill development thus expanding the pool of quality leaders to address community issues in the future.

Extension faculty and specialists have worked with a very diverse set of community entities for the *development of strategic plans and strategic planning capacity* among community leaders. This effort provides assistance to local governments and communities to work through problems, rebuild and develop working relationships, develop durable plans and agreements, and build community capacity for planning. Some of the organizations reached include county government, law enforcement, tourism organizations, farm cooperatives, chamber of commerce, community action, U.S Coast Guard, Dept of Social and Health Services and Coalitions dealing with issues of the homeless.

To increase community preparedness to address the implications of emerging issues such as telecommunications and the transition to an information society, Extension has delivered a number of *technology training* sessions in FY 2000. In several areas of the state, particular emphasis has been made to attract minority, low-income and those with limited access to technology skill development opportunities.

b. Impacts: Overall, Extension delivered 408 workshops or training sessions on Leadership Development for Public Decision Making in FY2000. The training focused on *leadership for professional growth, strategic planning capacity building* and *technology skill development*. There were 4,961 participants in 15 county specific programs and in programs offered for statewide participation. As a result of this work effort, 136 new collaborative efforts were established among local government entities and/or community groups, and 604 local government and community leaders have augmented their strategic planning skills. There were also 304 low-income and minority participants who have become involved in community decision making.

There were 165 *leadership training* events in FY 2000 that reached 3,250 participants from businesses, health organizations, non-profits, county government, schools, community colleges, and volunteer organizations. There were 87 new collaborative efforts among local government entities and communities groups, and 287 participants increased their skills. This set of programs reached 220 low-income and minorities, who have become involved in community decision making. An example of a positive outcome of leadership development training in SW Washington where the Lower Columbia Leadership Academy is becoming known as the place to look for well trained and competent leaders. Organizations and agencies are contacting the Leadership Academy for referrals when they have board openings.

Extension provided 29 training sessions and workshops for the *development of strategic plans and planning capacity*. These sessions were attended by 344. Through this effort 34 new collaborative

efforts were initiated. There were 58 low-income and minorities who became further involved in community decision-making and 248 participants have augmented their strategic planning skills.

Extension faculty and staff of the WSU Learning Centers provided 214 *technology capacity building* training sessions in FY 2000. These sessions were attended by 1,367 participants, including 26 low-income and minority participants. There have also been 15 new collaborative efforts among local government and community groups this year. Of particular success were basic software and Web Wizard training sessions offered through Learning Centers in rural and remote locations such as Jefferson County on the peninsula and in Klickitat County in Central Washington.

c. Source of Funding: Smith Lever, State and local funding sources

d. Scope of Impact: State Specific

B. STAKEHOLDER INPUT PROCESS

Washington State University Cooperative Extension's planning process was built from a major initiative in 1998 when four task forces were formed to help shape WSU's role in addressing significant issues facing the state. This process identified the priority programming areas in the college. Since that time, stakeholder input has been an important part of updating these programs. During this year (FY 2000) the College's citizen advisory council has given input to plans. This council is made up of representatives of the agriculture industry, County government, 4-H volunteers, families and businesses. Nominations for vacant positions are sought from agencies and organizations that represent the people of the state. Consideration is given to cultural and gender diversity. Expenses for the council to meet are paid if needed.

A strategic planning process took place around the opportunity to approach the state legislature for new funding for a "Safe Food Initiative." Input from the entire agricultural community was obtained in an extended and thorough process to identify the programs and positions that would be sought. These positions were filled during FY 2000 and the people hired are now implementing the work based on stakeholder input.

Many of the programs and program teams in Extension have their own advisory committees made up of constituents and collaborators. An example is the two Extension Indian Reservation Programs that have strong advisory committees helping them plan and execute their work.

All County offices have some sort of advisory system. Most have formal advisory committees that meet regularly, and all have been encouraged to do so. These committees represent the makeup of the constituents in the county, with specific efforts to obtain input from typically under-represented groups. When it is difficult to obtain formal input from such constituents because they do not want to participate in a committee, then a system of informal input is used. The county chair obtains input by personal contact, from other agencies and organizations and through the use of key people in that community.

In addition to this standard stakeholder input, the entire university is currently immersed in a strategic planning process that will identify future priorities and will involve input from it's stakeholders.

