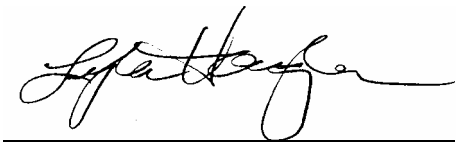
OREGON STATE UNIVERSITY
Extension Service

AREERA Plan of Work

Updated for FY 05-06

Submitted April 1, 2004



Lyla Houglum
Dean and Director, OSU Extension Service

Table of Contents

MISSION AND GOALS

The mission of the Oregon State University Extension Service is:

> *To deliver objective, research-based nonformal education to help Oregonians solve problems, develop leadership, and manage resources wisely.*

The educational goals of the Oregon State University Extension Service are:

- Strengthening and diversifying local economies.
- Building healthy families.
- Promoting environmental sustainability.
- Building community leadership.

ORGANIZATION

At Oregon State University, Extension is based at the university level with faculty in ten of the eleven OSU colleges. Efforts are well advanced in integrating the extension, research, and teaching functions and in extending the entire university through programs critical to the citizens of Oregon where they live and work (OSU Statewide). Integration takes place at the college and department level with unit administrators having responsibility to administer faculty and funds in programs related to their disciplines.

The organization's mission is carried out through interactive educational programs that address issues critical to Agriculture, 4-H Youth Development, Family and Community Development, Forestry, and Sea Grant. Each program area is administered by one or more program leaders who serve as administrators in the colleges and in extension.

Professional field staff hold faculty appointments in academic departments of ten colleges, a feature unique to extension in Oregon. In making extension a full partner in the academic enterprise, the OSU Faculty Senate has defined scholarship as "creative intellectual work – validated by peers and communicated." In this definition, scholarship encompasses creative artistry and the discovery, development, and integration of knowledge. Peer groups include practitioners. Communication extends beyond reviewed publications to include alternative methods of dissemination and dialogue. The OSU definition of scholarship opens the university to active engagement with citizens as collaborators in creative intellectual work.

STAKEHOLDER INPUT

The Oregon State University Extension Service (OSUES) plan-of-work is informed and shaped by broadly based planning processes involving diverse groups of citizens.

- The Governor-appointed Oregon Progress Board has established benchmarks for measuring progress toward statewide goals in human resources, natural resources, and the economy. Extensive citizen input is involved in an annual update of progress toward the Oregon Goals. OSUES makes every effort to target its programs on the goals and their benchmarks. The Oregon Goals provide a foundation for focused collaboration with other agencies and organizations.

- In 2003, state budget reductions resulted in a need to realign spending with expenditures. Staffing reductions were anticipated, and the OSU Extension Service relied heavily upon the input form 1670 stakeholders in developing a reduction plan. This input came from every county in addition to statewide listening sessions.
- Every county extension office is served by an advisory committee structure, which often includes sub-committees for program areas, such as agriculture or 4-H youth development education. Committee membership seeks to reflect the demographics of the county. In addition to influencing local programs, local input is carried by field faculty to their academic departments and to their statewide program working groups.
- The statewide Extension Citizen's Network provides advice and input to extension administration. The Network comprises a local advisory committee member from each county (36). A member from each cluster (8), a member recommended by each program area (6) and a County Commissioner from each side of the state (2) meet more frequently with the Dean and Director as the Extension Citizen's Board.
- Citizens in fourteen of Oregon's 36 counties have voted to create service districts for the purpose of funding Extension in those counties. That these citizens have voted increases in their property taxes to support Extension is testimony to their belief that Extension is effectively addressing issues important to them.
- Through extensive consultations with their many constituents (e.g., industry groups and college and department advisory committees), the program area faculties further focus the programs and goals of extension in Oregon.

Agriculture

The extension plan-of-work in agriculture is shaped by:

- stakeholder meetings held throughout the state in cooperation with the Oregon Department of Agriculture;
- regular interactions with members and leaders of 30 commodity commissions/organizations;
- collaboration with state, federal, and sister USDA agencies; and
- county reports of critical issues facing Oregon's farms, ranches and agricultural businesses.

The most critical issues are:

1. Continuous, profitable production of agriculture products.
2. Adding value to agricultural products with high levels of food safety and quality.
3. The urban/rural interface.
4. Water and watersheds.

To facilitate delivery of programs effectively addressing these critical needs, the College of Agricultural Sciences faculty has organized into 17 interdisciplinary extension/research working groups.

Family and Community Development

The College of Health and Human Scieces administers extension work in Family and Community Development. The Family and Community Development program is shaped by:

1. Stakeholder focus groups conducted in nine counties (1997) representing the diversity found in Oregon:
2. Community meetings (1998) in four Oregon regions;
3. National Standards for Family & Consumer Sciences, Oregon 21st Century Schools;
4. Oregon Shines II Goals (1) "Quality Jobs for all Oregonians", (2) "Safe, Caring and Engaged Communities", and (3) "Healthy Sustainable Surroundings"; and

5. County reports of critical issues.

This input resulted in the following strategic program goals:
1. Create and manage resources
2. Increase overall health and wellness
3. Form social connections with communities and neighborhoods to increase a sense of connection.

Core programs are:
- Diet, nutrition, and health.
- Healthy aging.

New thrusts are:
- Healthy nutrition and activity.
- Emergency and community food security.
- Healthy aging.
- Family financial literacy.
- Emergency preparedness.

4-H Youth Development Education

The 4-H Youth Development Education program is administered within the School of Education and is served by an extensive advisory committee structure. The Oregon 4-H Advisory Council comprises 8 youth (grades 10-12), 20 volunteer 4-H Leaders, 2 extension faculty/staff and 5 other stakeholders. In addition, at the state level, there are 13 advisory and development committees that are project/event specific comprising 68 adult volunteers, 10 youth volunteers, and 59 extension faculty/staff.

A 4-H Leaders Council serves each county. 4-H Program Committees and/or 4-H project area committees also serve in many counties. With input from these stakeholders, teams of campus and field faculty are focused on:
1. Leadership development for youth and adults.
2. Workforce preparation.
3. Environmental stewardship.
4. Science and technical competence.

Forestry

The Extension Forestry plan-of-work was shaped by a year-long process involving interviews of 90 current customers, a survey of 40 continuing education participants, and a telephone marketing survey of 115 potential customers. This stakeholder input resulted in the following strategic goals:
1. Improve competitiveness of forestry and forest product enterprises.
2. Develop new knowledge and research implementation.
3. Engage public dialogue about Oregon's forestry future.
4. Expand forestry skills and capacities.
5. Establish Extension Forestry as the recognized state wide leader
6. Grow a dynamic organization.

Core Programs include:

- Basic Forestry Shortcourse
- Master Woodland Manager
- Field Forestry Schools
- Woodland Workbook
- *Forestry Update*

New thrusts are:

- Multi-resource Management Curriculum
- Watershed Stewardship Curriculum
- Uneven-aged Management and Sustainability
- Small sawmills and manufacturing
- Special Forest Products
- Workforce Development

MULTISTATE PROGRAMMING

The three states of the Pacific Northwest have a long tradition of collaboration. Idaho, Oregon, and Washington have many programs and activities that can be described as "multistate;" some formal, and many informal. Due to limited resources, programs and specialists are often shared, with no exchange of dollars. Specialists distribute their newsletters to the other states, or contribute to newsletters distributed in all three states. Bordering counties plan and work together, and faculty respond to questions from each other's counties, across state boundaries. Faculty and staff training opportunities are frequently jointly planned, or are open to personnel from the other two states. Conferences are jointly planned and open to all three states, and satellite programs developed in Washington are downlinked nationwide with many states participating. Perhaps the most formal and well established collaboration among the three states is the PNW Publications process where publications that are relevant to all three states are jointly written and reviewed, published by the lead state, and made available to all three.

