SPECIALTY CROP BLOCK GRANT AWARDS 2022

Washington State Department of Agriculture

In 2022, the Washington State Department of Agriculture received approximately $4.7 million to help fund 20 projects:

Grant Recipient: Washington State Wine Commission
Project Title: Develop a Sustainable Strategy to Control Grapevine Leafroll Virus in Washington Vineyards through Mating Disruption
Award: $205,200

Abstract: The Washington State Wine Commission (WSWC) seeks to develop a sustainable mating disruption program to manage grape mealybugs, the primary vector of grapevine leafroll-associated virus 3 (GLRaV-3), in Washington vineyards. Slowing the spread of GLRaV-3 is the #1 research priority for the Washington wine industry. GLRaV-3 infection results in poor vine vigor, uneven fruit ripening, negatively impacts wine quality, and threatens long-term profitability of vineyards. An economic study (Naidu and Walsh, 2015) estimated income loss ranging from $3,005 to $19,800 per acre in Merlot over a 20-year period. Mealybugs have become resistant to the industry-standard imidacloprid treatment. Walsh has demonstrated a single infected mealybug crawler can vector disease even in high titers of insecticides. In short, insecticide-based management of mealybugs has failed to reduce the spread of GLRaV-3. The WSWC seeks to work with qualified and experienced WSU researchers, pheromone companies, and wine industry collaborators to demonstrate that pheromone-based mating disruption can reduce grape mealybug abundance and reduce GLRaV-3 spread. Mating disruption is a proven pest management methodology, most notably against codling moth in apples. We completed successful pilot studies in summer 2021 that demonstrated male capture in pheromone-baited sentinel traps was shut down at 60 and 100 pheromone emitters per acre. Our project provides a multi-disciplinary approach for commercial-scale mating disruption trials and quantifies virus spread over the course of three growing seasons. Bottom line: We plan to prove that shutting down mating will reduce mealybug populations and provide an effective and sustainable way to manage GLRaV-3.

Grant Recipient: USDA-ARS
Project Title: Biological Control of Insect Pests in Non-Crop Habitats
Award: $248,700

Abstract: USDA will establish an agreement with WSDA to research the biological control of insect pests in non-crop habitats. Many insect pests reside much of the year on non-crop plants outside of commercial fields. Three such pests in Washington include potato psyllid and beet leafhopper, vectors of vegetable crop pathogens, and pear psylla, the primary pest of pears. Over the last decade our team of USDA and WSU researchers have identified non-crop reservoirs of these pests, which allows us to examine population processes on these plants that affect pest densities before they infest crops. One poorly understood process is biocontrol. Our goal is to identify important predators of pests in non-crop habitats. We have two objectives: (1) identify predators of potato psyllid, beet leafhopper, and pear psylla on non-crop plants; (2) disseminate information about predators and biocontrol to stakeholders. We will use molecular tools to identify prey DNA in the guts of predators that co-occur with our targeted pests on non-crop plants. Two approaches will be taken: use of species-specific primers to detect target pest DNA; and directed sequencing to identify the full complex of prey. Results will allow us to evaluate the contribution of biocontrol in these habitats to subsequent pest pressure. Lists of important predators will be communicated to stakeholders by publication in industry newsletters and will be forwarded to extension personnel for adding to biocontrol webpages. Results will also allow an evaluation of whether adding non-crop estimations of biocontrol to regional pest-forecast models leads to model improvements. This project will benefit pear growers, potato growers, and other vegetable or seed specialty crop growers in Washington State.