C. PROGRAM REVIEW PROCESS

No significant changes in the program review processes since the 5-Year Plan of Work.

D. EVALUATION OF THE SUCCESS OF MULTI AND JOINT ACTIVITIES

Washington State University made significant progress toward its planned activities in the areas of multi-state, multi-institutional, and multidisciplinary activities, and joint research and extension activities. In Washington, budget cuts have forced the Agricultural Research Center to focus its support on food and fiber. So, although our human sciences programs are based in research from both WSU and other universities, many are grant-funded and joint research and Extension programs supported by CSREES formula funds are almost entirely in the agricultural arena. These activities address issues critical to the sustainability of agriculture in the Pacific Northwest. Planned programs occurred in Risk Management, potato production, conservation tillage systems, IPM and sustainable agriculture through the Center For Sustaining Agriculture and Natural Resources.

In the area of risk management, WSU Cooperative Extension has collaborated with University of Idaho, Oregon State University, USDA/Farm Service Agency, USDA/Risk Mgt. Agency and Wenatchee Valley College to adapt the curriculum developed for wheat growers in 1999 for Tree Fruit growers. During 1999, we brought together a group of stakeholders who identified issues needing addressed, and identified possible educational responses to the economic crisis among apple growers. Consequently, a series of workshops were held during February 2000, in Okanogan, Chelan, Quincy, East Wenatchee, and Wenatchee. Dr. Farmer, a nationally recognized expert in coping with the problems associated with farm crises was the featured speaker. Over 300 people attended the five meetings. See Goal 4 of this report for outcomes.

Diseases, pests and marketability are all problems identified by potato growers that affect the sustainability of their operations. Potato clones and cultivars are selected for inclusion in either the TriState trials of the Western Regional trials by research and extension participants of the trial and industry at an annual meeting. This program is a cooperative effort between the county and state extension faculty instate and across seven potato producing states in the western United States including personnel from Oregon State University, University of Idaho, University of California, University of Colorado, Texas A&M University and USDA/ARS in WA and Idaho. Cultivar use has changed significantly, i.e. use of Russett Burbank the standard cultivar 10 years ago now makes up less than 50% of the acreage, over 40% of the remaining acreage is made up of cultivars that have been demonstrated as acceptable for use by the cultivar evaluation program. 73% of growers and 60% of other potato personnel reported that the seed lot trial created information that was of value in evaluating potato seed lots, seed growers, and seed growing areas. Both direct observations at the field day and the published disease readings were useful.

In the area of IPM and potatoes, growers have become more knowledgeable concerning the biological and environmental conditions that favor late blight. Number of calls on the potato late blight information line was 1733 and accounted for approximately 87 hour of information. Growers that followed management recommendation from the information line succes sfully managed the disease and had no tuber rot problems in storage. Many growers that did not follow the recommendation had 5 to 35% of their tubers rot in storage. One grower lost 1500 tons in storage due to late blight. Tuber from several warehouses had to be processed earlier than scheduled because of late blight and the tubers going bad in storage.

Washinton lags behind the midwest in the adoption of conservation tillage systems, especially direct seeding. There is an intense resurgence of interes t in this topic, led by researchers and extension personnel in the Pacific Northwest. Internet and E-mail use are expanding at phenomenal rates and becoming major technology access tools for growers and Ag support personnel. At the same time, there is a rapidly growing demand for technologies on direct seeding and more intensive cropping to improve production efficiency, profitability, and cropland productivity, while protecting environmental quality. Efforts to increase computer technology access to dir ect seed cropping systems technology has focused on two areas: 1) expansion of a current PNW Web site; and 2) creation of a new PNW direct seed E-mail / Internet list server. The PNW Web site and new List Server are helping meet the expanding PNW demand for computer technology access and an improved communications network on technologies for direct seed cropping systems. The Web site averaged over 200 hits per day in 2000, providing increasing access to conservation cropping systems technology developed th rough STEEP and related NW research programs. The List Server distribution list grew from the 200 initial base of Ag support contacts and growers in late 1999 to over 320 by the end of 2000, and it is expected to show continued growth in 2001.