Oregon also collaborates in programming with Alaska, California, the Intermountain States, the Western Region, and the nationwide Extension System. Collaborations include joint program planning and implementation, sharing of materials and faculty expertise, and joint funding of special projects. Alaska, Idaho, Oregon, and Washington jointly fund a liaison position with the regional EPA office located in Seattle. Negotiations are underway with Idaho concerning possible multi-state, field-based positions.

Planned multi-state programs and activities between Oregon, Idaho and Washington are detailed in Appendix A. Each professional FTE is a commitment of more than $100,000 for salary, fringe benefits, support staff, and expenses. The level of planned, multi-state programs and activities are well in excess of 25% of Oregon's Smith Lever 3(b,c) allocation. These activities will continue to grow during the five-year period of this plan-of-work.

MULTIFUNCTION PROGRAMMING

There are four major ways in which the research and extension functions are integrated. First, there are formal Regional Research and Extension Coordinating Committees that meet regularly to plan, conduct and evaluate projects that include research and extension components. The regional multifunction committee (RCIC) met for the first time in the summer of 1999 to review and approve the work of these coordinating committees. Second, there are multidisciplinary working teams of faculty and staff that include both research and extension personnel. These teams form to address critical issues and provide major program thrusts. Third, twelve faculty

located at research and extension centers and research stations have partial or full extension appointments. These assignments are made to place faculty having primarily extension appointments in close working relationships with faculty having primarily research appointments. Fourth, many faculty are appointed with joint appointments in extension and research to provide the closest possible integration of these functions.

Appendix B presents lists of working groups in the Agriculture, 4-H Youth Development Education and Family and Community Development program areas. The listing of academic homes for the members of the working groups illustrates the multidisciplinary nature of these programs. Members of the seventeen working groups in agriculture hold extension, research, extension/research and research/extension appointments. Appendix B illustrates that extension's investment in multifunctional and multidisciplinary programs is well in excess of 25 % of Oregon's Smith Lever 3(b,c) allocation.

MULTI-INSTITUTIONAL PROGRAMMING

Various formal and informal collaborations exist between Oregon community colleges and the Oregon State University Extension Service. Community college facilities are frequently used for Extension programs. Local educational programs are jointly planned and presented. The Wasco County Extension office is located on the Mid-Columbia Community College campus. Extension office space is provided to a community college faculty member in the Klamath County Extension office.

The OSU Extension Service is a collaborator in the Pacific Northwest Public Policy Institute located at Portland Community College. The Institute uses the National Issues Forum model for engaging citizens in public issues. Programs include a summer training workshop for Forum moderators and a workshop on framing issues in public terms.

The OSU Extension Service also has an active partnership with the Oregon Agricultural Experiment Station and the Oregon Department of Agriculture at the Food Innovation Center in Portland. This facility was created as a joint effort to provide support for creation and expansion of food-based businesses in Oregon.

Agricultural commodity organizations work closely with the OSU Extension Service Agriculture Program and provide financial support for programming and in some cases faculty salaries and other personnel expenses.

UNDERSERVED AUDIENCES

Latino populations are growing rapidly in Oregon (147% between 1990 and 2000). Additionally, Oregon has a significant Native American population that also exhibits significant growth (17% during the decade of the 1990s). The OSU Extension Service is focusing efforts on these growing segments of the state's population.

The CYFAR State Strengthening Project: OREGON OUTREACH targets Latino communities and youth development in Hood River, Marion, Multnomah, and Washington Counties. The project features activities at demonstration sites, 4-H publications in Spanish, Oregon Leadership institute, 4-H as Partners (see

http://OSU.orst.edu/extension/Oregon4-H/OregonOutreach/index.htm).

Collaborations have been created with state Latino organizations and other organizations and agencies that support Latino children, youth, and families as well as with campus departments and programs serving Latino students. At the local level, culturally appropriate educational programs are designed, implemented, and evaluated in partnership with the Latino community. Emphasis is placed on providing program materials in Spanish and hiring bilingual and bicultural faculty and staff. The pesticide safety for farm workers program distributes English and Spanish versions of educational materials, uses a mobile audio-visual training unit at public events, and facilitates sessions using Spanish-speaking health worker trainers to convey safety messages. An office to serving the nutrition education needs of the Latino community of the metro area has been established in Portland.

OSU Extension Service collaborates with the Nez Perce Tribe in the implementation of the Wallowa County Nez Perce Tribe Salmon Habitat Recovery Plan. Numerous educational programs are planned and conducted in partnership with the Confederated Tribes of the Umatilla and Confederated Tribe of Siletz Indians. An Extension office with staff of five is maintained on the Warm Springs Indian Reservation in Jefferson County.

The EFNEP and OFNP (Oregon Food Nutrition Program – Food Stamp) programs serve low-income audiences. These programs also bring the input of these underserved audiences into the program planning processes of the entire organization.

MERIT REVIEW

In the tradition of Pacific Northwest cooperation, the directors and assistant and associate directors of Extension in Idaho, Oregon and Washington have collaborated in the development of this Federal Plan. Each state will review the plan of the other two states, involving program leaders and specialists with appropriate expertise.

Goal 1. An agricultural system that is highly competitive in the global economy.

The $3.6 billion in annual farm and ranch production, with related services, equipment, transportation and processing, accounts for a fourth of the state's economy or gross state product. Oregon's agriculture is diverse with some 200 commodities grown in the state. Greenhouse and nursery production has the highest commodity value. Other top commodities are hay, cattle, wheat, and grass seed. The dynamic and diverse agricultural and food industries of Oregon require aggressive, integrated research and extension programs in order to meet challenges and capture opportunities. Research and extension faculty work side-by side – often with joint appointments – in 11 experiment stations and 6 research and extension centers located across the state.

The forestry sector provides 4.7% of the state's employment and 7.1% of its gross product. The bulk of employment and income is derived from processing. Forestry accounts for 10% of total industrial output in the state with $1.3 billion of annual production value and $11.1 billion of processing. More than 500 value-added forest products firms are located I the Portland metro region. These and others throughout the state offer extension new and important clientele that often have little knowledge of the forest base that supports them. Primary mills employ 5 or less people annually per million board feet of lumber produced. Value-added forest products companies employ 60-80 people annually per million board feet of wood processed. These processing plants are mostly located in areas not served by traditional forestry extension faculty and represent new and important clientele for extension. Oregon's 25 million acres of

public and private forests supply essential forest products and support rural families, communities and workforces, as well as a vibrant tourism industry. Major changes in Oregon's property tax system will affect profitability and cash flow for these stewards.

Oregon ranks sixth nationally in the weight of seafood landed annually and twelfth in its dollar value ($80 million). The state issues licenses to 3,500 commercial fishermen and 2,000 commercial fishing boats. The commercial fishing industry shares Oregon's 736 miles of ocean and Columbia River coastline with many other uses; including settlement, public access, and tourism pressures, all in a fragile environment. Commercial fishing is important to the economic and social stability of the forty-seven cities and small towns located in Coastal Oregon. Two of The Oregon State University Experiment Stations serve the research and extension needs of this industry.

Critical Issues

Farmer and rancher concerns about Oregon's agricultural competitiveness relate to core economic problems of profitability, commodity (industry) comparative advantage, and agricultural and trade policy. Many of Oregon's agricultural markets are international, with Pacific Rim nations becoming increasingly important. Sound strategies for cutting production costs, managing risks, and diversification must be developed and implemented. The need for high quality farm and ranch financial analysis is great. Fruit, berry, and vegetable crops rely on a large migrant work force, much of which is undocumented. Continued availability of this workforce is essential for the production and harvest of these crops, which are facing intense international competition. The migrant workforce brings individual, family, and community needs in social services related to education and health. Water quality and quantity will continue to be a critical issue as multiple users compete for this limited resource. The diversity of agricultural production in Oregon coupled with significant population densities within the Willamette River Valley and elsewhere in the Pacific Northwest makes Oregon a prime location for development of value-added food enterprises. However, many barriers exist for food entrepreneurs in the region including business management knowledge, recipe development, safe food handling strategies, processing and packaging, and knowledge of export regulations.

