Extension Program Work Area
Agriculture: Viticulture & Enology
PWA1: Environmental Quality

Rationale
Viticulture and the huge array of micro-climates and soils in Oregon contribute to a robust wine industry that has grown since the 1980’s. Industry leaders place great value on producing premium wines garnering international recognition and prizes. The Oregon industry currently produces 20 tons of grapes on 14,000 acres in recent years. Tourism adds value to both the complexity of the wine and to the industry. While Oregon is known for its Willamette Valley production of Pinot and Pinot gris, growers also produce many warm climate varieties including Syrah, Cabernet Franc, and Tempranillo. The challenge is managing crop load and vine potential combined with the longer ripening season to produce grapes of superior quality. Always striving for greater efficiency, Oregon grape growers want more information to improve management, quality, and their business in an expanding global economy. Identification of rust and Willamette spider mites and associated predators are identified along with management practices. Education with a Spanish-speaking work force is gaining importance. Wine makers seek to produce a high-quality product free of chemical, flavor, and microbial defects through fermentation and finishing innovations.

Stake Holder Input
Advisory panels representing growers on The Oregon Wine Board (OWB) and Northwest Small Fruits Research Center support research and Extension projects based on priorities established by growers. The OWB education committee, in collaboration with faculty, plan educational events, identify priority needs, and collaborate with faculty to conduct on-farm research. Faculty respond by submitting proposals or design of collaborative trials and educational programs.

How Stake Holder Input was used to create this PWA
Extension Agriculture faculty use stakeholder input to plan and implement programming based on the needs expressed by local stakeholders. At the same time, Extension Agriculture faculty inform stakeholders about pressing needs within agriculture that may not be a priority for the local community. This interaction between stakeholders and Agriculture professionals ensures that programming is relevant to the local community while reflecting the needs and concerns of producers throughout the state.

Long Term Outcome
Communication networks will be developed or improved to enable timely communication and utilization of technologies such as those used in pest control that are weather dependent and change rapidly. Agricultural input management methods will reduce or eliminate surface and groundwater or other pollution in the environment and improve soil quality. Understanding of fermentation pathways involved in wine-making practices, including tannin astringency related to polyphenolic precursors in grape skins and seeds.
Understanding of alternative packaging systems and micro-oxygenation to produce closure alternatives to cork, which is responsible for ~5% of flavor defects in wine. Learning/knowledge: Viticulturists, farm managers, professional field representatives, students, gardeners, and agency personnel will learn new cultural practices, innovations, pest control, and organic systems to remain competitive in local niche and specialty markets.

**Indicators of Successful Achievement of this Outcome**

Learning outcomes include information or knowledge about new cultural practices, innovative technologies, pest control, and organic systems (see list above) to remain competitive in local and regional markets.

- Number of stakeholders attending educational events with specified agendas, topics, and presentation of timely information.
- Number of farmers, field reps, and others indicating that learning occurred using quick and simple assessments during educational events, websites, or delivery systems.

Practices (behaviors) adopted by growers to improve production efficiencies, pest management, organic production practices, and post-harvest quality of fruit based on the following indicators:

- Total acres of improved technologies planted times the proven advantage of varieties/technologies above the industry norm.
- Improvement in water and soil quality parameters over time when new techniques are implemented. Environmental quality will improve with soil health, improved canopy management to achieve grape quality, rootstock evaluation, pest management, and organic production systems; increasing acreages may be seen as degrading oak savannas in Oregon.

**PWA2: Economic Stability and Quality of Life**

**Rationale**

Viticulture and the huge array of micro-climates and soils in Oregon contribute to a robust wine industry that has grown since the 1980’s. Industry leaders place great value on producing premium wines garnering international recognition and prizes. The Oregon industry currently produces 20 tons of grapes on 14,000 acres in recent years. Tourism adds value to both the complexity of the wine and to the industry. While Oregon is known for its Willamette Valley production of Pinot and Pinot gris, growers also produce many warm climate varieties including Syrah, Cabernet Franc, and Tempranillo. The challenge is managing crop load and vine potential combined with the longer ripening season to produce grapes of superior quality. Always striving for greater efficiency, Oregon grape growers want more information to improve management, quality, and their business in an expanding global economy. Identification of rust and Willamette spider mites and associated predators are identified along with management practices. Education with a Spanish-speaking work force is gaining importance. Wine makers seek to produce a high-quality product free of chemical, flavor, and microbial defects through fermentation and finishing innovations.
Stake Holder Input
Advisory panels representing growers on The Oregon Wine Board (OWB) and Northwest Small Fruits Research Center support research and Extension projects based on priorities established by growers. The OWB education committee in collaboration with faculty plan educational events, identify priority needs, and collaborate with faculty to conduct on-farm research. Faculty respond by submitting proposals or design of collaborative trials and educational programs.