Grant Recipient: Washington State University
Project Title: Mitigation of the Blue Mold Fungus of Pome Fruit to Reduce Food Loss
Award: $202,216

Abstract: This project, submitted by Washington State University, will develop solutions to manage the blue mold fungus, the most important postharvest threat to the state' pome fruit industry which provides 65% and 100% of the U.S. conventional and organic fruit, respectively. Blue mold, caused by Penicillium spp., can cause up to 50% of total decay in the Pacific Northwest and translate into more than $7 million annual losses for the U.S. pome fruit industry. Because all current commercial apple and pear cultivars are susceptible to Penicillium spp., management is achieved with fungicide applications in conventional systems. However, recent fungicide resistance monitoring in WA showed that resistance to fungicides used pre and postharvest has developed. Moreover, up to 25% and 10% of state apples and pears, respectively, equivalent of $90M of the farm gate value, are processed each year. Besides decaying fruit, Penicillium species cause mycotoxin contaminations, especially patulin (PAT), in processed fruit and has become challenging for processors given that PAT levels are regulated to 50 ppb and to only 10 ppb in infant foods. In this project, we aim to i) develop management tactics to mitigate fungicide resistance in Penicillium spp., ii) characterize the exact species occurring in Washington warehouses, iii) and develop approaches to mitigate patulin contamination in processed pome fruit. Findings from this project will help extend the lifespan of current and new fungicides and empowers stakeholders with new tactics for sustainable fruit production and storage.

Grant Recipient: Center of Produce Safety
Project Title: Interaction of Resident Microbiome and Listeria on Pears During Cold Storage
Award: $250,000

Abstract: The Center for Produce Safety will partner with Washington State University to address knowledge gaps on Listeria survival and resident microbial communities (microbiome) on whole pears during cold storage. The pear microbiome and other microorganisms potentially introduced at harvest or postharvest handling may influence the survival of foodborne pathogens on the pear surface. The pathogen Listeria monocytogenes can be found in a wide variety of natural and food production environments and has been implicated in multiple foodborne illness outbreaks associated with fresh produce and other tree fruits but, to date, not with fresh pears. There is a lack of knowledge on the fate of Listeria on pears during storage, and on dynamic changes of the pear microbiome over long term cold storage and the effects of such changes on the survival of Listeria. This project will first determine Listeria survival and changes in the microbiome of Bartlett, Anjou, and Bosc pears over time and possible microbial interactions during long-term cold storage; Listeria innocua, a non-pathogenic surrogate of L. monocytogenes will be used in inoculation studies. The project also will compare conventionally and organically grown Bartlett and Anjou pears to evaluate differences in the microbiome and persistence of Listeria during long-term cold storage. Changes in the microbiome will be characterized using metagenomic sequencing. The data collected will inform the pear industry on risk assessment and mitigation practices and will provide a foundation for potential future targeted research into mitigation and control of Listeria on pears.

Grant Recipient: Oregon State University
Project Title: Improving Food Safety and Minimizing Recalls: Dry Cleaning and Sanitation Strategies for the Onion Industry
Award: $249,846

Abstract: Oregon State University will establish an agreement with Washington State Department of Agriculture to research dry cleaning and sanitation strategies for the onion industry. In 2020 and 2021, two large Salmonella outbreaks (>800 and 1600 cases) were epidemiologically linked to the consumption of red onions produced in California and onions imported from Mexico, respectively. To help the dry bulb onion industry better understand and mitigate risks related to microbial contamination in the field and during post-harvest storage and handling practices, Oregon State University research and extension faculty team proposes an integrated project to:

1) Characterize the growth or survival of generic E. coli on and in onions contaminated by overhead water applications, 2) Define optimal post-harvest approaches for dry cleaning and/or sanitation based on a predictive

model for transfer of generic E. coli from contaminated onions to post-harvest food contact surfaces to help mitigate risk of transfer from these surfaces to other onions, 3) Develop and deliver outreach materials to the onion industry and related stakeholders to support science-based food safety decisions. Field studies from another project focused on pre-harvest food safety risks will be leveraged as the source of onions to investigate contamination risks during post-harvest storage. A combination of site visits, interviews, and surveys will be used to characterize current industry practices to guide laboratory experimentation to determine the microbial transfer between onions and food contact surfaces. Results from these projects will serve as the foundational data to inform a predictive model and eventual web-based simulation app and workshop to support practical decisions about how water applications and post-harvest cleaning and sanitation procedures would impact microbial risk in dry bulb onions.

