

# 2011 Oregon State University Extension Plan of Work

Status: Accepted

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## I. Plan Overview

### 1. Brief Summary about Plan Of Work

It is the mission of the Oregon State University Extension Service to engage the people of Oregon with research-based knowledge and education that focus on strengthening communities and economies, sustaining natural resources, and promoting healthy families and individuals. It is our vision to lead Oregon State University's outreach mission by engaging with Oregon's people and communities to have positive impacts on community livability, economic vitality, natural resources sustainability, and the health and wellbeing of people. Based on these positive impacts, the OSU Extension Service is recognized as one of America's top-5 Land-Grant University Extension systems. OSU Extension Service's Core Values and Operating Principles are as follows:

- Value 1: Community-based: We value community relationships and connect OSU to local people and issues to enhance the present and the future of the people and communities of Oregon.
- Value 2: Accountability: We focus on achieving measurable outcomes, and document and communicate the impact and value of our work.
- Value 3: Credibility: We deliver relevant, research-based knowledge through our educational programs.
- Value 4: Diversity: We exhibit respect, value differing perceptions and world views, and encourage diversity.
- Value 5: Partnerships: We collaborate with academic, public, and private partners to achieve greater results and build community capacity. We value the public good that comes from collaborating with volunteers.
- Value 6: Responsiveness: We engage with community partners and learners to identify priority issues and needs, to design timely responses, and to build future capability.

The OSU Extension Service Goals are:

Goal 1: Improve Access to High-quality Learner Services -- Extension will provide access to the knowledge resources of OSU by being focused and nimble in engaging Oregon's diverse people and communities in high-quality learner services that help build sustainable community futures.

Goal 2: Invest for Excellence and Impact -- Extension will increase and diversify its funding base and encourage program excellence through strategic investments within three thematic areas: strengthen communities and economies, sustain natural resources, and promote healthy families and individuals. This will create measurable outcomes and impacts that will be reported widely to stakeholders.

Goal 3: Increase Effectiveness with Appropriate Technology -- Extension will use established and new technologies strategically to increase efficiencies, expand outreach, and enhance and report the outcomes of its educational services.

This 2011-2015 Plan of Work reflects our ongoing commitment to the vision, values, and goals of Oregon State University Extension. The updates for 2011-2015 are minimal, with some refinement of planned programs 1) for Agriculture and Natural Resources, primarily around outcomes, and 2) for Watersheds and Water Resources to more closely reflect the Oregon Sea Grant new strategic and implementation plans. Updates also include a focus on the five high-priority areas as required by NIFA, mainly incorporating within existing planned programs. The changes reflect the continual improvement process of responding to the needs and issues facing Oregon communities and people. In the 2012-2016 Plan of Work we anticipate a major re-write and focus on the five priorities as planned programs.

The new on-line planning and reporting system (SOARS) was fully implemented at the end of 2007, and allows us to collect specific data related to FTEs for planned programs, program outputs and outcomes, publications, and patents for 2009 and beyond. As anticipated, SOARS greatly improved our ability to modify and update Oregon's federal plan of work more accurately with each passing year.

**Estimated Number of Professional FTEs/SYs total in the State.**

Year	Extension		Research	
	1862	1890	1862	1890
2011	199.0	0.0	0.0	0.0
2012	187.0	0.0	0.0	0.0
2013	175.0	0.0	0.0	0.0
2014	175.0	0.0	0.0	0.0
2015	175.0	0.0	0.0	0.0

**II. Merit Review Process****1. The Merit Review Process that will be Employed during the 5-Year POW Cycle**

- Internal University Panel
- External University Panel

**2. Brief Explanation**

The Directors and/or Associate Directors of Extension in Idaho, Washington and Oregon reviewed respective plans and provided input to each state at the beginning of the five-year planning cycle. An external review has not occurred since the 2008 plan was submitted. The annual plan is reviewed internally by the OSU Provost and the Deans of four colleges with active Extension programs. Refinements made in to the 2010 plan and the 2011 plan are a result of internal reviews, responding to new and emerging issues for the state.

**III. Evaluation of Multis & Joint Activities****1. How will the planned programs address the critical issues of strategic importance, including those identified by the stakeholders?**

Oregon State University Extension faculty (located in all 36 counties in Oregon) work closely with local stakeholders including farmers and ranchers, foresters, agency personnel, elected leaders, educators, health professionals, environmental organizations, researchers, and a myriad of other public and private entities to establish need and design appropriate programming. In many cases, stakeholders are directly involved in the programming as volunteers or by permitting demonstrations and applied research trials on their properties. Additionally, faculty utilize critical demographic and economic data, and examine current research findings to identify societal needs and opportunities for significant social, environmental and economic impacts. Programming is then planned based upon this input within each of the four academic colleges with Extension programs (Forestry, Agricultural Sciences, Health and Human Sciences, and Sea Grant). The Oregon State University Extension Service provides funding to these colleges on the basis of planned outcomes outlined in a biennial plan submitted by each college. All Extension FTE must be accounted for in these plans. The plans are reviewed annually and span a two-year timeframe. Annual evaluations are conducted by the Director of the OSU Extension Service to determine how effectively each planned program is addressing key needs and delivering the anticipated outcomes and impacts described in each plan.

**2. How will the planned programs address the needs of under-served and under-represented populations of the**

Under-served and under-represented audiences are identified through demographic analyses and through interaction with appropriate stakeholders including minority serving organizations. Extension faculty and program assistants are recruited with language skills and cultural knowledge to enable effective programming for specific target audiences. This includes active recruitment of faculty and paraprofessionals from within minority populations. These individuals have been extremely successful in delivering programming in ways that are compatible with the customs and cultures of these audiences. Specifically, programs described in this plan of work will be developed to reach Native American, Latino, African American, Russian, and Hmong audiences. Additionally, programs are

planned to reach developmentally and physically challenged individuals and high risk populations such as inmates and persons on probation. Finally, significant resources are applied supporting programming designed to assist older adults and/or those with limited resources.

### **3. How will the planned programs describe the expected outcomes and impacts?**

An on-line accountability system was developed in 2007 to aid in documentation of outcomes and impacts of programming. Now in its third full year of operation, SOARS (Stories, Outcomes, and Accomplishments Reporting System) has increased usability and provides easier connections between the different levels within OSU Extension (e.g. local programming, campus specialists, Extension program areas, college and Extension Administration, and NIFA). This system provides a uniform process based on the Logic Model for all faculty to report the outcomes of their programming, and how the results of local programming are contributing to the long-term outcomes identified by each Extension program area. To facilitate this assessment, individual faculty members conduct on-site evaluations to determine the degree of learning that occurs within programs conducted. Additionally, follow up surveys and site visits will be used to document the extent of application of knowledge acquired through Extension programs. Finally, blocks of programming called "program work areas" are evaluated at least once during each 5-year period to assess the long-term social, environmental and economic benefits of the extension programming. Funding is allocated by each college with Extension programs and applied to support an in-depth analysis of the impacts of the programs utilizing recognized and appropriate evaluation procedures and tools.

### **4. How will the planned programs result in improved program effectiveness and/or efficiency?**

Annual assessments of program effectiveness through SOARS are used to determine if programs are reaching the desired audiences, the cost of program delivery, the amount of learning taking place, and the degree of application of learning. These data allow Extension leadership to make tactical decisions about changes in program design or reallocation of resources to more effectively and efficiently reach desired audiences leading to desired outcomes and impacts. Additionally, new technologies are incorporated to augment program efficiency and to improve and expand the reach of programming. This includes application of technologies such as digital video devices, delivery of live educational events through video conferencing, active Internet-based teaching, and extensive use of web-based information delivery. Additionally, OSU actively participates in the development of the eXtension initiative. New and exciting materials are now available through this resource.

## **IV. Stakeholder Input**

### **1. Actions taken to seek stakeholder input that encourages their participation**

- Targeted invitation to traditional stakeholder groups
- Targeted invitation to non-traditional stakeholder groups
- Targeted invitation to traditional stakeholder individuals
- Targeted invitation to non-traditional stakeholder individuals
- Targeted invitation to selected individuals from general public
- Survey of traditional stakeholder groups
- Survey of traditional stakeholder individuals
- Survey of the general public
- Survey of selected individuals from the general public

#### **Brief explanation.**

Input is solicited through a statewide advisory network that directly advises the Vice Provost for Outreach and Engagement and Director of Extension. This advisory committee is made up of individuals representing production agriculture and forestry, environmental groups, county government, youth and family-serving organizations, organizations representing coastal issues, and business and industry. The committee meets 1-2 times per year for two days. Additionally, the committee is connected with the Vice Provost's and Director's office via email, conference calls and webinars throughout the year. In 2009 a similar group was formed to advise Extension leadership on needs and issues primarily related to Oregon's urban populations in the Portland Metro area.

Every county in the state maintains an advisory structure. These include both general broad-based advisory systems and those that are more specific to programming areas. These advisory groups generally meet 4-12 times per year to actively review programming and to provide input to county faculty and Extension leadership.

In the Portland Metro region a planning process seeks input from senior officials at numerous targeted agencies and organizations dealing with health and wellness, innovation and economic development, the environment, success of youth, and the fine arts within the Metro region. This process provides input about OSU's

role in urban regions and specifically the Portland Metro area. These sessions also provide a network of interested parties to guide more in-depth planning processes. Invitees to these sessions represent largely non-traditional stakeholder groups. Overtime this process has evolved into an active, ongoing citizen-based advisory group for the Portland Metro area.

Each academic college with Extension programming maintains advisory structures at the college and departmental level. These inform Extension programming within each of these units.

The College of Forestry holds listening sessions in one region of the state each year. Participants are invited that represent a broad cross-section of the forestry sector (industry, landowners, policy makers, general public). Information from these sessions is then used in statewide planning conducted annually.

**2(A). A brief statement of the process that will be used by the recipient institution to identify individuals and groups stakeholders and to collect input from them**

**1. Method to identify individuals and groups**

- Use Advisory Committees
- Use Internal Focus Groups
- Use External Focus Groups
- Open Listening Sessions
- Needs Assessments
- Use Surveys
- Other (Web searches of potential participants, Organizational Transformation faculty panel, Extension Demographer, Visioning Project and Strategic Planning)

**Brief explanation.**

Many mechanisms are used to identify individuals, groups, and organizations that are Extension stakeholders. Some specific efforts are cited below.

- Internet searches are used to identify organizations with stakes in various programs.
- We confer with partnering organizations to identify and engage appropriate stakeholders.
- We confer with existing advisors about other groups and individuals that should provide input.
- We actively solicit internal input about appropriate stakeholders to add to advisory structures or to survey about need and effectiveness of Extension programming.
- We utilize demographic data to ensure that all segments of society are adequately represented among identified stakeholder groups and especially among those groups providing input to the decision-making processes.

In 2006, Extension added a full-time demographer to the faculty in order to access, interpret, and respond to Oregon's demographics more effectively. In 2007 we collaborated with WSU and their Center for Bridging the Digital Divide in a visioning project that helped define the possibilities for OSU in the year 2017. This project, a series of in-depth interviews with key stakeholders, yielded both formative and summative data for planning purposes. Time in 2007 and 2008 was also devoted to strategic planning as OSU Extension aligned with Extended Campus for creating the Division for Outreach and Engagement and emphasized the third mission of the university, engagement, as an equal partner with learning and discovery. In 2009 and early 2010 a faculty panel for organizational transformation was charged to develop a holistic framework to engage stakeholders in identifying and exploring issues and needs facing Oregon communities and people. From the data collected a menu of opportunities were developed and will shape the Plan of Work for 2012-2016.

**2(B). A brief statement of the process that will be used by the recipient institution to identify individuals and groups who are stakeholders and to collect input from them**

**1. Methods for collecting Stakeholder Input**

- Meeting with traditional Stakeholder groups
- Survey of traditional Stakeholder groups
- Meeting with traditional Stakeholder individuals
- Survey of traditional Stakeholder individuals
- Survey of the general public

- Meeting specifically with non-traditional groups
- Meeting specifically with non-traditional individuals
- Meeting with invited selected individuals from the general public
- Survey of selected individuals from the general public

**Brief explanation.**

See response 2(A).

**3. A statement of how the input will be considered**

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

**Brief explanation.**

Stakeholder input is widely used to set priorities at all levels of the organization. This influences budgetary outlays for various programs and subsequently affects the program delivery. Stakeholders serve on virtually all faculty search committees and thus directly affect hiring decisions. The process of involving stakeholders in the hiring process works well, with stakeholders feeling a greater commitment to helping new hires be successful in their Extension assignments. Stakeholders who have a vested interest in the program and/or community are the most effective.

In addition, with the implementation of SOARS in 2007, each Extension program area is asked to develop an annual program plan of work that will include a description of how stakeholder input was gathered and used to determine the priority work areas and their associated program outcomes.

## V. Planned Program Table of Content

S. No.	PROGRAM NAME
1	Forestry: Public Engagement for Planning Oregon's Future (including Climate Change)
2	Forestry: Enhancing the Competitiveness of Oregon's Forest Enterprises
3	Forestry: Sustaining Natural Resources
4	4-H Environmental Stewardship
5	4-H Nutrition, Health and Childhood Obesity Prevention
6	4-H Science, Technology, and Engineering
7	Global Food Security and Hunger: Small Farms and 'Natural' and Organic Production Systems
8	Global Food Security and Hunger: Dryland Cropping Systems
9	Global Food Security and Hunger: Livestock Based Production Systems
10	Global Food Security and Hunger: High Rainfall and Irrigated Cropping Systems
11	Healthy People, Healthy Communities (including Food Safety and Childhood Obesity)
12	Healthy Aging
13	Financial Literacy
14	Sea Grant: Watersheds and Water Resources

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

**Program # 1**

**1. Name of the Planned Program**

Forestry: Public Engagement for Planning Oregon's Future (including Climate Change)

**2. Brief summary about Planned Program**

Extension professionals will identify needs and develop and deliver programs to address those needs leading to increased public awareness about the importance of natural resources management and natural resource-based industries to the citizens of Oregon. Increased public awareness will in turn result in better decision-making resulting in improved public policies, elevated economic condition for Oregonians, development and enhancement of sustainable industries, reduced per capita use of resources, improved condition of the natural resource base, and lessened community conflict focused on natural resource issues.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
610	Domestic Policy Analysis	30%			
801	Individual and Family Resource Management	25%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	30%			
806	Youth Development	10%			
901	Program and Project Design, and Statistics	3%			
902	Administration of Projects and Programs	2%			
	<b>Total</b>	100%			

**V(C). Planned Program (Situation and Scope)**

**1. Situation and priorities**

The US with approximately 5% of the world's population now consumes approximately 1/3 of the world's industrial wood. The trend in consumption of fiber and other consumables is not sustainable, and the public must become more efficient in the utilization of products derived from the world's natural resource base. In Oregon, 30% of the population resides in metropolitan Portland and 73% of the state's population resides in urban areas across the state. These persons are often unaware or misinformed about the interdependence of the states economy on the utilization of natural resources. Because Oregon's public policy is often driven by a ballot-based referendum system, the voting public must have adequate and unbiased knowledge about natural resource-based issues and the critical thinking skills to make informed decisions.

**2. Scope of the Program**

- In-State Extension

**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

The forestry sector is very important to Oregon's economy, but most Oregonians are buffered from this economic reality. Oregon's population is increasingly urban and typically relatively new to the Pacific Northwest. These consumers of forest products are increasingly disconnected from the realities of forest management and production systems. They also place a premium on recreational use and the aesthetics of Oregon's forests.