The average productivity of Oregon's commercial forestland is significantly below its potential due to forest conditions resulting from inadequate management and natural limitations. Recent National Forest management plans have reduced annual timber harvest levels by 70-80 percent, resulting in accelerated harvests on non-industrial private land. The value of Oregon forestland has increased 300 percent since the late 1980s, demanding increased attention to business dimensions of active management. To assure sustainable production of the diverse array of forest products requires improvements in technology and management of production, harvest, and utilization.

Oregon's commercial fishing industry has undergone enormous transformation in the past two decades. Low returns of harvestable fish coupled with growing constraints by regulations to protect depleted, threatened and endangered species have meant economic distress for coastal Oregon's economy. There is tremendous potential of improved quality in the products that are landed, in new and niche markets, and in value-added products. The Northwest seafood industry must become more attuned to resource conservation, and improved technology to increase yields, reduce waste, and adding value to a finite resource.

Performance Goal

To annually increase awareness, understanding, and action that strengthens and improves the productivity, competitiveness, and profitability of natural resource, food, and forest product industries in Oregon.

In pursuing this goal, the Oregon State University Extension Service will provide educational programs that:

1. Provide key economic information on costs and production of commodities.
2. Develop alternative crops and production systems.
3. Improve animal feeding and nutrition.
4. Improve crop and livestock quality.
5. Protect livestock from pests and disease.
6. Increase the average productivity of Oregon's commercial forestland.
7. Improve manufacturing processes and quality of forest products.
8. Develop niche market opportunities for new natural resource products.
9. Provide new and cost-effective, value-added processing and products that allow the seafood industry to compensate for reduced harvest levels.
10. Enable the seafood industry to improve food safety and quality and reduce waste and water use.
11. Result in 20,000 4-H Youth Development Education projects being completed annually.

Key Program Components

1. Continuous interaction with members and organizations of the natural resource, food and forest product industries.
2. Involvement of members of the intended audiences in the design of the educational programs targeted to them.

Internal and External Linkages

Internal linkages will be accomplished primarily through the working groups that are multi-disciplinary, research and extension teams involving both campus and field faculty and academic unit administrators. A key internal linkage is with the Food Innovation Center in Portland. External linkages include commodity groups and organizations; input supply, processing, manufacturing, and marketing firms and organizations; state and federal agencies, consultants, and land and enterprise owners and managers.

Evaluation Framework

Oregon Invests! is a database containing descriptions and results of research and extension projects. The database is updated annually with progress reports. An economist estimates the economic impact of each project and provides a relative index of environmental and social impacts. Surveys administered at the end of, and six months following, educational programs will be used to project behavioral change impacts.

Output indicators

- Number of people completing educational programs
- Number of people (and percentage) intending to adopt practice changes as a result of educational programs

Outcome indicators

- OSU Extension programs will increase returns to Oregon farmers, ranchers, fisheries, and primary forest product producers by at least $60 million during FY 04. This figure will be maintained at $60 million during FY 05 and 06.
- Number of people (and percentage) adopting practice changes as a result of educational programs.
- Evidence of more informed decision-making by natural resource system owners and managers.

Program Duration – Long Term

Allocated Resources

Federal (3b,c)	$980,000
State General Funds	$2,600,000
County Funds	$1,200,000
Total	**$4,780,000**

Goal 2. A safe and secure food and fiber system

Critical Needs

Oregon is one of 9 sites participating in CDC's Emerging Infections Program Foodborne Diseases Active Surveillance Network (FoodNet). Although FoodNet data have shown a decreased incidence of infection from several pathogens, there has been ongoing incidence of E. coli O157:H7 and Salmonella outbreaks. For example, regionally-grown sprouts caused foodborne illness in Oregon in 2003, and there was an outbreak of E. coli related illnesses associated with a county fair in 2002. Safe food handling (good sanitation, thorough cooking of meat products, and proper temperature control) can help vulnerable consumers reduce their risk of illness caused by microorganisms. Oregon's statewide Food Safety/Preservation Hotline continues to receive calls about unsafe home canning practices. The case of mad cow disease in the state of Washington during 2003 heightened consumer awareness of issues that affect the safety of the food supply.

Performance Goals

- Improved Food Safety and Quality
- Education programs that are valued by participants

Key Program Components

Objectives:
Participants will become aware of and adopt food handling practices that are safe and retain food quality

Activities:
Distribution of food safety/preservation information through workshops, exhibits, and the Web.

Response to individual questions through the telephone, e-mail, and displays at community events.

Training and support of Family Food Education volunteers to deliver community education programs relating to food safety, quality, and security.

Nutrition Education Programs will include food safety education in programming for limited income families. Educational programming to serve multi cultural audiences will include specific food safety issues associated with typical foods associated with major cultural communities.

Internal and External Linkages

The Family and Community Development program links with departments and colleges at Oregon State University and expertise throughout the Land-grant System to provide specific subject matter content that is needed to keep projects and programs current, scientifically accurate and relevant to today's youth, families and communities. Specific linkages will be

maintained with other departments in the Colleges of Health and Human Sciences, Agricultural Science, and Liberal Arts.

Program staff collaborates with professional colleagues in the community, other service providers, and other agencies. Collaborators include Oregon Department of Education, Oregon Department of Agriculture, Oregon Department of Health and Human Services, USDA's Food and Nutrition Service, the U.S. Food and Drug Administration, and others.

Target Audience

Oregon individuals and families are the target audience. Programming will reach diverse groups that represent varying ages, income levels, educational backgrounds and racial and ethnic origins.

Evaluation Framework

Evaluation methods will be appropriate for the age, education level and culture of the program participants. Sampling will be used to project overall knowledge and skill gained, as well as, intended and actual behavior change.

The following indicators will be used to evaluate awareness and adoption of safe food handling practices:

- Participant numbers reached and reactions to the program
- Changes in knowledge, skills, attitudes and aspirations
- Changes in practices/behavior
- When appropriate, changes in the environment

Program Duration – Long Term

Resource Allocation

Federal (3b,c)	$130,000
State General Funds	$360,000
County Funds	$160,000
Total	**$650,000**

Goal 3. A healthy, well-nourished population

Critical Issues

Inactivity and poor food choices contribute significantly to the development of obesity, high blood pressure, heart disease, cancer and diabetes which are leading causes of death and disease in Oregon. Poor eating and inactivity are now considered the second largest preventable cause of death in Oregon and the U.S. In 2000, Oregon was the first state west of the Rockies with more than 20% adult prevalence of obesity. Since 1994 the prevalence of diabetes has increased 62%. Fruit and vegetable consumption is associated with a lower risk for many cancers yet only 25% of adults eat the recommended number of servings each day, 28% of 8th graders and 25% of 11th graders eat the recommended number of servings of fruits and vegetables each day.

Access to wholesome and nutritious food may be limited for some children, older adults, and people from culturally diverse backgrounds. Barriers to access include limited income, limited job skills, availability of appropriate food resources within some communities, and limited food preparation skills and facilities. According to the Oregon Food Bank's 2002 Hunger Factors Assessment, 94% of respondents say their monthly food stamps ran out at least a week before the end of the month.

Performance Goals for Oregonians

- Healthy food habits that promote a healthy weight
- Increased fruit/vegetable consumption
- Increase knowledge, awareness of physical activity
- Quality Education Programs that are valued by participants.

