Transportation and Marketing
Specialty Crop Block Grant Program

Fiscal Year 2022 Description of Funded Projects – Farm Bill

Number of Grants Awarded: 55
Number of Sub-award Projects: 601
Amount of Funds Awarded: $72,900,350.00
For more information, please visit the program's website: https://www.ams.usda.gov/scbpg
NOTE: The project descriptions below were provided by the grant recipients. (File updated August 11, 2022)

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Alabama Department of Agriculture and Industries	$533,478.68	1. OPERATION GROW: An Intensive Educational Campaign to Support Veteran Farmers and Specialty Crop Industry Across Alabama	This project will develop and launch 'Operation Grow,' a special project under the Alabama Beginning Farmer Program at Alabama Cooperative Extension System, in order to connect with and directly support military veteran beginning farmers via whole farm planning and networking workshops, active farming/onsite assistance, and post-establishment phases (continued training) to ensure profitable and sustainable agriculture enterprise across Alabama. The project partners will subcontract with North Alabama Agriplex in Cullman to reach a large number of interested veterans and provide hands-on training.	$39,992.00

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Alabama Department of Agriculture and Industries	$533,478.68	2. A Novel Sustainable Approach to Growing Blueberries for Frost Prevention and Mitigation of Cold Damage	Auburn University and Alabama Cooperative Extension Systems will partner with the Alabama Department of Agriculture and Industries to help prevent and mitigate frost damage to blueberries by evaluating a novel sustainable approach to growing blueberries in containers. The potential benefit of container production concerning cold protection is the ability to use much less water to achieve the same level of freeze protection. Container production of blueberry offers the advantage of not being limited by suboptimal soil conditions in the open field and the ability to control substrate pH, drainage, and organic matter. This project will involve growing southern highbush cultivars, predominantly grown in Florida, southern Georgia, and central Alabama.	$40,000.00
Alabama Department of Agriculture and Industries	$533,478.68	3. Enhancing Blackberry Production in Alabama	Auburn University and Alabama Cooperative Extension Systems will partner with Alabama Department of Agriculture and Industries to evaluate the productivity and economic benefits of growing new blackberry cultivars. The outcome of this project will allow Alabama blackberry producers to expand production by choosing appropriate cultivars to enhance consumer acceptance and extend growing seasons into fall markets when prices are high.	$40,000.00

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Alabama Department of Agriculture and Industries	$533,478.68	4. Cook LOCAL! Cooking with Alabama Specialty Crops	This project is designed to increase understanding of the value of Alabama specialty crop consumption among students at The University of Alabama by educating students on cooking methods and recipes involving Alabama specialty crop. The team led by the Human Nutrition and Hospitality Management faculty members and student assistants will conduct this project to build upon previous findings in the Eat LOCAL! a theory-based qualitative study to provide solutions to commonly noted barriers to local food consumption through the provision of instruction and resources. Through these findings, we plan to develop a recipe book that includes information about each farmer via interview to provide familiarity, an introduction offering details on local-food related information such as location and hours, and finally recipes suggested by the farmers themselves that include the food items sold by the specific farmer. Study participants will receive a recipe book and additional education materials regarding Alabama specialty crops will also be provided to them.	$40,000.00
Alabama Department of Agriculture and Industries	$533,478.68	5. Preharvest and Postharvest Intervention to Improve Tomato Quality and Safety from Bacterial Infections	The University of West Alabama and the University of Alabama will establish an interdisciplinary collaboration to optimize preharvest and postharvest bacterial control measures to enhance the health (quality), safety, farming sustainability, and longevity of tomato plants cultivated in Alabama, and experimented data acquired and technology developed will be disseminated to the public, including stakeholders and tomato growers, through peer-reviewed scientific articles, regional conference presentations, and press media.	$39,999.00

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Alabama Department of Agriculture and Industries	$533,478.68	6. Improving Visibility of Local Food Markets	Auburn University and the Alabama Cooperative Extension System offers grassroots surveys to Alabama farmers each year and a need that has been reported for the past several years is farmers wanting to know how to market their farm products. Alabama Extension will increase awareness of Alabama direct market growers and consumer purchasing of their specialty crops. We will increase marketing knowledge of farmers and how to use marketing performance indicators in their operation and promotion of their farm. We will also increase farmers knowledge on food safety practices and processes. To achieve those goals, we will offer six in-person Direct Marketing workshops and offer them livestreamed to make the meetings more accessible throughout the state. To make these workshops comprehensive to growers' needs and an efficient use of their time, we will cover marketing and food safety, combining information from two curriculums, Enhancing the Safety of Locally Grown Produce (Virginia Tech) and Marketing for Profit (SARE).	$40,000.00
Alabama Department of Agriculture and Industries	$533,478.68	7. Use of Non-traditional Production Practices to Produce Peach Trees Budded on 'MP-29' Rootstock	Crop land for peach production in Alabama is disappearing at an alarming rate largely due to a soil-borne disease called Armillaria root rot (ARR). Once in the soil, the disease remains there indefinitely. Researchers at Auburn University and the Alabama Cooperative Extension Service will reduce the spread of ARR in peach orchards by increasing the availability of ARR-resistant rootstock. Protocols and commonly available technologies used to enhance growth or as a means to propagate plants will be evaluated for their potential use in the production of peach trees budded on 'MP-29' rootstock, which has been difficult to grow using conventional nursery production methods for peach trees. Results will be disseminated at grower meetings, workshops, and field days and used to supplement a protocol currently being developed.	$39,400.76

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Alabama Department of Agriculture and Industries	$533,478.68	8. Alabama Fruit and Vegetable Growers Association – Beginning and Socially Disadvantaged Farmer Leadership Development and Continuing to Grow Together	The Alabama Fruit and Vegetable Growers Association is a member driven, 501(c)(5) association that works to improve the specialty crop industry through research, advocacy, education, and promotion. The association supports and implements educational programs across Alabama, including an annual conference that commonly draws over 200 attendees. With this award, the association will: Plan a tour for Alabama beginning farmers to visit and learn from specialty crop producers in neighboring states (possibly NC, SC, GA, or FL). Experienced champion farmers will also be invited to provide opportunity for beginning farmers to be mentored and to learn from their success; and plan and execute an annual conference that will include researchers from across Alabama and the Southeast to educate over 200 farmers on topics including improved methods of specialty crop production, marketing, and food safety.	$25,000.00
Alabama Department of Agriculture and Industries	$533,478.68	9. Improving Pecan Production in Alabama with Educational Conferences and Farm Tours	The Alabama Pecan Growers Association seeks to provide the latest and most current research based educational information on pecan production practices, pest management, and marketing programs utilizing annual conference presentations and farm tours. APGA plans to enhance learning and networking with pecan researchers and our growers. These meetings would involve educating the pecan grower with new production and orchard management ideas. This would give the grower sources to go to for information along with giving them the information they need to be able to implement new ideas.	$27,993.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Alabama Department of Agriculture and Industries	$533,478.68	10. Cultivar Evaluation and Extension Education on Improved Newly Released Muscadine Grapes for Alabama Vineyards	Auburn University and Alabama Cooperative Extension System will partner with the Alabama Department of Agriculture and Innovation (ADAI) to enhance the competitiveness of small fruit, specifically muscadine grape, which is a native fruit crop in Alabama and the Southeast, through investigating the performance of selected recently released cultivars and advanced selections from the University of Georgia and the University of Arkansas breeding programs. The outcomes from this project will lead to improved sustainability in small fruit production practices ensuing increased yield, improved fruit quality and increased economic benefits to the grower. We also envision a project impact on improved food safety and increased consumption of muscadine grapes which is a local favorite fruit. Results will be also used to develop educational curricula for interested stakeholders. Virtual educational events such as webinars, will be also offered as part of the Fruit School series of webinars and made available for future long-term use via the Beginning Farmer App developed by the Commercial Horticulture Team at the ACES.	$40,000.00
Alabama Department of Agriculture and Industries	$533,478.68	11. Increasing Specialty Crop Exposure Through Alabama School Gardens	Schoolyards Roots will promote healthful eating and alleviate food access issues in Tuscaloosa through hands-on garden programs that increase students' and families' access to specialty crops, as well as by increasing specialty crop production and distribution within our partner school communities. Schoolyard Roots will achieve these outcomes through their core program, Gardens 2 Schools, that brings hands-on learning, outdoor exploration, and nutrition education to 11 elementary schools in the Tuscaloosa City and County School Systems. The program combines hands-on science, math, and language arts lessons with Alabama Course of Study standards to work with the classroom teachers' existing curricula and meet challenges in Alabama public schools. Students will learn to raise and harvest vegetables, run farm stands, and cook healthy, homegrown dishes.	$25,000.00