Grant Recipient: Washington Wine Industry Foundation
Project Title: Mitigating Financial Risk with Cost of Production Calculators for Washington Grape and Wine Producers
Award: $125,987

Abstract: The Washington Wine Industry Foundation seeks to provide updated, current, useful, and readily accessible tools (calculators) for mitigating financial and production risks. Like all business owners, winegrape growers and winery owners in Washington have to juggle resources to mitigate risks when making business decisions. Raising awareness of these tools with winegrape growers and winery owners will improve and grow capacity for their strategic business decision-making, production cost management, and sustainability. These online tools are used to calculate cost-of-production to improve awareness of risks, stabilize the financial position and ultimate resiliency of Washington's winegrape industry. However, these tools were created in 2004 and are now outdated.

This project will update the existing risk management tools. The updated tools, which address financial risk, cost of production, and financial benchmarking, benefitting one of Washington’s fastest growing agricultural industries as well as producers across the U.S. who use the tool for benchmarking. The project audience includes over 400 winegrape growers and over 1,000 wineries statewide—especially new and prospective owners, as well as viticulture and enology students. Additionally, this project will include a concentrated industry outreach plan to share the updated tools and provide tool usage training. This outreach will be critical for input, feedback, and announcing completion of the project. Communication will be accomplished using various channels designed to complement prior efforts and audience age, understanding, and needs.

Grant Recipient: Washington State University
Project Title: Pesticide Information Center OnLine (PICOL) Rescue
Award: $196,604

Abstract: The Washington State University Pesticide Resources and Education program maintains the Pesticide Information Center OnLine (PICOL), a free database with Washington and Oregon Section 3 and Section 24(c) Special Local Need (SLN) labels. PICOL allows growers to critically review and find pesticide options that achieve their plant health goals while protecting human health and the environment. This 30-year-old database which uniquely supported Washington specialty crops, is in dire need of a rebuild. The need to act is driven by system failure risk, outdated processes, and to support increasing demands while enabling future growth. The software was built over 30 years ago; there has been limited support to durably upgrade or modernize the database. The database is missing critical capabilities, is behind current technology and accessibility standards, and is at a persistent threat of server failure. System failure would decimate the database and would end this service. Programing the current (2019) user-friendly interface to access the original 1992 database has left PICOL in a precarious position. Investment in PICOL is critically required to rebuild the database to ensure the continuity of important Washington-specific pesticide label data. What is needed to push PICOL into a state-of-the art system with capabilities for future function is funding to hire a software company. That would allow a complete rebuild of the database onto a new server, restore lost functions, enable new features, and automate back-end processes. Access to trustworthy pesticide information, specific to Washington State, is pivotal to environmental stewardship and competitive specialty crop production.

Grant Recipient: Washington State Employment Security Department
Project Title: Identifying areas to improve the Washington state agricultural recruitment system for specialty crop production activities
Award: $250,000

Abstract: The Washington State Employment Security Department (ESD) will establish an agreement with the Washington State Department of Agriculture (WSDA) to conduct a study to identify key areas to improve the Washington state agricultural recruitment system of U.S. workers for apple, berry, cherry, grape, and pear production activities.

The study's purposes are:

i. Learn how apple, berry, cherry, grape, and pear growers (specialty crop growers or SC growers) recruit skillful U.S. workers (SC growers' recruitment process).
ii. Identify how to improve the Washington state agricultural recruitment system of U.S. workers (ESD agricultural recruitment system) to become part of the SC growers' recruitment process and increase specialty crop growers' competitiveness.
iii. Learn how farmworkers look for agricultural jobs and become employed in the production of apples, berries, cherries, grapes, and pears (specialty crop farmworkers).
iv. Identify how to improve the ESD agricultural recruitment system to benefit specialty crop farmworkers.
v. Create a set of recommendations to be used to replace the ESD WorkSource Integrated Technology (WIT) case management system, which is the replacement of the current labor exchange system used, in part, to match able, available, and qualified domestic farmworkers with specialty crop jobs.