Key Program Components

In pursuing the goals, Oregon State University Extension Service will provide educational programs that have the following components:

A) Better Nutrition and activity for Better Health

Objective:

Participants will:

- Adopt eating patterns that align with the Dietary Guidelines, Food Guide Pyramid
- Adopt shopping behaviors that support healthy eating
- Become more aware of recommended daily physical activity levels

Activities:

- Community education programs that promote a healthy lifestyle
- Low income individuals, families and youth will be reached through the Expanded Food and Nutrition Education Program (EFNEP) and the Oregon Family Nutrition Program (OFNP) through education programs, displays, short educational contacts, newsletters, computer based learning modules, and a kiosk that provides information on nutrition, food safety, and food security, encourages activity, and provides referrals to community programs.
- Train and support Family Food Education volunteers to help deliver nutrition and health programming as appropriate.

B) Healthy food for the insecure

Objective:

- People who get emergency food will make the best use of the food they receive
- Oregonians will increase their awareness, knowledge about community food security
- Oregonians will mobilize for action around community food security issues

Activities:

- Oregonians will gain greater sensitivity to the causes and reality of hunger through programs exposing them to issues related to food security and hunger in Oregon
- Community programs will be delivered to increase awareness of food security in the community and actions that can be taken to increase food security.
- Education programs will be developed and delivered to increase utilization of underused emergency foods.
- Education will be carried out with the regional Food Bank and local agencies to increase knowledge and distribution of culturally- and diet-appropriate foods.

Internal and External Linkages

The Family and Community Development program links with departments and colleges at Oregon State University and expertise throughout the Land-grant System to provide specific subject matter content that is needed to keep projects and programs current, scientifically accurate and relevant to today's youth, families and communities. Specific linkages will be maintained with other departments in the Colleges of Health and Human Sciences, Agricultural Science, Liberal Arts.

Program staff collaborate with professional colleagues in the community, community service providers, and other local, state, and federal agencies. Collaborators include Oregon Department of Education, Oregon Hunger Relief Task Force, Oregon Food Bank, and other federal, state agencies in the implementation of the statewide Public Health Nutrition plan, Healthy Kids Learn Better Partnership, and 5 to 9 A Day Partnership.

Target Audience

Oregon individuals and families are the target audience. Programming will reach diverse groups which represent varying ages, income levels, educational backgrounds and racial and ethnic origins.

Evaluation Framework

Evaluation methods will be appropriate for the age, education level and culture of the program participates. Focus will be on increased awareness, knowledge, skills gained, and both intended and actual behavior change.

Outcome Indicators

As appropriate, the following indicators will be used to evaluate programming:

- Participant numbers reached and reactions to the program
- Changes in knowledge, skills, attitudes, and aspirations.
- Changes in practices/behavior

- When appropriate, changes in the environment.

Program Duration – Long Term

Allocated Resources

Federal (3b,c)	$130,000
State General Funds	$360,000
County Funds	$160,000
Total	**$650,000**

Goal 4. An agricultural system that protects natural resources and the environment.

Critical Issues

The requirements of the Clean Water Act (CWA) and numerous listings under the Endangered Species Act (ESA) make watershed and salmon restoration a critical and defining issue in Oregon. All Oregonians and all segments of the Oregon economy are impacted, but none more than fisheries, farming, ranching, and forest industries. The Oregon Plan for Salmon and Watersheds is a public/private initiative combining voluntary action and regulation. 80 local watershed councils, which develop plans and carry out improvement projects with incentive funding from the Governor's Watershed Enhancement Board, facilitate the voluntary element. Educational programs are needed to train watershed council members in:

- their public roles,
- methods for assessment watershed health, and
- hydrologic elements of restoration projects.

Educational programs are also needed to inform farm, ranch, and forest landowners and mangers of applicable regulations and options for voluntary action.

Performance Goals

- Help natural resource industry owners and managers to manage their resources wisely
- Collaborate with all private and public partners in the Oregon Plan for Salmon and Watersheds
- Help Oregonians understand their relationship to the natural world; take appropriate action at individual, family, business, and community levels; and develop and support sound environmental policies.

Key Program Components

- Watershed Stewardship: A learning guide
- Proper Functioning Condition (PFC) of riparian areas
- Integrated Pest Management (IPM), Integrated Fruit Production (IFP)
- Applied research, demonstrations and workshops linking improved grazing management to water quality and riparian areas
- Federal Water Quality Initiative coordinated effort
- Small Farm environmental programs
- Federal lands management public policy program
- Master Gardener environmental programs, Master Composters
- 4-H Natural Science Curriculum: Wildlife Stewards, Wildlife Habitat Evaluation, Natural Science Family Days, Natural Resources Education Tours, Wetland Wonders, Ridges to Rivers, Forestry, Entomology, Geology, Wildlife Ecology

Internal and External Linkages

The Environmental Education program links the Colleges of Forestry, Home Economics and Education, Liberal Arts, and Agricultural Sciences (Molecular Toxicology, Agricultural and Resource Economics, Animal Sciences, Bioresource Engineering, Botany and Plant Pathology, Crop and Soil Science, Entomology, Fisheries and Wildlife, Horticulture, Rangeland Resources). All program areas collaborate in providing environmental education programs that are based in sound social and physical science research.

External collaborators include professional colleagues in the Oregon Departments of Agriculture, Fisheries and Wildlife, Environmental Quality; Governor's Watershed Enhancement Board; Oregon Forest Resources Institute; Soil and Water Conservation Districts; NRCS, FSA, EPA, and other federal agencies. Numerous general and commodity agricultural organizations, elected and appointed county and state officials, community leaders, teachers, and others contribute to, and participate in the environmental education program.

Target Audiences

Target audiences include 4-H Youth and adults; farmers, ranchers, forest, and small tract landowners; natural resource industry managers; state and federal agency personnel; community watershed principals; watershed council members; resource professionals; consultants providing associated services; and the general public.

Evaluation Framework

Participant surveys will assess the quality and impact of environmental education programs. Surveys administered at the end of, and six months following, educational programs will be used to project knowledge and behavior change impacts. At the macro level, the Oregon Shines goals and benchmarks related to natural resources will indicate progress.

Output Indicators

- Evidence of greater participation in environmental education programs (Number of people completing educational programs)
- Number of people (and percentage) intending to adopt practice changes as a result of educational programs
- More environmental content in natural resource production education programs
- Environmental education programs based on the best available science rather than myth and fear
- Evidence of greater collaboration among environmental educators and between regulators and educators
- More than 5,000 4-H youth involved in natural resource programs annually

Outcome Indicators

- Number of people (and percentage) who adopt practice changes as a result of educational programs
- Number of public officials (and percentage) who report using knowledge gained in educational programs
- Evidence of greater harmony between natural resource industries and stewardship of the environment
- Evidence that landowners and natural resource industry managers are able to develop and adopt sustainable practices and systems
- Evidence of increased compliance with environmental regulations
- Evidence that adults and youth better understand their relationship to the natural environment
- Evidence that more adults, youth, businesses and communities are practicing a stewardship ethic
- Evidence that adults and youth are knowledgeable about natural resource best management practices

- Evidence that more citizens recognize the importance of meeting current human needs without compromising the ability of future generation to meet their needs
- Evidence that more citizens are capable of sound decision-making in environmental policy

Program Duration – Long Term

Allocated Resources

Federal (3b,c)	$1,060,000
State General Funds	$2,900,000
County	$1,300,000
Total	**$5,260,000**

Goal 5. Enhanced economic opportunity and quality of life for Americans.