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Alabama Department of Agriculture and Industries	$533,478.68	12. Highlighting Alabama Specialty Crops at Sunbelt Ag Expo	In 2023, Alabama will be featured as the Spotlight State at the Sunbelt Ag Expo, the South's largest farm show. Sweet Grown Alabama, in cooperation with project partner, the Alabama Department of Agriculture and Industries, will provide samples and educate guests on the specialty crop industry to increase consumption and awareness of specialty crops grown in the state and southeast.	$59,134.00
Alabama Department of Agriculture and Industries	$533,478.68	13. Sustainable Specialty Crops in Alabama and Their Health Benefits	Farmscape Solutions will educate members of the Montgomery community as it relates to sustainable specialty crops grown in Alabama by introducing the crops to the community through means of healthy cooking demonstrations and recipes. Descriptions of the various crops, growing season information and healthy recipes will be disseminated through newsletters and shared on social media platforms.	$25,000.00
Alabama Department of Agriculture and Industries	$533,478.68	14. Marketing and Promotion Campaign for Alabama Watermelons	On an annual basis, the Gulf Coast Watermelon Association selects an Industry Representative to interact with the public on behalf of the watermelon industry. This is the Gulf Coast Watermelon Queen. She is selected based on criteria essential for public relations: interview skills, knowledge of agriculture and the watermelon industry, outgoing personality, and approachability. In order to increase sales of watermelons, the project will educate the public on the health benefits of eating watermelons. The Industry Representative will visit schools and libraries to interact with children and consumers in the retail setting to entice and encourage the purchase of watermelons.	$9,932.92
Alabama Department of Agriculture and Industries	$533,478.68	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$39,076.13

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Alaska Division of Agriculture	$255,740.58	1. Alaska Grown Specialty Crop Increasing Consumer Awareness, Purchasing, And Consumption	The State of Alaska, Division of Agriculture will increase consumer awareness, purchasing, and consumption of Alaska's specialty crops by developing marketing programs that will extend current consumer outreach efforts and target new audiences. The Alaska Division of Agriculture will accomplish this through strategic advertising, developing a graphic design database that will be used for campaigns targeting audiences during specific seasonal availability of Alaska's specialty crops, and adding personnel to conduct outreach, education, and to track outcome measures.	$87,200.00
Alaska Division of Agriculture	$255,740.58	2. Nenana Totchaket Student Farm Conservation Plan Competition	This Alaska Division of Agriculture project will be a joint effort between the Alaska Division of Agriculture and the Fairbanks Soil and Water Conservation District. Working together, this project will find organizations serving secondary school students within the Fairbanks North Star Borough and the city of Nenana (i.e., after school-clubs, science classrooms, FFA chapters, youth organizations such as Scouting etc.) and will recruit teams of students to compete in a competition to write Farm Plans for a demonstration parcel in the Nenana Totchaket Agricultural Project Area. These teams of students will have the opportunity to be trained by local natural resource professionals in the fundamental skills and knowledge needed to write a Farm Plan focused on producing specialty crops. The Fairbanks Soil and Water Conservation District will aid in recruiting student teams, organizing trainings, facilitating site visits, and judging the competition entries.	$52,884.95
Alaska Division of Agriculture	$255,740.58	3. Creating Cultivated Salicornia Crops from Native Alaska Species	A group of independent producers proposes to conduct research on the feasibility of planting, cultivating, and growing Salicornia in Southeast Alaska, with the aim of sharing results with producers throughout the State. This species lives at the tideline, putting it in danger of habitat loss through climate-change-induced sea-level rise and manmade coastal development. In addition, this species is under pressure due to commercial harvest to create value-added products as well as serve restaurants and other local businesses. Beyond these important factors, Salicornia is an important plant for traditional native use.	$21,735.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Alaska Division of Agriculture	$255,740.58	4. Seed Saving in Homer: Building Resilience and Economy	Homer Soil and Water Conservation District will provide technical and financial support specifically to six producers in the Homer area as well as through general public outreach to develop local knowledge, experience, and confidence around saving preferred and acclimated seed varieties in order to supply the local Seed Library, as well as to develop the basis for an economic income through the sale of seed at the commercial level.	$28,413.00
Alaska Division of Agriculture	$255,740.58	5. Low-Cost Multispectral Mapping for Early Detection of Plant Stress	Corax, LLC will develop methods and quantify the utility of using drone imaging for early identification of crop stress. The goal of the project is to document low-cost methods that suit small scale Alaska agriculture and help producers respond more quickly to challenges within the short growing season. The project will focus on specialty crops which are typical Alaska crops (i.e., greens, brassicas, beets, peas, onion, rhubarb, carrots) using multispectral sensors and vegetation indices such as Normalized Difference Vegetation Index (NOVI). For the staple crop of potatoes, the project will additionally focus on developing an even lower cost method of Visual- NOVI which does not require specialized sensors. The project results will be disseminated to stakeholders through events such as the annual SARE conference and/or a workshop for grower outreach through the Matanuska Experiment Farm and Cooperative Extension Service.	$13,529.50

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Alaska Division of Agriculture	$255,740.58	6. Identifying Heirloom Rhubarb for Commercial Production in Alaska	This project is a collaboration between Washington State University (WSU), Mount Vernon Northwestern Research and Extension Center, and USDA Agricultural Research Service (ARS) that will document the genetic and morphological characteristics of rhubarb varieties in Alaska. We will genotype (genetically fingerprint) and phenotype (morphologically describe) a new collection of heirloom rhubarb plants as well as validate the accessions of rhubarb that remain from the germplasm that was once managed at the University of Alaska Fairbanks Matanuska Experiment Farm and Extension Center (MEFEC). Plant tissue samples from the 21 heirloom varieties and 31 accessions still at MEFEC will be collected, DNA will be extracted, and the heirloom rhubarb plants will be phenotyped. Science-based recommendations for varieties that have the best potential to succeed as a commercial crop in Alaska are a key goal for this study.	$21,362.04
Alaska Division of Agriculture	$255,740.58	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$30,589.71
American Samoa Department of Agriculture	$268,789.59	1. Expanding Availability and Access to Specialty Crops by Increasing the Volume of Hydroponic Systems Within the Territory	The American Samoa Government Department of Agriculture will ensure the livelihood of farmers within the territory Islands of Tutila and Manu by expanding availability and access to specialty crops with aspirations to increase the volume of hydroponic systems; leveraging efforts to market and diversify specialty crops for sustenance. By increasing the volume of hydroponic systems in American Samoa, it will allow DOA to further educate and assist new farmers, socially disadvantaged farmers, commercial and subsistence farmers with technical assistance to produce, reproduce and sustain their traditional and specialty crops for food security.	$268,511.95

