

# Summary Baseline Report

## *Evaluation of Utilization of NRCS Programs*



### Introduction

*Effectiveness of federal programs and opportunities for increasing utilization in wheat systems.*

The baseline report is a key component in evaluating the effectiveness of federal conservation programs in Oregon wheat systems and identifying opportunities for Oregon wheat producers to participate in these programs. The evaluation is conducted by the Oregon Wheat Growers League, a nonprofit trade association. This material is based upon work supported by the U.S. Department of Agriculture, under agreement number NR220436XXXXC005. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the U.S. Department of Agriculture. In addition, any reference to specific brands or types of products or services does not constitute or imply an endorsement by the U.S. Department of Agriculture for those products or services. The USDA is an equal opportunity provider and employer.

### Objectives and Scope

Innovative Oregon wheat producers have been at the forefront of activities supporting the long-term sustainability of their agricultural lands. Effective utilization of NRCS conservation programs helps wheat producers further that work. This report assesses wheat growers' engagement with NRCS programs. It seeks to understand opportunities for new enhancements better matched to the environments in which wheat is grown. The assessment also seeks to identify obstacles to participation in federal conservation programs, focusing specifically on NRCS programs. The intent of establishing the baseline report is to define the current use of programs and recommend pathways to make NRCS programs more accessible to Oregon wheat growers to allow them to further their conservation efforts.