4-H Youth Development Education and Family Community Leadership

A new generation of leaders is needed with increased skills in decision-making and conflict resolution. Great challenges confront youth, families, community organizations, and the institutions that serve them. Major trends are impacting our lives and futures. To enhance positive forces and minimize threats we must study these trends and address them directly. Youth must gain workforce skills in such areas as use of science and technology, and understand natural resources and their appropriate uses in order to become contributing members of families and communities. All members of society require skills in group and community decision-making for positive involvement in the public processes that are included in the responsibilities of citizenship in a democracy.

Trends

- America is aging
- Nearly one-third of school age children is from minority populations.
- Changing workforce: more women are working and increased use of technology is impacting how we interact with others
- Changing family structures: teen parents, older parents
- Changes in the way people are involved (volunteering) in their communities: shorter time commitment, action oriented
- Life-long learning essential in the workforce, family, community
- Amount of information doubling every ten years with technology promising to increase the pace of change
- International markets and economy are influencing job stability, family income, and the future of all communities
- Increased juvenile violence: gangs, concern about personal safety
- Schools are becoming caregivers of children
- Decreased funding for education and other government service programs
- Schools are job and career oriented: educational reform
- Increased use of drugs
- Increased awareness of educationally challenged youth
- Increased need to work in cooperative/collaborative/partnership relationships with others
- Decreased number of Extension faculty, increased number of joint assignments, and increased reliance on volunteers
- Decline in trust level toward “government”
- Impacts of welfare reform on families, work, and communities
- More than 50% of employers cannot find qualified applicants for entry level positions

Critical Issues

- It is essential to have a cadre of trained volunteers who have the ability to provide educational programming in a safe environment for youth and adults
- There is a need to recognize “youth as resources” in all phases of programming
- Youth need to sense positive expectations from people around them
- Youth need to have roles as meaningful contributors
- Youth need to be involved in decision-making that involves their well-being
- Youth must be provided with essential physical, intellectual, and emotional skills to deal with living, learning and working environments

- Low income families members need improved basic living skills
- The needs of educationally challenged children is impacting traditional programming
- Balancing work, family and community volunteerism is becoming more difficult for individuals and families
- Involvement of under-represented groups of youth and adults requires new strategies
- More than half of young people leave school without the knowledge or foundation required to find and hold a good job (SCANS Report)

Performance Goals

- 4-H Leaders who are satisfied and effective in their role and able to contribute to life skill development of youth
- Youth who have learned, applied, and practiced essential life skills
- Parents and youth who believe 4-H is a positive educational experience in a safe environment
- Leaders who believe that involvement in the 4-H program contributes to their personal growth and increases their contributions to the community.
- Faculty, staff and volunteers who are able to operate effectively within a volunteer management system
- Community members who learn leadership skills in the context of community decision-making and involvement in the political process
- Low income family members will learn and practice improved basic living skills

Key Program Components

- 4-H Leader core curriculum (recruitment, training, retention, mentoring, recognition, evaluation, exit interviews), newsletter, Oregon 4-H Leader Forum
- 4-H Club and short-term project programs
- 4-H Family events: Super Saturday, family day camp, family fun walk/ride, community service projects
- 4-H Summer days at OSU, Know Your State Government, Ambassador Program, Ambassador Weekend, Teen Leadership Teams, Fair Teen Staff Program, County Youth Commission, Junior Leaders, 4-H Interstate Exchange
- Specialists Acting in Leadership program
- Family Community Leadership Program
- Basic Living Skills curriculum

Internal and External Linkages

The 4-H Youth Development Education program is linked with other departments and colleges at Oregon State University and throughout the Land-grant System to provide specific subject matter content that is needed to keep projects and programs current, scientifically accurate, and relevant to today's youth, families and communities. Specific linkages will be maintained with other departments in the Colleges of Home Economics and Education, Agricultural Science, Forestry, and Liberal Arts.

Program staff collaborates with professional colleagues in the State and County Commissions on Children and Families; Oregon Departments of Education, Fisheries and Wildlife, Environmental Quality, and others; and NRCS, FSA, EPA, and other federal agencies.

Target Audiences

Primary target audiences are youth and adults involved in 4-H Youth Development Education programs at county and state levels. This includes youth from kindergarten through 12th grade. Adults of all ages participate in 4-H as volunteer leaders and resource persons. Youth with special needs are involved in 4-H programs. Emphasis is placed on increased programming efforts with youth and adults from Hispanic-Latino audiences.

Evaluation Framework

Evaluation methods will be appropriate for the age, education level and culture of the program participates. Sampling will be used to project overall knowledge and skill gained and intended and actual behavior change.

Output Indicators

- Increased 4-H enrollment and participation with more than 80,000 youth participating in one or more delivery modes in the 4-H youth development program
- Increased involvement of minority youth and adults, achieving parity in participation for minority populations
- Increased use of 4-H materials including the use of Spanish language materials
- Increased levels of activity in 4-H

Outcome Indicators

Evidence that:

- More youth are serving on boards in clubs, church, school, and community
- More youth occupy leadership roles in 4-H, peer, school, and community groups
- A wider cross-section of youth representing different cultures, lifestyles, and regions are valued as leaders, decision-makers, and resources in school and community groups.
- More youth recognize and value their own roles and responsibilities as members of their club, school, and community
- More adults are satisfied and effective in their role, and have more confidence in working with the diversity of children in the 4-H program
- Volunteer leaders are able to balance their work, family and community volunteerism commitments
- The 4-H Youth Development Program is reflective of the population
- More youth relate personally and socially with others and demonstrate acceptance and appreciation of differences
- More youth have leadership skills that empower them to succeed at home, at school, in their community, and in the workplace.
- More youth have learning, application, and evaluation skills and knowledge in a variety of research-based subject areas
- More youth understand the issues of living in a global interdependent world
- More youth have used the processes and skills of acquiring knowledge to enable them to set goals, make responsible decisions, solve problems, and take action
- More youth can identify resources (time, people, money, etc.) and use those resources effectively to complete tasks and achieve goals
- More youth have organizational skills that help them effectively plan their time and use resources to carry out responsibilities at home, at school, and at work
- More youth demonstrate initiative and responsibility
- More youth possess skills for working collaboratively with others to accomplish goals

- More youth have a positive self-concept based on their identification of personal skills, values, and a positive vision for their future
- More youth have gained science and technical competencies through 4-H projects and activities
- More adults have gained teaching skills by implementing the science and technical competencies incorporated in 4-H projects and activities

Program Duration - Long Term

Family Resource Development - Critical Issues

Critical Issues

Families provide care across the lifespan, supporting children and youth, family members in transition, and older family members. Families who support each other contribute to positive individual development, a quality workforce, caring communities, and a healthier Oregon.

In many rural Oregon counties, the proportion of older adults exceeds 20%. Health outcomes for many of these older adults could be improved through health promotion education. In addition, many elders are being cared for by family members and friends, who experience caregiver stress and burden.

High rates of poverty and unemployment among Oregon families put children at risk for negative outcomes, including hunger and child abuse. At-risk families benefit from parent education services, which are often fragmented among agencies. Financial literacy across the lifespan provides the knowledge and skills to increase long-term resources and cope with a limited or fixed income.

Performance Goals

- Improved financial literacy among different age groups
- Improved parenting knowledge and skills
- Increased ability to cope with the stresses of being a family caregiver
- Increased ability to manage and reduce chronic health problems
- Increased knowledge and skills of health care and human service professionals who care for older adults
- Increased empathy and awareness of the needs of at-risk populations among human service professionals
- Quality education programs that are sought after and valued by participants

Key Program Components

State and county programs focus on healthy aging and family gerontology, financial literacy, and parenting education that address these goals.