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Arizona Department of Agriculture	$1,313,145.69	1. Arizona Specialty Crop Guide 2023 Update	The Arizona Department of Agriculture (AZDA) will update and reproduce approximately 30,000 copies of an educational reference guide for consumers. The guide will include where our fruits, vegetables, and plants come from and the benefits reaped from buying; Arizona grown produce and plants; directory of farmers' markets, U-Pick farms, vineyards, and lavender farms throughout Arizona; directory of Arizona wine grape growers; listing of Arizona specialty crop availability by season; and food safety information for fruits and vegetables (What's being done and what consumers can do). The Arizona Specialty Crop Guide will increase consumer awareness and consumption of Arizona specialty crops through its distribution at county libraries, cooperative extension offices, and various agricultural events.	$107,918.00
Arizona Department of Agriculture	$1,313,145.69	2. Continuing Education Unit (CEU) Specialist Position	University of Arizona (UA): Yuma County Cooperative Extension (YCCE) is collaborating with the Arizona leafy green, citrus, and fruit tree industry producer-cooperators, executive boards of the Yuma Safe Produce Council (YSPC) and Yuma Fresh Vegetable Association (YFVA), to develop and disseminate specialty crop education to the Yuma, Arizona, agricultural community; as well as provide continuing education units (CEUs) to Arizona and California pest control advisors (PCAs), and members of the national certified crop advisor (CCA) program.	$96,861.00
Arizona Department of Agriculture	$1,313,145.69	3. Establishing a GrowPoints Educational Program	The Arizona Nursery Association (ANA) will use these grant funds to develop a GrowPoints educational program consisting of a series of monthly virtual programs, over two years, to educate nursery industry members on topics of importance. The Arizona Nursery Association has in its core mission to educate the industry, the pillar of our education is the SHADE Educational Conference, a one-day event which attracts 500 industry members. This grant will add to the educational offerings provided by the association.	$24,400.00

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Arizona Department of Agriculture	$1,313,145.69	4. GHP/GAP Certification Reimbursement Program	The Arizona Department of Agriculture's Agricultural Consultation and Training (ACT) division will offer and provide a certification fee, reimbursement program for fresh fruit and vegetable producers/ growers, distributors, wholesalers, and handlers that use any of the following GAP & GHP Audit Services such as, Harmonized GAP Audit, Harmonized GAP Plus+ Audit, USDA GAP & GHP Audit, Group GAP, Tomato Food Safety Audit Protocol, Mushroom GAP, and Arizona LGMA.	$8,983.00
Arizona Department of Agriculture	$1,313,145.69	5. GHP/GAP One-to-One Assistance	The Arizona Department of Agriculture's Agricultural Consultation and Training (ACT) division will offer and provide one-on-one assistance to fresh fruit and vegetable producers/growers, distributors, wholesalers, and handlers so that they can become USDA GHP/GAP certified. This assistance program will provide benefits to those producers looking to address food safety concerns of their customers. These funds will be used for a GHP/GAP Coordinator to expand upon the education and outreach efforts of the current GHP/GAP Certification Training Program and to provide "one to one" assistance to training participants as needed to develop GHP/GAP procedures.	$15,468.00
Arizona Department of Agriculture	$1,313,145.69	6. UA Yuma Agriculture Learners for Life (Y'ALL) Education Program	This project will be delivered through the Family, Consumer, and Health Science program at the University of Arizona Yuma County Cooperative Extension. The UA Y'ALL program will provide education to residents at the various RV parks located in Yuma, Arizona. In person presentations will be made at the various RV Parks educating residents on the types of specialty crops that are grown in Yuma, their health benefits, and the importance of food safety.	$60,830.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Arizona Department of Agriculture	$1,313,145.69	7. New Roots Phoenix Specialty Crop Promotion and Marketing Project	The International Rescue Committee's New Roots Phoenix Specialty Crop Promotion and Marketing Project will promote refugee and other socially disadvantaged specialty crop farmers through a diverse advertisement campaign and improved access to linguistically appropriate marketing resources. This project will not only increase the access to and awareness of specialty crops in Arizona but will also increase knowledge and skills for socially disadvantaged farmers, overall enhancing the competitiveness of specialty crops.	$100,000.00
Arizona Department of Agriculture	$1,313,145.69	8. Automated In-Row Weeding with a Centimeter Scale Resolution Sprayer	The University of Arizona will develop and evaluate an innovative automated machine for precision in-row weed control for lettuce and other vegetable crops. The machine will utilize an artificial intelligence-based imaging system to identify weeds and spot spray targeted weeds at the 1-cm level scale of resolution. If successful, the machine will eliminate or significantly reduce hand weeding labor requirements, a common practice in vegetable crop production. The performance of the machine will be evaluated in field trials with lettuce.	$99,712.00
Arizona Department of Agriculture	$1,313,145.69	9. Chemical Management of Fusarium Wilt of Lettuce	The University of Arizona will conduct laboratory, greenhouse, and field trials to test the potential of several promising fungicides against Fusarium wilt of lettuce. If successful, the research proposed here offers an economical means to lessen the impact of Fusarium wilt on Arizona lettuce industry. Fusarium wilt of lettuce has become increasingly prevalent and lettuce yield loss due to Fusarium wilt is increasing. The use of soil-applied fungicides to reduce Fusarium wilt is a potential management strategy for enhancing the viability and sustainability of lettuce farming in Arizona. Project findings will be shared with growers, industry representatives and other stakeholders via presentation talks at several meetings and field days.	$80,814.00

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Arizona Department of Agriculture	$1,313,145.69	10. Development of Monitoring Tool for Managing Tospovirus Damage to Lettuce	The University of Arizona, in collaboration with Arizona growers and pest control advisors (PCA), will enhance the competitiveness of the Arizona Lettuce Industry by developing a scientific approach for forecasting the incidence of tospovirus in Arizona lettuce and reliably diagnosing Impatiens Necrotic Spot Virus (INSV) or Tomato Spotted Wilt Virus (TSWV) in western flower thrips adults before they can significantly infect desert lettuce crops.	$57,286.00
Arizona Department of Agriculture	$1,313,145.69	11. Incidence and ecology of cucurbit viruses in Arizona	The University of Arizona will be focus on understanding the incidence and ecology of cucurbit viruses in the state of Arizona. A statewide survey will be conducted by collecting cucurbit samples (mainly melons and watermelons) and testing them for presence of 10 or more different cucurbit viruses by molecular methods.	$92,045.00
Arizona Department of Agriculture	$1,313,145.69	12. Investigating Nitrogen Fertilizer Rates for Sustainable Arizona Pecan Production	The Arizona Board of Regents, University of Arizona, proposes expanding on a continuing multi-year study in a commercial Arizona pecan orchard to evaluate response of nut-bearing pecan trees to applied nitrogen that will quantify tree nitrogen demand. Results will be disseminated through presentations to pecan growers, at local, state, and regional pecan production regions, including national and international, and by providing revised University of Arizona fertilizer recommendations in a Cooperative Extension bulletin and popular trade magazines.	$51,639.00
Arizona Department of Agriculture	$1,313,145.69	13. Knowledge Based Practices for Palo Verde Broom Control	The University of Arizona will determine practices for controlling witches' broom in different palo verde species in nurseries through refined molecular testing of the emaravirus (palo verde broom virus BVPV) causing the disease, and by investigating the prevalence of the emaravirus and eriophyid mites, the vector associated with transmitting the disease. The Arizona nursery and landscape industry strongly support this project to ensure that virus free palo verde can be produced in nurseries using knowledge-based practices to manage virus and vector.	$65,213.00

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Arizona Department of Agriculture	$1,313,145.69	14. Novel Steam Applicator for Controlling Weeds in Baby Leaf Crops	The University of Arizona will develop and evaluate an innovative technology for efficiently injecting steam into the soil prior to planting to control weeds in conventional and organic baby leaf lettuce and baby spinach crops. The University of Arizona's patent pending technology developed by the project team has been found to be highly effective at controlling in-row weeds in iceberg and romaine lettuce, and in carrot crops (>90%). We will further develop and refine the technology so that it is also suitable for use with baby leaf crops raised on 84-inch-wide beds.	$66,767.00
Arizona Department of Agriculture	$1,313,145.69	15. Soil Health Following Water Sanitization in Romaine Lettuce Production System	The University of Arizona will measure the short- and medium-term changes in soil health under romaine lettuce production systems following application of water sanitizers commonly used in leafy greens production. We propose to use universally recognized scientific approaches to identify changes as well as key areas for soil health improvements towards sustainable romaine lettuce production, and will share the research findings through field demonstration, grower meetings, field days, and extension articles.	$90,708.00
Arizona Department of Agriculture	$1,313,145.69	16. Survey and Identification of Palm Pathogens	The University of Arizona will mitigate palm diseases by 1) surveying palm trees to determine how prevalent Fusarium wilt are in Arizona Palm trees, 2) determining whether Phytoplasma is responsible for yellowing and declining of palm in Arizona, and 3) educating arborists and landscape professionals on diagnosis and management of palm diseases. The project findings will be crucial for enabling stakeholders to take proactive actions to prevent spread of palm diseases. Palms are economically and aesthetically important plants in Arizona. However, Fusarium wilt and Phytoplasma diseases are emerging deadly palm diseases that cause decline and death of palm trees.	$48,496.00