**2. Ultimate goal(s) of this Program**

Oregonians will better understand the ecology and management practices employed within the state's forests. Additionally, Oregonians (including youth) will become better critical thinkers and possess the information necessary to make political decisions affecting natural resource-related issues.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2011	1.5	0.0	0.0	0.0
2012	1.3	0.0	0.0	0.0
2013	1.3	0.0	0.0	0.0
2014	1.3	0.0	0.0	0.0
2015	1.0	0.0	0.0	0.0

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

**1. Activity for the Program**

Programs will be developed and delivered to the general public (including youth), civic leaders, and policy makers to increase knowledge and understanding about Oregon's complex forestry sector and its importance to the state's and region's economies.

**2. Type(s) of methods to be used to reach direct and indirect contacts**

**Extension**

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>• Education Class</li> <li>• Workshop</li> <li>• Demonstrations</li> </ul>	<ul style="list-style-type: none"> <li>• Newsletters</li> <li>• Web sites</li> </ul>

**3. Description of targeted audience**

General public (including youth), civic leaders, environmental groups, policy makers.

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



**1. Standard output measures**

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

	<b>Direct Contact Adults</b>	<b>Indirect Contacts Adults</b>	<b>Direct Contacts Youth</b>	<b>Indirect Contacts Youth</b>
<b>Year</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>
2011	4500	13500	1800	1350
2012	3150	12150	1620	1210
2013	3150	12150	1620	1210
2014	3150	12150	1620	1210
2015	3150	12150	1620	1210

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

**2011:0                      2012:0                      2013:0                      2014:0                      2015:0**

**3. Expected Peer Review Publications**

<b>Year</b>	<b>Research Target</b>	<b>Extension Target</b>	<b>Total</b>
2011	0	16	16
2012	0	10	10
2013	0	10	10
2014	0	10	10
2015	0	10	10

## V(H). State Defined Outputs

### 1. Output Target

- Number of educational classes

<b>2011:18</b>	<b>2012:15</b>	<b>2013:15</b>	<b>2014:15</b>	<b>2015:10</b>
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- Number of workshops

<b>2011:4</b>	<b>2012:4</b>	<b>2013:4</b>	<b>2014:4</b>	<b>2015:3</b>
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- Number of demonstrations

<b>2011:9</b>	<b>2012:8</b>	<b>2013:8</b>	<b>2014:8</b>	<b>2015:7</b>
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- Number of recurring newsletters published

<b>2011:9</b>	<b>2012:8</b>	<b>2013:8</b>	<b>2014:8</b>	<b>2015:7</b>
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- Number of web sites maintained

<b>2011:19</b>	<b>2012:8</b>	<b>2013:8</b>	<b>2014:8</b>	<b>2015:7</b>
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**V(I). State Defined Outcome**

O. No.	Outcome Name
1	Households reporting improvements in behavior related to sustainable living and energy/climate related educational programming.
2	Organizations and individuals reporting improved public policies or policy statements as a result of Extension programs.

**Outcome # 1**

**1. Outcome Target**

Households reporting improvements in behavior related to sustainable living and energy/climate related educational programming.

**2. Outcome Type : Change in Action Outcome Measure**

**2011:150                      2012:150                      2013:150                      2014:150                      2015:150**

**3. Associated Knowledge Area(s)**

- 803 - Sociological and Technological Change Affecting Individuals, Families, and Communities

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 2**

**1. Outcome Target**

Organizations and individuals reporting improved public policies or policy statements as a result of Extension programs.

**2. Outcome Type : Change in Action Outcome Measure**

**2011:265                      2012:265                      2013:265                      2014:265                      2015:260**

**3. Associated Knowledge Area(s)**

- 610 - Domestic Policy Analysis
- 803 - Sociological and Technological Change Affecting Individuals, Families, and Communities

**4. Associated Institute Type(s)**

- 1862 Extension

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

**1. External Factors which may affect Outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges

**Description**

Policy-related issues are very dynamic and tend to be affected by public opinion that is in turn affected by external factors such as disasters, economic changes, etc. Programming must also be very flexible and dynamic to effectively deliver desired outcomes.

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

## 1. Evaluation Studies Planned

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

### Description

During and after the event, degree of learning will be documented. Application will be documented by follow up surveys of participants. The impact of application will be assessed through case studies representing a sub-sample of those involved in programming.

## 2. Data Collection Methods

- Sampling
- Mail
- Telephone
- Case Study

### Description

Surveys will be conducted based upon OSU Institutional Review Board policies, procedures, and guidelines. For quantitative data, customized mail and follow up telephone surveys will be used. The number of persons sampled will be based upon the estimated degree of variation in the target population and the desired degree of resolution. For qualitative assessments, care will be taken to assure that case studies are representative of the larger population served by the programming.

**V(A). Planned Program (Summary)****Program # 2****1. Name of the Planned Program**

Forestry: Enhancing the Competitiveness of Oregon's Forest Enterprises

**2. Brief summary about Planned Program**

Extension professionals will work with forest enterprises to help them become more profitable. This will create new markets for both private, including family-owned forests, and public forests that will not only lead to economic benefits but also to forest health benefits.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** No

**V(B). Program Knowledge Area(s)****1. Program Knowledge Areas and Percentage**

<b>KA Code</b>	<b>Knowledge Area</b>	<b>%1862 Extension</b>	<b>%1890 Extension</b>	<b>%1862 Research</b>	<b>%1890 Research</b>
402	Engineering Systems and Equipment	17%			
511	New and Improved Non-Food Products and Processes	31%			
602	Business Management, Finance, and Taxation	25%			
604	Marketing and Distribution Practices	12%			
723	Hazards to Human Health and Safety	11%			
901	Program and Project Design, and Statistics	2%			
902	Administration of Projects and Programs	2%			
	<b>Total</b>	100%			

**V(C). Planned Program (Situation and Scope)****1. Situation and priorities**

Currently, the forest sector contributes \$12.8 billion to Oregon's total industrial output, the largest contributor from the natural resource sectors. Natural resource enterprises are critical to both rural and urban economies, but expected growth in new businesses and employment in this sector will likely be in the value-added sector usually located near the markets in urban areas. Today, these wood processing industries provide 75,000 direct living-wage jobs and contribute \$2.8 billion in wages. However, this growth is predicated on these industries having access to cutting edge technologies leading to efficient production of quality products. Timber harvests from private and family forests comprise an increasing percentage of Oregon's total annual timber harvest from all production sectors. Management of these resources requires not only knowledge of the natural resource but also effective business management strategies as well. For instance, taxation and other policies change and will continue to change over time. Extension provides assistance to family forest owners in keeping current with these changes. Additionally forest land owners often do not have access to markets for their timber and non-timber forest products. Extension programs help bring these individuals together to discover new markets for traditional and specialty woods. Competition from other countries with low wages, and less stringent or non-existent forest practices laws, safety laws, and environmental laws make it difficult for Oregon businesses to compete. Competition from non-wood

substitutes will increase even though wood is often the best economical and environmental choice. The competitiveness of this large and economically important sector will largely be determined by its ability to apply new technologies. The Land Grant University (OSU) and Extension have been key in developing and communicating new tools to make Oregon's forest industries grow and compete in this challenging environment.

## 2. Scope of the Program

- In-State Extension

### V(D). Planned Program (Assumptions and Goals)

#### 1. Assumptions made for the Program

Forest industries will remain economically very important for Oregon. Jobs will remain stable for the primary forest products industry and new jobs will be created in the value-added sector. Demand for both timber and non-timber products from private lands, including small family-owned lands, will remain at a high level or increase over the next decade. There will be pressures on family-owned forestland owners to convert to non-forestry uses or to sell to Timberland Investment Management Organizations (TIMOs). It will be important to find new uses for small, often burned or diseased, timber to foster health in Oregon's public forests.

#### 2. Ultimate goal(s) of this Program

Productivity and profitability of forest products industries and landowners will be enhanced by knowledge and information provided by the Extension Forestry Program.

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

#### 1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2011	3.3	0.0	0.0	0.0
2012	3.0	0.0	0.0	0.0
2013	3.0	0.0	0.0	0.0
2014	3.0	0.0	0.0	0.0
2015	3.0	0.0	0.0	0.0

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

#### 1. Activity for the Program

Programs will be developed and delivered to increase the knowledge of the public and policy makers leading to improved policy development and implementation. Additionally, programs will teach business owners and forest landowners how to become more efficient and successful in meeting their objectives leading to enhanced sustainability, profitability, and quality of life by providing training and information leading to creation, maintenance, and retention of profitable value-added forest products industries. Productivity and safety of forestry and forest products company employees will be increased through appropriate training leading to retention of family wage jobs in the forestry sector. Forest health will be enhanced by discovering new uses for underutilized and poor quality fiber from the forest leading to more cost effective thinning and forest management practices.

**2. Type(s) of methods to be used to reach direct and indirect contacts****Extension**

<b>Direct Methods</b>	<b>Indirect Methods</b>
<ul style="list-style-type: none"> <li>• Education Class</li> <li>• Workshop</li> <li>• Other 1 (testing and development projects)</li> </ul>	<ul style="list-style-type: none"> <li>• Newsletters</li> <li>• Web sites</li> </ul>

**3. Description of targeted audience**

Public and private forest landowners, primary and value-added forest products companies, and to a lesser extent the public.

**V(G). Planned Program (Outputs)****1. Standard output measures****Target for the number of persons(contacts) to be reached through direct and indirect contact methods**

	<b>Direct Contact Adults</b>	<b>Indirect Contacts Adults</b>	<b>Direct Contacts Youth</b>	<b>Indirect Contacts Youth</b>
<b>Year</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>
2011	1350	10800	0	0
2012	1220	9720	0	0
2013	1220	9720	0	0
2014	1220	9720	0	0
2015	1220	9720	0	0

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

2011:0

2012:0

2013:0

2014:0

2015:0

**3. Expected Peer Review Publications**

<b>Year</b>	<b>Research Target</b>	<b>Extension Target</b>	<b>Total</b>
2011	0	13	13
2012	0	10	10
2013	0	10	10
2014	0	10	10
2015	0	10	10



## V(H). State Defined Outputs

### 1. Output Target

- Number of educational classes

<b>2011:44</b>	<b>2012:38</b>	<b>2013:38</b>	<b>2014:38</b>	<b>2015:30</b>
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- Number of workshops planned

<b>2011:16</b>	<b>2012:15</b>	<b>2013:15</b>	<b>2014:15</b>	<b>2015:10</b>
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- Number of demonstrations

<b>2011:9</b>	<b>2012:8</b>	<b>2013:8</b>	<b>2014:8</b>	<b>2015:6</b>
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- Number of recurring newsletters published

<b>2011:9</b>	<b>2012:8</b>	<b>2013:8</b>	<b>2014:8</b>	<b>2015:5</b>
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- Number of web sites maintained

<b>2011:9</b>	<b>2012:8</b>	<b>2013:8</b>	<b>2014:8</b>	<b>2015:7</b>
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**V(I). State Defined Outcome**

O. No.	Outcome Name
1	Change in company behavior based on interaction with the Oregon Wood Innovation Center.
2	Increase in sales or employment attributed to new products/markets developed as a result of assistance from the Oregon Wood Innovation Center.

**Outcome # 1**

**1. Outcome Target**

Change in company behavior based on interaction with the Oregon Wood Innovation Center.

**2. Outcome Type : Change in Condition Outcome Measure**

2011:10	2012:10	2013:10	2014:10	2015:10
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**3. Associated Knowledge Area(s)**

- 402 - Engineering Systems and Equipment
- 511 - New and Improved Non-Food Products and Processes
- 604 - Marketing and Distribution Practices
- 901 - Program and Project Design, and Statistics

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 2**

**1. Outcome Target**

Increase in sales or employment attributed to new products/markets developed as a result of assistance from the Oregon Wood Innovation Center.

**2. Outcome Type : Change in Condition Outcome Measure**

2011:10	2012:10	2013:10	2014:10	2015:10
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**3. Associated Knowledge Area(s)**

- 402 - Engineering Systems and Equipment
- 604 - Marketing and Distribution Practices

**4. Associated Institute Type(s)**

- 1862 Extension

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

**1. External Factors which may affect Outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Programmatic Challenges

**Description**

Forest products firms are very sensitive to economic pressures created by global competition. In addition, any factor that affects supply of wood can significantly alter the structure of these industries and the impacts of Extension programming. This includes public land policy, economic changes, and foreign competition.

## **V(K). Planned Program (Evaluation Studies and Data Collection)**

### **1. Evaluation Studies Planned**

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

#### **Description**

During and immediately after the event, degree of learning will be documented. Specific businesses will be used to document the degree of application and the economic impact of this application. This will then be extrapolated to other similar businesses.

### **2. Data Collection Methods**

- Sampling
- Mail
- Telephone
- Structured
- Case Study

#### **Description**

Surveys will be conducted based upon OSU Institutional Review Board policies, procedures, and guidelines. For quantitative data, customized mail and follow up telephone surveys will be used. The number of persons sampled will be based upon the estimated degree of variation in the target population and the desired degree of resolution. For qualitative assessments, care will be taken to assure that case studies are representative of the larger population served by the programming.

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

**Program # 3**

**1. Name of the Planned Program**

Forestry: Sustaining Natural Resources

**2. Brief summary about Planned Program**

Extension professionals will work with forest landowners to help them manage Oregon's natural resources in a sustainable way. Land stewards' knowledge about enhancing sustainable natural resources will lead to improved forest ecosystem health and improved economic benefits.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
112	Watershed Protection and Management	8%			
122	Management and Control of Forest and Range Fires	10%			
123	Management and Sustainability of Forest Resources	80%			
901	Program and Project Design, and Statistics	1%			
902	Administration of Projects and Programs	1%			
	<b>Total</b>	100%			

**V(C). Planned Program (Situation and Scope)**

**1. Situation and priorities**

Forty-five percent or 28 million acres of Oregon's 62 million acres total land mass are classified as forestland. Additionally, 38 percent of this forest resource is privately owned. A total of 16% of the forest resource (42% of the privately owned forest land) is owned by non-industrial private landowners &ndash often family-forest owners. Oregon's privately owned forests produce most of Oregon's commercial timber and are very important for sourcing many small to large forest products firms. Owners of small family forests do not usually have the education or training to understand how to manage their forests to meet their objectives. Many have recently acquired forest lands. Landowners need knowledge on how to manage their lands and ecosystems to meet their objectives. Proper land stewardship can reduce the rate at which land is converted from forests to other less sustainable practices and protect the forest resource from insects and disease. Additionally, fire suppression has allowed the growth of unnaturally dense understory vegetation in Oregon's forests with 39% of these lands at high risk and about 45% are classified as moderate risk for intense fires. Encroachment of urban growth into forests has placed lives and structures in increasing danger from wildfire. Proper forest land management can reduce the risks associated with wildfire.

