

# **Extension Program Work Area**

## **Agriculture: Field Cropping Systems**

### **PWA1: Production efficiency and profitability**

#### **Rationale**

Field crops - wheat, grass seeds, potato, mints, clovers, hops, sugar beets, onions, barley, oats and others – occupy more than 1.7 million of Oregon's 3 million acres of cropped land are. These crops contribute to overall agriculture farm gate value in Oregon and in some areas of the state are the primary economic driver: cereals in the Columbia Basin; irrigated crops near Hermiston, Ontario and Klamath Falls; seed crops in the south Willamette Valley. Challenges in these cropping systems include being competitive in the world markets, maintaining profitability, pest management, preserving soil, water and air quality, and sustaining rural communities. OSU Extension and research faculty actively address these challenges through applied research and educational programs across the state.

#### **Stake Holder Input**

Clientele input comes from county, Agricultural Experiment Station and College of Agricultural Sciences advisory committees. Faculty are in on-going contact with clientele through one-on-one contacts as well as through industry organizations, commodity commissions and other local groups - county commissions, watershed councils, soil conservation districts and marketing groups . Formal research and Extension prioritization sessions have been held with seed crop, wheat, barley, potato, and mint clientele and with the Columbia Basin Ag Research Center Advisory Committees.

#### **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 and profitability of field crops in Oregon is expected to improve as new cropping systems, cultivars, and production practices are adopted.

#### **Indicators of Successful Achievement of this Outcome**

- Total acres of improved varieties or other technologies times the proven advantage of varieties or technologies above the industry norm.
- Grower surveys to assess new technology utilization.

### **PWA2: Environmental quality**

#### **Rationale**

Field crops - wheat, grass seeds, potato, mints, clovers, hops, sugar beets, onions, barley, oats and others – occupy more than 1.7 million of Oregon's 3 million acres of cropped land are. These crops contribute to overall agriculture farm gate value in Oregon and in some areas of the state are the primary economic driver: cereals in the Columbia Basin; irrigated crops near Hermiston, Ontario and Klamath Falls; seed crops in the south Willamette Valley. Challenges in these cropping systems include being competitive in the world markets, maintaining profitability, pest management, preserving soil, water and air quality, and sustaining rural communities. OSU Extension and research faculty actively address these challenges through applied research and educational programs across the state.

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### **Long Term Outcome**

Adoption of refined pest, nutrient and water management technologies will sustain or improve environmental health.

### **Indicators of Successful Achievement of this Outcome**

- Estimates of reduced pesticide use or increased effectiveness of pesticides
- Change in water, air or soil quality parameters over time when new techniques are adopted.

## **PWA3: Integrated pest management**

### **Rationale**

Field crops - wheat, grass seeds, potato, mints, clovers, hops, sugar beets, onions, barley, oats and others – occupy more than 1.7 million of Oregon's 3 million acres of cropped land are. These crops contribute to overall agriculture farm gate value in Oregon and in some areas of the state are the primary economic driver: cereals in the Columbia Basin; irrigated crops near Hermiston, Ontario and Klamath Falls; seed crops in the south Willamette Valley. Challenges in these cropping systems include being competitive in the world markets, maintaining profitability, pest management, preserving

soil, water and air quality, and sustaining rural communities. OSU Extension and research faculty actively address these challenges through applied research and educational programs across the state.

### **Stake Holder Input**

Clientele input comes from county, Agricultural Experiment Station and College of Agricultural Sciences advisory committees. Faculty are in on-going contact with clientele through one-on-one contacts as well as through industry organizations, commodity commissions and other local groups - county commissions, watershed councils, soil conservation districts and marketing groups. Formal research and Extension prioritization sessions have been held with seed crop, wheat, barley, potato, and mint clientele and with the Columbia Basin Ag Research Center Advisory Committees.

### **How Stake Holder Input was used to create this PWA**

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### **Long Term Outcome**

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

### **Indicators of Successful Achievement of this Outcome**

- Estimates of reduced pesticide use or increased effectiveness of pesticides
- Reduction in the number of public complaints, where such data are recorded, about agricultural practices
- Grower surveys to assess new production paradigm adoption.

## **PWA4: Alternative markets**

### **Rationale**

More than 1.7 million of Oregon's 3 million acres of cropped land are occupied by field crops - wheat, grass seeds, potato, mints, clovers, hops, sugar beets, onions, barley, oats and others. These crops are a major contributor to overall agriculture farm gate value in Oregon and in some areas of the state are the primary economic driver: cereals in the Columbia Basin; irrigated crops near Hermiston, Ontario and Klamath Falls; seed crops in the south Willamette Valley. Challenges in these cropping systems include being competitive in the world markets, maintaining profitability, pest management, preserving soil, water and air quality, and sustaining rural communities. OSU Extension and research faculty are actively involved in addressing these challenges through applied research and educational programs across the state.

### **Stake Holder Input**

Clientele input comes from county, Agricultural Experiment Station and College of Agricultural Sciences advisory committees. Faculty are in on-going contact with clientele through one-on-one contacts as well as through industry organizations, commodity commissions and other local groups - county commissions, watershed councils, soil conservation districts and marketing groups . Formal research and Extension prioritization sessions have been held with seed crop, wheat, barley, potato, and mint clientele and with the Columbia Basin Ag Research Center Advisory Committees.

### **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**

Development of alternative markets for existing crops and identification of viable alternative crops will lead to increased farm sustainability.

### **Indicators of Successful Achievement of this Outcome**

- Quantification of economic value of new products
- Quantification of the economic value of new markets

## **PWA5: New practices**

### **Rationale**

More than 1.7 million of Oregon's 3 million acres of cropped land are occupied by field crops - wheat, grass seeds, potato, mints, clovers, hops, sugar beets, onions, barley, oats and others. These crops are a major contributor to overall agriculture farm gate value in Oregon and in some areas of the state are the primary economic driver: cereals in the Columbia Basin; irrigated crops near Hermiston, Ontario and Klamath Falls; seed crops in the south Willamette Valley. Challenges in these cropping systems include being competitive in the world markets, maintaining profitability, pest management, preserving soil, water and air quality, and sustaining rural communities. OSU Extension and research faculty are actively involved in addressing these challenges through applied research and educational programs across the state.

### **Stake Holder Input**

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### **How Stake Holder Input was used to create this PWA**

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### **Long Term Outcome**

New practices and cropping systems will improve the economic stability of family farms which in turn will stabilize their rural communities.

### **Indicators of Successful Achievement of this Outcome**

- Total acres of improved varieties or other technologies times the proven advantage of varieties or technologies above the industry norm.
- Grower surveys to assess new technology adoption.

## **PWA6: Consumer choice**

### **Rationale**

More than 1.7 million of Oregon's 3 million acres of cropped land are occupied by field crops - wheat, grass seeds, potato, mints, clovers, hops, sugar beets, onions, barley, oats and others. These crops are a major contributor to overall agriculture farm gate value in Oregon and in some areas of the state are the primary economic driver: cereals in the Columbia Basin; irrigated crops near Hermiston, Ontario and Klamath Falls; seed crops in the south Willamette Valley. Challenges in these cropping systems include being competitive in the world markets, maintaining profitability, pest management, preserving soil, water and air quality, and sustaining rural communities. OSU Extension and research faculty are actively involved in addressing these challenges through applied research and educational programs across the state.

### **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**

Consumers will have greater choice of foods and bio-based products.

**Indicators of Successful Achievement of this Outcome**

- Quantification of economic value of new products
- Quantification of the economic value of new markets
- Reduction in the number of public complaints, where such data are recorded, about agricultural practices

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