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Arizona Department of Agriculture	$1,313,145.69	17. Survey of Potential Reservoirs of Impatiens Necrotic Spot Virus	The University of Arizona Cooperative Extension is collaborating with Arizona lettuce industry to understanding the role of secondary hosts in Impatiens Necrotic Spot Virus (INSV) transmission to lettuce. These efforts will assist in developing weed management recommendations to reduce the impact of INSV for the Arizona lettuce industry. INSV is a thrips-borne virus that can potentially reduce lettuce productivity and thus, the competitiveness of the Arizona lettuce industry.	$47,229.00
Arizona Department of Agriculture	$1,313,145.69	18. User-friendly Venues for Dissemination of Updated Water Management Information	Over the past seven years, the University of Arizona's Yuma Center of Excellence for Desert Agriculture (YCEDA) has led a large research project which has collected updated crop water use (ET) and soil salinity impacts of 17 crops grown in the Lower Colorado River Basin. We propose to format all new water management information generated over the past 7 years into readily accessible user-friendly formats. The agriculture stakeholders have requested this as a venue to provide timely, science-backed information to producers, regulators, and policy makers.	$93,000.00
Arizona Department of Agriculture	$1,313,145.69	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$101,126.84
Arkansas Agriculture Department	$357,945.19	1. Assessment of Novel Watermelon and Cantaloup Varieties for Use in Arkansas	The University of Arkansas System Division of Agriculture will conduct field trials to assess the suitability of a diverse selection of melon cultivars in Arkansas, specifically assessing cantaloupe and watermelon in plasticulture production. This federally funded trial will provide unbiased results that will provide critical information about the novel varieties released by private companies. These results will improve decision making for variety selections and increase grower confidence when choosing whether to dedicate acreage to specialty crop production.	$30,734.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Arkansas Agriculture Department	$357,945.19	2. Developing Nutritious Spinach and Arugula for Hydroponics and Indoor Farming with Increased Tolerance to Diseases and Pests	The University of Arkansas System Division of Agriculture will evaluate and develop spinach and arugula cultivars with high nutritional components and disease and pest tolerance suitable for sustainable open vegetable cultivation in Arkansas and other states under indoor/hydroponics. Hydroponic spinach and arugula cultivation is still a new industry; thus, it needs system research efforts. Here we propose to evaluate nutritional components, tolerances to Pythium and aphids among the diverse germplasm and generate genetic resources to enhance breeding efficiency.	$76,595.00
Arkansas Agriculture Department	$357,945.19	3. Sustainable Management of Melonworm in Arkansas Pumpkin Production	The University of Arkansas System Division of Agriculture will develop sustainable pest management and production strategies to support the expanding Arkansas-grown pumpkin market, with a focus on the use of integrated pest management to address melonworm, a major pest of the crop, with dissemination through regular pest updates, fact sheets and a webinar.	$55,762.28
Arkansas Agriculture Department	$357,945.19	4. Expanding the Arkansas Quality Wine Program to Support the Arkansas Grape and Wine Industry	The University of Arkansas System Division of Agriculture will expand the Arkansas Quality Wine (AQW) Program established in 2020. The AQW program will implement quality standards by hosting a yearly wine competition for commercially produced Arkansas wines with an emphasis on wine made from Arkansas-grown grapes. This project team will generate consumer awareness of Arkansas wines by hosting wine tastings and workshops for grape growers, winemakers, and consumers. The AQW program will provide marketing and outreach activities to address challenges for the Arkansas grape and wine industry.	$48,338.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Arkansas Agriculture Department	$357,945.19	5. Growing, Tasting, and Marketing Specialty Crops in School	The Arkansas Department of Agriculture's Farm to School and Early Childhood Education Program will facilitate the development of school gardens and taste tests at schools, in addition increasing farmers' knowledge of farm to school, to increase the consumption of specialty crops in the classroom and cafeteria. The project purpose is to strengthen student knowledge of and consumption of specialty crops in Arkansas schools through the development or expansion of school gardens and cafeteria taste tests, in addition to increasing farmers' knowledge of farm to school as a potential market through producer trainings.	$67,675.00
Arkansas Agriculture Department	$357,945.19	6. Expansion of the Strawberry and Blackberry Industries in Arkansas Through Improved Visibility, Marketing and Crop Management	The University of Arkansas System Division of Agriculture and the Arkansas Blackberry Growers Association and MidAmerican Strawberry Growers Association will develop two coordinated marketing efforts and new crop management recommendations to support the expansion of these industries in the state of Arkansas. We propose to test and refine calcium and potassium fertility recommendations for Arkansas strawberry and cultural management practices including optimizing plant spacing and cane management for moveable trellised blackberry to support the expansion of these industries in the state.	$64,423.00
Arkansas Agriculture Department	$357,945.19	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$386.77