**2. Scope of the Program**

- In-State Extension

**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

Many of Oregon's family-owned forest families are preparing to change ownership to the next generation. Often, this younger owner does not have the same stewardship ethic. It is important to help this next generation of forest owners value and sustainably manage their lands. If this land ownership ethic cannot be maintained, more forest lands will be purchased by Timber Investment Management Organizations (TIMOS) or converted to non-forestry uses. Non-forest uses of previously forested lands can lead to other societal issues such as degradation in water quality, fish habitat and endangered species habitat

**2. Ultimate goal(s) of this Program**

As the direct result of Extension Forestry programming, forest landowners will better understand choices in managing their lands, be stimulated to make independent management decisions, and acquire diverse skills to accomplish their management objectives. This will lead to improved water quality and salmon habitat, and improved forest and ecosystem health and productivity.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2011	7.2	0.0	0.0	0.0
2012	6.5	0.0	0.0	0.0
2013	6.5	0.0	0.0	0.0
2014	6.5	0.0	0.0	0.0
2015	6.0	0.0	0.0	0.0

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

**1. Activity for the Program**

Programs will be developed and delivered to increase the knowledge of forest landowners to become better stewards of their properties. They will be given the knowledge necessary to make informed choices to match their management objectives. Landowners will receive knowledge necessary for them to manage not only for timber production but also for an array of non-timber forest uses, many of the uses benefiting society as a whole &ndash examples are water quality and improved aquatic habitat.

**2. Type(s) of methods to be used to reach direct and indirect contacts**

**Extension**

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>• Education Class</li> <li>• Workshop</li> </ul>	<ul style="list-style-type: none"> <li>• Newsletters</li> <li>• Web sites</li> <li>• Other 1 (statewide curricula developed)</li> </ul>

**3. Description of targeted audience**

Family-owned forest owners are the main audience. Public forest owners and Oregonians living in the rural-urban interface are secondary audiences.

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

**1. Standard output measures**

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

	Direct Contact Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2011	6975	27000	0	0
2012	6275	24300	0	0
2013	6275	24300	0	0
2014	6275	24300	0	0
2015	6000	22300	0	0

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

**2011:0                      2012:0                      2013:0                      2014:0                      2015:0**

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target	Total
2011	0	14	14
2012	0	12	12
2013	0	10	10
2014	0	10	10
2015	0	10	10

## V(H). State Defined Outputs

### 1. Output Target

- Number of educational classes

<b>2011:273</b>	<b>2012:233</b>	<b>2013:233</b>	<b>2014:233</b>	<b>2015:200</b>
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- Number of workshops planned

<b>2011:31</b>	<b>2012:26</b>	<b>2013:26</b>	<b>2014:26</b>	<b>2015:20</b>
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- Number of recurring newsletters planned for publication

<b>2011:11</b>	<b>2012:8</b>	<b>2013:8</b>	<b>2014:8</b>	<b>2015:7</b>
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- Number of web sites maintained

<b>2011:13</b>	<b>2012:11</b>	<b>2013:11</b>	<b>2014:11</b>	<b>2015:10</b>
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**V(I). State Defined Outcome**

O. No.	Outcome Name
1	Number of families engaging in succession planning for their forests and tree plantations.
2	Number of Christmas tree farms implementing best management practices.
3	Number of forest landowners reporting improved forest and natural resources management practices.

**Outcome # 1**

**1. Outcome Target**

Number of families engaging in succession planning for their forests and tree plantations.

**2. Outcome Type :** Change in Action Outcome Measure

**2011:150                      2012:150                      2013:150                      2014:150                      2015:150**

**3. Associated Knowledge Area(s)**

- 123 - Management and Sustainability of Forest Resources

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 2**

**1. Outcome Target**

Number of Christmas tree farms implementing best management practices.

**2. Outcome Type :** Change in Action Outcome Measure

**2011:50                      2012:50                      2013:50                      2014:50                      2015:50**

**3. Associated Knowledge Area(s)**

- 123 - Management and Sustainability of Forest Resources

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 3**

**1. Outcome Target**

Number of forest landowners reporting improved forest and natural resources management practices.

**2. Outcome Type :** Change in Action Outcome Measure

**2011:500                      2012:500                      2013:500                      2014:500                      2015:500**

**3. Associated Knowledge Area(s)**

- 112 - Watershed Protection and Management
- 122 - Management and Control of Forest and Range Fires
- 123 - Management and Sustainability of Forest Resources

**4. Associated Institute Type(s)**

- 1862 Extension

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

## **1. External Factors which may affect Outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges

### **Description**

Traditionally, land management practices have been affected by macro-economic forces such as international trade as well as federal, state and local rules and regulations. Additionally, because OSU is under fairly severe budgetary constraints, it is conceivable that budget reductions could force programmatic change.

## **V(K). Planned Program (Evaluation Studies and Data Collection)**

### **1. Evaluation Studies Planned**

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

### **Description**

During and immediately after events, degree of learning will be documented. Follow up surveys will be used to assess degree of application of knowledge. Case study of individual land owners/land holdings will be used to determine the impacts of application of knowledge provided by OSUES.

### **2. Data Collection Methods**

- Sampling
- Mail
- Telephone
- Structured
- Case Study

### **Description**

Surveys will be conducted based upon OSU Institutional Review Board policies, procedures, and guidelines. For quantitative data, customized mail and follow up telephone surveys will be used. The number of persons sampled will be based upon the estimated degree of variation in the target population and the desired degree of resolution. For qualitative assessments, care will be taken to assure that case studies are representative of the larger population served by the programming.

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

**Program # 4**

**1. Name of the Planned Program**

4-H Environmental Stewardship

**2. Brief summary about Planned Program**

The need for increased science literacy and the application of science to natural resource management has gained in importance in recent years. This is especially true in Oregon where a workable balance of natural resources, conservation efforts, and economic development can be difficult to obtain. The goal of the 4-H program is to provide science-based educational programming in the natural sciences through which youth gain understanding in scientific inquiry and natural resources management, and develop skill in making sound resource management decisions that help support a sustainable future.

**3. Program existence :** Intermediate (One to five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%			
	<b>Total</b>	100%			

**V(C). Planned Program (Situation and Scope)**

**1. Situation and priorities**

Oregonians have a long history of legislated environmental protections that began as early as the first civil government in the Oregon Country in 1843 and continued with legislation such as the 1967 Beach Bill, the 1971 Bottle Bill and the 1973 approval of statewide land use planning. The state's population growth continues to equal or out pace the national average, and diversity is increasing. Finding common ground to address and balance pressing environmental and economic issues and preserve the quality of life Oregonians value will require an engaged and educated citizenry. Yet, Oregonians face many critical environmental issues in agriculture, forestry, energy and marine and fisheries resources. The majority of Oregon's land area is in natural resource uses including dry and irrigated cropland, pasture, rangeland, woodlots and forested lands. They contribute to a large sector of Oregon's economy; one out of every 10 jobs directly related to these resources. Program Priorities: 1. Provide experiential programs that assist youth and adults in understanding natural science processes. 2. Provide youth and adults with science processing skills to empower them to address community issues. 3. Create opportunities for youth and adults to practice environmental stewardship to enhance their communities.

**2. Scope of the Program**

- In-State Extension

**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

4-H Youth Development programs are planned and delivered based on the theoretical model of positive youth development. This model, confirmed by current research, indicates that: 1. Youth benefit from participation in programs that meet key developmental needs. Programs that do this provide opportunities for belonging, mastery, independence, and generosity (Kress, 2004). 2. Participation in programs provides productive opportunities for the development of important life skills, such as leadership and citizenship. The 4-H program bases its life skill development on the Targeting Life Skills Model (Hendricks, 1996). In addition 4-H programs provide opportunities for youth to learn content-specific knowledge and skills in their 4-H project area. 3. The development of life skills and content knowledge contributes to the development of the 5 "C" outcomes of positive youth development programs. These outcomes are confidence, competence, character, connection, and caring (Roth, 2005). 4. Development of the 5 "C" outcomes leads ultimately to youth who are able to transition successfully to adulthood. As adults they are economically self-sufficient, have healthy family and social involvement, and are contributing members of their community (Gambone & Connell, 2005).

**2. Ultimate goal(s) of this Program**

The ultimate goal of this program plan, and the 4-H program in general, is to help youth develop the skills and knowledge needed to lead productive, healthy, and contributing lives. Young people participating in this 4-H program develop science interest and skill, and will become effective stewards of the environment as adults. Because of this, quality of life and environmental integrity are maintained or improved through the implementation of socially, economically, and environmentally sustainable practices.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2011	9.0	0.0	0.0	0.0
2012	8.0	0.0	0.0	0.0
2013	8.0	0.0	0.0	0.0
2014	8.0	0.0	0.0	0.0
2015	8.0	0.0	0.0	0.0

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

**1. Activity for the Program**

- 4-H natural science clubs    •4-H residential camps    •4-H in-school science programming (non-Wildlife Stewards)
- 4-H Wildlife Stewards programming    •4-H After-school science programs    •Curriculum and material development

**2. Type(s) of methods to be used to reach direct and indirect contacts**

**Extension**

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>• Education Class</li> <li>• Workshop</li> <li>• One-on-One Intervention</li> </ul>	<ul style="list-style-type: none"> <li>• Newsletters</li> <li>• Web sites</li> </ul>

**3. Description of targeted audience**

Youth ages 9-18; Extension educators

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

**1. Standard output measures**

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

	Direct Contact Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2011	900	900	3600	36000
2012	800	800	3270	32000
2013	800	800	3270	32000
2014	800	800	3270	32000
2015	700	700	3000	30000

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

**2011:0                      2012:0                      2013:0                      2014:0                      2015:0**

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target	Total
2011	0	5	5
2012	0	5	5
2013	0	5	5
2014	0	5	5
2015	0	5	5

## V(H). State Defined Outputs

### 1. Output Target

- Number of youth participating in 4-H environment and natural resource projects.

**2011:13900      2012:11850      2013:11850      2014:11850      2015:10000**

- Number of youth exhibiting natural science projects at the state fair.

**2011:176      2012:150      2013:150      2014:150      2015:100**

- Number of 4-H Wildlife Stewards partner schools.

**2011:48      2012:41      2013:41      2014:41      2015:40**

- Number of youth participating in the 4-H Wildlife Stewards program.

**2011:8800      2012:7500      2013:7500      2014:7500      2015:7000**

**V(I). State Defined Outcome**

O. No.	Outcome Name
1	Number of youth gaining knowledge in science or natural resources.
2	Number of youth implenting practices to protect or improve the environment.



**Outcome # 1**

**1. Outcome Target**

Number of youth gaining knowledge in science or natural resources.

**2. Outcome Type :** Change in Knowledge Outcome Measure

**2011:**10000      **2012:**10000      **2013:**10000      **2014:**10000      **2015:**10000

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 2**

**1. Outcome Target**

Number of youth implenting practices to protect or improve the environment.

**2. Outcome Type :** Change in Action Outcome Measure

**2011:**1000      **2012:**1000      **2013:**1000      **2014:**1000      **2015:**1000

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**4. Associated Institute Type(s)**

- 1862 Extension

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

**1. External Factors which may affect Outcomes**

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

**Description**

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

**1. Evaluation Studies Planned**

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

### **Description**

Annual performance monitoring data will be collected from all 36 counties to develop aggregate measures of learning and application of learning. Case studies will examine ways that young people are using knowledge to protect or improve the environment.

### **2. Data Collection Methods**

- Sampling
- Mail
- Case Study
- Observation

### **Description**

Performance monitoring data will be collected through an annual report submitted by county 4-H faculty. Selected local programs will be the target of case studies.

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

**Program # 5**

**1. Name of the Planned Program**

4-H Nutrition, Health and Childhood Obesity Prevention

**2. Brief summary about Planned Program**

Obesity and its long-term impact on health has reached a crisis point. Research shows that lifelong nutrition and physical activities habits need to be established in childhood. The goal of the 4-H Nutrition and Health program is to increase the number of youth in Oregon who can maintain a healthy lifestyle through 1) learning how to select a balanced, nutritious diet, 2) developing skill to prepare food themselves, and 3) developing the skill and positive attitude to make physical activity a lifelong habit. Through a variety of educational activities, youth will develop and apply knowledge and skills in nutrition and food preparation to help ensure optimum health and well-being across the lifespan.

**3. Program existence :** Mature (More then five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%			
	<b>Total</b>	100%			

**V(C). Planned Program (Situation and Scope)**

**1. Situation and priorities**

Obesity and hunger are recognized nationally as problems of epidemic proportion. In particular, obesity has been shown to be associated with the early onset of diabetes, hypertension, and heart disease. Other research indicates that overweight children or adolescents are more than likely to be overweight adults and experience continuing health problems. Although a number of factors can be implicated, eating too many calories (fast food, large servings) and having a sedentary lifestyle (screen time on computers, TV, video games, etc) is most likely to cause obesity in young people. Giving youth the knowledge and skill to make more healthful decisions and to develop positive behaviors will help target this problem at an early stage. Knowledge and skills includes: Nutrition knowledge to be able to select a wide variety of foods to obtain the nutrients our bodies need; Food preparation skills as a means of providing choice and more control over what is eaten as well as managing costs; Knowledge and behavior change skills to build the habit of physical activity as a way of life for youth at all levels of athletic skill or physical ability. 4-H is positively positioned to reach a large number of Oregon youth. In addition, opportunities to access grants of varying sizes to help support these specific efforts are increasingly available. Program Priorities: 1. Create and deliver programming for youth leading to increased food preparation skills and consumption of safer and more nutritional diets. 2. Create and deliver programming for youth leading to increased awareness of the relationship between agriculture and the foods they eat. 3. Create and deliver programming for youth leading to an increased awareness of the relationship between good nutrition and good health and positive changes in behaviors. 4. Create and deliver programming for youth leading to increased understanding about the relationship between physical activity and good health and to increased physical activity and improved health status.

**2. Scope of the Program**

- In-State Extension

**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

4-H Youth Development programs are planned and delivered based on the theoretical model of positive youth development. This model, confirmed by current research, indicates that: 1. Youth benefit from participation in programs that meet key developmental needs. Programs that do this provide opportunities for belonging, mastery, independence, and generosity (Kress, 2004). 2. Participation in programs provides productive opportunities for the development of important life skills, such as leadership and citizenship. The 4-H program bases its life skill development on the Targeting Life Skills Model (Hendricks, 1996). In addition 4-H programs provide opportunities for youth to learn content-specific knowledge and skills in their 4-H project area. 3. The development of life skills and content knowledge contributes to the development of the 5 "C" outcomes of positive youth development programs. These outcomes are confidence, competence, character, connection, and caring (Roth, 2005). 4. Development of the 5 "C" outcomes leads ultimately to youth who are able to transition successfully to adulthood. As adults they are economically self-sufficient, have healthy family and social involvement, and are contributing members of their community (Gambone & Connell, 2005).