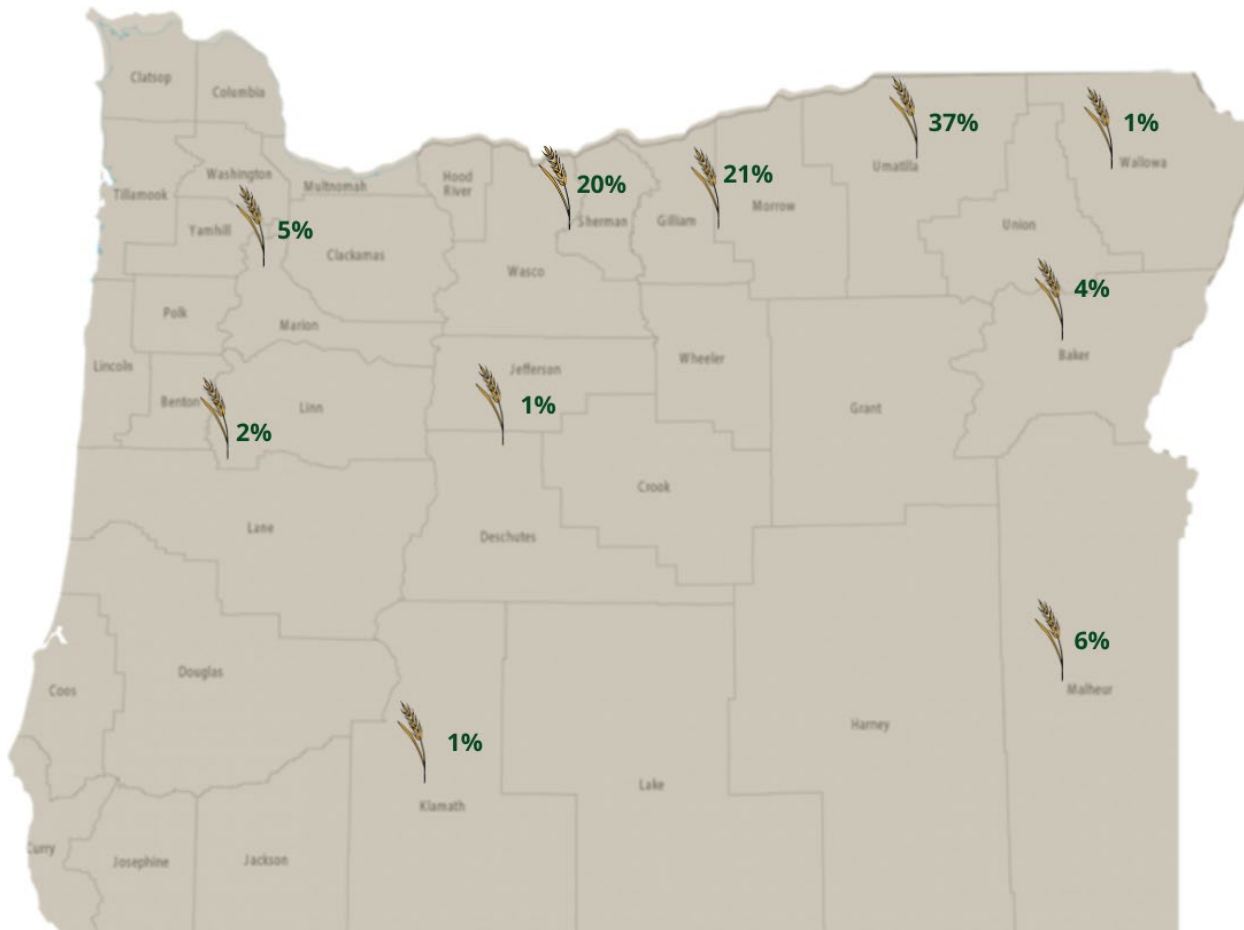
### Subject of the Evaluation

Currently operating wheat producers in Oregon were the subject of the evaluation under this baseline report.

### Production Areas and Capacity

Wheat is grown on average in 30 of the 36 counties of the state of Oregon. Annually, Oregon wheat growers produce over 40 million bushels of wheat on average.

## 2023 Production Estimates- Oregon Winter Wheat Production



**Umatilla County** produced approximately 37% of the wheat in the state in 2023<sup>1</sup>. Wheat growers in Umatilla county mainly produce winter wheat using summer fallow dryland practices. Spring wheat is used occasionally as a rotation to help break the weed cycle, and there are small areas of irrigation. No-till/minimum-till is widely used throughout the region, but conventional tillage practices are also incorporated by producers.

**Gilliam and Morrow counties** produced approximately 21% of the wheat in Oregon in 2023. Production practices are similar to those listed for Umatilla County.

**Wasco and Sherman counties** accounted for approximately 20% of the wheat production in the state in 2023. Production practices are similar to those listed for Umatilla County.

**Union and Baker counties** produce winter and spring wheat, which equaled approximately 4% of the wheat in the state in 2023. Management practices in these regions are more diverse due to more acres of irrigation and wheat being used as a rotational crop. A mixture of conventional tillage, no-till, and min-till practices are used.

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<sup>1</sup> Production figures provided by USDA NASS 2023 County estimates

**Wallowa County** raises both spring and winter wheat, accounting for approximately 1% of the wheat production in the state in 2023. Production practices are similar to those listed for Union and Baker Counties.

**Malheur County** produces a combination of winter and spring wheat, comprising approximately 6% of the state's wheat production in 2023. The majority of the wheat raised is done with irrigation. Conventional tillage practices are most common as wheat is used in a rotation with hay and row crops. Wheat acres fluctuate due to water availability, crop rotations, and commodity prices.

**Jefferson, Deschutes, and Crook counties** produced approximately 1% of the wheat in the state in 2023, raising winter and spring wheat. Most of the wheat in this region is grown under irrigation and often as a rotational crop. Wheat acres also fluctuate based on water availability. Conventional tillage practices are more prevalent in the area.

**Klamath County** produces a combination of winter and spring wheat, equaling less than 1% of the state's wheat. Almost all wheat in this region is raised with irrigation using conventional tillage practices. Wheat acres fluctuate due to water availability, crop rotations, and commodity prices.

**North Willamette Valley**, consisting of Clackamas, Marion, Polk, Washington, and Yamhill counties, produced approximately 5% of the wheat in the state in 2023. This is a high-rainfall region that uses both irrigated and non-irrigated practices. Wheat growers in this region raise winter wheat and spring wheat. With the diversity of crops that can be raised, wheat is generally used as a rotational crop. Acres vary based on rotations and commodity prices. Conventional tillage is commonly used.

**South Willamette Valley**, made up of Benton, Lane, and Linn counties, raised approximately 2% of the wheat in the state in 2023, planting both winter and spring varieties. Being another high-rainfall region, both irrigated and non-irrigated practices are utilized. Acres vary based on rotations and commodity prices. Conventional tillage is commonly used to manage the residue from regular crop rotations.

