

Extension Program Work Area

Agriculture: Berry Crops

PWA1: Production Efficiency

Rationale

The climate and soils in Oregon allow for production of a diverse range of berry crops with high yield and exceptional quality. Most berries are raised on family farms in rural Oregon. The berry crop industry includes commercial production of blackberry, blueberry, cranberry, red raspberry, black raspberry, strawberry, hardy kiwi, lingonberry, currants, and gooseberry. The total farm gate value of these industries was \$120 million in 2005. Over 90% of production is processed, with the exception of blueberries (about 60% fresh) and hardy kiwifruit (99% fresh), thus adding value to Oregon's economy.

Availability and cost of labor are considered restrictions to growth. Thus, increased proportions of processed blueberry, raspberry and blackberry are machine harvested. In blueberry, growers want to develop a production system for machine harvest of fresh market fruit. Growers must consider that many markets for berry crops have become global and thus maintaining a competitive advantage is critical. Research elsewhere on the health benefits of many berry crops shows promise to strengthen markets. However, there has been little, if any, research done anywhere on the impact of cultural practice on nutraceuticals in berry fruit. Developing cultivars and production methods that maximize health properties may strengthen market niches.

Stake Holder Input

Berry growers, processors, farm managers, and suppliers represent commodity needs and interests on advisory panels for grower supported Commissions or grower organizations and the Northwest Center for Small Fruits Research to fund projects and for educational events developed in collaboration with Horticulture faculty. Advisory panels develop priorities, communicate needs, and fund projects or invite speakers. Faculty respond by submitting proposals or designing collaborative 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

Production efficiency or profitability of berry crops in Oregon is expected to improve as new cropping systems, cultivars, and practices are implemented. Machine harvest technologies will be adapted or developed to reduce production costs and improve competitiveness in global 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 to remain competitive in global 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 of blueberry fresh fruit harvested by machine.

PWA2: Integrated Pest Management

Rationale

The climate and soils in Oregon allow for production of a diverse range of berry crops with high yield and exceptional quality. Most berries are raised on family farms in rural Oregon. The berry crop industry includes commercial production of blackberry, blueberry, cranberry, red raspberry, black raspberry, strawberry, hardy kiwi, lingonberry, currants, and gooseberry. The total farm gate value of these industries was \$120 million in 2005. Over 90% of production is processed, with the exception of blueberries (about 60% fresh) and hardy kiwifruit (99% fresh), thus adding value to Oregon's economy.

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Long Term Outcome

Integrated pest management programs will continue to be developed and disseminated as best management practices for pests and weeds of importance are researched.

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 global 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 (or plant sales) to improved cultivars and/or utilizing improved production practices, pest management, or organic practices will be counted.

PWA3: Environmental Quality

Rationale

The climate and soils in Oregon allow for production of a diverse range of berry crops with high yield and exceptional quality. Most berries are raised on family farms in rural Oregon. The berry crop industry includes commercial production of blackberry, blueberry, cranberry, red raspberry, black raspberry, strawberry, hardy kiwi, lingonberry, currants, and gooseberry. The total farm gate value of these industries was \$120 million in 2005. Over 90% of production is processed, with the exception of blueberries (about 60% fresh) and hardy kiwifruit (99% fresh), thus adding value to Oregon's economy.

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Long Term Outcome

In organic and conventional systems, environmental quality will be improved with enhanced soil health, improved irrigation and nutrient management, and development of research-based organic production systems.

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) which support soil and water quality.

- Water and soil quality parameters from participating farmers will be measured and reported.

PWA4: Economic Stability and Consumer Choice

Rationale

The climate and soils in Oregon allow for production of a diverse range of berry crops with high yield and exceptional quality. Most berries are raised on family farms in rural Oregon. The berry crop industry includes commercial production of blackberry, blueberry, cranberry, red raspberry, black raspberry, strawberry, hardy kiwi, lingonberry, currants, and gooseberry. The total farm gate value of these industries was \$120 million in 2005. Over 90% of production is processed, with the exception of blueberries (about 60% fresh) and hardy kiwifruit (99% fresh), thus adding value to Oregon's economy.

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Long Term Outcome

Social change will enhance quality of life in rural areas by improving economic stability of family farms with new practices and cropping systems. Consumers will have greater choice of healthy foods including berries with anti-oxidants.

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 global 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.
- Demand for berries and berry products stabilizes as consumers become aware of the health benefits of these fruits.