**2. Ultimate goal(s) of this Program**

The ultimate goal of this plan of work, and the 4-H program in general, is to help youth and adults develop the skills and knowledge needed to lead productive, healthy, and contributing lives. Obesity and its long-term impact on health has reached a crisis point. Research shows that lifelong nutrition and physical activities habits need to be established in childhood. The goal of the this 4-H program is to increase the number of youth in Oregon who can maintain a healthy lifestyle through 1) learning how to select a balanced, nutritious diet, 2) developing skill to prepare food themselves, and 3) developing the skill and positive attitude to make physical activity a lifelong habit.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2011	9.8	0.0	0.0	0.0
2012	8.8	0.0	0.0	0.0
2013	8.8	0.0	0.0	0.0
2014	8.8	0.0	0.0	0.0
2015	8.0	0.0	0.0	0.0

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

**1. Activity for the Program**

- 4-H foods and nutrition projects
- 4-H foods and nutrition contests
- 4-H curriculum development
- Special 4-H projects related to foods and nutrition

**2. Type(s) of methods to be used to reach direct and indirect contacts**

**Extension**

<b>Direct Methods</b>	<b>Indirect Methods</b>
-----------------------	-------------------------

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Education Class</li> <li>• Workshop</li> <li>• One-on-One Intervention</li> <li>• Other 1 (Contests)</li> <li>• Other 2 (Exhibits)</li> </ul> | <ul style="list-style-type: none"> <li>• Newsletters</li> <li>• Web sites</li> </ul> |
|--|--|

**3. Description of targeted audience**

Youth ages 9-18, Extension educators

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

**1. Standard output measures**

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

	Direct Contact Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2011	270	2700	21700	47700
2012	250	2500	18600	42900
2013	250	2500	18600	42900
2014	250	2500	18600	42900
2015	200	2000	18000	40000

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

**2011:0                      2012:0                      2013:0                      2014:0                      2015:0**

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target	Total
2011	0	1	1
2012	0	1	1
2013	0	1	1
2014	0	1	1
2015	0	1	1

## V(H). State Defined Outputs

### 1. Output Target

- Number of youth participating in Foods and Nutrition Projects.

**2011:9590**

**2012:8175**

**2013:8175**

**2014:8175**

**2015:8000**

- Number of youth participating in physical activity projects.

**2011:2640**

**2012:2250**

**2013:2250**

**2014:2250**

**2015:2000**

**V(I). State Defined Outcome**

O. No.	Outcome Name
1	Number of youth gaining knowledge required to select or prepare healthy food.
2	Number of youth making behavioral changes which improving health.

**Outcome # 1**

**1. Outcome Target**

Number of youth gaining knowledge required to select or prepare healthy food.

**2. Outcome Type :** Change in Knowledge Outcome Measure

**2011:**3000      **2012:**3000      **2013:**3000      **2014:**3000      **2015:**3000

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 2**

**1. Outcome Target**

Number of youth making behavioral changes which improving health.

**2. Outcome Type :** Change in Action Outcome Measure

**2011:**1500      **2012:**1500      **2013:**1500      **2014:**1500      **2015:**1500

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**4. Associated Institute Type(s)**

- 1862 Extension

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

**1. External Factors which may affect Outcomes**

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

**Description**

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

**1. Evaluation Studies Planned**

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



## **Description**

Annual performance monitoring data will be collected from all 36 counties to develop aggregate measures of youth who have gained knowledge related to diet or physical activity. A statewide program evaluation was conducted to determine whether young people are making behavioral changes related to food intake or physical activity. Results of this study support the projected impact of this planned. Since literature has established linkages between lifestyle and health documenting behavior changes will provide a base from which safe inference can be made to the long-term effects of programming.

## **2. Data Collection Methods**

- Sampling
- Mail
- Observation
- Tests

## **Description**

Performance monitoring data will be collected through an annual report submitted by county 4-H faculty. The statewide program evaluation will utilize end-of-event assessments, follow-up assessments (12-18 months), and case study methodologies.

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

**Program # 6**

**1. Name of the Planned Program**

4-H Science, Technology, and Engineering

**2. Brief summary about Planned Program**

The need for increased science, technological, and engineering literacy gained in importance in recent years. The goal of this 4-H program plan is to provide educational programming that emphasizes the application of science and technology to everyday life as well as career interests and opportunities.

**3. Program existence :** Intermediate (One to five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%			
	<b>Total</b>	100%			

**V(C). Planned Program (Situation and Scope)**

**1. Situation and priorities**

A strong investment in high quality science education is essential if we are to prepare our youth for productive employment, healthful lifestyles, knowledgeable and contributing citizenship, strong family formation and other adult responsibilities. Science and technology are all around us and embedded in many of the projects and activities 4-H offers to youth. The scientific method is central to the development of many projects, from nutrition and natural science to computer science and photography. Many different 4-H projects can be used to help youth discover and apply science, technology and engineering in their daily lives. Today, many elementary teachers place less emphasis on science and technology than on reading, writing, and math, but most educators agree that scientific skills are critical to long term educational success. A recent study suggests that "students who are taught science in a hands-on, inquiry-based manner" can begin to develop life skills such as problem solving, critical thinking, and teamwork ([www.BayerUS.com/MSMS](http://www.BayerUS.com/MSMS)). Traditional 4-H projects like nutrition and new projects like GPS/GIS technology can be used to attract and engage youth in this initiative through all delivery modes, including clubs, camps, school enrichment, and after school programs. Program Priorities: 1. Create and deliver programming to teach youth and adults about the scientific method leading to improved critical thinking. 2. Create and deliver programming to teach youth and adults about new and emerging technologies. 3. Create and deliver programming to expand interest and knowledge about science among youth. 4. Create and deliver programming to give volunteers the capacity to teach science, technology and engineering.

**2. Scope of the Program**

- In-State Extension

**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

4-H Youth Development programs are planned and delivered based on the theoretical model of positive youth development. This model, confirmed by current research, indicates that: 1. Youth benefit from participation in programs that meet key developmental needs. Programs that do this provide opportunities for belonging, mastery, independence, and generosity (Kress, 2004). 2. Participation in programs provides productive opportunities for the development of important life skills, such as leadership and citizenship. The 4-H program bases its life skill development on the Targeting Life Skills Model (Hendricks, 1996). In addition 4-H programs provide opportunities for youth to learn content-specific knowledge and skills in their 4-H project area. 3. The development of life skills and content knowledge contributes to the development of the 5 "C" outcomes of positive youth development programs. These outcomes are confidence, competence, character, connection, and caring (Roth, 2005). 4. Development of the 5 "C" outcomes leads ultimately to youth who are able to transition successfully to adulthood. As adults they are economically self-sufficient, have healthy family and social involvement, and are contributing members of their community (Gambone & Connell, 2005).

**2. Ultimate goal(s) of this Program**

The ultimate goal of this program plan, and the 4-H program in general, is to help youth develop the skills and knowledge needed to lead productive, healthy, and contributing lives. Young people participating in this 4-H program will possess an understanding of the role of science, technology, and engineering in the contemporary world. They will develop skills and abilities for success in education and careers that rely on the application of science and technology. In doing so, the 4-H program is contributing to the long-term economic and social stability of a technologically advanced workforce.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2011	8.0	0.0	0.0	0.0
2012	7.2	0.0	0.0	0.0
2013	7.2	0.0	0.0	0.0
2014	7.2	0.0	0.0	0.0
2015	7.0	0.0	0.0	0.0

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

**1. Activity for the Program**

- 4-H science clubs/programs (animal science, horticulture)
- 4-H technology clubs/programs (Tech Wizards, Lego Robotics)
- 4-H engineering clubs/programs/camps (Technology Camp)
- National 4-H Technology Conference
- After school science programs (not-environmental science)
- Curriculum and material development

**2. Type(s) of methods to be used to reach direct and indirect contacts**

**Extension**

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>• Education Class</li> <li>• Workshop</li> <li>• One-on-One Intervention</li> <li>• Other 1 (Contests)</li> <li>• Other 2 (Exhibits)</li> </ul>	<ul style="list-style-type: none"> <li>• Newsletters</li> <li>• Web sites</li> </ul>

**3. Description of targeted audience**

Youth ages 9-18; 4-H Volunteer leaders; Extension educators

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

**1. Standard output measures**

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

	Direct Contact Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2011	1800	1800	36000	36000
2012	1720	1720	32760	32760
2013	1720	1720	32760	32760
2014	1720	1720	32760	32760
2015	0	0	0	0

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

**2011:0                      2012:0                      2013:0                      2014:0                      2015:0**

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target	Total
2011	0	4	4
2012	0	4	4
2013	0	4	4
2014	0	4	4
2015	0	4	4

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

**1. Output Target**

- Number of youth participating in 4-H science and technology projects and programs.

**2011:13500                      2012:12150                      2013:12150                      2014:12150                      2015:11000**

**V(I). State Defined Outcome**

O. No.	Outcome Name
1	Number of youth gaining skills in science and technology.
2	Number of youth utilizing science and technology skills to improve their school or community.
3	Number of youth whose career choice was affected by participation in 4-H science and technology programs.

**Outcome # 1**

**1. Outcome Target**

Number of youth gaining skills in science and technology.

**2. Outcome Type :** Change in Knowledge Outcome Measure

**2011:4500                      2012:4000                      2013:4000                      2014:4000                      2015:4000**

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 2**

**1. Outcome Target**

Number of youth utilizing science and technology skills to improve their school or community.

**2. Outcome Type :** Change in Knowledge Outcome Measure

**2011:1000                      2012:1000                      2013:1000                      2014:1000                      2015:1000**

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 3**

**1. Outcome Target**

Number of youth whose career choice was affected by participation in 4-H science and technology programs.

**2. Outcome Type :** Change in Action Outcome Measure

**2011:300                      2012:300                      2013:300                      2014:300                      2015:300**

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**4. Associated Institute Type(s)**

- 1862 Extension

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

**1. External Factors which may affect Outcomes**

- Economy
- Competing Public priorities
- Competing Programmatic Challenges

**Description**

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

**1. Evaluation Studies Planned**

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

**Description**

Performance monitoring data will be collected from all 36 counties to develop aggregate measures of outputs and outcomes.

**2. Data Collection Methods**

- Sampling
- Whole population
- Mail
- Case Study

**Description**

Performance monitoring data will be collected through an annual report submitted by county faculty. The statewide program evaluation will utilize end-of-program assessments of knowledge and skill attainment and case studies to examine how youth are applying what they have learned.

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

**Program # 7**

**1. Name of the Planned Program**

Global Food Security and Hunger: Small Farms and 'Natural' and Organic Production Systems

**2. Brief summary about Planned Program**

Over 50% of all farms in Oregon are less than 50 acres in size but still constitute an important contribution to the economy and represent an important group of people needing assistance with management of natural resources and new enterprises. Many small farmers use direct marketing methods such as farmers' markets which have increased in number from 18 to 68 statewide in the past 10 years. Organic and "natural" agricultural products represent a diverse and rapidly growing sector of the food market. Consumers are increasing aware of food safety and health concerns and often view organically produced foods as a healthy food choice. Numerous traditional farmers and ranchers are establishing new organic and "natural" production enterprises to capitalize on this new market opportunity. The opportunity for Extension to provide educational forums and conduct and interpret applied research results is significant. This effort will help producers solve production problems, increase profitability, and better manage the natural resource base.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

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

**1. Program Knowledge Areas and Percentage**

<b>KA Code</b>	<b>Knowledge Area</b>	<b>%1862 Extension</b>	<b>%1890 Extension</b>	<b>%1862 Research</b>	<b>%1890 Research</b>
101	Appraisal of Soil Resources	5%			
102	Soil, Plant, Water, Nutrient Relationships	10%			
112	Watershed Protection and Management	10%			
204	Plant Product Quality and Utility (Preharvest)	5%			
205	Plant Management Systems	10%			
216	Integrated Pest Management Systems	10%			
307	Animal Management Systems	10%			
308	Improved Animal Products (Before Harvest)	10%			
403	Waste Disposal, Recycling, and Reuse	10%			
604	Marketing and Distribution Practices	20%			
	<b>Total</b>	100%			

**V(C). Planned Program (Situation and Scope)**

**1. Situation and priorities**

Small farms and organic and natural production systems represent a large segment of the Agricultural community and a large diverse set of needs and interests. The largest opportunities for Extension educational programs to make a difference



include targeting the reduction of nutrient and soil runoff; enhancing the long term viability of farmers' markets; expanding the availability of economically viable technologies and production techniques or systems; and development of a variety of electronic information systems that provide immediate assistance and improve the face to face support when needed.

**2. Scope of the Program**

- In-State Extension
- Integrated Research and Extension

**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

Agriculture and natural resources will continue to be an important part of the economy of the rural and urban communities where crops are produced and/or processed. Population pressures toward the rural urban fringe will stimulate the development of small and non-traditional production systems (organic and natural). Consumer concerns about what constitutes healthy food will continue to drive demand for local, organic, and natural food products. Globalization will expand the potential market for non-traditionally produced products. Federal, state and local regulations may favor some enterprises and stimulate development of non-traditional production systems. Development and land-use regulation will not create an environment that is not conducive to local small-scale food production.

**2. Ultimate goal(s) of this Program**

Improve the economic and environmental sustainability of small and organic farms by employing appropriate technologies and production and marketing techniques.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2011	9.0	0.0	0.0	0.0
2012	8.0	0.0	0.0	0.0
2013	8.0	0.0	0.0	0.0
2014	8.0	0.0	0.0	0.0
2015	7.0	0.0	0.0	0.0

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

**1. Activity for the Program**

A combination of activities (methods listed below) that are designed to meet the needs and opportunities of the communities of interest will be built upon the research base of the university. These activities will be specifically designed to elicit learning, application of learning, and social, economic and environmental impacts on target populations.

**2. Type(s) of methods to be used to reach direct and indirect contacts**

**Extension**

<b>Direct Methods</b>	<b>Indirect Methods</b>
-----------------------	-------------------------

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Education Class</li> <li>• Workshop</li> <li>• Group Discussion</li> <li>• One-on-One Intervention</li> <li>• Demonstrations</li> </ul> | <ul style="list-style-type: none"> <li>• Newsletters</li> <li>• Web sites</li> </ul> |
|--|--|

**3. Description of targeted audience**

1) Producers of naturally or organically produced crops and livestock products and/or small farms for either life-style, hobby, or commercial purposes. 2) Agricultural infrastructure, suppliers and service providers 3) State and federal agencies overseeing regulatory and incentive based programs

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

**1. Standard output measures**

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

	Direct Contact Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2011	23400	90000	900	900
2012	21000	80000	800	800
2013	21000	80000	800	800
2014	21000	80000	800	800
2015	20000	85000	700	700

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

2011:0                      2012:0                      2013:0                      2014:0                      2015:0

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target	Total
2011	0	20	20
2012	0	20	20
2013	0	20	20
2014	0	20	20
2015	0	20	20

## V(H). State Defined Outputs

### 1. Output Target

- Number of Educational Classes Delivered

<b>2011:132</b>	<b>2012:113</b>	<b>2013:113</b>	<b>2014:113</b>	<b>2015:90</b>
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- Number of Workshops Delivered

<b>2011:44</b>	<b>2012:38</b>	<b>2013:38</b>	<b>2014:38</b>	<b>2015:30</b>
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- Number of One-on-one Interventions

<b>2011:1144</b>	<b>2012:975</b>	<b>2013:975</b>	<b>2014:975</b>	<b>2015:800</b>
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- Number of Demonstrations

<b>2011:30</b>	<b>2012:26</b>	<b>2013:26</b>	<b>2014:26</b>	<b>2015:20</b>
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- Number of Web Sites Maintained

<b>2011:4</b>	<b>2012:3</b>	<b>2013:3</b>	<b>2014:3</b>	<b>2015:3</b>
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**V(I). State Defined Outcome**

O. No.	Outcome Name
1	% increase in gross value of non-traditional crops produced in Oregon
2	Increased number of farms successfully using business plans to improve farm/business profitability
3	Improvement in air, soil and water parameters resulting from application of enhanced management practices leading to reduced sediment and nutrient loading of surface water and soil erosion (number of farm using best practices).