The study will consist of conducting in-depth one-on-one (or focus group) interviews with apple, berry, cherry, grape, and pear growers and farmworkers.

Grant Recipient: Northwest Cider Association
Project Title: Timely Market Development for Washington Craft Cider and Cider Made with Washington Grown Apples
Award: $249,337

Abstract: The Northwest Cider Association (NWCA) is the applicant and will execute this project to address urgent domestic market development needs for Washington craft cider and cider made with Washington grown apples and other specialty crops including grapes, cane berries, stone fruit, berries, hops and botanical herbs.

The goal of this project is to increase immediate and longer-term sales by addressing urgent needs to educate buyers, media, and consumers on Washington cider as premium products. NWCA will leverage a well-established cider competition, the Portland International Cider Cup, to drive timebound evidence-based education, marketing, and PR all strategically aligned to drive sales.

Key objectives and activities include: (1) Educating judges, key influencers, and gatekeepers through video, print and in person sessions on cider styles, flaws and apple varieties grown in Washington and used for cider. (2) Marketing and promotion of Washington cider through earned media/PR campaign that is culturally responsive and relevant.

Grant Recipient: Washington State Nursery & Landscape Association
Project Title: Plant Something Pollinator Friendly
Award: $107,890

Abstract: Washington State Nursery & Landscape Association is seeking funding to promote, encourage and increase the production, sale and use of Washington's specialty nursery crops. This multi-year marketing campaign features promotion of wholesale and retail nurseries and includes education as a marketing strategy to increase awareness of pollinator friendly production practices, plant choices and planting practices, all resulting in an increase of overall nursery crop sales.

Using a variety of platforms, from social media to video to print, this project includes: professionally developed marketing materials to be used throughout the industry, from grower to retail, to identify pollinator friendly plant material at point of sale; Development of consistent materials for a web based, print and social media marketing campaign; Scientifically informed, locally specific resources will be developed and used for education about pollinator friendly production practices, plant choices and planting practices. Established resources will be used when applicable. This project will also connect industry buyers with growers of pollinator friendly plant material via FindPlantsPNW.com, a B2B online resource for sourcing wholesale plant material; and will highlight growing operations using practices to protect and encourage pollinators.

Elements of this project build on strategies identified by the WSDA Pollinator Task Force and WSNLA Nursery Roundtable participants to utilize retail nurseries to educate consumers on the necessity for blooming nectar plants to be available to pollinators throughout their respective active seasons. (SSB 5552, R3.7). All activities support the end result of a 25% increase in sales of Washington specialty nursery crop products.

Grant Recipient: Washington Hop Commission
Project Title: Fusarium Canker: Understanding and Managing an Emerging Disease in Washington Hops
Award: $239,698

Abstract: Soilborne diseases are increasingly important in hop production because of changes in varieties, extensive replanting of yards, production practices, and environmental conditions. The disease, Fusarium canker, in particular, has been observed with increasing frequency and consequence in Washington hop yards; it is affecting multiple varieties that are in demand by brewers. Little known about this disease and management strategies are anecdotal at best. In this project, the Washington Hop Commission and research partners at the U.S. Department of Agriculture and Oregon State University will develop foundational knowledge on risk factors for Fusarium canker and best practices for cultural management of this disease. The project will identify and quantify factors at the farm and field level that increase the risk of Fusarium canker, determine the frequency of infestation of planting materials, develop non-chemical management approaches for Fusarium canker that reduce the impact of the disease, and broadly communicate and disseminate results to the hop industry. The project addresses multiple documented priorities of the WSDA Specialty Crop Block Grant Program and the hop industry. Achieving the goals of the project will contribute to changes in practices that can limit outbreaks of the disease, enhance sustainability of production, reduce frequency of replanting of yards, and overall improve the stability of the hop supply chain.