#### **NRCS Programs of Relevance to Wheat Producers**

The primary NRCS programs currently of relevance for wheat producers in Oregon are EQIP, CRP and CSP.

**EQIP** (Environmental Quality Incentives Program)- EQIP is the most widely used program used by wheat producers. It is diverse in scope, covering practices from no-till to irrigation efficiency to cover crops. Producers can make considerable changes to their operation through the program.

**CRP** (Conservation Reserve Program)- Oregon growers have averaged nearly half a million acres annually in the CRP over the last 36 years, protecting vulnerable soils in the state.

**CSP** (Conservation Stewardship Program)- CSP supports producers with technical and financial assistance to improve their conservation efforts. Annual payments allow for the expansion of efforts already in implementation. CSP is commonly utilized when growers are switching to no-till practices and improving the efficiency of their current crop management practices.



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## Methodology: Outreach

### In-person meetings

Initial information was gathered through in-person meetings. These meetings were focused on gaining information to develop the baseline report. They also allowed for sharing information with growers regarding opportunities and changes in NRCS programs.

- Tri-State Grain Growers Convention, November 2022- The Tri-State Grain Convention convened the largest number of wheat producers in one location of any meetings attended. It allowed for interaction with a wide variety of growers, agency staff, and strategic partners in a short period of time. There were approximately 400 attendees, 90 of them from Oregon.
- NRCS local workgroup meeting- Those attending these meetings are usually active producers open to the progression of their conservation practices. Attendance also allows for an update on the focus of the local producers and NRCS staff. Staff participated in the Morrow County local workgroup meeting in February 2023. There were approximately 30 people in attendance.
- Grower meetings- Attending growers meetings put on by the Oregon Wheat Growers League, other organizations, and companies offers another opportunity to interact with growers and make contact with companies about technologies that may work as new enhancements. Staff attended the Union/Baker Growers meeting in February 2023, with approximately 60 attendees. Staff attended the Klamath Growers meeting in April 2023, with approximately 15 attendees.
- Meetings with individual growers or NRCS staff- Meetings with individual growers or small groups allowed for more in-depth conversations that offered a better background of program usage and surfaced needs. Staff attended the Morrow County producers and NRCS staff meetings in March 2023. These two meetings had approximately 15 attendees total.

- Crop Tours/Field Days- These events are typically well attended by growers interested in research and innovation in the wheat industry. It was an excellent way to meet and interact with producers and researchers. It offered an educational opportunity on wheat variety trials, alternative and cover crops, pest and weed management, new technologies, and nutrient management. Participation included:
  - Resilient Dryland Farming Alliance Field Day, March 2023, approximately 10 attendees.
  - Morrow County Ag Tech. Field Day, May 2023, approximately 50 attendees.
  - North Willamette Crop Tour, June 2023, approximately 10 attendees.
  - Wasco Crop Tour, June 2023, approximately 40 attendees.
  - Pendleton Station Field Day, June 2023, approximately 150 attendees.
  - Sherman Station Field Day, June 2023, approximately 50 attendees.
  - Union Crop Tour, June 2023, approximately 70 attendees.
  - Morrow Crop Tour, June 2023, approximately 10 attendees.
  - Gilliam Crop Tour, June 2023, approximately 20 attendees.
  - Malheur Field Day, July 2023, approximately 40 attendees
- Industry Meetings- These meetings are an opportunity to interact with leaders in agriculture. They are beneficial both in gleaning feedback and disseminating information. Staff presented at the Morrow County Grain Growers meeting in March 2023, with approximately 20 attendees.

### Wheat Talk Series

The virtual informational meeting series, Wheat Talks, was reintroduced in the spring of 2023. The first Wheat Talk featured the Oregon NRCS State Conservationist and NRCS staff to discuss new funding opportunities through the Inflation Reduction Act. The series continued through June, with a break during the summer months for harvest.