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California Department of Food and Agriculture	$23,411,759.30	1. Grown to be Great	The California Grown Buy California Marketing Agreement (BCMA) will implement a multi-platform digital campaign as well as retail and foodservice promotions to create strong support from the retail and food service trade and increase consumer demand for California specialty crops and specialty crop products. The multiplatform digital campaign will utilize contextually relevant media placements, deliver rich and engaging experiences within impactful media, integrate multiple influencer marketing programs, and utilize social media to reach consumers in shareable environments. Retail trade outreach will be conducted, and promotional partnerships will be established with key California retailers to execute retail promotion programs both in-store and through digital extension. The project's foodservice promotion component will support the reemergence of the foodservice industry in a post-COVID-19 environment.	$2,556,500.00
California Department of Food and Agriculture	$23,411,759.30	2. Hurdle Approaches for Enhancing the Safety and Quality of Kale, Chard, and Collard Green Juices	This University of California project aims to promote sales and market opportunities for California-grown dark greens by systematic evaluation of the antimicrobial efficacy of different non-thermal hurdle approaches, investigating their impact on the safety, quality, shelf life, and sensory attributes of dark green juice. Outcomes will provide preparation, production, and storage guidance documents for dark green growers and juice processors and promote their economic well-being.	$423,149.00
California Department of Food and Agriculture	$23,411,759.30	3. Reducing Consumer Confusion Through Clear Retail Signage for Sweet Potatoes	The Sweet Potato Council of California project seeks to increase sales of sweet potatoes by working with retailers to provide consumer education at point of sale. Messaging for consumers will seek to end confusion about yams versus sweet potatoes and provide recipes, usage ideas, nutrition facts and information on locally grown sweet potato varieties. Research shows consumers are interested in learning more about sweet potatoes. This project will test various merchandising strategies at retail designed to encourage purchases. The California sweet potato industry believes this situation presents an opportunity to engage with consumers providing them with information they are seeking on this superfood.	$242,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	4. When You Think Wine, Think Lake County – Reaching the Next Generations	This Lake County Winery Association project will create economic opportunities for Lake County wine producers and wine grape growers with a marketing campaign focusing on the regional markets of San Francisco and Sacramento, targeting millennials and Gen Z consumers. The development of concise brand messaging and a robust advertising and digital media campaign will promote the unique qualities of wine and wine grapes from Lake County. This project will incorporate the environmental attributes of the Lake County region as well as the additional exposure of up to 10 percent more ultraviolet light to expand market recognition, attract a new consumer audience, drive demand, and increase sales.	$437,563.00
California Department of Food and Agriculture	$23,411,759.30	5. Sharing California Prune Benefits to Build Sales Among United States Flexitarian Consumers	California prune growers have faced long-term price declines for their specialty crop: the most recent four-year price average is approximately 14 percent lower than the prior four years. Prices and returns increase when demand and sales can be built for high-value consumer prune products; selling more California prunes into this channel is needed for grower viability. Opportunity exists to achieve this by targeting United States flexitarians (those with a diet centered on plant-based foods; 14 percent of consumers in the United States). The Sunsweet Growers benefits and uses of California prunes will be promoted in a plant-based diet to this audience via a digital marketing campaign to drive California prune product sales and shift more prunes to this high-value use. The project's goal is to boost sales by $3 million, increasing grower returns.	$500,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	6. Driving California Raisin Awareness and Value as a Naturally Sweet and Nutritious, No Sugar Added Ingredient and Snack	California raisin producer returns declined almost 50 percent the last two years versus the 2018-2019 crop year and are currently below a breakeven level. Declines are, in large part, due to California supply exceeding demand; consumer demand for California raisins must be generated to sustain California's raisin producers and the greater industry. To rebuild needed consumer demand and producer economic viability, the Raisin Administrative Committee (RAC), representing 100 percent of the California raisin industry, will launch a social media influencer campaign sharing the nutritional benefits of California raisins and promoting the dried fruit as a no-sugar-added snack and ingredient. Communicating the value of California raisins will drive consumer sales and result in the project outcome of a 5 percent producer revenue increase (measured by crop acquisition tonnage x price) by the project end, as measured by published industry reports.	$480,000.00
California Department of Food and Agriculture	$23,411,759.30	7. Resilient School Food Systems: Increasing Regional Procurement of Specialty Crops	The Center for Ecoliteracy's Resilient School Food Systems project will build the capacity of schools to serve local specialty crops by, Convening a series of six Community of Practice (CoP) workshops-guided by regional interviews and a task force that bring together 100 school food leaders, community partners, and farmers; Facilitating regional celebrations of specialty crops at 15 school districts; Compiling recipes and authoring a guide on using local specialty crops to increase school meal participation, and 4) sharing success stories. Measurements of success include increased purchases of specialty crops in a sample of school districts, workshop participant knowledge gained about procuring and preparing specialty crops, and student knowledge gained about specialty crops.	$334,065.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	8. Solano County Specialty Crop Education and Training Program	This Sustainable Solano project creates cooking courses tailored to specific target audiences to increase access, consumption, and knowledge of specialty crops, supports an annual public event showcasing specialty crops from local farms and restaurants, and grows capacity for a healthy prepared meals program. There is great demand for education on specialty crops relating to health and the local food system. Bringing together multiple stakeholders to broaden and deepen the existing educational pilot project will connect new audiences (community leaders, medical students, entrepreneurs, and youth) to healthy specialty crops, promote consumption and cultivate an authentic, lasting appreciation. This project aims to strengthen relationships between farmers and their communities and ensure an expanded market that values specialty crops.	$469,260.00
California Department of Food and Agriculture	$23,411,759.30	9. “America’s Heartland” PBS Television Series and Website Showcases	Healthy foods can reduce a host of public health issues, yet many Americans' diets are seriously lacking in them. Key factors affecting consumer food choices are appeal, health impacts, cost, and accessibility. KVIE Public Television Focusing on these variables, a Public Broadcasting Service (PBS) ten-episode television series "America's Heartland" will air on more than 340 stations and the national RFD-TV cable/satellite channel. KVIE will increase consumption of California specialty crops by educating consumers about the health benefits of these foods and will include useful information on how to prepare and source them. Episode segments include farmer and crop stories, “Fast Facts About Food,” health and nutrition, cultural aspects, farm-to-fork cooking, sustainable production methods, and more. Program episodes, related recipes, viewer clips, ways to purchase, and other useful information will be added to websites, social media, and YouTube, with surveys administered at different times to measure the impact of the project.	$478,580.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	10. Be Inspired by the Bounty: Boosting Specialty Crop Consumption Among Central Valley Consumers	California Fresh Farmers Market Association (CFFMA), will host eight year-round certified farmers' markets reaching 500,000 individuals monthly, will launch a pilot educational campaign at its busiest markets including no-cost cooking courses featuring meals made with seasonal produce. Crop information and videos will be created and promoted for wider consumer reach. The project's goal is to increase sales of specialty crops grown by CFFMA's producers and boost 1,000 regional consumers' fruit and vegetable consumption by 50 percent, as measured through surveys.	$500,000.00
California Department of Food and Agriculture	$23,411,759.30	11. Transforming the Food Landscape in the San Francisco Bay Area Through Trauma-Based Nutrition and Culturally Relevant Interventions	Nutrition and food access interventions are often not culturally relevant to communities of color, nor do they acknowledge structural inequities and systemic racism faced by underserved communities. Fresh Approach project addresses the need to create inclusive food landscapes across the Bay Area through two main strategies. First, the project will advance a trauma-based model of nutrition intervention that is culturally and socially tailored and incentivizes access to specialty crops at farmers' markets for 28,715 low-income individuals. This model will be integrated within existing nutrition and wellness programs in 25 health clinics and community organizations. Next, the project will facilitate access for six beginning and/or marginalized farmers at farmers markets and promote their specialty crops through a culturally relevant outreach campaign.	$433,912.00
California Department of Food and Agriculture	$23,411,759.30	12. Cultivating Community Health Through Specialty Crop Education, Access, and Activation	National City is a low income, community of color with limited produce access, barriers to health education, and low land access. These inequities correlate with disproportionate chronic disease and food insecurity. The project goal is to improve the food system and health outcomes by increasing knowledge, access, consumption, purchasing, and production of specialty crops among 8,700 youth and adults.	$396,113.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	13. Increasing California Specialty Crop Competitiveness by Understanding and Addressing Farmworker Technical Training Priorities	Farmworkers make a thousand management micro-decisions every day impacting resource use, crop quality, and the economic competitiveness of California's specialty crop sector. The proposed University of California project seeks to develop appropriate agricultural extension materials for farmworker communities, which have historically been overlooked in extension efforts. The goal of this project is to increase farmworker knowledge of best agricultural practices, and success will be measured through field day formative assessments, key informant interviews, and targeted observations.	$470,336.00