**Outcome # 1**

**1. Outcome Target**

% increase in gross value of non-traditional crops produced in Oregon

**2. Outcome Type : Change in Action Outcome Measure**

**2011:5                      2012:5                      2013:5                      2014:5                      2015:0**

**3. Associated Knowledge Area(s)**

- 102 - Soil, Plant, Water, Nutrient Relationships
- 204 - Plant Product Quality and Utility (Preharvest)
- 216 - Integrated Pest Management Systems
- 308 - Improved Animal Products (Before Harvest)
- 604 - Marketing and Distribution Practices

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 2**

**1. Outcome Target**

Increased number of farms successfully using business plans to improve farm/business profitability

**2. Outcome Type : Change in Action Outcome Measure**

**2011:90                      2012:100                      2013:110                      2014:90                      2015:80**

**3. Associated Knowledge Area(s)**

- 604 - Marketing and Distribution Practices

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 3**

**1. Outcome Target**

Improvement in air, soil and water parameters resulting from application of enhanced management practices leading to reduced sediment and nutrient loading of surface water and soil erosion (number of farm using best practices).

**2. Outcome Type : Change in Condition Outcome Measure**

**2011:100                      2012:100                      2013:100                      2014:100                      2015:100**

**3. Associated Knowledge Area(s)**

- 101 - Appraisal of Soil Resources
- 102 - Soil, Plant, Water, Nutrient Relationships
- 112 - Watershed Protection and Management

- 216 - Integrated Pest Management Systems
- 403 - Waste Disposal, Recycling, and Reuse

#### **4. Associated Institute Type(s)**

- 1862 Extension

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

#### **1. External Factors which may affect Outcomes**

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

#### **Description**

Small farms and alternative production systems are extremely vulnerable to regulatory, economic, and policy changes. Public opinion can also be very fickle driving consumers to or away from specific products. For example, outbreaks of food-borne illness resulting from produce purchased at a farmers' market could greatly impact future sales. The factors identified above can either increase or reduce the effectiveness of programming.

### **V(K). Planned Program (Evaluation Studies and Data Collection)**

#### **1. Evaluation Studies Planned**

- Before-After (before and after program)
- Case Study
- Comparisons between program participants (individuals, group, organizations) and non-participants

#### **Description**

Appropriate surveys will be conducted; industry trends and data on production practices in the industry will be monitored; input and equipment sales will be an indicator of adoption of some practices; case study measurements of soil and water quality will provide an indication of progress; producer surveys will also provide an indication of adoption.

#### **2. Data Collection Methods**

- Mail
- Telephone
- Unstructured
- Case Study
- Observation

#### **Description**

Surveys will be conducted based upon OSU Institutional Review Board policies, procedures, and guidelines. For quantitative data, customized mail and follow up telephone surveys will be used. The number of persons sampled will be based upon the estimated degree of variation in the target population and the desired degree of resolution. For qualitative assessments, care will be taken to assure that case studies are representative of the larger population served by the programming.

**V(A). Planned Program (Summary)****Program # 8****1. Name of the Planned Program**

Global Food Security and Hunger: Dryland Cropping Systems

**2. Brief summary about Planned Program**

The dryland cropping system program focuses primarily on the more than one million acres in the Columbia Basin that is largely planted to winter wheat. Dryland production systems are major contributors to the economies of many Northeastern Oregon communities. Challenges include competing in world markets, maintaining profitability, effectively managing pests, preserving soil and water quality, and sustaining rural communities. The overall goal is to improve the economic and environmental sustainability of dryland cropping systems by employing appropriate production and marketing techniques and technologies. Furthermore, appropriate use of science-based information is critical to the development of sound policy affecting land use in the region.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

**V(B). Program Knowledge Area(s)****1. Program Knowledge Areas and Percentage**

<b>KA Code</b>	<b>Knowledge Area</b>	<b>%1862 Extension</b>	<b>%1890 Extension</b>	<b>%1862 Research</b>	<b>%1890 Research</b>
102	Soil, Plant, Water, Nutrient Relationships	15%			
111	Conservation and Efficient Use of Water	15%			
112	Watershed Protection and Management	15%			
205	Plant Management Systems	15%			
216	Integrated Pest Management Systems	10%			
502	New and Improved Food Products	10%			
511	New and Improved Non-Food Products and Processes	5%			
601	Economics of Agricultural Production and Farm Management	10%			
604	Marketing and Distribution Practices	5%			
	<b>Total</b>	100%			

**V(C). Planned Program (Situation and Scope)****1. Situation and priorities**

Many rural communities are highly dependent upon agriculture as the backbone of their economy. However some currently utilized crop production practices may contribute to a decline in soil quality and hasten erosion of soil. Certain pests including invasive plant species are also increasing problems in this area with limited cropping diversity and low rainfall. This coupled with low commodity prices and limited marketing options leads to a farming system that is not sustainable in its present form. The development of reduced tillage production systems coupled with appropriate new varieties of wheat and

other alternative crops can provide more sustainable production alternatives. The use of research results in the establishment of policy and regulation is also key to the future of agriculture in the region.

**2. Scope of the Program**

- In-State Extension
- In-State Research
- Multistate Research
- Multistate Extension
- Integrated Research and Extension
- Multistate Integrated Research and Extension

**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

Agriculture and natural resources will continue to be an important part of the economy of rural communities where dryland crop production systems exist. As markets become more globalized there will still be profitable niche markets for products produced in this environment. Governmental regulations may favor some enterprises. Government regulations will not impose such high costs for meeting regulations that producers will be able to continue to operate.

**2. Ultimate goal(s) of this Program**

To improve the economic and environmental sustainability of dryland cropping systems by employing appropriate production and marketing techniques and technologies.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2011	16.0	0.0	0.0	0.0
2012	14.8	0.0	0.0	0.0
2013	14.8	0.0	0.0	0.0
2014	14.8	0.0	0.0	0.0
2015	12.0	0.0	0.0	0.0

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

**1. Activity for the Program**

A combination of activities (methods listed below) that are designed to meet the needs and opportunities of the communities of interest will be built upon the research base of the university.

**2. Type(s) of methods to be used to reach direct and indirect contacts**

**Extension**

<b>Direct Methods</b>	<b>Indirect Methods</b>
-----------------------	-------------------------



- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Education Class</li> <li>• Workshop</li> <li>• Group Discussion</li> <li>• One-on-One Intervention</li> <li>• Demonstrations</li> </ul> | <ul style="list-style-type: none"> <li>• Newsletters</li> <li>• Web sites</li> </ul> |
|--|--|

**3. Description of targeted audience**

1. Crop producers primarily in the Columbia Basin of Oregon and Washington and Western Idaho. 2. Agricultural infrastructure and service providers in Oregon, Washington and Idaho 3. State and federal agencies managing both regulatory and incentive based programs

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

**1. Standard output measures**

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

	Direct Contact Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2011	28800	90000	900	900
2012	26000	80000	800	800
2013	26000	80000	800	800
2014	26000	80000	800	800
2015	22000	70000	700	700

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

2011:0                      2012:0                      2013:0                      2014:0                      2015:0

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target	Total
2011	0	20	20
2012	0	20	20
2013	0	20	20
2014	0	20	20
2015	0	20	20

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

**1. Output Target**

- Number of Educational Classes Delivered

<b>2011:100</b>	<b>2012:85</b>	<b>2013:85</b>	<b>2014:85</b>	<b>2015:80</b>
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- Number of Workshops Delivered

<b>2011:100</b>	<b>2012:85</b>	<b>2013:85</b>	<b>2014:85</b>	<b>2015:80</b>
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- Number of One-On-One Interventions

<b>2011:415</b>	<b>2012:353</b>	<b>2013:353</b>	<b>2014:353</b>	<b>2015:300</b>
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- Number of Demonstrations

<b>2011:25</b>	<b>2012:21</b>	<b>2013:21</b>	<b>2014:21</b>	<b>2015:20</b>
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- Number of Web Sites Maintained

<b>2011:4</b>	<b>2012:3</b>	<b>2013:3</b>	<b>2014:3</b>	<b>2015:3</b>
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**V(I). State Defined Outcome**

O. No.	Outcome Name
1	Acres of improved varieties and new or existing crops planted as a result of OSU research and Extension programs multiplied by the proven economic advantage above the industry norm (Million \$).
2	Established economic value from application of new or existing technologies or management techniques, processes, or reductions in production costs per acre multiplied by the number of acres affected (Million \$)
3	Value of new and existings products resulting from OSU Extension programming (Million \$).
4	Improvement in air, soil and water parameters resulting from application of new or existing technologies (%improvement)

**Outcome # 1****1. Outcome Target**

Acres of improved varieties and new or existing crops planted as a result of OSU research and Extension programs multiplied by the proven economic advantage above the industry norm (Million \$).

**2. Outcome Type : Change in Action Outcome Measure****2011:1****2012:1****2013:1****2014:1****2015:1****3. Associated Knowledge Area(s)**

- 102 - Soil, Plant, Water, Nutrient Relationships
- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management
- 205 - Plant Management Systems
- 216 - Integrated Pest Management Systems
- 502 - New and Improved Food Products
- 511 - New and Improved Non-Food Products and Processes
- 601 - Economics of Agricultural Production and Farm Management
- 604 - Marketing and Distribution Practices

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 2****1. Outcome Target**

Established economic value from application of new or existing technologies or management techniques, processes, or reductions in production costs per acre multiplied by the number of acres affected (Million \$)

**2. Outcome Type : Change in Condition Outcome Measure****2011:1****2012:1****2013:1****2014:1****2015:1****3. Associated Knowledge Area(s)**

- 102 - Soil, Plant, Water, Nutrient Relationships
- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management
- 205 - Plant Management Systems
- 216 - Integrated Pest Management Systems
- 502 - New and Improved Food Products
- 511 - New and Improved Non-Food Products and Processes
- 601 - Economics of Agricultural Production and Farm Management
- 604 - Marketing and Distribution Practices

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 3****1. Outcome Target**

Value of new and existings products resulting from OSU Extension programming (Million \$).

**2. Outcome Type : Change in Condition Outcome Measure**

2011:3	2012:3	2013:3	2014:3	2015:3
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**3. Associated Knowledge Area(s)**

- 102 - Soil, Plant, Water, Nutrient Relationships
- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management
- 205 - Plant Management Systems
- 216 - Integrated Pest Management Systems
- 502 - New and Improved Food Products
- 511 - New and Improved Non-Food Products and Processes
- 601 - Economics of Agricultural Production and Farm Management
- 604 - Marketing and Distribution Practices

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 4****1. Outcome Target**

Improvement in air, soil and water parameters resulting from application of new or existing technologies (%improvement)

**2. Outcome Type : Change in Condition Outcome Measure**

2011:5	2012:5	2013:5	2014:5	2015:5
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**3. Associated Knowledge Area(s)**

- 102 - Soil, Plant, Water, Nutrient Relationships
- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management
- 205 - Plant Management Systems
- 216 - Integrated Pest Management Systems
- 502 - New and Improved Food Products
- 511 - New and Improved Non-Food Products and Processes
- 601 - Economics of Agricultural Production and Farm Management
- 604 - Marketing and Distribution Practices

**4. Associated Institute Type(s)**

- 1862 Extension

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

### **1. External Factors which may affect Outcomes**

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

#### **Description**

Agricultural production in the region is very sensitive to the effects of weather, policy, and consumer demand. Additionally, wheat grown in the region is largely exported to Asia exposing producers to international market drivers and policies of external trading partners.

## **V(K). Planned Program (Evaluation Studies and Data Collection)**

### **1. Evaluation Studies Planned**

- Before-After (before and after program)
- Case Study
- Comparisons between program participants (individuals, group, organizations) and non-participants

#### **Description**

Specific data collection methods will be appropriately designed for the survey method being used. Since a variety of surveys will be used the specifics are not discussed here.

### **2. Data Collection Methods**

- Mail
- Telephone
- Unstructured
- Case Study
- Observation

#### **Description**

Surveys will be conducted based upon OSU Institutional Review Board policies, procedures, and guidelines. For quantitative data, customized mail and follow up telephone surveys will be used. The number of persons sampled will be based upon the estimated degree of variation in the target population and the desired degree of resolution. For qualitative assessments, care will be taken to assure that case studies are representative of the larger population served by the programming.

**V(A). Planned Program (Summary)****Program # 9****1. Name of the Planned Program**

Global Food Security and Hunger: Livestock Based Production Systems

**2. Brief summary about Planned Program**

Dairy is in the top 5 largest commodities in Oregon with a farm gate value of \$272 million. Dairy producers provide an important component of the economic base of several rural communities. Challenges include being competitive in the market place, maintaining profitability, management of waste products while preserving environmental quality. Beef cattle and calves have a farm gate value \$429 million, the second largest commodity in Oregon. Other livestock add to the economic importance of this group. Ranches and feeding operations are critical to the economy in much of Eastern Oregon. Challenges include being competitive in the world markets, maintaining profitability, assuring a safe high quality product, and management of waste products while preserving environmental quality. Pasture and forages are the backbone of the livestock production system. The value of hay is over \$318 million and is the third largest commodity in Oregon but this does not include millions of dollars in value for the hay directly used on farms, and not sold. There are over 850,000 acres of cultivated/improved pasturelands in Oregon. Public rangelands provide an important contribution to the forage base for grazing in beef and sheep production. The uses of rangelands are often the subject of debate which includes concerns with the impact of grazing on the rangeland health and associated riparian areas. Education programs that promote proper use of public and private rangelands so that livestock production can be maintained at a sustainable level while accommodating range and riparian health can be a win&ndashwin for interested parties. In addition to the commodities in this plan, soil and water-watershed education plays a critical role in protecting natural resources. The educational process promotes improved understanding between groups with diverse values. These educational programs address industrial waste water and biosolid disposal, management of agricultural inputs, understanding soil capabilities and limitations, and methods for improvement of watershed health. Other challenges or opportunities include improvements in value added processing, utilizing science in establishment of public policy, being competitive in the market place, improving profitability and assuring a high quality product while protecting environmental quality.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

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

## 1. Program Knowledge Areas and Percentage

<b>KA Code</b>	<b>Knowledge Area</b>	<b>%1862 Extension</b>	<b>%1890 Extension</b>	<b>%1862 Research</b>	<b>%1890 Research</b>
102	Soil, Plant, Water, Nutrient Relationships	10%			
112	Watershed Protection and Management	10%			
121	Management of Range Resources	20%			
205	Plant Management Systems	5%			
303	Genetic Improvement of Animals	5%			
307	Animal Management Systems	20%			
308	Improved Animal Products (Before Harvest)	5%			
311	Animal Diseases	10%			
315	Animal Welfare/Well-Being and Protection	5%			
501	New and Improved Food Processing Technologies	10%			
	<b>Total</b>	100%			

**V(C). Planned Program (Situation and Scope)****1. Situation and priorities**

Many rural communities are highly dependent upon animal agriculture as the mainstay of their economy. This is most common in eastern Oregon where ranching is a common enterprise. Dairy plays an important role along the Columbia River and on the coast. However, science based policy and regulation, value added processing, waste management, and grazing practices along waterways are issues of concern to many interest groups. Profitability is limited by low commodity prices, limited markets, imports, and high input costs which lead to a production and processing system that is not sustainable. Animal quality and health assurance issues include the tracking of animals from ranch to consumers. Improvements in these issues will assist the animal agricultural industry in maintaining its important contributions to the social infrastructure, economy, and environment.