Activities:

- Provide conferences, trainings, and educational materials for health care and human service professionals who work with older Oregonians
- Teach workshops for older adults to increase healthy aging behaviors
- Teach workshops for caregivers to older adults to decrease caregiving stress
- Provide education for parents and child care providers to help increase skills and practices to more effectively support and promote the positive development of children
- Provide financial literacy trainings to increase knowledge of financial strategies to increase self sufficiency across the lifespan.
- Provide curriculum and programming to increase empathy and awareness of needs of at-risk populations

Internal and External Linkages

The Extension Family and Community Development program links with departments and colleges at Oregon State University and throughout the land-grant system to provide specific subject matter content that is needed to keep projects and programs current, scientifically accurate and relevant to today's youth, families and communities. Specific linkages will be maintained with other departments in the Colleges of Health and Human Sciences, Agricultural Science, Forestry, and Liberal Arts.

Program staff members collaborate with professional colleagues in the community and in other agencies; examples include local service providers, the Oregon Departments of Human Services and Education, federal agencies such as HRSA and ACF, and others.

Target Audience

Programming will target individuals and family members of varying ages, income levels, educational backgrounds, and racial and ethnic origins. Extension provides education directly to families as well as working collaboratively with staff and volunteers from agencies and organizations to reach families.

Evaluation Framework

Evaluation methods will be appropriate for the age, education level and culture of the program participants. The focus is on increased awareness and knowledge, skills, and projected and actual behavior change.

Outcome Indicators

As appropriate, the following indicators will be used to evaluate programming:

- Numbers reached and participant reactions to programs
- Changes in knowledge, skills, attitudes, and aspirations
- Changes in practices/behavior

- As appropriate, changes in the environment

Program Duration:

- Long term

Allocated Resources:

Federal (3b,c)	$ 900,000
State General Funds	$3,000,000
County Funds	$1,200,000
Total	**$5,100,000**

Planned Multi-State Extension Programs

Program/Activity	WA (FTE)	OR (FTE)	ID (FTE)
CSREES Goals 1 & 4			
Direct Seeding (no till) PNW STEEP	0.50	1.00	0.50
dryland systems of the NW			
Small Grain Variety Testing	1.25	1.00	0.50
Potato Variety Testing and Production	1.00	1.00	1.00
Grass Seed	0.05	0.50	0.50
Reduced field burning			
NW Center for Small Fruits	1.00	1.50	0.50
NW Berry & Grape information network			
Tree Fruit Production	0.30	0.50	0.25
Horticulture and Nursery Programs	0.60	0.50	0.50
Master Gardeners, ornamental seminars			
Reciprocal PAT Training Program	1.50	1.00	1.00
Livestock Production	1.50	1.00	1.50
Cow-calf management guide, Nat'l Beef handbook and database, intermountain			
cow symposium, Pork 2000, western dairy management, forage programs			
Sustainable Agriculture	1.00	1.00	1.00
SARE Ext., beef marketing A to Z-Retained ownership, small acreage			
programs, riparian grazing projects, composting, IPM			
Salmon Restoration-all program areas	1.00	2.00	1.50
Forest & Ag practices, watershed stewardship, watershed councils, urban			
impacts, waste management, economic impacts			
Proper Functioning Condition	0.15	1.00	0.50
Grazing of riparian areas working group, public lands issues			
Forestry	1.00	0.50	0.75
Native hardwoods, spiral forest products, Mid-Columbia Valley Forestry Ext.			
Christmas trees, Continuing Education, Agro-Forestry			
Situation and Outlook	2.00	1.00	0.50
Farm management, marketing, policy, rural development, Agr-Credit, risk			
management			

CSREES Goal 2			
Food Safety	0.25	0.20	0.25
Master food preserver, better process control schools, training for meat processors			
CSREES GOAL 3			
Healthy Well-Nourished Population			0.25
CSREES Goal 5			
4H Youth Development Education	2.75	2.00	2.00
Curriculum development teams, leader forum, professional development, leader			
training, national development, team leadership comp, regional 4H marketing,			
WA/ID HUB group, child care network, impact assessment project			
Family and Consumer Sciences	1.00	0.50	1.00
High school financial planning, gerentology, parenting, welfare reform, community			
food systems			
Pacific Northwest (PNW) Publication Series	2.00	2.00	2.00
4-H Youth, IPM, FCS, Agriculture Production			
Community Development			1.00
Totals (FTE)	**18.85**	**18.20**	**17.00**
EPA Liaison Position	$7,000	$7,000	$7,000

Agriculture Working Groups

Title & Description	Members	Academic Home	Appointment *
Dryland Cropping Systems	Ball, Dan	CSS	Res/Ext
Dryland cropping rotation systems include wheat, canola,	Darnell, Tom	Hort	Res
other small grains and alternate crops. Major activities	Karow, Russ	CSS	Ext/Res
include development of a comprehensive description of	Smiley, Richard	CSS	Res/Ext
the dryland cropping systems. Alternate crops are	Wysocki, Don	CSS	Ext/Res
evaluated and demonstrated. A flex cropping decision-			
making tool for deciding if and what spring crop should			
be planted is being developed.			
High Rainfall & Irrigated Cropping Systems	Aldrich-Markham, Susan	CSS	Ext
Willamette and Grand Ronde Valley rotation systems	Bohle, Mylen	CSS	Ext/Res
including grass seed, cereals, vegetables, alternate	Bohnert, Dave	An Sci	Res/Ext
crops, potatoes, other agronomic and seed crops in	Bubl, Chip	Hort	Ext
Umatilla, Morrow, Malheur, Klamath, Deschutes,	Butler, Marvin	CSS	Ext/Res
Jefferson and Crook counties. Major issues being	Eleveld, Bart	AREc	Ext
addressed are development of a comprehensive	English, Marshall	Bio Eng	Res
description of high rainfall cropping systems in the state.	Fisher, Glenn	Ent	Ext
Other activities include Res, demonstration, and	Gingrich, Gale	CSS	Ext
education about Integrated Pest Management;	Hamm, Phil	Bot Plnt	Ext
management practices for good soil and water quality;	Hannaway, David	CSS	Res/Ext
and production issues which affect profitability. Improved	Hart, John	CSS	Ext/Res
understanding between industry, residential, and	James, Steven	CSS	Res/Ext
agricultural land uses is a goal.	Jensen, Lynn	CSS	Ext
	Karow, Russ	CSS	Ext/Res
	Locke, Kerry	CSS	Ext
	Luna, John	Hort	Res
	McGrath, Dan	Hort	Ext
	McMorran, Jeff	CSS	Ext
	McReynolds, Bob	Hort	Ext
	Mellbye, Mark	CSS	Ext
	Mosley, Al	CSS	Res
	Richardson, Daryl	Hort	Res
	Selker, John	Bio Eng	Res
	Shock, Clint	CSS	Res
	Smiley, Richard	CSS	Res
	Sullivan, Dan	CSS	Res/Ext
	Todd, Rod	CSS	Ext
	William, Ray	Hort	Ext
	Wysocki, Don	CSS	Ext/Res
	Young, Bill	CSS	Ext/Res
Berry and Grape	Burgett, Mike	Ent	Res/Ext
Efforts are directed to applied Res and Ext	Candolfi-Vasconcelos, M	Hort	Res/Ext
efforts which increase crop production profitability through	Fisher, Glenn	Ent	Ext