California Department of Food and Agriculture	$23,411,759.30	14. Fostering Vine Health Amid Drought: Educating Winegrowers on Cutting-Edge Pruning Techniques for Sustainable Farming	Winegrape growers face unprecedented challenges, and the viability of this specialty crop is at risk. Extreme drought conditions are threatening vine health and vineyard lifespan. Lack of rain and available water for irrigation reduces sap flow, limiting root and vine growth, making vines vulnerable to wood diseases such as Eutypa, and threatening vineyard productivity. Growers need strategies to support sustainable vineyard operations. One of the most effective tools to foster vine health is pruning. Proper pruning promotes root growth, vine vigor, and disease resistance. This Lake County Wine Commission project will deliver training to 180 growers on innovative pruning techniques that address long-term vine health via seminars, in-the-vineyard trainings, and videos. Giving growers a valuable tool to support long-term viability of this important specialty crop.	$307,178.00
California Department of Food and Agriculture	$23,411,759.30	15. Organic Specialty Crop Training Courses for Growing More Diverse, Sustainable Small Farm Operations	The experienced team at the University of California, Santa Cruz (UCSC) is planning a new series of short courses and trainings in English and Spanish, tailored to help entry-level farmers successfully grow and market a broad range of specialty crops using environmentally sustainable methods. This project's goal is to deliver a wealth of organic specialty crop expertise through in-person and virtual trainings to small-scale, early career, and socially disadvantaged farmers.	$292,140.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	16. Strengthening the Agricultural Apprenticeship Pipeline: Providing New Farmers and Farm Managers for the Specialty Crop Sector	The goal of the California Farm Academy Apprenticeship program is to establish an effective pipeline that provides the specialty crop sector with highly skilled, capable, and knowledgeable farmers, farm managers, and supervisors. The Center for Land-Based Learning (CLBL) developed the first state-registered farm manager apprenticeship program in Northern California in 2018. The apprenticeship program structure included 3000 hours of on-the-farm training and 250 hours of supplemental instruction. In the last three years, CLBL developed the curriculum framework, engaged with farmers across the region, worked with specialty crop industry partners to identify workforce needs, and started engaging in the farmworker space. CLBL is now poised to further strengthen this program and expand it across the state while also developing an apprentice tract for farm workers that will provide them with the skills to become farm managers and supervisors.	$416,029.00
California Department of Food and Agriculture	$23,411,759.30	17. Nitrogen Budgeting in Organic Vegetable Production: Improving and Validating Tools for Growers	Organic vegetable production relies on organic sources to supply nitrogen (N) to the crops. Depending on the properties of these sources and environmental conditions, the amount of N that becomes crop-available during the growing season can vary considerably. This University of California project will develop a site-specific N budget worksheet for organic vegetable systems. A worksheet was created based on a previous Specialty Crop Block Grant Program (SCBGP) project and data from the literature. However, this worksheet needs to be validated in the field and a more robust estimate for N mineralization from soil organic matter needs to be included. To do that, trials will be conducted in commercial certified organic fields located in the southern Sacramento Valley and the southern Central Coast. The results of the project have the potential to make organic vegetable production in California more competitive and reduce the risk on N losses to the environment.	$370,462.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	18. Can Polyploidy Increase Drought Tolerance in Landscape Plants?	This University of California project aims to gain new knowledge of drought tolerance in landscape plants by measuring physiological stress of polyploids under water deficit to identify whether ploidy can be used as a tool to improve drought tolerance. Eight polyploids of four species will be measured to test the hypothesis that higher ploidy determines higher drought tolerance.	$488,232.00
California Department of Food and Agriculture	$23,411,759.30	19. Creating Nutritious and Highly Digestible Fermented Animal Feeds from Almond Hulls and Tomato Pomace	The goal of this University of California project is to increase the feed value of almond hulls and tomato pomace and biomass for the cattle industry. The research objectives are to develop new fermentation methods and produce probiotic and highly digestible feed; quantify the nutritional values of feed and potential for reducing enteric methane emissions of cattle and estimate the production cost; and disseminate results to stakeholders. The new method for producing fermented feed is expected to be practical and could increase the economic value of hulls and pomace by over 40 percent.	$425,888.00
California Department of Food and Agriculture	$23,411,759.30	20. How to Irrigate Nut Orchards Based on Expected Yields	Multiyear drought became a major problem for nut growers in California. How to irrigate orchards to maximize yield and assure survival is often make-or-break decision, yet there is very limited know-how that can help growers. This University of California project proposes to reduce the knowledge gap and use time and spatial approach to quantify impact of irrigation on future nut orchard performance. The general goal of the project is to determine the impact of matching irrigation to the spring estimates of year's yield on final yield and the following year's yield potential (maximum production capacity).	$364,442.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	21. Conversion of Almond and Walnut Hulls to Fungal Protein, Biogas, and Biofertilizers	The University of California project aims to produce fungal protein, biogas, and biofertilizers from almond and walnut hulls to increase the economic return to farmers and hullers and ensure sustainable management of these byproducts. The project objectives include fermentation process development to use hulls as the substrate for fungal biomass production, extraction of the protein from the fermentation residues, production of biogas and fertilizers from the organic waste generated from the process, and economic and life cycle analysis of the integrated process. Project success will be determined by the positive economic and environmental evaluations on the process, the farmers' willingness to adopt the new product.	$429,605.00
California Department of Food and Agriculture	$23,411,759.30	22. Almond-Alfalfa Intercropping in Young Orchards for Profitability and Sustainability	Almond is the most economically important perennial crop in California, adding $9.2 billion to the total economy. Diversification of a cropping system offers both economic benefits and ecosystem services. During early years, almond trees are non-bearing, but have interrow space that allows forage cultivation and harvest. Intercropping provides earlier and more frequent incomes for a new orchard and can confer soil health and ecosystem benefits, but these outcomes have not been evaluated in California almond orchards. USDA-ARD project goals are to provide scientific documentation of benefits of almond-alfalfa intercropping with regards to orchard soil fertility, water dynamics, profitability, and tree health. Results will be disseminated with growers and industry professionals during field days and via grower targeted publications, blogs, and in peer-reviewed journals. Research success will be evaluated by grower interest in or adoption of intercropping.	$401,312.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	23. Irrigation Strategies to Improve Water Productivity and Yield Quality of Olive Orchards in California	Olive acreage has increased in California within the last two decades, as well as challenges related to climate change and groundwater management policies. However, information on olive water uses and efficient irrigation practices for high density systems is scarce. This University of California project aims to develop and extend new information to enhance olive productivity through precision timing and quantities of irrigation. Project objectives are to characterize water use and develop crop coefficients for California oil and table olive orchards; Develop protocols to reduce water during drought tolerant phenological stages without impacting productivity but improving yield quality; and Develop irrigation guidelines to implement innovative proximate and remote sensing technologies in water management.	$427,151.00
California Department of Food and Agriculture	$23,411,759.30	24. California Winegrower Strategies and Tools to Mitigate and Adapt to Climate Change	Given the climate crisis and related pressures, California winegrowers must mitigate and adapt to climate change. Potential impacts and climate beneficial practices have been identified in prior research; however, actionable guidance, sound strategies and training, tools, and resources are needed to expand climate smart practices in vineyards and wineries. The California Sustainable Winegrowing Alliance goals of this project are to: 1) Conduct a literature review of scientific research and create summary report; 2) Create a "toolbox" of climate smart practices, resources and tools, case studies and videos that winegrowers can use to create mitigation and adaptation strategies; 3) Assist winegrowers with cost-share opportunities; 4) Disseminate strategies and tools via 10 plus workshops and webinars for over 500 winegrowers, newsletters and website; 5) Develop communication materials to inform over 6,000 growers, trade and consumers about California wine's climate action; and 6) Evaluate success by number of participants using toolbox and increased adoption of practices.	$454,982.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	25. Boron Removal from Irrigation Waters: Biological Principles and Derivation of Maximum Crop Tolerance Levels	Boron (B) toxicity limits the utility of a significant amount of the underutilized irrigation resources in California; understanding of the management of irrigation B is, however, inadequate. This University of California project will determine the acute, chronic, and phenology-critical impact of B in irrigation water on almond performance. This information will assist growers, water district managers, and regulators with strategies for the management of B in irrigation and drainage waters by providing specific information on the B rate and B timing that results in negative crop impact. While this project is made possible by the availability of a new B removal technology, irrigation B reduction can also be achieved by blending irrigation sources or by selecting the time of year when the B compromised irrigation source is used. This project will also establish the critical rates and times of B exposure that impact crops and, hence, inform management of B in irrigation and drainage waters.	$307,020.00