### NRCS engagement

Networking with NRCS staff started immediately after filling the Program Director position with the Oregon Wheat Growers League. The availability of NRCS staff to provide details of programs, identify new funding opportunities and developments, and raise awareness of the needs of growers is crucial. Along with some of the meetings listed above, engagement with NRCS staff was also done via phone calls, email, and virtual meetings at the county, regional, and state levels. The Oregon Wheat Growers League Program Director and League leadership also met with national-level NRCS staff during a trip to Washington, D.C.

### Grower Survey

An online Grower Survey was developed and launched to help create a data set of the use of NRCS programs by producers and surface any obstacles faced in accessing programs. The survey launched in March 2023 and was open for four months. It was distributed via the Oregon Wheat Growers League newsletter, the Oregon Wheat magazine, social media, and QR code postcards handed out at grower meetings and events. A compilation of the results is available in Appendix A to this report.

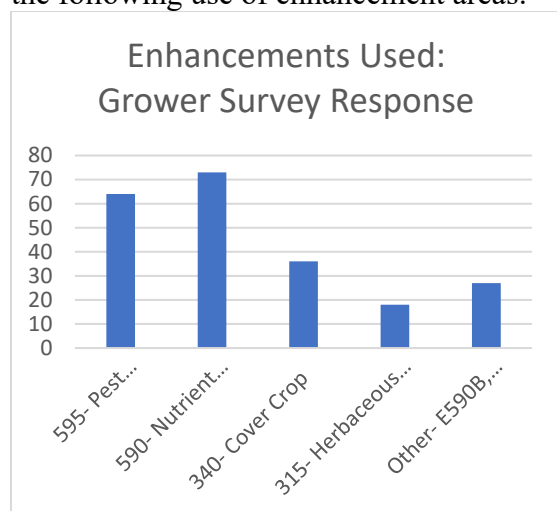
## Key Findings: Analysis

### Current Awareness and Utilization of Programs

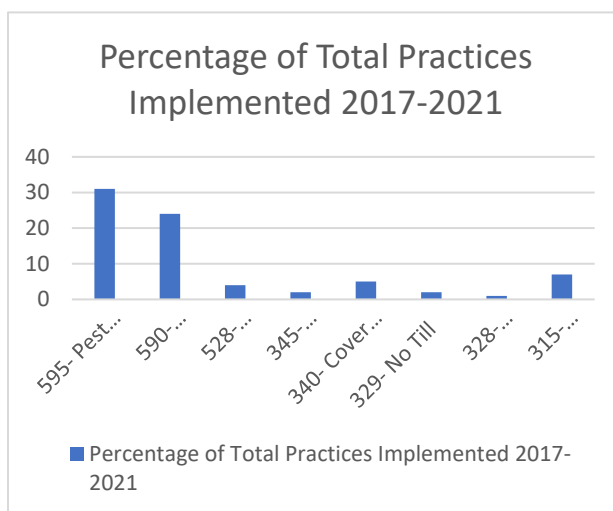
Producers are generally very knowledgeable about NRCS programs. All respondents to the Grower Survey indicated they are aware of the programs.

- According to the survey, the two most commonly used practices are **Nutrient Management (590)** and **Pest Management Conservation System (595)**. In conversation with growers, it was confirmed that these were the most widely used. It should be noted that Pest Management Conservation Systems are the most talked about by producers. That is because it involves necessary tools for the no-till summer fallow system used in the state on most of the wheat acres and offers the most significant ability to increase efficiency with the constant evolution of technologies used.
- **Residue and Tillage Management, No Till (329)** and **Residue and Tillage Management, Reduced Till (345)** still see use. The latest round of CSP sign-ups had a greater number of no till applications, even though information gathered at meetings uncovered that most growers in the dryland regions have already switched to no till. The area within these enhancements with the most growth potential would be reduced tillage in irrigated or high-rainfall regions.
- **Cover Crop (340)** has been used in regions with enough precipitation to support the practice. However, most of the wheat production region cannot sustainably support cover cropping, so it has limited use in wheat systems. It is a practice that must be carefully considered to match appropriately to the growing region. Partners are researching to address the viability of this practice.
- **Irrigation Efficiency:** In the irrigated parts of the state, practices related to irrigation efficiency are important and utilized when funding is available. Most conversations with growers from these areas will include this topic. Recent droughts keep the importance high for them.