Grant Recipient: Washington State University
Project Title: Alternative Sampling Techniques for Timely Vineyard Nutrient Management
Award: $235,457

Abstract: Washington State University (WSU) will conduct this project to determine (1) if nutrient analysis of dormant or early-season tissues better predicts grapevine nutrient status than leaf sampling at bloom or veraison; and (2) the optimal nitrogen (N) application for areas of differing vine vigor in the same vineyard. Current vineyard nutrient management recommendations are based on analysis of leaf tissue (blades and/or petioles) sampled at bloom and/or veraison, depending on regional preferences. Because either sampling time is too late for in-season fertilizer applications (e.g. N is applied well before bloom), we propose to test the idea that the nutrient content of the dormant trunk or canes, or of the emerging shoots after budbreak, can be used to predict the vine nutrient demand for the upcoming season.

In addition, because nutrient demand varies with plant vigor, we want to test if vineyard areas of higher vigor should receive more N fertilizer to prevent N deficiency and ensure adequate yeast assimilable N for winemaking, or if the N depletion can instead be used to control vigor. We will collect tissue samples from Syrah, Chardonnay, and Sauvignon blanc in a commercial vineyard and Riesling in a WSU vineyard over three growing seasons. Each block will receive three N or K treatments, and in Riesling these treatments will be applied in distinct high and low vigor areas. All results will be integrated to generate science-based recommendations that will enable growers to make timely and reliable nutrient management decisions.

Grant Recipient: Washington State University
Project Title: Preemptive Cultural Management Strategies to Maximize Potato Production Under Extreme Heat and Water Stress
Award: $249,980

Abstract: Climate models demonstrate that erratic heat events, such as heat domes, will continue in the future along with general environmental warming. Because of this, it is critical that growers have new knowledge and tools to address these challenges as they arise. Researchers at Washington State University propose research to clarify best practices around planting timing, plant spatial arrangement, and soil moisture management as it relates to production and plant health under stressful growing conditions.

We propose to: 1) identify preemptive cultural management strategies to maximize potato production under extreme heat and water stress and 2) Identify methods to assess in-season heat stress and its impacts on plant phenotype, yield, and postharvest quality. By modifying current cultural management practices, potato growers may be able to reduce the negative effects of heat and water stress. Moreover, it is likely that some cultural practices could be specifically tailored to maximize grower return when potatoes are grown in a stressful environment. Development of innovative planting and management practices is expected to improve input-use efficiency, grower income and competitiveness when compared with low-stress growing conditions under traditional cultural management practices.

Additionally, infield methods will be evaluated to simulate stressful growing conditions by the end of this project. The recommendations and data developed for conditions with heat and water stress will be presented annually to the potato industry at the WA/OR Potato Conference, local workshops, and field days. This research will potentially benefit all potato growers and processors directly while creating novel research tools.

Grant Recipient: Washington State University
Project Title: Ensuring Reliable Pollination for Washington Apples with Cultural Practices and Conservation
Award: $249,560

Abstract: With multiple drivers such as pests, pesticides, and habitat loss threatening wild and managed pollinators, it is imperative to better understand pollinators and enhance pollination services in Washington apple orchards. Wild pollinators increase the economic stability of apple orchards as climate change and high hive mortality impact the reliability of commercial honey bees for pollination. Additionally, wild pollinators come at no cost to the growers and are more adapted to Washington weather patterns, which are often unfavorable for honey bees. Past research in other regions has demonstrated that wild and honey bee pollinator conservation strategies can increase fruit set and yield; however, these ideas have not been investigated in Washington. To increase the potential for wild pollinator services in Washington apple systems, researchers at Washington State University's Tree Fruit Research and Extension Center will conduct the following objectives. First, researchers will conduct an extensive survey of wild pollinators in apples across the state to identify key species. Second, the team will investigate strategies to enhance apple pollination by both wild pollinators and honey bees, including planting wildflowers, creating nesting habitats, and spraying pollinator attractants. Finally, the team will disseminate information through Extension services including a Tree Fruit Extension webpage specific to this project, and through field days and seminars. The information generated will give growers more knowledge and tools to ensure the continued and reliable pollination of apple.