California Department of Food and Agriculture	$23,411,759.30	26. Production of Short, Medium, and Long Season Specialty Crops in High-Residue, No-Till Farming Systems	A Rodale Institute two-year field experiment will be carried out at the Rodale Institute, California Organic Center in Camarillo, CA to evaluate production of transplanted specialty crops including zucchini, pepper, and eggplants using regenerative practices compared to conventional practices. The project team will evaluate yield and quality of transplanted vegetables in high residue no-till systems where weed management will be facilitated using roller-crimped cover crops compared to the standard management (weed control using plastic mulch or frequent tilling). The team will also evaluate and document the effects of high residue no-till systems on soil organic matter, soil health, soil water holding capacity, and water use efficiency. An economic analysis will be performed to show the viability of specialty crop production using regenerative practices. Results will be disseminated via on-farm field days, web articles, webinars, and conference presentations.	$248,004.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	27. Developing Sustainable Strategies to Adapt California Walnut Production to Warmer Winters Under Climate Change	Warmer winters due to climate change threaten sustainable walnut production through increased costs and decreased yields. Walnuts need a high amount of winter cold to bloom and leaf-out normally in the spring. “Dormancy Breaking Strategies" (DBS) known to compensate for inadequate winter chill in other crops and competing countries have not been widely tested in California walnuts. This University of California project's goal is to give California walnut growers environmentally sound and profitable tools to adapt existing orchards to warmer winters by testing at or near-market DBS for efficacy, testing additional chemistries to inform future research, and increasing understanding of the physiological impact of DBS to improve their efficacy. Project success will be measured by finding at least two DBS that adapt walnuts to warmer winters, increasing knowledge among growers of these DBS, and increasing knowledge of physiological metrics to improve DBS effectiveness.	$366,732.00
California Department of Food and Agriculture	$23,411,759.30	28. Comprehensive Utilization of Olive Byproduct for Improved Economic Feasibility and Environmental Sustainability	California is the largest olive oil producer in the United States. The production of olive oil generates a list of byproducts, including olive mill wastewater, olive pomace, and olive pit. Among those byproducts, olive pomace is currently used as cattle feed (valued at $10 - $50 per ton), while there is no efficient treatment for olive mill wastewater and olive pit. Each year, more than 800,000 tons of olives are produced in California, leaving the olive byproducts as a significant environmental and economic burden. This Cal Poly Corporation study proposes a biorefinery strategy to improve the economic profitability and environmental sustainability of olive byproducts including four objectives : Extract phenolic compounds as value-added antioxidants; Produce biogas from olive pomace by enzymatic treatment and anaerobic digestion; Produce biochar from olive pit for wastewater and soil treatment; Undertake a techno-economic and life-cycle assessment to determine the economic feasibility and environmental impact of olive byproducts.	$425,978.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	29. Application of Spectral Soil Carbon Measurement and Artificial Intelligence-Driven Analytics to Increase Competitiveness of California Specialty Crops	Specialty crops in California are subject to increasing climate vulnerability and degraded soils. Yet, growers lack cost-effective tools to manage soil health. The cost of conventional soil carbon measurement makes most soil carbon markets uneconomical. Soil carbon markets work overwhelmingly with Midwest commodity crops, excluding California growers. This Yard Stick PBC project will research the application of spectral soil carbon measurement and artificial intelligence-driven analytics software to the California specialty crop market. The technology's technical feasibility has been proven in the Midwest, but it requires regionalized machine learning models and upgraded hardware to be appropriate for California specialty crops. Researchers will assess whether the technology achieves parity with best-available conventional testing methods. Once adapted to specialty crops, the system will reduce soil carbon measurement costs by 90 percent, unlocking billion-dollar soil carbon offset markets and providing growers with tools to manage soil health.	$473,424.00
California Department of Food and Agriculture	$23,411,759.30	30. Stacking RNAi-Based Resistance to Phytophthora, Crown Gall, and Nematodes in Almond and Walnut Rootstocks	This USDA-ARS project addresses the program of preventing and managing pests and diseases to minimize economic and environmental harm to specialty crop farmers. The project proposes to stack RNAi resistances to Phytophthora, crown gall, and potentially root-lesion nematode in almond and walnut rootstocks, thereby improving efficiency and sustainability of almond and walnut production.	$499,733.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	31. Flattening the Curve on Branched Broomrape - Reducing the Threat to the California Processing Tomato Industry	The parasitic weed branched broomrape (Phelipanche ramosa) is a critical threat to the processing tomato industry and could be a risk to other specialty crops grown in California. Because it is an "A-listed" weed, infested crops usually are destroyed without harvest, resulting in 100 percent economic loss. This parasite plant is a prolific seed producer, and the seed can survive in soil for many years. The University of California focus of this project is on developing and extending interventions tomato farmers can take to "flatten the curve," by reducing the incidence of this weed and reducing spread within the region and to other regions of California. Specifically, this project will build on previous research on chemical management of this unique weed, examine cultivar sensitivity data to guide future breeding efforts, and conduct vital equipment sanitation.	$448,710.00
California Department of Food and Agriculture	$23,411,759.30	32. Drone-Based Biological Control of the Vine Mealybug in California Vineyards	Releasing predators and parasitoids as a biological control method for the management of vine mealybug (VMB) has been studied for over a decade. However, biocontrol in vineyards has been underutilized, in part due to the challenges of applying natural enemies in large areas and the absence of established, economically viable protocols. The UAV-IQ project team has developed operational and technological capabilities to fly drones equipped with intelligent release systems directly over crops to release beneficial insects and mites. It has generated positive results in numerous crop types, which supports the hypothesis this method can be effective for vine mealybug control in vineyards. This project will evaluate the effectiveness of predators Cryptolaemus montrouzieri (C. montrouzieri) and parasitoids Anagyrus pseudococci (A. pseudococci) released by drones in vineyards to control vine mealybug and aims to develop economically viable treatment protocols. Project success will be measured by a reduction in vine mealybug abundance in treated vineyard blocks.	$158,773.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	33. Establishment and Evaluation of Ganaspis brasiliensis to Suppress Spotted Wing Drosophila	Spotted-wing drosophila (SWD) is a world-wide invasive pest and, in California, can severely damage specialty fruits, such as caneberries, strawberries, and cherries. SWD control currently relies on repeated insecticide applications, which can harm beneficial insects, lead to secondary pest outbreaks, and leave toxic residues on fruits. This University of California project will release the beneficial wasp Ganaspis brasiliensis (G. brasiliensis), to improve areawide SWD bio-controls. Project subobjectives are to Improve mass rearing; Conduct releases throughout California's susceptible specialty crops; and Evaluate effectiveness and adjust release procedures as needed.	$412,620.00
California Department of Food and Agriculture	$23,411,759.30	34. Impact of Brevipalpus Transmitted Viruses on the Production and Export of California Citrus	This University of California project will determine whether native Brevipalpus mites found in citrus can vector Brevipalpus transmitted viruses (BTVs) that cause citrus leprosis and will develop educational materials for vector and disease management. The vector status of the two native mites is needed to inform the possible regulatory and management approaches needed for citrus leprosis in California. Educating growers about the native mites and BTVs allows for more timely detection and mitigation of BTVs when they enter California, reducing the impact of this disease.	$453,701.00
California Department of Food and Agriculture	$23,411,759.30	35. Identifying Landscape Variables and Cropping Patterns Associated with Viral Epidemics in Lettuce	In recent years, lettuce production in the Salinas Valley was severely impacted by Impatiens Necrotic Spot Virus (INSV). INSV is transmitted by thrips, a tiny insect pest with an extensive host range that includes numerous crops that are part of a diverse agricultural system within the Salinas Valley. While this scenario creates management challenges, there are opportunities to identify landscape variables that influence virus outbreaks. The USDA-ARS goals of this project are to characterize the migration patterns of thrips between lettuce and non-lettuce crops and identify problematic areas that support populations of thrips vectoring INSV. Outcomes will result in a greater understanding of cropping and landscape factors that pose the greatest risk for thrips infestations and INSV outbreaks in lettuce crops.	$283,148.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	36. Development of Innovative Approaches to Manage Botryosphaeria Branch Canker and Dieback in California Avocado	Recent surveys of young and mature avocado groves have shown that Avocado Branch Canker (ABC), caused by several Botryosphaeriaceae, is well established in all growing areas, with incidences been accentuated by drought as experienced in California. These fungi mainly infect trees through wounds, causing death of graft union, dieback, and canker. They are very difficult to control once inside the plant and the absence of registered materials for treating pruning and grafting wounds is a serious concern for the avocado industry. This University of California proposal will assess the impact of ABC in relation to cultural practices and abiotic stressors and provide ABC management solutions to avocado stakeholders. Its success will be measured using pre- and post-project surveys evaluating grower's education, tool adoptions and associated benefits.	$234,100.00