In addition to the Internet, the Third NW Direct Seed Cropping Systems Conference and Trade Show was held in Pendleton, OR. It was co-sponsored by 10 Ag support companies. The program featured 26 speakers include researchers, industry and agency representatives, and growers from across the Pacific Northwest, Canada and Australia. The Direct Seed Trade Show featured 18 Ag support companies with indoor and / or outdoor displays of equipment and products related to direct seed systems. Digital-quality videos were made available for loan or sale after the Conference. The 130-page Proceedings was distributed to all Conference participants and added to the Web site.

The Center for Sustaining Agriculture and Natural Resources was active in several cross cutting issue s. Teaching, research and extension faculty collaborated to plan programs in organic agriculture. The organic farming program proposal has been picked up by the Washington Sustainable Food and Farming Network as a priority for their upcoming legislative effort. If they are successful, they may be able to provide funding to WSU to initiate an Organic Farming Program through CSANR. The proposal is being used to explore funding options with other sources as well. The Organic Tree Fruit session was very successful, drawing over 250 people. Feedback from those attending indicated that the information presented was very helpful for make careful strategic decisions on organic production, given the clear sign of overproduction provided by the data and confirmed by the other speakers. We

have received several follow-up requests for presentations of the findings at other grower meetings.

In a multi-state effort, the CSANR has helped develop and support The Food Alliance (TFA). TFA approved growers are experiencing direct and indirect benefits from their affiliation. Growers for whom extension conducted the evaluation are accessing new markets and in some cases getting price premiums. Extension faculty have been featured in several articles about The Food Alliance that have exposed the public to a positive story about agriculture. TFA is sought out as a national leader on food ecolabeling.

In the area of 4-H Youth Development (4-H), Washington State University Cooperative Extension has also made remarkable progress in its goal of empowering people and communities, through research-based information and education, to address economic and social challenges facing our youth, their families and communities by effectively implementing multi-state, multi-institutional and multidisciplinary efforts.

Multi-state programs and projects, in the broader 4-H network, have strengthened and reached new levels of collaboration. Specifically related to professional staff development Washington, Oregon, and Idaho conducted joint 4-H and Family Living training. This was a multi-state and multi-disciplinary approach to youth and their families, recognizing the holistic nature of effective youth development. Young people are in families and families have young people. This comprehensive approach has resulted in 120 Extension professionals in the Pacific Northwest better prepared to do effective program delivery for an increasing complex and diverse population.

Additionally, Washington, Oregon, California, New Mexico, Nevada, Arizona, Alaska, Wyoming, Colorado, Montana, Idaho, Utah and Illinois have produced a comprehensive volunteer recruitment effort including staff development and training conducted via satellite, marketing materials, and a volunteer teaching system. This systematic approach to volunteer recruitment is in the first year of a three year effort to increase the diversity of our 4-H volunteer base. Currently in Washington State, 25% of all 4-H members are youth of color, exceeding our state's youth profile by over 9%. However, our volunteer base does not reflect this diversity. The newly implemented multi-state effort focused on the recruitment of Hispanic, Latino, male and senior volunteers will result in a volunteer base better able to relate to our state's youth.

Washington State 4-H Youth Development has joined with 25 other states in the 4-H Curriculum Consortium System in a collaboration with the National 4-H Council. The resulting curriculum development system has provided up-to-date, relevant and leading edge curriculum for youth.

In 2000, over 23,000 project enrollments were reported in Washington State 4-H multidisciplinary programs. Learning objectives of these multidisciplinary projects include: exploration of the outdoors and gain an appreciation for the environment; increase in self-confidence; increase in team work skills and cooperation; development of problem-solving skills; enhancement of leadership skills; service learning; goal setting; enhanced decision making; increased responsibility; wise use resources; cultivation of an inquiring mind; acceptance of group decision processes including goal setting; and the

encouragement of scientific processes in personal decision making.

Washington State has been a regional leader in the Western Regional teen task Force collaborating with New Mexico, Utah, Arizona, Oregon, Idaho, Montana, Wyoming, Colorado, and California in conducted specific leadership training for teens in the Western Region who serve in identified s tatewide leadership roles. For Washington State, these state teens are forming the core Task Force for the reorganization of the 4-H Ambassadors program.