Respondents to the grower survey reflected the following use of enhancement areas:



Information gathered from NRCS data:

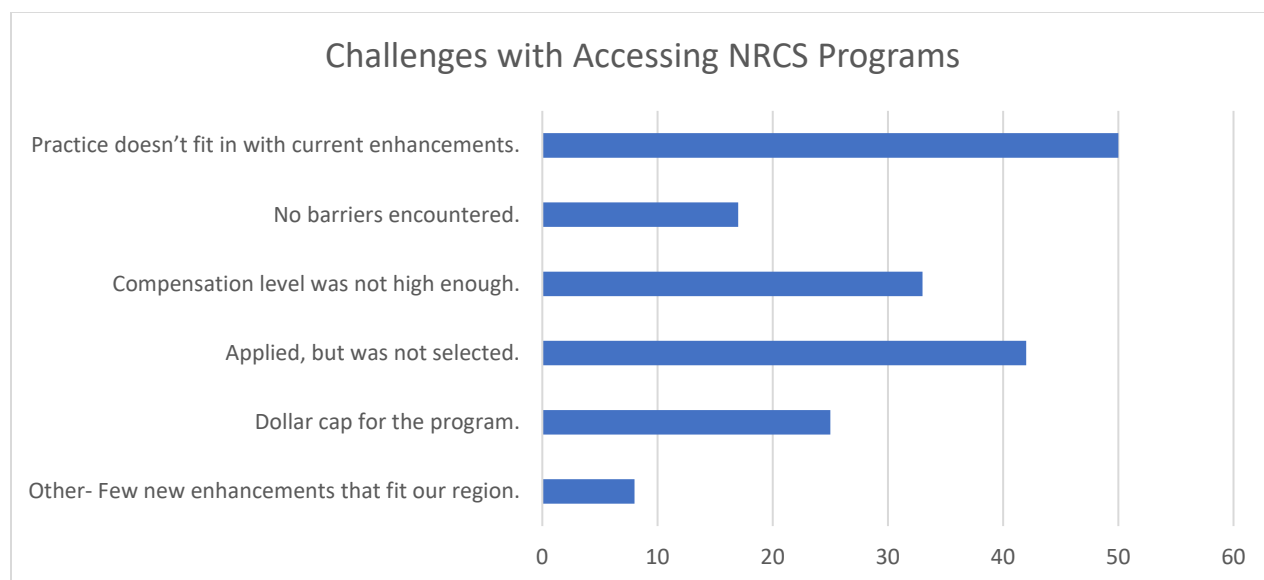


Comparison of Grower Survey and NRCS Data

While the grower survey information shows the percentage of producers that have used a given enhancement, and the NRCS data shows the percentage of total practices implemented for wheat of a given enhancement, both data sets conclude that 590- Nutrient Management and 595- Pest Management Conservation System are the most widely used enhancement areas.

### Challenges with Program Access

The primary challenge for wheat producers to engage in NRCS funded programs was that programs or enhancements did not match the region in which an individual producer was operating, signaling that there are more effective enhancements that could be leveraged in Oregon to support wheat production systems. A full 50% of respondents cited this as a barrier to access. Other challenges included that the level of compensation was not high enough to implement the proposed practice, that the dollar cap prevented full implementation of practices in an operation and that there were insufficient new enhancements available. Roughly 17% of respondents indicated they have faced no barriers to initially accessing NRCS programs.