Grant Recipient: Northwest Agriculture Business Center
Project Title: Increase the Prominence of Skagit Valley Specialty Crops by Promoting the Genuine Skagit Valley Brand
Award: $106,761

Abstract: Northwest Agriculture Business Center (NABC) will implement the Genuine Skagit Valley (GSV) program to increase the visibility and value of specialty crops grown in the Skagit Valley. Place-based marketing programs like GSV succeed because there is a strong desire to connect with the land.

People want to know where their food comes from. Skagit farms generate $300 million in annual revenue, of which specialty crops drive almost $102 million. Through this grant, GSV will promote specialty crops grown in this distinct agricultural region as follows:

- Create On-the-Farm Tasting Events. To build excitement and educate tastemakers, influencers, journalists, institutional food buyers and chefs about the region's bounty, GSV will hold five seasonal events. These are highly customized taste + tour experiences showcasing prominent segments of Skagit's diverse and distinctive specialty crops and foods.
- Participate in Taste Washington. A vibrant wine/food festival for over 20 years, for the first time in its history, GSV will participate in the reboot for three consecutive years, to showcase the Skagit Valley's bounty to consumers, media and culinary luminaries.
- Support Latinx and beginning farmers. Skagit County's population is nearly 20% Hispanic, yet there are still many barriers and challenges facing them. GSV will support socially disadvantaged and beginning specialty crop producers through outreach and introductory three- year memberships in GSV. New materials will be translated into Spanish.
- Launch a regional consumer advertising campaign. Highly-targeted digital advertising and sponsored content will be used to reach consumers, and timed to coordinate with Taste Washington.

Grant Recipient: Southwest Washington LULAC Foundation dba LULAC Grows
Project Title: LULAC Grows Specialty Crop Production, Markets, and Farming for Families and Communities of Color
Award: $249,365

Abstract: The Southwest Washington LULAC Foundation established the "LULAC Grows" programs in order to provide pathways that reconnect our people to the lands and achieve our food sovereignty mission. This SCBG supports LULAC Grows' equitable food system vision by (I) supporting education for farmers and families, as they improve access to farmland through incubator farm plots and on-farm training; (II) increasing the supply of fresh produce to underserved consumers through new and expanding market outlets; and (III) and provide a wide array of bilingual education and training on topics needed to ensure the success of aspiring, new, and experienced specialty crop producers.

Grant Recipient: Washington State University
Project Title: Educational Tools for the Small and Very Small Value-Added Specialty Crop Growers and Food Processors
Award: $246,363

Abstract: Value-added food processing is critical to our state's economy. It helps to extend the shelf life of the specialty crops and create a more sustainable economic system, especially for the very small to small growers and processors. However, small value-added growers and food processors often have limited access to appropriate and affordable education, outreach, and technical assistance in the area of safe processing of these value-added foods. Insufficient food safety training is one of the leading causes of food recalls. It can lead to failing the regulatory and marketplace requirements, limiting the sales of the product and profitability for these businesses. Thus, there is a need to provide these stakeholders with adequate educational tools and hands-on training that will help them to meet the regulatory and marketplace requirements.

With this project, we (Washington State University – Food Processing Extension Program) propose developing a virtual library of value-added food processing and safety information designed to best meet the needs of small growers and value-added food processors in Washington State. These resources will be developed based on direct feedback from these stakeholders and cover the basic concepts of value-addition, processing, food safety, and regulatory requirements. Some of the newly proposed trainings will be hands-on (only during the final year of the project) to help the small and very small processors to develop robust food safety systems for their individual processing scenarios. This will enable them to become more self-sufficient in maintaining food safety for their processing facilities and value-added products.