In Washington state, parent education has been identified by stakeholders as a major need in numero us county and state level assessments. For instance, results from the 1995 WSU Omnibus Survey indicated that about 66 percent of Washington state residents felt that strengthening parenting skills was a "very important" need. This need extends beyond sta te borders. Two parenting/family education programs developed by WSU Extension faculty are currently being extended to other states.

The Northwest Regional Parenting Conference has been held for the past six years. Initiated by the WSU Parenting Team, the planning group now includes representatives from Oregon and Idaho. The conference's primary audience is professionals in parent education and caregiving roles, though it also attracts parents. The conference has been very effective in reaching its goa l of providing professional development and networking for parent educators, as well as reaching interested parents who wish to improve their own skills. The 2000 Conference evaluation indicated that the majority of parent educators who attended reported increased confidence, ability and skills in parent education as a result. Thirty-six percent reported use of new materials or techniques they learned about at the conference. Twenty three percent reported that they attended to improve their own parenting skills, though a much larger percentage (64%) said they made some type of personal improvement in their parenting role as a result of the conference. The conference attracts a diverse audience and addresses parenting from a number of cultural perspectives. In 2000, 335 people attended from 8 states.

The Family Night Out program uses the 4-H Challenge model to help families practice communication skills, solve problems and identify strengths. It also provides a safe and supervised atmosphere in which families can have fun together and learn at the same time. This program has operated in several Washington communities for the last two years. In 2000, with support from Partners in Promoting Strengths (the CSREES State Strengthening grant), a program man ual and video were developed to support program implementation in other states. Training has been provided at the last two CYFAR conferences to encourage dissemination to other states. In 2000, Washington State University faculty and staff members provided direct training to Utah State University Cooperative Extension's Children and Youth of Promise program. They have now adopted the Family Night Out model in 22 counties. The same faculty also trained the University of Delaware State Strengthening Grant staff and they will begin offering the program in 2001. As implemented in Washington state, Family Night Out has been particularly effective in attracting low-income and culturally diverse audiences as an alternative to more traditional classroom-style parent education programs. It is also an excellent model for drawing fathers into family education activities.

Finally, we have an ongoing relationship with the Northwest Indian College (NWIC). This is a unique

college in that it does not serve only the reservation on which it is located, but considers its responsibility extends to the three-state Pacific Northwest. Most of the Tribes in the area, however, do not consider NWIC "their" college. Much of its Extension work is conducted by satellite and is pretty targeted to specific sites. Their main concern is with credit students who generate most of their funding. We collaborated on some grants early on and there is some local interaction in youth education programming, but in general the geographical distance from Pullman and our lack of personnel have limited our interactions. However, we recently began discussions with the new President about collaborating on a distance delivery project. NWIC is to be a test site in a national experiment in high speed Internet via satellite, with the American Distance Education Consortium (ADEC), funded by the National Science Foundation. The focus is using this technology to help better serve underrepresented audiences.

E. MULTISTATE EXTENSION ACTIVITIES

Although this narrative report covers many multistate Extension activities and we certainly do a great deal of work in collaboration with Oregon and Idaho, we have requested a waiver for this year and will not be reporting any auditable activities. The impossibility of tracking Federal and State funds which we use very flexibly, and the lack of clarity on how to auditably separate the time faculty spend on multistate as opposed to state-specific programs is preventing us from taking credit for the work we are actually doing that meets the intent of Congress. Because a waiver was obtained and the programs are described within this document, and because of the difficulty of sending it electronically, Form CSREES-REPT (2/00) is not attached.

F. INTEGRATED RESEARCH AND EXTENSION ACTIVITIES

A great deal of integrated work is going on in Washington. Joint appointments between Extension and the Agricultural Research Center are common, the specific purpose of those appointments being to integrate the missions seamlessly, making research projects focus on real problems, and bringing research-based information and education programs to the people of the state. We have begun giving joint appointments to county-based faculty also, where appropriate. Integrated teams of faculty address issues in both agriculture and human sciences. Extension faculty are members of regional research projects and regional coordinating committees. However, the need to keep Federal and State funding of positions flexible and the resultant impossibility of providing an auditable report to reflect all this work has required us to ask for a waiver of the report this year, and to underreport our actual work on the auditable forms. Because a waiver was obtained and the programs are described within this document, and because of the difficulty of sending it electronically, Form CSREES-REPT (2/00) is not attached.