**2. Scope of the Program**

- In-State Extension
- In-State Research
- Multistate Research
- Multistate Extension
- Integrated Research and Extension
- Multistate Integrated Research and Extension

**V(D). Planned Program (Assumptions and Goals)****1. Assumptions made for the Program**

Agriculture and natural resources will continue to be an important part of the economy of the rural and urban communities where livestock are produced or processed. As markets become more globalized there will still be profitable niche markets for the Oregon products. Governmental regulations may favor some enterprises.



Government regulations will not impose such high costs for meeting regulations that producers will be able to continue to operate.

**2. Ultimate goal(s) of this Program**

To increase the utilization of economically and environmentally sustainable range, pasture, livestock, and watershed management practices, marketing techniques, and technologies for strengthening agricultural industries and communities in Oregon.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2011	20.0	0.0	0.0	0.0
2012	18.0	0.0	0.0	0.0
2013	18.0	0.0	0.0	0.0
2014	18.0	0.0	0.0	0.0
2015	16.0	0.0	0.0	0.0

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

**1. Activity for the Program**

A combination of activities (methods listed below) that are designed to meet the needs and opportunities of the communities of interest will be built upon the research base of the university.

**2. Type(s) of methods to be used to reach direct and indirect contacts**

**Extension**

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Education Class</li> <li>● Workshop</li> <li>● Group Discussion</li> <li>● One-on-One Intervention</li> <li>● Demonstrations</li> </ul>	<ul style="list-style-type: none"> <li>● Newsletters</li> <li>● Web sites</li> </ul>

**3. Description of targeted audience**

1. Ranchers, dairy producers and animal product processors 2. Agricultural infrastructure, suppliers and service providers 3. State and federal agencies managing both regulatory and incentive based programs

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

**1. Standard output measures**

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

	<b>Direct Contact Adults</b>	<b>Indirect Contacts Adults</b>	<b>Direct Contacts Youth</b>	<b>Indirect Contacts Youth</b>
<b>Year</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>
2011	67400	90000	900	900
2012	60000	80000	800	800
2013	60000	80000	800	800
2014	60000	80000	800	800
2015	55000	75000	700	700

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

**2011:0                      2012:0                      2013:0                      2014:0                      2015:0**

**3. Expected Peer Review Publications**

<b>Year</b>	<b>Research Target</b>	<b>Extension Target</b>	<b>Total</b>
2011	0	60	60
2012	0	50	50
2013	0	50	50
2014	0	50	50
2015	0	40	40

**V(H). State Defined Outputs****1. Output Target**

- Number of Education Classes Planned

<b>2011:248</b>	<b>2012:211</b>	<b>2013:211</b>	<b>2014:211</b>	<b>2015:150</b>
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- Number of Workshops Planned

<b>2011:248</b>	<b>2012:212</b>	<b>2013:212</b>	<b>2014:212</b>	<b>2015:160</b>
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- Number of One-On-One Interventions Planned

<b>2011:1035</b>	<b>2012:882</b>	<b>2013:882</b>	<b>2014:882</b>	<b>2015:800</b>
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- Number of Demonstrations Planned

<b>2011:62</b>	<b>2012:53</b>	<b>2013:53</b>	<b>2014:53</b>	<b>2015:50</b>
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- Web Sites Maintained

<b>2011:3</b>	<b>2012:2</b>	<b>2013:2</b>	<b>2014:2</b>	<b>2015:2</b>
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**V(I). State Defined Outcome**

O. No.	Outcome Name
1	Increased market value (Million \$) created as a result of implementation of new or existing production processes, creation of animal products, or reduction in costs by increasing use of proven production practices.
2	Improvement in air, soil and water parameters resulting from application of new technologies (%improvement)

**Outcome # 1****1. Outcome Target**

Increased market value (Million \$) created as a result of implementation of new or existing production processes, creation of animal products, or reduction in costs by increasing use of proven production practices.

**2. Outcome Type : Change in Condition Outcome Measure**

2011:2	2012:2	2013:2	2014:2	2015:0
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**3. Associated Knowledge Area(s)**

- 102 - Soil, Plant, Water, Nutrient Relationships
- 112 - Watershed Protection and Management
- 121 - Management of Range Resources
- 205 - Plant Management Systems
- 303 - Genetic Improvement of Animals
- 307 - Animal Management Systems
- 308 - Improved Animal Products (Before Harvest)
- 311 - Animal Diseases
- 315 - Animal Welfare/Well-Being and Protection
- 501 - New and Improved Food Processing Technologies

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 2****1. Outcome Target**

Improvement in air, soil and water parameters resulting from application of new technologies (%improvement)

**2. Outcome Type : Change in Knowledge Outcome Measure**

2011:5	2012:5	2013:5	2014:5	2015:5
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**3. Associated Knowledge Area(s)**

- 102 - Soil, Plant, Water, Nutrient Relationships
- 112 - Watershed Protection and Management
- 121 - Management of Range Resources
- 205 - Plant Management Systems
- 303 - Genetic Improvement of Animals
- 307 - Animal Management Systems
- 308 - Improved Animal Products (Before Harvest)
- 311 - Animal Diseases
- 315 - Animal Welfare/Well-Being and Protection
- 501 - New and Improved Food Processing Technologies

#### **4. Associated Institute Type(s)**

- 1862 Extension

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

##### **1. External Factors which may affect Outcomes**

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

##### **Description**

#### **V(K). Planned Program (Evaluation Studies and Data Collection)**

##### **1. Evaluation Studies Planned**

- Before-After (before and after program)
- Case Study
- Comparisons between program participants (individuals, group, organizations) and non-participants

##### **Description**

Appropriate surveys will be conducted; industry trends and data on production practices in the industry will be monitored; input and equipment sales will be an indicator of adoption of some practices; case study measurements of soil and/or water quality will provide an indication of progress; producer surveys will also provide an indication of adoption of improved technologies.

##### **2. Data Collection Methods**

- Mail
- Telephone
- Unstructured
- Case Study
- Observation

##### **Description**

Surveys will be conducted based upon OSU Institutional Review Board policies, procedures, and guidelines. For quantitative data, customized mail and follow up telephone surveys will be used. The number of persons sampled will be based upon the estimated degree of variation in the target population and the desired degree of resolution. For qualitative assessments, care will be taken to assure that case studies are representative of the larger population served by the programming.

**V(A). Planned Program (Summary)****Program # 10****1. Name of the Planned Program**

Global Food Security and Hunger: High Rainfall and Irrigated Cropping Systems

**2. Brief summary about Planned Program**

Crops included in this plan of work include grass seed, potato, mint, cereals, hops, sugarbeets, onions, and seed certification services which occupy over 750,000 acres in Oregon. In addition, Oregon produces over \$20 million in snap beans, \$30 million in sweet corn, \$13 million in specialty seed, \$12 million in squash and pumpkins, and \$72 million in onions, as well as many other high quality processed and fresh market vegetable crops. The berry crop industry in Oregon includes commercial production of blackberry, blueberry, red and black raspberry, strawberry, cranberry, gooseberries, currants, kiwifruit, and other berry crops. The total farm gate value of these industries in Oregon was \$109.1 million. Many of these crops are processed, thus adding value to Oregon's economy. Oregon has a robust wine industry. Industry leaders place great value on producing premium wines garnering international recognition and prizes. The Oregon industry currently produces 20 tons of grapes per acre on 14,000 acres. Oregon nurseries are prospering, growing at about twice the rate as the national nursery industry, and they are ranked 3rd behind California and Florida. During the late 1990's, the industry benefited from a strong construction market, rising household incomes, and growing interests in landscape aesthetics and environmental enrichment. Oregon's nursery and greenhouse gross sales is estimated at \$779 million. This is the highest nursery value ever estimated and the industry has about doubled in size over the past decade. About 75% of all Oregon grown nursery plants are shipped out of state, which accounts for 11% of the national market. Nurseries vary greatly in size, from 1000+ acre operations to those occupying just a quarter acre. Nursery and greenhouse operations are very labor intensive and these Oregon industries employ more than 22,000 workers. Oregon's \$282 million orchard industry in comprises pears, cherries, apples and hazelnuts. The educational process addresses homeowner and industrial waste water and biosolid disposal, management of agricultural inputs, understanding soil capabilities and limitations, and methods for improvement of watershed health. Extension is participating with the agricultural industry in developing and implementing programs related to the following topics: being competitive in a worldwide market, developing new value added products, expanding markets and market niches, increasing product quality, achieving technological advantages, implementing integrated pest management, preserving soil, water and watershed quality, dealing with many aspects of labor, and improving input management efficiencies. In addition, producers and processors are developing programs that certify cultural practices for their protection of the environment; they are also concerned about utilizing science in establishment of policy.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

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

## 1. Program Knowledge Areas and Percentage

<b>KA Code</b>	<b>Knowledge Area</b>	<b>%1862 Extension</b>	<b>%1890 Extension</b>	<b>%1862 Research</b>	<b>%1890 Research</b>
102	Soil, Plant, Water, Nutrient Relationships	10%			
111	Conservation and Efficient Use of Water	10%			
112	Watershed Protection and Management	10%			
204	Plant Product Quality and Utility (Preharvest)	10%			
205	Plant Management Systems	10%			
216	Integrated Pest Management Systems	10%			
403	Waste Disposal, Recycling, and Reuse	10%			
405	Drainage and Irrigation Systems and Facilities	10%			
502	New and Improved Food Products	10%			
603	Market Economics	10%			
	<b>Total</b>	100%			

**V(C). Planned Program (Situation and Scope)**

## 1. Situation and priorities

Many rural communities are highly dependent upon agriculture as the mainstay of their economies. Some of these high value crops are also important to more urban areas as well. However, some currently utilized crop production practices do not utilize inputs efficiently and contribute to a decline in the environment and soil quality. Certain pests including invasive plant species are increasing. This coupled with low commodity prices, high input costs, and limited markets leads to a farming system that is not sustainable. The use of new technologies, improvement of input efficiencies, application of integrated pest management technologies, development of new markets and value added products will assist the agricultural industry in maintaining important contributions to the social infrastructure, economy, and environment.

## 2. Scope of the Program

- In-State Extension
- In-State Research
- Multistate Research
- Multistate Extension
- Integrated Research and Extension
- Multistate Integrated Research and Extension

**V(D). Planned Program (Assumptions and Goals)**

## 1. Assumptions made for the Program

Agriculture and natural resources will continue to be an important part of the economy of the rural and urban communities where these crops are produced or processed. As markets become more globalized there will still be profitable niche markets for products produced. Governmental regulations may favor some enterprises. Government regulations will not impose such high costs for meeting regulations that producers will be able to



continue to operate.

**2. Ultimate goal(s) of this Program**

The overall goal is to assist the various communities of interest in development and use of processing, production, and pest control practices that lead to higher quality and more diverse food and fiber products demanded by consumers with the intent that these activities and technologies will lead to a more economically and environmentally sustainable group of agricultural industries and communities.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2011	56.0	0.0	0.0	0.0
2012	50.0	0.0	0.0	0.0
2013	50.0	0.0	0.0	0.0
2014	50.0	0.0	0.0	0.0
2015	50.0	0.0	0.0	0.0

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

**1. Activity for the Program**

A combination of activities (methods listed below) that are designed to meet the needs and opportunities of the communities of interest will be built upon the research base of the university.

**2. Type(s) of methods to be used to reach direct and indirect contacts**

**Extension**

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Education Class</li> <li>● Workshop</li> <li>● Group Discussion</li> <li>● One-on-One Intervention</li> <li>● Demonstrations</li> </ul>	<ul style="list-style-type: none"> <li>● Newsletters</li> <li>● Web sites</li> </ul>

**3. Description of targeted audience**

1. Crop producers in this group of crops generally produced in the high rain fall or irrigated production system in Oregon
2. Agricultural infrastructure, suppliers and service providers
3. State and federal agencies managing both regulatory and incentive based programs

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

**1. Standard output measures**

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

	<b>Direct Contact Adults</b>	<b>Indirect Contacts Adults</b>	<b>Direct Contacts Youth</b>	<b>Indirect Contacts Youth</b>
<b>Year</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>
2011	113400	360000	900	900
2012	102000	324000	800	800
2013	102000	324000	800	800
2014	102000	324000	800	800
2015	100000	320000	700	700

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

**2011:0                      2012:0                      2013:0                      2014:0                      2015:0**

**3. Expected Peer Review Publications**

<b>Year</b>	<b>Research Target</b>	<b>Extension Target</b>	<b>Total</b>
2011	0	40	40
2012	0	40	40
2013	0	40	40
2014	0	40	40
2015	0	40	40

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

**1. Output Target**

- Number of Educational Classes Planned

<b>2011:434</b>	<b>2012:370</b>	<b>2013:370</b>	<b>2014:370</b>	<b>2015:330</b>
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- Number of Workshops Planned

<b>2011:433</b>	<b>2012:370</b>	<b>2013:370</b>	<b>2014:370</b>	<b>2015:330</b>
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- Number of Demonstrations Planned

<b>2011:108</b>	<b>2012:92</b>	<b>2013:92</b>	<b>2014:92</b>	<b>2015:80</b>
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- Number of One-On-One Interventions Planned

<b>2011:1806</b>	<b>2012:1539</b>	<b>2013:1539</b>	<b>2014:1539</b>	<b>2015:1400</b>
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- Web Sites Maintained (Planned)

<b>2011:5</b>	<b>2012:4</b>	<b>2013:4</b>	<b>2014:4</b>	<b>2015:4</b>
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**V(I). State Defined Outcome**

O. No.	Outcome Name
1	Acres of improved varieties and new or existing crops planted as a result of OSU research and Extension programs multiplied by the proven economic advantage above the industry norm (Million \$)
2	Improvement in air, soil and water parameters resulting from application of new or existing technologies (% Improvement)
3	Value of new or existing products resulting from OSU Extension programming(Million \$)
4	Established economic value from application of new or existing technologies or management techniques, processes, or reductions in production costs per acre multiplied by the number of acres affected (Million \$)

**Outcome # 1**

**1. Outcome Target**

Acres of improved varieties and new or existing crops planted as a result of OSU research and Extension programs multiplied by the proven economic advantage above the industry norm (Million \$)

**2. Outcome Type : Change in Action Outcome Measure**

**2011:6                      2012:6                      2013:6                      2014:6                      2015:0**

**3. Associated Knowledge Area(s)**

- 102 - Soil, Plant, Water, Nutrient Relationships
- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management
- 204 - Plant Product Quality and Utility (Preharvest)
- 205 - Plant Management Systems
- 216 - Integrated Pest Management Systems
- 403 - Waste Disposal, Recycling, and Reuse
- 405 - Drainage and Irrigation Systems and Facilities
- 502 - New and Improved Food Products
- 603 - Market Economics

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 2**

**1. Outcome Target**

Improvement in air, soil and water parameters resulting from application of new or existing technologies (% Improvement)

**2. Outcome Type : Change in Condition Outcome Measure**

**2011:8                      2012:8                      2013:9                      2014:9                      2015:9**

**3. Associated Knowledge Area(s)**

- 102 - Soil, Plant, Water, Nutrient Relationships
- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management
- 403 - Waste Disposal, Recycling, and Reuse
- 405 - Drainage and Irrigation Systems and Facilities

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 3**

**1. Outcome Target**

Value of new or existing products resulting from OSU Extension programming(Million \$)

**2. Outcome Type : Change in Condition Outcome Measure**

**2011:10                      2012:10                      2013:10                      2014:10                      2015:10**

**3. Associated Knowledge Area(s)**

- 102 - Soil, Plant, Water, Nutrient Relationships
- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management
- 204 - Plant Product Quality and Utility (Preharvest)
- 205 - Plant Management Systems
- 216 - Integrated Pest Management Systems
- 502 - New and Improved Food Products
- 603 - Market Economics

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 4**

**1. Outcome Target**

Established economic value from application of new or existing technologies or management techniques, processes, or reductions in production costs per acre multiplied by the number of acres affected (Million \$)

**2. Outcome Type : Change in Condition Outcome Measure**

**2011:1                      2012:1                      2013:1                      2014:6                      2015:7**

**3. Associated Knowledge Area(s)**

- 102 - Soil, Plant, Water, Nutrient Relationships
- 112 - Watershed Protection and Management
- 204 - Plant Product Quality and Utility (Preharvest)
- 403 - Waste Disposal, Recycling, and Reuse
- 405 - Drainage and Irrigation Systems and Facilities
- 502 - New and Improved Food Products
- 603 - Market Economics

**4. Associated Institute Type(s)**

- 1862 Extension

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

**1. External Factors which may affect Outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations

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

### **Description**

These production systems are extremely vulnerable to regulatory, economic, and policy changes. Public opinion can also be very fickle driving consumers to or away from specific products. The factors identified above can either increase or reduce the effectiveness of programming.

