Climate-Mitigating Agricultural Practices: Challenges and Opportunities in Oregon

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Oregon Agriculture is Diverse in Climate, Crops, and Growing Practices

- Agriculture represents one of the largest sectors of Oregon's economy, with 16 million acres in farm production and $5 billion in product sales, with over $1 billion paid in wages to farm employees.
- Oregon is also one of the most diverse agricultural states in the nation, with over 225 commodities and several growing regions that all use a diversity of practices.
- With climate projections, we understand that our diversity will only increase: Recent information suggests that the Willamette Valley growing region is going to most closely resemble the current growing climate of the Central Valley in California by 2060.
- This diversity represents both a significant opportunity for climate mitigating agricultural practices, but also presents significant challenges and the state and others look to incentivize these practices.

Climate Mitigating Agricultural Practices in Oregon

- Most practices that have climate mitigation benefit also have co-benefits, whether it's for water quality, soil health, water conservation, or reduced fuel use.
- Examples of practices with co-benefits include:
  - no till and reduced tillage
  - cover cropping
  - crop rotation
  - integrated pest and nutrient management
  - hedgerow and riparian plantings
  - rotational grazing
  - Efficient irrigation
- The precise benefit of any of the practices depends significantly on the crop production systems, the region, and success of the practice.

Carbon Sequestration and Agriculture

- Given Oregon's diversity, we do not have precise numbers on sequestration provided by Oregon's agricultural lands.
- Given that over a quarter, or 15.5 million acres, of Oregon land is in agricultural production, the carbon sequestration associated with those lands is significant.
  - Grass seed industry is currently pursuing scientific research on carbon sequestration.

Challenges in Implementing Climate Mitigating Agricultural Practices in Oregon

- While farmers are already doing a tremendous amount in terms of increasing soil health, sequestering carbon, reducing fuel use, and improving water quality, there are challenges to doing more.
- If Oregon designs an approach, it must be incentive based.
- Oregon must avoid a one-sized fits all approach to climate mitigation – there are barriers to certain practices in certain regions:
  - In some areas, the growing season is too short for both cash crops and planting a cover crop – example from NE Oregon.
  - Low till or no till has been a challenge in the Valley due to pest and disease pressure, particularly after the field burning ban – examples from WV
  - Organic farming may use organic fertilizer and pesticides, but has a much higher carbon footprint because more passes are often needed with equipment to grow the crop.
- Research is needed on what practices work for what region so that growers are not bearing the burden of trial and error, and ensure that we understand and support the tools needed to make the carbon friendly practices workable.

Challenges in Implementing Climate Mitigating Agricultural Practices in Oregon

Farm income is already stagnant or decreasing for many crops, farms regulatory burdens are climbing, cost of inputs is increasing, and farmers can afford to hire less help than they could in the past, meaning they are working longer hours than ever before.

This means that any incentive-based program must be:

- Accessible
- Flexible
- Adequately resourced and provide adequate incentives
- Have a low paper work burden

Questions?

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