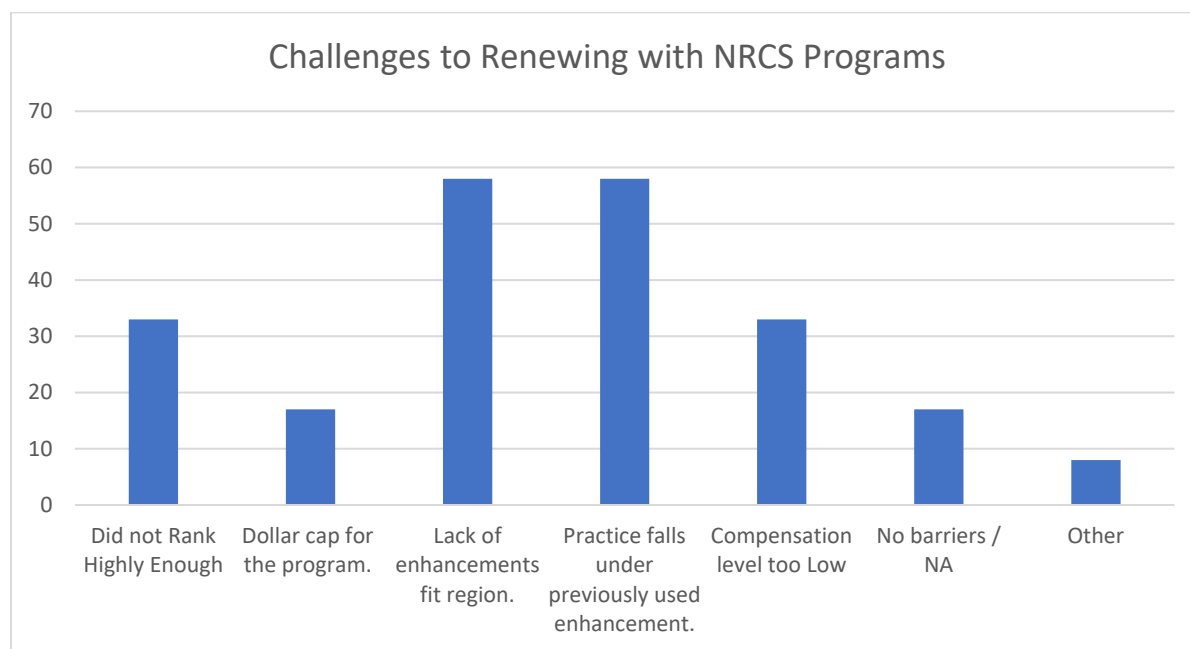
When looking at applications for NRCS program renewals, the challenge of the lack of enhancements applicable to wheat systems is reflected prominently. The significance of this item listed as a challenge is the declining capacity of the program to serve wheat operations. It would anticipate a downward trajectory of program use if not resolved. Wheat producers primarily appear to be able to use the program in an initial application round. However, they are not matching to additional enhancements that would allow them to extend practices that enhance the sustainability of their production systems. In the grower survey alone, 58% noted a barrier to use is that the practice they would seek to use fell within an enhancement category they had previously accessed so would not qualify. In addition, 58% also noted that the lack of enhancement options relevant to their region was a significant barrier to program renewal. The recent news from the state NRCS that enhancements can be utilized again if evidence of further conservation benefit can be shown, should help alleviate some of that

“The primary concern is the limited number of enhancements that work in the Pacific Northwest.”

burden, but the lack of enhancement options for the region still reduces program participation.

Comments from growers often reflected the inability to implement new technologies through NRCS programs due to the slow adoption of the technology into the programs. This slow uptake of new technologies by the agency is a disservice to early adopters who can show the benefits of implementing new practices and often do so on their own. Currently there are producers implementing protein mapping on their combines to help better manage their nutrient application the following season, a technology the NRCS has not adopted.

Funding availability was also a concern, with a number noting that they had applied but did not rank highly enough to receive funding given the limited resources available to the program at the time. With the infusion of additional federal dollars beginning in 2023, we expect this to change.