## **V(K). Planned Program (Evaluation Studies and Data Collection)**

### **1. Evaluation Studies Planned**

- Before-After (before and after program)
- Case Study
- Comparisons between program participants (individuals, group, organizations) and non-participants

### **Description**

Specific data collection methods will be appropriately designed for the survey method being used. Since a variety of surveys will be used the specifics are not discussed here.

### **2. Data Collection Methods**

- Mail
- Telephone
- Unstructured
- Case Study

### **Description**

Surveys will be conducted based upon OSU Institutional Review Board policies, procedures, and guidelines. For quantitative data, customized mail and follow up telephone surveys will be used. The number of persons sampled will be based upon the estimated degree of variation in the target population and the desired degree of resolution. For qualitative assessments, care will be taken to assure that case studies are representative of the larger population served by the programming.

**V(A). Planned Program (Summary)****Program # 11****1. Name of the Planned Program**

Healthy People, Healthy Communities (including Food Safety and Childhood Obesity)

**2. Brief summary about Planned Program**

This program has several primary aims involving the health of Oregon individuals, families and communities, including (a) to improve health, reduce obesity, and reduce risk of chronic diseases through healthy eating combined with daily physical activity; (b) to reduce the incidence of foodborne illness in Oregon, and (c) to increase household and community food security. These aims will be pursued through Extension teaching and translational research strategies that are targeted to identified audiences. The program incorporates collaboration with state agencies and local partners, as well as OSU's College of Health and Human Sciences and other units on the OSU campus.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

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

## 1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
703	Nutrition Education and Behavior	50%			
704	Nutrition and Hunger in the Population	25%			
724	Healthy Lifestyle	25%			
	<b>Total</b>	100%			

**V(C). Planned Program (Situation and Scope)****1. Situation and priorities**

Poor nutrition and physical inactivity are linked to chronic illnesses such as obesity and diabetes. Fifty-seven percent of adult Oregonians are obese or overweight (DHS, Behavioral Risk Factors Surveillance System); 23% of 8th graders are overweight or at risk of overweight (DHS, Oregon Healthy Teens Survey). Fifty percent of Oregon adults don't meet minimum physical activity recommendations (DHS, BRFSS). Only 1 in 4 Oregonians report eating five or more servings of fruits and vegetables per day (DHS, BRFSS). Pregnant women, young children, older adults and other people with compromised immune systems are at risk for foodborne illness. Oregon FoodNet data show decreased incidence of illness caused by some pathogens (CDC). Food safety/preservation education continues to be of importance to maintain and extend these improvements. Oregon's high rate of hunger and food insecurity necessitate the availability of emergency and other food assistance programs for low-income families. Oregon hunger rates are significantly higher than the national average for three categories that aren't usually at risk: double income households, households without unemployed people, and two parent households with children.

**2. Scope of the Program**

- In-State Extension
- Integrated Research and Extension



**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

The need for Extension programs related to nutrition, physical activity, food safety, and food security will continue in Oregon. Extension program activities will continue to be funded through a variety of funding sources, including federal grants as well as state funds. Agency partnerships will continue with state government, the Oregon Food Bank, and other institutions. Extension program development will continue to draw on emerging knowledge, from the land grants and other locations, about best practices related to the promotion of health among individuals, families, and communities.

**2. Ultimate goal(s) of this Program**

- To improve health, reduce obesity, and reduce risk of chronic diseases through healthy eating combined with daily physical activity
- To reduce the incidence of foodborne illness in Oregon
- To increase household and community food security

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2011	12.3	0.0	0.0	0.0
2012	9.3	0.0	0.0	0.0
2013	9.3	0.0	0.0	0.0
2014	9.3	0.0	0.0	0.0
2015	8.0	0.0	0.0	0.0

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

**1. Activity for the Program**

Stakeholder input will be acquired from numerous sources, including state government agencies, the Oregon Food Bank, local funders, consumers, food policy councils, health care provider organizations, and other organizations and consortia. Programs will be delivered based on several factors, including the identification of critical audiences at local levels, working organizational partnerships, and input from OSU researchers. Target audiences will be identified and the most effective programming options will be identified and implemented.

**2. Type(s) of methods to be used to reach direct and indirect contacts**

**Extension**

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>• Education Class</li> <li>• Workshop</li> <li>• Demonstrations</li> </ul>	<ul style="list-style-type: none"> <li>• Newsletters</li> <li>• Web sites</li> </ul>

**3. Description of targeted audience**

The target audience will consist of low-income and high-risk families, including parents, children, and seniors.

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

**1. Standard output measures**

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

	<b>Direct Contact Adults</b>	<b>Indirect Contacts Adults</b>	<b>Direct Contacts Youth</b>	<b>Indirect Contacts Youth</b>
<b>Year</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>
2011	9000	76500	45000	49500
2012	8800	68000	40000	44500
2013	8800	68000	40000	44500
2014	8800	68000	40000	44500
2015	8000	60000	35000	35000

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

**2011:0                      2012:0                      2013:0                      2014:0                      2015:0**

**3. Expected Peer Review Publications**

<b>Year</b>	<b>Research Target</b>	<b>Extension Target</b>	<b>Total</b>
2011	0	10	10
2012	0	10	10
2013	0	10	10
2014	0	10	10
2015	0	10	10

## **V(H). State Defined Outputs**

### **1. Output Target**

- Educational Events and Workshops to be Delivered

<b>2011:290</b>	<b>2012:248</b>	<b>2013:248</b>	<b>2014:248</b>	<b>2015:200</b>
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- Demonstrations to be Conducted

<b>2011:290</b>	<b>2012:248</b>	<b>2013:248</b>	<b>2014:248</b>	<b>2015:200</b>
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- Newsletters to be Published

<b>2011:88</b>	<b>2012:75</b>	<b>2013:75</b>	<b>2014:75</b>	<b>2015:70</b>
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- Web Sites to be Developed/Maintained

<b>2011:3</b>	<b>2012:2</b>	<b>2013:2</b>	<b>2014:2</b>	<b>2015:2</b>
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**V(I). State Defined Outcome**

O. No.	Outcome Name
1	Percentage of participants that will indicate positive change related to nutritional content of food purchases for their family.
2	Percentage of participants that report improved food resource management (meal planning and food budgeting).
3	Percentage of participants that report improved food safety practices such as preparation, thawing and storing procedures.
4	Percentage of participating families that will report increased physical activity among their children.

**Outcome # 1****1. Outcome Target**

Percentage of participants that will indicate positive change related to nutritional content of food purchases for their family.

**2. Outcome Type : Change in Action Outcome Measure**

<b>2011:60</b>	<b>2012:60</b>	<b>2013:60</b>	<b>2014:60</b>	<b>2015:60</b>
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**3. Associated Knowledge Area(s)**

- 703 - Nutrition Education and Behavior
- 704 - Nutrition and Hunger in the Population
- 724 - Healthy Lifestyle

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 2****1. Outcome Target**

Percentage of participants that report improved food resource management (meal planning and food budgeting).

**2. Outcome Type : Change in Action Outcome Measure**

<b>2011:70</b>	<b>2012:70</b>	<b>2013:70</b>	<b>2014:70</b>	<b>2015:70</b>
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**3. Associated Knowledge Area(s)**

- 703 - Nutrition Education and Behavior
- 704 - Nutrition and Hunger in the Population

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 3****1. Outcome Target**

Percentage of participants that report improved food safety practices such as preparation, thawing and storing procedures.

**2. Outcome Type : Change in Action Outcome Measure**

<b>2011:60</b>	<b>2012:60</b>	<b>2013:60</b>	<b>2014:60</b>	<b>2015:60</b>
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**3. Associated Knowledge Area(s)**

- 703 - Nutrition Education and Behavior

#### 4. Associated Institute Type(s)

- 1862 Extension

#### Outcome # 4

##### 1. Outcome Target

Percentage of participating families that will report increased physical activity among their children.

##### 2. Outcome Type : Change in Action Outcome Measure

2011:50	2012:50	2013:50	2014:50	2015:50
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##### 3. Associated Knowledge Area(s)

- 724 - Healthy Lifestyle

#### 4. Associated Institute Type(s)

- 1862 Extension

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

##### 1. External Factors which may affect Outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

##### Description

Because of the blending of funding that supports the nutrition education programming at OSU, changes in policy or appropriation of funds can greatly impact our ability to deliver programming. Additionally, any factors that impact food assistance delivery to lower income populations will affect their abilities to respond to training. As new target audiences are introduced to our programs, rates of success may be impacted. It is necessary to develop culturally appropriate approaches when new audiences are engaged.

#### V(K). Planned Program (Evaluation Studies and Data Collection)

##### 1. Evaluation Studies Planned

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

##### Description

Annual performance monitoring data will be collected from participating counties to develop aggregate measures of program participants who have gained knowledge related to diet or physical activity.

##### 2. Data Collection Methods

- Sampling
- Mail
- Telephone
- On-Site
- Structured
- Unstructured
- Observation
- Journals

**Description**

Surveys will be conducted based upon OSU Institutional Review Board policies, procedures, and guidelines. For quantitative data, customized on-site surveys will be used. The number of persons sampled will be based upon the estimated degree of variation in the target population and the desired degree of resolution. For qualitative assessments, care will be taken to assure that case studies are representative of the larger population served by the programming.

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

**Program # 12**

**1. Name of the Planned Program**

Healthy Aging

**2. Brief summary about Planned Program**

This program has several primary aims including to increase the independence and well-being of older individuals and their family caregivers, as well as to promote informed decision making that can lead to improved economic and health situations among families with aging adults. These aims will be pursued through Extension teaching and translational research strategies that are targeted to identified audiences. The program incorporates collaboration with state agencies and local partners, as well as OSU's College of Health and Human Sciences and other units on the OSU campus.

**3. Program existence :** Mature (More then five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
724	Healthy Lifestyle	50%			
802	Human Development and Family Well-Being	50%			
	<b>Total</b>	100%			

**V(C). Planned Program (Situation and Scope)**

**1. Situation and priorities**

The number of people in the United States over age 65 is forecast to more than double in the next quarter century, growing from 35 million to 72 million — or 20.7 percent of the U.S. population. In Oregon, the projections are even higher, as older adults will comprise more than 25% of the population by 2050. Some of Oregon's more rural counties are already characterized by 20-25% of their populations over 65 (Source: Center for Healthy Aging, OSU). The "graying" of Oregon means that Oregon State University Extension Service needs to deliver high quality professional programs in communities, reaching older adults, family caregivers, and professionals. This Extension Family and Community Health work area has an important role as the outreach arm of the newly funded OSU Center for Healthy Aging Research on campus. There has been a 41% increase in Oregon's over-65 population since the 2000 census, and Oregon is projected to be the state with the 4th highest proportion of older adults by 2025. Older adults are also expected to account for more than half of single-person households in Oregon, with the highest rates in rural areas. Recent reports indicate that these older adults can anticipate a substantially increased life expectancy, with 45% of older Americans projected to live to age 90. Yet few institutions in the state are planning for ways to deal with an aging population. Aging populations face multiple physical and mental health conditions, such as heart disease, diabetes, arthritis, depression, dementia, and osteoporosis. Currently 80% of the over 65 population has one chronic disease condition and 50% have two or more. Aging, chronically ill populations can benefit from the health promotion, disease prevention instructional materials and educational opportunities provided through Extension programs. New strategies and technologies will be important for connecting these older adults living alone to their family members and service providers. Strategies will also be needed to assist individuals with chronic conditions in becoming self-managers. Older adults and their families will need information that ranges from how to effectively communicate with health providers to the importance of nutrient-dense eating. Planning for health care, living situations, family relationships, and financial resources will require increased knowledge about aging processes to better inform healthy



living.

**2. Scope of the Program**

- In-State Extension
- Integrated Research and Extension

**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

The need for Extension programs related to healthy aging will continue in Oregon. The Extension Family and Community Health program will continue to partner with the Center for Healthy Aging Research at OSU. Collaborations will continue with state government, local institutions, and other organizations. Extension program development will continue to draw on emerging knowledge, from the Land Grant Institution and other locations, about best practices related to the promotion of health and well-being for older adults and for the development of knowledge and skills among their family caregivers.

**2. Ultimate goal(s) of this Program**

- To improve the physical and mental health of Oregon's older adults, and the well-being of their families, by strengthening their capacities to optimize healthy aging

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2011	2.5	0.0	0.0	0.0
2012	2.3	0.0	0.0	0.0
2013	2.3	0.0	0.0	0.0
2014	2.3	0.0	0.0	0.0
2015	2.0	0.0	0.0	0.0

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

**1. Activity for the Program**

Stakeholder input will be acquired from agency partners including Oregon Senior and Disabled Services in the Dept. of Human Services, the regional Area Agencies on Aging, Oregon AARP, and others. Programs will be delivered based on the identification of critical audiences at local levels, working organizational partnerships, and input from OSU researchers. Target audiences will be identified and the most effective programming options will be identified and implemented. Extension activities will be coordinated with the recently established Center for Healthy Aging Research on the OSU campus.

**2. Type(s) of methods to be used to reach direct and indirect contacts**

**Extension**

Direct Methods	Indirect Methods
----------------	------------------

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Education Class</li> <li>• Workshop</li> <li>• Demonstrations</li> </ul> | <ul style="list-style-type: none"> <li>• Public Service Announcement</li> <li>• Newsletters</li> <li>• TV Media Programs</li> <li>• Web sites</li> </ul> |
|---|--|

**3. Description of targeted audience**

The target audience will consist of older adults living in Oregon (particularly those at some risk with regard to their health and well-being), family caregivers, and professionals.