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Long Term Outcome
Social changes will enhance quality of life in rural areas by improving economic stability of family farms, wineries, wine tasting, and tourism.

Indicators of Successful Achievement of this Outcome
Learning outcomes include information or knowledge about new cultural practices, innovative technologies, pest control, and organic systems to remain competitive in local and regional markets.
- Number of stakeholders attending educational events with specified agendas, topics, and presentation of timely information.
- Number of farmers, field reps, and others indicating that learning occurred using quick and simple assessments during educational events, websites, or delivery systems.

Practices (behaviors) adopted by growers to improve production efficiencies, pest management, organic production practices, and post-harvest quality of fruit based on the following indicators:
- Number of acres planted on improved rootstocks and/or managing canopy to improve fruit and wine quality.
- Number of farmers using information from the network and economic benefit.
- Quantify changes in winery practices and economic benefit due to information received.

PWA3: Profitability
Rationale
Viticulture and the huge array of micro-climates and soils in Oregon contribute to a robust wine industry that has grown since the 1980’s. Industry leaders place great value on producing premium wines garnering international recognition and prizes. The Oregon industry currently produces 20 tons of grapes on 14,000 acres in recent years. Tourism adds value to both the complexity of the wine and to the industry. While Oregon is
known for its Willamette Valley production of Pinot and Pinot gris, growers also produce many warm climate varieties including Syrah, Cabernet Franc, and Tempranillo. The challenge is managing crop load and vine potential combined with the longer ripening season to produce grapes of superior quality. Always striving for greater efficiency, Oregon grape growers want more information to improve management, quality, and their business in an expanding global economy. Identification of rust and Willamette spider mites and associated predators are identified along with management practices. Education with a Spanish-speaking work force is gaining importance. Wine makers seek to produce a high-quality product free of chemical, flavor, and microbial defects through fermentation and finishing innovations.

**Stake Holder Input**
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**How Stake Holder Input was used to create this PWA**
Extension Agriculture faculty use stakeholder input to plan and implement programming based on the needs expressed by local stakeholders. At the same time, Extension Agriculture faculty inform stakeholders about pressing needs within agriculture that may not be a priority for the local community. This interaction between stakeholders and Agriculture professionals ensures that programming is relevant to the local community while reflecting the needs and concerns of producers throughout the state.

**Long Term Outcome**
Profitability of viticulture in Oregon is expected to improve as new cropping systems, cultivars, practices, and efficiencies are implemented. Niche markets, wine tasting, and tourism are primary outlets for Oregon wines. Utilization of new cropping systems (like canopy and water stress management, and rootstocks) will improve profitability from higher quality fruit and wine composition, and improved pest management. Use of new technologies will help develop fruit and wine noted for unique qualities that are used in specialty markets or higher value products.

**Indicators of Successful Achievement of this Outcome**
Learning outcomes include information or knowledge about new cultural practices, innovative technologies, pest control, and organic systems to remain competitive in local and regional markets.

- Number of stakeholders attending educational events with specified agendas, topics, and presentation of timely information.

Practices (behaviors) adopted by growers to improve production efficiencies, and post-harvest quality of fruit based on the following indicators:
- Number of acres planted on improved rootstocks and/or managing canopy to improve fruit and wine quality.
- Number of farmers using information from the network and economic benefit.
- Quantify changes in winery practices and economic benefit due to information received.
- Profitability of viticulture in Oregon is expected to improve as new cropping systems, cultivars, practices, and efficiencies are implemented. Niche markets, wine tasting, and tourism are primary outlets for Oregon wines.