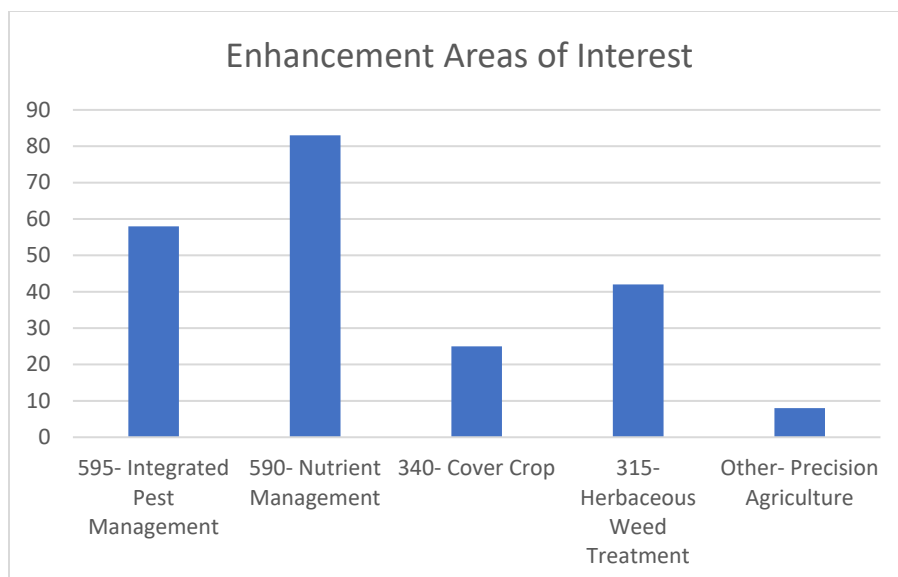


For wheat producers who have not participated in NRCS programs, the main reason cited was that they had applied but had not been selected for funding.

#### Enhancement Areas of Future Interest

When asked about enhancement areas of interest for the future, over 80% of respondents noted nutrient management as an opportunity.

As reflected in the limitations of cover crop potential, it received the lowest rating from wheat producers in the potential for use, except for the 'other' category related to precision agriculture.



### Limitations

Respondents highlighted additional limitations to utilization of the program. The primary concern is the limited number of enhancements that work in the Pacific Northwest. Other limitations highlighted included:

- The funding cap for the programs are too low when considering additional funds through the Inflation Reduction Act.
- The bird nesting current dates restrict management of CRP lands. The current listed period for Oregon is March 1-July 15, but neighboring states (which have comparable species) have a period of April 1-July 1. The extended timeframe in Oregon prevents emergency grazing, haying and needed spraying work to take place.

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## Recommendations

### Overview

Recommendations are based on conversations with growers, survey results, and meetings with NRCS staff. They are meant to increase conservation program opportunities for producers and increase the rate of implementation of conservation practices.

### Top Three Recommendations

- Develop a procedure to incorporate new technologies into enhancements sooner.
- Expand options for individual enhancements under a practice to account for a producer's progression through conservation technologies. The agency recently made positive strides in this area by allowing the reuse of enhancements; however, expanding enhancement options would increase program applicability.
- Develop a program that would allow producers to test an enhancement on a smaller scale before signing up for it on a full CSP contract.

### Additional recommendations

The below recommendations are concepts that were mentioned in multiple conversations. While they may not be in the top rankings they could have significant impacts on producers and their use of NRCS programs.

- Create an enhancement that would help pay for the maintenance of technology. This would help keep farmers using the new technologies put in place through EQIP and CSP by applying funds towards software updates, monitor updates, precision subscriptions, etc.
- Develop a program to compensate early adopters. This would speed up the rate of conservation implementation by encouraging producers to seek practices with greater conservation benefits rather than rewarding them for waiting.
- Review the CSP application process to ensure that initial CSP applicants and renewal applicants have equal opportunity.
- Create an enhancement focused around soil health that could help fund agronomy advice and address options for pH.
- Adjust Oregon's current CRP bird nesting dates to match neighboring states.

## Appendix A: Survey Results

### Responses by County

County	Percentage
Sherman	25%
Umatilla	25%
Wasco	17%
Benton	8%
Malheur	8%
Morrow	8%
Polk	8%
Union	8%
Yamhill	8%

### Is wheat your main crop?

Yes	67%
No	33%

### Have you participated in any NRCS programs?

Yes	92%
No	8%

### Have you participated in any of the following programs?

CSP Classic	73%
CSP Renewal	36%
EQIP	73%
None of the above	0%

### What enhancements are you using, or have you used?

595- Pest Management Conservation System	64%
590- Nutrient Management	73%
340- Cover Crop	36%
315- Herbaceous Weed Treatment	18%
Other- E590B, E595A, E533B, 386, 512, 612, Crop Rotation	27%