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

**1. Standard output measures**

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

	Direct Contact Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2011	1125	0	0	0
2012	1000	0	0	0
2013	1000	0	0	0
2014	1000	0	0	0
2015	1000	0	0	0

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

**2011:0                      2012:0                      2013:0                      2014:0                      2015:0**

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target	Total
2011	0	3	3
2012	0	3	3
2013	0	3	3
2014	0	3	3
2015	0	3	3

## V(H). State Defined Outputs

### 1. Output Target

- Educational Events, Workshops, and Demonstrations to be Conducted

<b>2011:53</b>	<b>2012:45</b>	<b>2013:45</b>	<b>2014:45</b>	<b>2015:40</b>
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- Public Service Announcements to be Delivered

<b>2011:4</b>	<b>2012:4</b>	<b>2013:4</b>	<b>2014:4</b>	<b>2015:3</b>
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- Newsletters to be Published

<b>2011:11</b>	<b>2012:9</b>	<b>2013:9</b>	<b>2014:9</b>	<b>2015:6</b>
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- TV and Media Programs to be Delivered

<b>2011:3</b>	<b>2012:2</b>	<b>2013:2</b>	<b>2014:2</b>	<b>2015:1</b>
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- Web Sites to be Developed and Maintained

<b>2011:1</b>	<b>2012:1</b>	<b>2013:1</b>	<b>2014:1</b>	<b>2015:1</b>
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**V(I). State Defined Outcome**

O. No.	Outcome Name
1	Percentage of participants that indicate increased knowledge about healthy aging practices including diet, activity, medication management, health monitoring, and family relationships.
2	Percentage of participating family health care providers that report informed decision-making related to older adults in their care.
3	Percentage of participants reporting improvement in their overall (age-adjusted) health status as a result of the program.

**Outcome # 1**

**1. Outcome Target**

Percentage of participants that indicate increased knowledge about healthy aging practices including diet, activity, medication management, health monitoring, and family relationships.

**2. Outcome Type : Change in Knowledge Outcome Measure**

**2011:60                      2012:60                      2013:60                      2014:60                      2015:60**

**3. Associated Knowledge Area(s)**

- 724 - Healthy Lifestyle
- 802 - Human Development and Family Well-Being

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 2**

**1. Outcome Target**

Percentage of participating family health care providers that report informed decision-making related to older adults in their care.

**2. Outcome Type : Change in Action Outcome Measure**

**2011:50                      2012:50                      2013:50                      2014:50                      2015:50**

**3. Associated Knowledge Area(s)**

- 724 - Healthy Lifestyle
- 802 - Human Development and Family Well-Being

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 3**

**1. Outcome Target**

Percentage of participants reporting improvement in their overall (age-adjusted) health status as a result of the program.

**2. Outcome Type : Change in Condition Outcome Measure**

**2011:40                      2012:40                      2013:40                      2014:40                      2015:40**

**3. Associated Knowledge Area(s)**

- 724 - Healthy Lifestyle
- 802 - Human Development and Family Well-Being

#### **4. Associated Institute Type(s)**

- 1862 Extension

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

##### **1. External Factors which may affect Outcomes**

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

##### **Description**

There are many societal factors that affect the well-being of older adults including social networks, access to health care and community supports. Any of these may influence the status of the target population and create challenges for our programs.

#### **V(K). Planned Program (Evaluation Studies and Data Collection)**

##### **1. Evaluation Studies Planned**

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

##### **Description**

Pre test - post test and retrospective pre-test methods will be used to determine changes in participants knowledge, skills, behaviors and health status.

##### **2. Data Collection Methods**

- Sampling
- On-Site
- Structured

##### **Description**

Surveys will be conducted based upon OSU Institutional Review Board policies, procedures, and guidelines. For quantitative data, customized on-site surveys will be used. The number of persons sampled will be based upon the estimated degree of variation in the target population and the desired degree of resolution. For qualitative assessments, care will be taken to assure that case studies are representative of the larger population served by the programming.

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

**Program # 13**

**1. Name of the Planned Program**

Financial Literacy

**2. Brief summary about Planned Program**

This program's primary aim is to increase the use of effective financial planning by individuals and families in Oregon, leading to a reduction of debt and an increase in savings. Program activities will include Extension teaching and translational research strategies that are targeted to identified audiences. The program incorporates collaboration with state agencies and local partners, as well as OSU's College of Health and Human Sciences and other units on the OSU campus.

**3. Program existence :** Intermediate (One to five years)

**4. Program duration :** Medium Term (One to five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
801	Individual and Family Resource Management	100%			
	<b>Total</b>	100%			

**V(C). Planned Program (Situation and Scope)**

**1. Situation and priorities**

For many Oregon families, their level of economic security often hinges on their day-to-day decisions regarding spending, saving, and credit use. Low wages and high housing costs have caused many of Oregon's working families to be in precarious financial conditions. In this situation, each financial decision can have immediate positive or negative impacts on the family's bottom line. Interactive programming to teach basic skills such as analyzing personal values, developing achievable goals, tracking spending, budgeting, using credit wisely, and repairing credit problems continues to be needed in all Oregon communities. The growing national problem of financial fraud and identity theft lends another dimension of urgency to this topic.

**2. Scope of the Program**

- In-State Extension
- Integrated Research and Extension

**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

The need for Extension programs related to financial literacy will continue in Oregon. Agency collaborations will continue with public and private institutions. Extension program development will continue to draw on emerging knowledge, from the Land Grant Institutions and other locations, about best practices related to the promotion of financial literacy and economic security among Extension audiences.

**2. Ultimate goal(s) of this Program**

To improve the economic security of Oregon families by strengthening their capacities and skills in areas pertinent to financial literacy.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2011	1.4	0.0	0.0	0.0
2012	1.3	0.0	0.0	0.0
2013	1.3	0.0	0.0	0.0
2014	1.3	0.0	0.0	0.0
2015	1.0	0.0	0.0	0.0

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

**1. Activity for the Program**

Stakeholder input will be acquired from various sources including agency partners, local housing authorities, and coalitions related to financial management such as county-level consumer credit counseling bureaus. Programs will be delivered based on the identification of critical audiences at local levels, working organizational partnerships, and input from OSU researchers. Target audiences will be identified and the most effective programming options will be identified and implemented.

**2. Type(s) of methods to be used to reach direct and indirect contacts**

**Extension**

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Education Class</li> <li>● Workshop</li> </ul>	<ul style="list-style-type: none"> <li>● Newsletters</li> </ul>

**3. Description of targeted audience**

The target audience will consist of low-income and high-risk families, including parents, children, and seniors.

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

**1. Standard output measures**

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

	Direct Contact Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2011	190	0	0	0
2012	170	0	0	0
2013	170	0	0	0



	Direct Contact Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2014	170	0	0	0
2015	150	0	0	0

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

2011:0                      2012:0                      2013:0                      2014:0                      2015:0

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target	Total
2011	0	2	2
2012	0	1	1
2013	0	1	1
2014	0	1	1
2015	0	1	1

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

**1. Output Target**

- Educational Events and workshops to be Conducted

2011:22                      2012:19                      2013:19                      2014:19                      2015:10

- Newsletters to be Published

2011:5                      2012:5                      2013:5                      2014:5                      2015:5

**V(I). State Defined Outcome**

O. No.	Outcome Name
1	Percentage of participants indicating increased knowledge and skill in financial planning.
2	Percentage of participants indicating application of acquired financial management practices.

**Outcome # 1**

**1. Outcome Target**

Percentage of participants indicating increased knowledge and skill in financial planning.

**2. Outcome Type : Change in Knowledge Outcome Measure**

<b>2011:75</b>	<b>2012:75</b>	<b>2013:75</b>	<b>2014:75</b>	<b>2015:60</b>
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**3. Associated Knowledge Area(s)**

- 801 - Individual and Family Resource Management

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 2**

**1. Outcome Target**

Percentage of participants indicating application of acquired financial management practices.

**2. Outcome Type : Change in Action Outcome Measure**

<b>2011:50</b>	<b>2012:50</b>	<b>2013:50</b>	<b>2014:50</b>	<b>2015:50</b>
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**3. Associated Knowledge Area(s)**

- 801 - Individual and Family Resource Management

**4. Associated Institute Type(s)**

- 1862 Extension

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

**1. External Factors which may affect Outcomes**

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

**Description**

Changes in policies that impact the financial status of individuals in our target population may affect their ability to manage their finances.

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

**1. Evaluation Studies Planned**

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

### **Description**

Pre-post and retrospective pre-test methods will be used to determine changes in our participants knowledge and behaviors.

## **2. Data Collection Methods**

- Sampling
- On-Site
- Structured

### **Description**

Surveys will be conducted based upon OSU Institutional Review Board policies, procedures, and guidelines. For quantitative data, customized on-site surveys will be used. The number of persons sampled will be based upon the estimated degree of variation in the target population and the desired degree of resolution.

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

**Program # 14**

**1. Name of the Planned Program**

Sea Grant: Watersheds and Water Resources

**2. Brief summary about Planned Program**

The purpose of the planned program is to engage the general public and groups such as local governments, outdoor hobbyists, agriculturalists, rural and urban landowners, and woodland managers in solution-focused initiatives to sustain watershed health and conserve water resources.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
112	Watershed Protection and Management	100%			
	<b>Total</b>	100%			

**V(C). Planned Program (Situation and Scope)**

**1. Situation and priorities**

Oregon's salmon-bearing watersheds are under the pressure of a growing human population and land use that often results in changes in water quality, habitat, and water rights issues. Watersheds also can provide a pathway for invasive species and breeding grounds for fish diseases. Efforts need to be targeted on better defining the relationships between climate change, upland and coastal land use, restoration efforts, and other changes and downstream impacts to coastal communities and ecosystems ecosystems, and on preventing and mitigating the impact of aquatic invasive species.

**2. Scope of the Program**

- In-State Extension
- Integrated Research and Extension
- Multistate Integrated Research and Extension

**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

Educational programming will advance understanding of the roles of natural hydrology, riparian ecology, and safe and sustainable land use and development, and provide training and capacity building that helps protect a safe and clean water supply

**2. Ultimate goal(s) of this Program**

Productivity and sustainability of natural systems and communities will be enhanced by knowledge and information.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2011	2.5	0.0	0.0	0.0
2012	2.3	0.0	0.0	0.0
2013	2.3	0.0	0.0	0.0
2014	2.3	0.0	0.0	0.0
2015	2.0	0.0	0.0	0.0

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

**1. Activity for the Program**

Programming will: advance understanding of the roles of natural hydrology, riparian ecology, and safe and sustainable land use and development; provide training and capacity building that helps protect a safe and clean water supply; promote social progress and economic vitality by strengthening regional partnerships and facilitating improved decision making with regard to watersheds and water resources; and, provide a better understanding of the economic impacts and effective management or prevention of aquatic invasive species.

**2. Type(s) of methods to be used to reach direct and indirect contacts**

**Extension**

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Education Class</li> <li>● Workshop</li> <li>● Demonstrations</li> </ul>	<ul style="list-style-type: none"> <li>● Newsletters</li> <li>● Web sites</li> </ul>

**3. Description of targeted audience**

Watershed council members, educators, water and watershed-affiliated agencies, landowners, watershed recreationists, and other interested groups or individuals through leadership development and community involvement

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

**1. Standard output measures**

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

	<b>Direct Contact Adults</b>	<b>Indirect Contacts Adults</b>	<b>Direct Contacts Youth</b>	<b>Indirect Contacts Youth</b>
<b>Year</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>
2011	450	1350	0	0
2012	400	1210	0	0
2013	400	1210	0	0
2014	400	1210	0	0
2015	350	1100	0	0

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

**2011:0                      2012:0                      2013:0                      2014:0                      2015:0**

**3. Expected Peer Review Publications**

<b>Year</b>	<b>Research Target</b>	<b>Extension Target</b>	<b>Total</b>
2011	0	3	3
2012	0	3	3
2013	0	3	3
2014	0	3	3
2015	0	3	3

## V(H). State Defined Outputs

### 1. Output Target

- Number of Educational Classes to be Conducted

<b>2011:9</b>	<b>2012:8</b>	<b>2013:8</b>	<b>2014:8</b>	<b>2015:8</b>
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- Number of Workshops to be Conducted

<b>2011:4</b>	<b>2012:4</b>	<b>2013:4</b>	<b>2014:4</b>	<b>2015:4</b>
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- Number of Group Discussions to be Conducted

<b>2011:2</b>	<b>2012:2</b>	<b>2013:2</b>	<b>2014:2</b>	<b>2015:2</b>
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- Number of Demonstrations to be Conducted

<b>2011:1</b>	<b>2012:1</b>	<b>2013:1</b>	<b>2014:1</b>	<b>2015:1</b>
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- Number of Newsletters to be Published

<b>2011:2</b>	<b>2012:2</b>	<b>2013:2</b>	<b>2014:2</b>	<b>2015:2</b>
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- Number of Web Sites to be Developed and Maintained

<b>2011:1</b>	<b>2012:1</b>	<b>2013:1</b>	<b>2014:1</b>	<b>2015:1</b>
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**V(I). State Defined Outcome**

O. No.	Outcome Name
1	Number of volunteer hours spent on watershed restoration efforts
2	Number of new "Master Watershed Stewards" certifications plus number of previously certified "Master Watershed Stewards" seeking education in advanced topics
3	Percentage of coastal communities that implement low impact development practices
4	Number of collaborative educational efforts that incorporate invasive species prevention, detection and/or response activities

**Outcome # 1**

**1. Outcome Target**

Number of volunteer hours spent on watershed restoration efforts

**2. Outcome Type :** Change in Action Outcome Measure

2011:400                      2012:400                      2013:400                      2014:400                      2015:400

**3. Associated Knowledge Area(s)**

- 112 - Watershed Protection and Management

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 2**

**1. Outcome Target**

Number of new "Master Watershed Stewards" certifications plus number of previously certified "Master Watershed Stewards" seeking education in advanced topics

**2. Outcome Type :** Change in Knowledge Outcome Measure

2011:90                      2012:90                      2013:90                      2014:90                      2015:90

**3. Associated Knowledge Area(s)**

- 112 - Watershed Protection and Management

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 3**

**1. Outcome Target**

Percentage of coastal communities that implement low impact development practices

**2. Outcome Type :** Change in Action Outcome Measure

2011:50                      2012:50                      2013:50                      2014:50                      2015:50

**3. Associated Knowledge Area(s)**

- 112 - Watershed Protection and Management

**4. Associated Institute Type(s)**

- 1862 Extension

**Outcome # 4**

**1. Outcome Target**

Number of collaborative educational efforts that incorporate invasive species prevention, detection and/or response activities

**2. Outcome Type :** Change in Action Outcome Measure

2011:8

2012:12

2013:16

2014:20

2015:24

**3. Associated Knowledge Area(s)**

- 112 - Watershed Protection and Management

**4. Associated Institute Type(s)**

- 1862 Extension

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

**1. External Factors which may affect Outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities

**Description**

Waterhed management practices are largely determined by local, state and federal regulations. Changes in these regulations may enhance or retard efforts and progress. Application of watershed enhancement practices is also affected by available pubic funding. Therefore progress can be enhanced or restricted by available funding. Development of coastal regions often pits economic interests against environmental interests. This can affect public sentiment and direct policy and development and implementation of regulations.

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

**1. Evaluation Studies Planned**

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

**Description**

Appropriate surveys will be conducted; organizational and individual trends and data on management practices will be monitored; case study measurements of watershed health will provide an indication of progress.

**2. Data Collection Methods**

- Sampling
- Mail
- Telephone
- Unstructured
- Case Study

**Description**

Surveys will be conducted based upon OSU Institutional Review Board policies, proceedures, and guidelines. For quantitative data, customized mail and follow up telephone surveys will be used. The number of persons sampled will be

based upon the estimated degree of variation in the target population and the desired degree of resolution. For qualitative assessments, care will be taken to assure that case studies are representative of the larger population served by the programming.