reduced fruit loss from machine harvest, increased	Fuchigami, Les	Hort	Res
efficiency of fertilizer inputs, improved integrated pest and	Hart, John	CSS	Ext/Res
crop management practices; evaluation of grape	Hellickson, Martin	Bio Eng	Res/Ext
rootstocks and berry crop varieties; improved postharvest	Kaufman, Diane	Hort	Ext
handling, storage, and transportation which contribute	Mielke, Gene	Hort	Res
to reduced loss of quality and an Extension of marketing	Penhallegon, Ross	Hort	Ext
periods.	Poole, Art	Hort	Ext
	Richardson, Daryl	Hort	Res
	Strik, Bernadine	Hort	Ext/Res
	Watson, Barney	Food Sci	Res/Ext
Nursery Crops	Burt, Larry	AREc	Ext/Res
Field, container grown, and greenhouse crops in the	Fuchigami, Les	Hort	Res
Willamette Valley. The group plans workshops, field days,	Green, Jim	Hort	Res
newsletters, World Wide Web (WWW) pages, and	Pscheidt, Jay	Bot Plnt	Ext
develops cooperative relationships with WSU, PSU, and	Regan, Richard	Hort	Ext
community colleges for delivery of programs. Cooperation	Rosetta, Robin	Hort	Ext
with the Oregon Garden Project provides a special			
service/education opportunity.			
Tree Fruit and Nut Crops	Azarenko, Anita	Hort	Res/Ext
Cherry, pear, apple, filbert, other tree fruit and nut crops	Burgett, Mike	Ent	Res
in Hood River, Wasco, Jackson, Umatilla, Union Counties	Chen, Paul	Hort	Res
and the Willamette Valley. These are the Oregon	Darnell, Tom	Hort	Ext
members of a Pacific Northwest group of	Fisher, Glenn	Ent	Ext
Ext and Res faculty. There is increased use	Fuchigami, Les	Hort	Res
of the WWW and development of publications which	Hellickson, Martin	Bio Eng	Res/Ext
include tree fruit and nut production for new farmers,	Hilton, Richard	Hort	Res
organic production guidelines, state water law, integrated	Johnson, Ken	Bot Plnt	Res
fruit production, orchard economics, and cold storage of	Long, Lynn	Hort	Ext
fruit. Programs address large and small producers	Luna, John	Hort	Res
utilizing English and in some cases, Spanish. The group	Mehlenbacher, Shawn	Hort	Res
has an external advisory group which is linked to local	Mielke, Gene	Hort	Res
tree and nut advisory groups.	Olsen, Jeffrey	Hort	Ext
	Penhallegon, Ross	Hort	Ext
	Proebsting, Bill	Hort	Res
	Pscheidt, Jay	Bot Plnt	Ext
	Richardson, Daryl	Hort	Ext
	Riedl, Helmut	Ent	Res
	Seavert, Clark	AREc	Ext/Res
	Spotts, Robert	Bot Plnt	Res
	Sugar, David	CSS	Res/Ext
	VanBurskirk, Philip	Hort	Ext/Res
	William, Ray	Hort	Ext
Dairy	Downing, Troy	An Sci	Ext
Major thrusts are waste utilization and business	Gamroth, Mike	An Sci	Ext
management. Program content covers production testing,	Hansen, Don	Vet Med	Ext

animal nutrition, financial management, determination	Hart, John	CSS	Ext/Res
of waste storage, balancing crop needs with waste	Peters, Amy	Range	Ext
applications and use of constructed wetlands for			
treatment of wastewater.			
Livestock	Carr, Jay	An Sci	Ext
Winter feed costs are the largest single expense in	Chamberlain, Dave	Range	Ext
beef production. Team effort develops demonstration	Cornelius, Jim	AREc	Ext/Res
programs which reduce costs and improves animal	Delaney, Gary	Range	Ext
health and meat production. Cooperating with local	Hansen, Don	Vet Med	Ext
producers, faculty verify and localize the National	Hathaway, Ron	An Sci	Ext
Res Council Beef Cow Nutrition Program which	Hermes, James	An Sci	Ext/Res
is used to develop winter feeding rations based on cow	Hill, Tom	An Sci	Res
size and environmental conditions. This optimizes	Jacks, Clint	Range	Ext/Res
feeding rations, reduces costs and increases ranch	Mills, Randy	An Sci	Ext
income.	Pawelek, Bob	An Sci	Res
	Peters, Amy	Range	Ext
	Pierelli, Gene	An Sci	Ext
	Thompson, Jim	An Sci	Ext
	White, Randy	Range	Ext
	Williams, John	Range	Ext
Pasture and Forage	Bohle, Mylen	CSS	Ext/Res
The objective is improved pasture renovation practices	Broderick, Bill	4H	Ext
with subsequent management for improved animal	Carr, Jay	An Sci	Ext
production and water quality. Regional workshops	Delaney, Gary	Range	Ext
emphasize the benefits of good pasture management	Downing, Troy	An Sci	Ext
and preservation of water quality. Demonstration plots	Hannaway, David	CSS	Res/Ext
are done regionally, emphasizing renovation and	Hart, John	CSS	Ext/Res
management. The group conducts professional	Jones, Joy	4H	Ext
development programs and develops educational	Peters, Amy	Range	Ext
materials for the WWW.	Pierelli, Gene	An Sci	Ext
	Stephenson, Garry	Anthrop	Ext
Integrated Pest Management	Ball, Dan	CSS	Res/Ext
Integrated Pest Management (IPM) utilizes a wide	Braunworth, Bill	Hort	Res/Ext
range of methods for the management of crop pests.	Butler, Marvin	CSS	Ext/Res
Environmental impacts as well as costs and benefits	Deangelis, Jack	Ent	Ext/Res
are considered. This group works closely with other	Fisher, Glenn	Ent	Ext
commodity groups in further development and	Halse, Richard	Bot Plnt	Res/Ext
implementation of the various tools used in IPM. A	Hamm, Phil	Bot Plnt	Ext
major effort involves the continued improvement of the	Jenkins, Jeff	Ag Chem	Ext
weed, disease, and insect control handbooks. Portions	Kaufman, Diane	Hort	Ext
of the books are being expanded in an electronic format	Kerkvliet, Nancy	Ag Chem	Ext/Res
to capitalize on WWW technologies which enhance	Kogan, Marcos	Ent	Res
decision support for users.	McGrath, Dan	Hort	Ext
	McReynolds, R	Hort	Ext
	Mellbye, Mark	CSS	Ext

	Poole, Art	Hort	Ext
	Pscheidt, Jay	Bot Plnt	Ext
	Putnam, Melodie	Bot Plnt	Ext
	Riedl, Helmut	Ent	Res
	Rosetta, Robin	Hort	Ext
	Shenk, Myron	Ent	Ext
	Spotts, Robert	Bot Plnt	Ext
	VanBuskirk, Philip	Hort	Ext/Res
Rangeland and Watershed Management	Borman, Mike	Range	Ext
Water quality, with a focus on temperature, is the main	Broderick, Bill	4H	Ext
emphasis of this group. The short term effort is on	Buckhouse, John	Range	Res/Ext
monitoring stream temperatures. The immediate need	Carr, Jay	An Sci	Ext
is how to set objectives, develop protocols for monitoring	Chamberlain, Dave	Range	Ext
and data analysis. Long term efforts will result in a	Deboodt, Tim	Range	Ext
data base on selected stream segments, courses of	Delaney, Gary	Range	Ext
elevated temperatures educate about stewardship in	Edge, Dan	Fsh Wldlf	Res/Ext
range management, and include working with others who	Godwin, Derek	Bio Eng	Ext
develop regulations.	Hathaway, Ron	An Sci	Ext
	Huddleston, Herb	CSS	Ext/Res
	Jacks, Clint	Range	Ext/Res
	Mills, Randy	An Sci	Ext
	Obermiller, Fred	AREc	Ext/Res
	Pawelek, Bob	An Sci	Ext
	Peters, Amy	Range	Ext
	Pirelli, Gene	An Sci	Ext
	Shock, Clint	CSS	Res
	Tanaka, John	AREc	Res/Ext
	Todd, Rod	CSS	Ext
	Vavra, Martin	An Sci	Res
	White, Randy	Range	Ext
	Williams, John	Range	Ext
Water Resources	Buckhouse, John	Range	Res/Ext
Four major issues where educational efforts are focused	English, Marshall	Bio Eng	Res
include: livestock and surface water quality (coordinated	Gamroth, Mike	An Sci	Ext
with the Rangeland and Watershed Management group)	Godwin, Derek	Bio Eng	Ext
water quality and associated allocation issues,	Hathaway, Ron	An Sci	Ext
understanding and identification of wetlands, and	Huddleston, Herb	CSS	Ext/Res
reduction of nutrient loss to water.	Jensen, Lynn	CSS	Ext
	McMorran, Jeff	CSS	Ext
	Mielke, Gene	Hort	Res
	Miner, Ron	Bio Eng	Ext/Res
	Penhallegon, Ross	Hort	Ext
	Selker, John	Bio Eng	Res
	Shock, Clint	CSS	Res
	Sullivan, Dan	CSS	Res/Ext
	Wysocki, Don	CSS	Ext/Res