### Have you participated in any of the following NRCS programs?

CRP	55%
Easements	0%
None of the above	45%

### What areas need addressed with CRP or Easements?

<b>Rental rates/Payments</b>	<b>50%</b>
<b>Grazing dates/Flexibility</b>	<b>33%</b>
<b>Funding Caps</b>	<b>33%</b>
<b>None</b>	<b>33%</b>
<b>Other</b>	<b>0%</b>

**Reason for not having participated in CRP or Easements?**

<b>Have not applied.</b>	<b>60%</b>
<b>Applied, but was not selected.</b>	<b>0%</b>
<b>Other-</b> Not interested for our farm. Don't have any CRP ground.	<b>40%</b>

**Reason for not having applied?**

<b>Did not know about programs.</b>	<b>0%</b>
<b>I don't participate in government programs.</b>	<b>0%</b>
<b>Programs or enhancements don't fit my region.</b>	<b>67%</b>
<b>Other-</b> Landlords apply directly for CRP.	<b>33%</b>

**Reason for not having participated in any NRCS programs?**

<b>Have not applied.</b>	<b>0%</b>
<b>Applied, but was not selected.</b>	<b>100%</b>
<b>Other</b>	<b>0%</b>

**What barriers have you faced trying to access NRCS funds?**

<b>Practice doesn't fit in with current enhancements.</b>	<b>50%</b>
<b>Dollar cap for the program.</b>	<b>25%</b>
<b>Applied, but was not selected.</b>	<b>42%</b>
<b>Compensation level was not high enough.</b>	<b>33%</b>
<b>No barriers encountered.</b>	<b>17%</b>
<b>Other-</b> Few new enhancements that fit our region.	<b>8%</b>

**What barriers have you faced trying to renew your funding through NRCS programs?**

<b>Applied, but did not rank high enough.</b>	<b>33%</b>
<b>Dollar cap for the program.</b>	<b>17%</b>
<b>Lack of enhancements that fit region.</b>	<b>58%</b>
<b>Practice falls under previously used enhancement.</b>	<b>58%</b>
<b>Compensation level was not high enough.</b>	<b>33%</b>
<b>No barriers encountered.</b>	<b>0%</b>
<b>Not applicable.</b>	<b>17%</b>

<b>Other-</b> Haven't renewed any, I believe the payment levels went way down.	<b>8%</b>
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**What enhancement areas are you interested in for future contracts?**

<b>595- Pest Management Conservation System</b>	<b>58%</b>
<b>590- Nutrient Management</b>	<b>83%</b>
<b>340- Cover Crop</b>	<b>25%</b>
<b>315- Herbaceous Weed Treatment</b>	<b>42%</b>
<b>Other- Precision Agriculture</b>	<b>8%</b>
<b>None of the above</b>	<b>8%</b>

**Ideas for new enhancements:**

Protein mapping, see and spray, residue retention, nitrogen stabilizers
Water conservation and recognition of practices already adopted
More technology enhancements, spot spraying
More agronomy advice
Smart Sprayer. NRCS is 15 years behind the new technologies
Weed it technology, liming, the weed grinder behind combine, help keeping up with technology

## Appendix B: Definitions

**No Till-** Seeding of the crop directly into the soil without tillage beforehand.

**Minimum Tillage-** A type of conservation tillage that maximizes crop residue on the soil surface throughout the year and increases beneficial soil qualities.

**Conventional Tillage-** A method of land preparation that involves intensive soil disturbance commonly done by disking or plowing.

**Summer-Fallow-** A cropping system that rests the land for an entire season in between crops in order to conserve soil moisture for the raising of the following crop.

**Dryland-** A reference to the raising of a crop in arid regions with no irrigation.

**Precision Ag-** Typically in reference to the use of GPS technology in farming often including variable rate application of nutrients.

**Field Day/Crop Tour-** Event put on by universities or researchers to showcase research and variety test plots.

**Irrigated-** Supplying of water to land or crops to help growth.

**Rotational Crop-** A crop grown unlike the usual crop to break disease, pest, and nutrient cycles.

**Commodity Prices-** The monetary value of crops based on the market.