Grant Recipient: Washington State University
Project Title: Comprehensive Honey Bee Health Tech Transfer Outreach Program: Education, Breeding, Nutrition and Management
Award: $249,670

Abstract: The productivity of dozens of Washington specialty crops depends directly on reliable pollination services from honey bees. However, the landscape of honey bee health has changed dramatically over the past decade due to numerous factors including the rise of pests and diseases that reduce foraging efficiency and result in annual colony losses of 35-45%. It is imperative that beekeepers, growers, and pesticide applicators are fully equipped with the knowledge necessary to confront modern challenges and maintain healthy colonies that efficiently pollinate specialty crops. The Washington State University honey bee research team will create and deliver comprehensive honey bee and pollination education to stakeholders with the objective of improving colony health, reducing colony losses, and enhancing pollination efficiency in specialty crops. This will be accomplished through training and dissemination of educational materials via workshops, webinars, videos, and printed material. Expected outcomes of this project include a reduction in annual losses of honey bee colonies in Washington State, improvement of colony health through the implementation of improved management strategies by beekeepers, and continued sustainable pollination services for Washington specialty crops. The development of a comprehensive library of readily accessible video and printed material (incorporating universal design principles, in both English and Spanish) will allow the impact of this project to extend beyond the inclusive dates of this proposal.

Grant Recipient: Living Well Kent
Project Title: Specialty Crop Cultivation to Meet Immigrant and Refugee Producer and Consumer Demand
Award: $169,764

Abstract: Living Well Kent (LWK) proposes to bolster specialty crop production by levering our existing greenhouse infrastructure to create a specialty crop cultivation lab. Our vision is to partner with BIPOC refugee and immigrant producers to identify those culturally relevant specialty crops that are in demand across the region, then recruit a technical advisor to provide greenhouse redesign and seedling cultivation training that aligns with specialty crops prioritized by BIPOC farmers. Once we have increased seedling production, LWK will integrate the nursery into our existing programming and create a business growth strategy based on results.

During the project, we expect to produce: 1) a feasibility study documenting the in-demand culturally relevant specialty crops, the sellers of these crops, and the scale of demand; and 2) outline a greenhouse redesign plan based on the feasibility study. Expected outcomes are as follows: 1) at least 26 BIPOC producers directly participate in the project.

Grant Recipient: AgForestry
Project Title: Retooling Leadership Development for Future Generations in Natural Resources
Award: $249,997

Abstract: The Agriculture and Forestry Education Foundation will retool its leadership program to meet needs of future leaders (agriculture and specialty crops, forestry, aquaculture) with a comprehensive evaluation of the curriculum and delivery methods.

The Agriculture and Forestry Education Foundation provides a well-established, well-respected leadership program for Washington State; “We cultivate leaders in agriculture, forestry, and natural resources.” Branded as the “AgForestry Leadership Program” or “AgForestry”, mentioning you’re a graduate helps open doors. To date, over 1,000 participants from the agriculture, fisheries and forestry industry have graduated: over 60% are from agriculture. With the size of specialty crops in Washington state, this program has and will continue to provide enormous impact on the specialty crop industries.

But there is a generational shift in the natural resources industries. The attraction to “stay on the farm” or even in the community is waning. Changes are impacting all natural resource industries, their workforce, the

marketplace, and the ballot box. This impacts who leads and makes decisions that impact the future of Washington's natural resource industries. After 44 years of cultivating leaders, and with participant and funder input, AgForestry has identified the need for a comprehensive evaluation of the curriculum and delivery methods. The goal of this project is to retool this experiential leadership program to ensure it meets future leaders based on their generational needs. If we choose to ignore this significant shift, agriculture, including specialty crops, will slowly lose their next generation of leaders and managers.

With funding, AgForestry will:

- Contract with experts in adult education, both experiential and academic, to evaluate the current curriculum
- Conduct a literature review on curriculum evaluations including delivery methods and measurable outcomes of adult leadership development programs in agriculture and natural resources
- Conduct formalized focus groups with industry leaders throughout the state and nation to identify what is needed from and expected of program graduates
- Analyze and interpret data to inform curriculum revision and development
- Establish a work plan to implement new/updated curriculum
- Institutionalize an annual evaluation of the program (and application of the curriculum)