Fisheries, Wildlife and Agroforestry	Edge, Dan	Fsh Wldlf	Res/Ext
Major activities include: fact sheets that explain the	Godwin, Derek	Bio Eng	Ext
risk assessment process, and place hazards from	Kerkvliet, Nancy	Ag Chem	Ext/Res
wildlife related diseases or food safety concerns from	Tanaka, John	AREc	Res/Ext
consuming fish and wildlife in perspective; multi	Vavra, Marty	An Sci	Res
disciplinary symposium on riparian and watershed			
management; curriculum materials on biodiversity,			
threatened and endangered species; and neotropical			
birds for the Master Woodland Manager program			
(coordinate with the Forestry program); bulletin on			
neotropical migratory bird habitat management			
opportunities.			
Home Horticulture	Bubl, Chip	Hort	Ext
This group serves the Master Gardner Program. Activities	Cowan, Janice	4H	Ext
include delivery of high quality training programs for	Fick, Barbara	Hort	Ext
volunteers, curriculum review, and review of delivery	Gredler, Gail	Hort	Res
methods considering the use of new technologies. New	Jones, Joy	4H	Ext
technologies for delivery of educational materials to the	Locke, Kerry	CSS	Ext
public are evaluated, and the breath and quality of	McNeilan, Jan	Hort	Ext
educational programs done by volunteers improved. This	Penhallegon, Ross	Hort	Ext
is coupled with expanding service to under served	Stephenson, Garry	Anthrop	Ext
groups. Also, joint projects with other faculty and clients	Vanderzanden, Ann Marie	Hort	Ext/Res
seek to extend new practices for home gardeners.			
Small Farms	Aldrich-Markham, Susan	CSS	Ext
Activities of this group include large audiences, multi-	Bubl, Chip	Hort	Ext
topic workshops; small narrow topic workshops;	Hermes, Jim	An Sci	Ext/Res
development of a small farm resource handbook; develop	Jones, Joy	4H	Ext
linkages with experiment stations for hand-on skill	Stephenson, Garry	Anthrop	Ext
building; provide newsletter articles; and publish bulletins			
as needed.			
Urban Population Education	Burt, John	Ag Ed	Ext
The major emphasis is on pest and pesticide education	Cook, Tom	Hort	Res/Ext
for Oregon homeowners. Group members are conducting	Deangelis, Jack	Ent	Ext/Res
intensive programs which include: the School-to-Work	Jenkins, Jeff	Ag Chem	Ext
Partnership between OSU-CAS, the Agri-Business	Kerkvliet, Nancy	Ag Chem	Ext/Res
Council, and Madison High School in Portland; training	Macnab, Sandy	CSS	Ext
Master Gardeners is entomology, weeds, and diseases,	Shenk, Myron	Ent	Ext
participation in numerous waste and recycling projects			
with the Sherman County Solid Waste Advisory Council,			
toxicology issues-the science behind the headlines,			
personal protective equipment education for			
homeowners.			

Enterprise Budgets & Farm/Ranch Management	Bohle, Mylen	CSS	Ext/Res
Major emphasis of this group is the development and	Eleveld, Bart	AREc	Ext
maintenance of enterprise budgets in a spreadsheet	Gingrich, Gale	CSS	Ext
format and available on the WWW. Programs on risk	Jacks, Clint	Range	Ext/Res
management and grass seed crop residue disposal are	Mellbye, Mark	CSS	Ext
provided.	Obermiller, Fred	AREc	Ext/Res
	Seavert, Clark	AREc	Ext/Res
	Todd, Rod	CSS	Ext
Public Policy	Obermiller, Fred	AREc	Ext/Res
Critical issues are the Clean Stream Initiative (ballot	Steward, Judi	CLA	Ext
measure 38), Property Tax Limitation (ballot measure 47)	Tanaka, John	AREc	Res/Ext
and the Clean Water Act, Endangered Species Act and	Weber, Bruce	AREc	Ext/Res
Forest Service grazing permits. Activities include teaching			
on and development of leaflets on Ballot Measure 38 and			
47; local education programs on property rights issues in			
the public lands grazing discussion; state wide			
conferences on agriculture and natural resources and			
public polity; update Ext materials on public			
participation in federal lands management.			

4-H, Youth Development Education Working Groups		
Title & Description	Members	Academic Home
Leadership Development for Youth and Adults	Hogue, Teresa	CLA
Volunteer training, youth as resources, positive	Larwood, Lillian	4H
expectations, meaningful roles, decision making, skill	Olsen, Pamela	4H
building, educationally challenged children, balance for	Osterlund, Cindy	4H
work, family and community volunteerism, under-	Simon-Brown, Vivian	CLA
represented groups.	Skubinna, Tammy	4H
	Stevens, Billie	Ext HEc
Workforce Preparation	Steward, Judi	CLA
Life skills for productive and contributing citizens. Career	Hobbs, Beverly	4H
opportunities, understanding life skills development.		
Environmental Stewardship	Delaney, Gary	Range
Knowledge and appreciation of the natural world.	Hart, Doug	4H
	Hosty, Maureen	4H
	Philbrick, David	Mech Eng
	Simon-Brown, Vivian	CLA
	White, Randy	Range
Science and Technical Competence	Jones, Joy	4H
Science in an informal educational setting, additional	Husted, Elaine	4H
service curriculum, World Wide Web interaction	Mast, JoAnn	4H
	Williams, John	Range

Family & Community Development Working Groups		
Title & Description	Members	Academic Home
Family & Community Leadership	Berry, Holly	Ext HEc
Educational improvement in understanding complex	Oehler, Nellie	Ext HEc
issues affecting families, increased citizen participation	Steward, Judi	CLA
in public affairs, leadership and organizational development.		
Diet, Nutrition & Health	Berry, Holly	Ext HEc
Using the dietary guidelines food guide pyramid and food	Carter, Cheri Jo	Ext HEc
labeling; incorporating exercise and other personal health	Driscoll, Deborah	Ext HEc
practices into daily life; procuring, safely storing, and	Gregg, Janice	Ext HEc
quickly preparing foods at reasonable cost; being	Husted, Elaine	4H
aware and adopting recommended safe food handling	Kershaw, Nancy	Ext HEc
practices; understanding how to evaluate food safety risks.	Oehler, Nellie	Ext HEc
	Raab, Carolyn	Ext HEc
	Schuster, Ellen	Ext HEc
	Stevens, Billie	Ext HEc
	Steward, Judi	CLA
Family Development & Resource Management	Bowman, Sally	Ext HEc
Strengthening the capacity of families to nurture, support	Driscoll, Debra	Ext HEc
and guide their members throughout life, establishing and	Gregg, Janice	Ext HEc
maintaining economic security, working with communities	Husted, Elaine	4H
as partners in building strong families and caring	Kershaw, Nancy	Ext HEc
communities.	Stevens, Billie	Ext HEc
	Steward, Judi	CLA