

Proposal Title: Producing Verified Climate-Smart Agricultural Commodities and Market Opportunities in Oregon

Background

Oregon produces more than 250 commodities that are enjoyed all over the world. Domestic and international consumers are increasingly demanding higher standards of production that help ensure the landscape remains healthy and productive for the next generations. Oregon is uniquely positioned to supply high quality agriculture commodities and meet consumer demand. Over the years, Oregon has championed climate change policies to reach the State's overall greenhouse gas (GHG) emission reduction targets. Oregon's agricultural community is critical to success of reaching GHG reduction targets and continuing to be positive impact on mitigating climate change impacts.

The objective of this proposal is to provide resources to Oregon producers to implement and scale up Climate-Smart Agriculture practices, with evidence-based verification of achievements. Climate-Smart Agriculture practices can be successful when environmental and economic benefits are realized. Building baseline data on the current health of the landscape will help focus on-farm investments, policy making, and research efforts to have well defined goals. Coupling incentives to implement and scale up Climate-Smart Agriculture practices with evidence-based verification in Oregon will provide a roadmap forward on what climate change success in Oregon's diverse agricultural landscape means.

The three main **objectives** of our proposal are to:

1. Establish a statewide grant program to assist agricultural producers in Oregon in the implementation and management of climate-smart practices with goal achievement verification.
2. Voluntarily conduct a no-cost soil health program to assess the current "State of Soil Health" in Oregon agricultural working lands. The full soil health assessment will provide soil organic carbon and nitrogen stocks data and recommendations to producers on how they can improve their soil health and nutrient management for their fields.
3. In collaboration with local leaders, create market opportunities for climate-smart commodities produced in Oregon in order to be identified and distinguishable in the market space.

Program Highlights

- **The majority of funding will go directly to producers** to reduce the financial risk and barriers of implementing climate-smart approaches. We will be providing **significant funding** for projects submitted in a competitive process that address a board range of climate-smart goals through different commodities. The grant selection process may

consider purchasing of equipment to measure climate-smart results, scaling up existing practices to demonstrate economy of scale, and innovative ideas that will be tested and measured to understand their climate-smart potential.

- The soil assessment program will be at **no cost** to producers to gain access to comprehensive soil analysis with recommendations on improvements. The soil samples will also be used to improve the understanding of the current “State of Soil Health” on Oregon agricultural lands.
- Increasing the number of weather monitoring stations in currently underrepresented locations in Oregon will improve GHG emissions estimates, managing cropping systems in microclimates, drought and fire monitoring, and producers reliant on improved accurate weather data for crop loss insurances. Layering this regionalized weather data with the soil health samples and funded grant projects will assist in the comprehensive understanding on how to best match climate-smart practices with the on-ground environment.
- Bring all the above work together to help producers access or create marketing opportunities which may include participation in **carbon markets**, creating partnerships with food processors and retailers, and climate-smart product labels.

Objective 1: Establish a statewide grant program to assist agricultural producers in Oregon in the implementation and management of climate-smart practices with goal achievement verification

The Oregon Department of Agriculture (ODA) will establish a grant funding program for producers to voluntarily implement climate-smart practices that fit their operations and markets. Through a competitive grant application process ODA will establish criteria to ensure geographical, commodity, producer, and climate-smart objective goals are represented. Successful projects may include the adoption of the best technologies available, allow early adopters to scale up projects, and demonstration of innovative projects that achieve climate-smart objectives. Overall, ODA will consider successes as projects that demonstrate what climate-smart practices are impactful to Oregon’s diverse agrarian systems.

Competitive projects will require appropriate technology and equipment to set the baseline carbon stocks and then later measure the achievement of the project. Examples may be measuring soil health, emissions, greenhouse gas levels, or other environmental impact data that can demonstrate the effectiveness of the climate-smart practice implemented. ODA will make these grants scalable and available to all agricultural producers including *smaller, historically underserved, and traditional producers in Oregon*.

All volunteer grantees will need to agree to a baseline soil assessment regardless of project scope.

The aggregate information and sensor data will benefit all of Oregon's agriculture by validating practices in Oregon's climate, while simultaneously providing Oregon specific data on a larger scale. For example, there is limited to no data for full GHG accounting for Oregon's various landscapes and commodities. Funded projects that have a GHG measuring nexus will contribute to accuracy of GHGs in Oregon's various systems. This information will improve tools such as COMET-Planner that provides generalized estimates of GHG emissions. Oregon producers who use COMET-Planner to estimate farm-level GHG emissions will benefit from additional Oregon level data. This data will allow participants to use their results to potentially access **carbon markets**.

Additional measuring equipment that may be considered to support all Oregon agriculture are regionalized on-site weather stations. Including the direct benefit to the landowner, the aggregate information will contribute to closing the weather data gaps in rural communities who rely on weather data for agricultural practices decisions, worker health and safety, and risk management.

Objective 2: Participate in “State of Soil Health” in Oregon and technical assistance for improvement recommendations

Implementing climate-smart practices may be challenging or cost-prohibitive to producers who want to participate in promoting climate-smart agriculture on an appropriate scale. The second objective is providing a voluntary no-cost soil analysis with recommendations producers may elect to implement. This program offers producers an opportunity to understand their current soil health and contribute to a “State of Soil Health” project. Aggregate data that can be analyzed by agronomic practices, commodities, soil types, watersheds, and other critical layers will allow private and public partners to best serve producers seeking to improve their soil health.

Producers who utilize this opportunity, after they receive consultation and recommendations on how they can improve soil health, will have a road map to help improve soil health and statewide net carbon sequestration capacity.

Objective 3: Create market opportunities for climate-smart commodities produced in Oregon

Expanding access to and developing markets for climate-smart commodities will be an integral approach in our proposal. The marketing and business approach for the five-year project will rely on a broad coalition of agricultural commodity groups, producers, and marketing professionals to develop and recommend marketing tools and opportunities. This coalition will work on understanding values and perceptions of producers, retailers, and consumers regarding “climate-smart” commodities. The coalition may explore price points, purchase behavior, and ultimately a “climate-smart” product label that could promote climate-smart commodities from Oregon. The partnerships of the coalition are critical to meet their sustainability initiatives and enhance the visibility of Oregon “climate-smart” commodities. The timing of this marketing work will

Mike Badzmierowski, Ph.D.
Oregon Department of Agriculture
Soil Health Specialist
Mike.Badzmierowski@oda.oregon.gov
15 April 2022

coincide with the Objective 1 projects to create market opportunities to act as the ongoing incentive for continual implementation and reward early adopters.

DRAFT