California Department of Food and Agriculture	$23,411,759.30	37. Assessing the Effect of Exogenous Silicon Application on Yield and Quality of Lettuce Produce	The application of exogenous silicon (Si) can enhance growth and quality of diverse crops such as soybean and tomato (Souri et al., J. Plant Growth Regul, 2021, 40:906–925) but its effect on lettuce production has not been sufficiently tested. This USDA-ARS project proposes to investigate the effect of Si on the growth, stress response, and postharvest quality of lettuce, the factors affecting Si effect, alongside with the study of molecular basis of its effect. Understanding the effect of exogenous Si on lettuce yield, quality, and their stability will help to sustain the supply of high-quality lettuce in changing climate. The project will be successful if the effectiveness of Si application is tested on at least 15 cultivars in replicated trials using evaluations of their yield, resistance to abiotic stress factors, pests, diseases, and postharvest quality.	$323,950.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	38. Development of a Rat Specific Toxicant for the Protection of Specialty Crops	California's citrus farmers are no longer able to control rats using anticoagulants due to a lack of efficacy. Moreover, social acceptance of anticoagulants is shifting and more regulations governing their use are being adopted. To address these concerns, this U.S. Department of Agriculture, Animal and Plant Health Inspection Service proposal will develop a novel rat specific toxicant DR8, a norbormide analog, through oral gavage and feeding trials. A novel bait matrix will also be developed by testing the preference and acceptance of possible ingredients and attractants by black rats. The team will measure the success of this project by the efficacy of the final bait formulation containing the DR8. This will be done by offering the DR8 bait to rats in addition to their normal food ration. This will be done both in individual cages and in a colony (group housed) setting. This models the likelihood of rats to consume and die from the bait in citrus fields where other food sources are available.	$376,446.00
California Department of Food and Agriculture	$23,411,759.30	39. Development of Immuno-detection for Lettuce Dieback Associated Virus and Greenhouse Evaluation of Lettuce for Resistance	Lettuce dieback causes stunting, necrosis, and often complete loss of lettuce crops, but diagnosis has been challenging because the disease was believed to have been caused by two tombusviruses (Moroccan pepper virus (MPV) or Tomato bushy stunt virus (TBSV)) that are inconsistently associated with the disease. At best either MPV or TBSV can be found in only 60 to 70 percent of symptomatic plants. Recent studies demonstrated that a novel virus, now called lettuce dieback associated virus (LDaV), is responsible for causing the disease and its presence in infected lettuce is highly correlated with lettuce dieback. This USDA-ARS project will: Develop antiserum for the detection of LDaV that can be used for serological detection; Clone LDaV and develop an agro-inoculation system for easier inoculation of plants during greenhouse evaluation of germplasm for LDaV resistance; Determine if disease symptoms on lettuce are more severe when plants are infected by LDaV along with either tombusvirus, or by LDaV alone.	$237,824.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	40. High Throughput Phenotyping of Downy Mildew Resistance in Baby Leaf Salad Greens	Cultivated arugula (Eruca sativa), wild arugula (Diplotaxis tenuifolia), and baby kale (Brassica oleracea) make up a significant portion of California's baby leaf salad greens market. Downy mildew, caused by Hyloperonospora parasitica, presents a major threat to baby leaf salad greens production. Disease control has relied on fungicides due to the lack of downy mildew resistant varieties. To help growers and breeders develop downy mildew resistant varieties and accelerate the phenotyping process, this Cal Poly Corporation project proposes to develop a method to use multispectral imaging for high throughput phenotyping. This technique facilitates downy mildew resistance breeding through early detection and fast screening of downy mildew in baby leaf salad greens.	$157,201.00
California Department of Food and Agriculture	$23,411,759.30	41. Investigating the Impact of Biofungicides on Wine Grape Disease Control and Wine Quality	The fungal pathogens Erysiphe necator and Botrytis cinerea cause powdery mildew and Botrytis bunch rot in wine grape, respectively. Both diseases are difficult to control due to their resistance against many synthetic fungicides as a result of repetitive use of fungicides with similar modes of action. Therefore, they pose tremendous threat to the wine grape industry in California. The proposed Cal Poly Corporation project focuses on, identifying the effective and economic use of biofungicides in wine grape powdery mildew and Botrytis bunch rot management, and studying the effect on microbial community especially pro-fermentation microbes and the subsequent wine quality when using biofungicides solely and integrated in programs.	$261,265.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	42. Improving Integrative Pest Management in California Leafy Greens Using Emergent Agricultural Technologies	Leafy greens farmers in California face potential losses from aphids and thrips, the most problematic pests. Aphids are omnipresent, can flare to severe levels, and cause contamination losses even at low numbers. Thrips vector Impatiens Necrotic Spot Virus (INSV) and have been very problematic in recent years, causing over $25 million in losses in 2020. This multi-faceted project aims to develop and optimize new technologies to advance Integrated Pest Management (IPM). This University of California project will evaluate precision insecticide applications using an automated thinner to better use insecticides in lettuce by reducing material applied and improving efficacy. The project will also validate drone-released natural enemies to improve biocontrol in lettuce production systems using whole-field, insectary planting, and field border releases. Project success will be measured in terms of knowledge gained and research goals accomplished.	$245,707.00
California Department of Food and Agriculture	$23,411,759.30	43. Implementing Area-Wide, Long-Term Programs for Biological Control of Aflatoxin/Ochratoxin in Nut Crops in California	Mycotoxins pose health risks to consumers, are regulated in foods worldwide, and affect nut growers' revenue when their product is rejected from the market. Currently, the only proven method to reduce aflatoxin contamination is the use of atoxigenic Aspergillus flavus (A. flavus) strains as biocontrol. However, in California nut and fig orchards, this biocontrol treatment does not reach its full potential, mainly due to cross effects between treated and untreated orchards where toxigenic strains from untreated orchards move to treated orchards. Area-wide programs, where all crops susceptible to mycotoxins will be treated with a biocontrol, could reduce the risks of cross effects by increasing the rates of atoxigenic strains and reducing the toxin producing potential of the population. The University of California research will focus on establishing bases to implement area-wide, long-term programs, including developing additional atoxigenic strains and application strategies for timely delivery of the biocontrol.	$337,257.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	44. Characterization of Lettuce Resistance to Impatiens Necrotic Spot Virus	California's Monterey County harvests 100,000 acres of lettuce (Lactuca sativa L.) annually at a value of $1.2 billion. In recent years, incidence of Impatiens Necrotic Spot Virus (INSV) has increased significantly causing devastating losses to lettuce production. Genetic resistance is the most economical and environmentally sound control method, but no complete resistance to INSV has been identified. Therefore, further characterization of this resistance and development of improved lettuce germplasm is imperative. With USDA-ARS goal of releasing INSV resistant lettuce, the objectives are to: 1) combine two sources of partial resistance into a single genotype, 2) characterize inheritance of INSV resistance, and 3) develop improved crisp head and romaine germplasm. Success will be indicated by releasing new lettuce germplasm, publications, citations, and requests for seeds and information.	$275,069.00
California Department of Food and Agriculture	$23,411,759.30	45. Microbiological Risk Assessment Using QMRA in Preharvest Agriculture Water Treatment Systems for Leafy Greens	The Center for Produce Safety (CPS) will partner with University of Arizona to evaluate how agricultural water treated with common sanitizers may impact human pathogens established on leafy greens or in soil. This project will directly address these knowledge gaps through laboratory evaluations and in-field evaluations over two growing seasons, using agricultural water treated with peracetic acid or calcium hypochlorite, and then using the data collected to conduct a quantitative microbial risk assessment (QMRA) for Shiga-toxigenic Escherichia coli (E. coli) in leafy greens (romaine and spinach). Success of the project will include a comprehensive understanding of the impact of residual agricultural water treatment chemistries on pathogen persistence in water, on plant tissues, and in soil, and how that relates to risk. The scientific data generated can be used by growers to justify enhanced benefits of antimicrobial water treatment, beyond die-off of organisms found in agricultural water alone. Ultimately, the project aims to provide growers and regulators with an improved understanding of the impact of water treatment on risk reduction for consumers.	$439,931.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	46. Testbeds for Microbial Source Tracking Using Microfluidic Paper-Based Analytical Devices	The Center for Produce Safety (CPS) will partner with Purdue University to provide a site-specific risk-assessment tool for fresh produce operations that are adjacent or nearby to an animal operation. Pathogen contamination on fresh produce can lead to serious health issues. These pathogens often originate from animal feeding operations that are in proximity to fresh produce operations. Current methods for preventing such contamination are based on guidelines of maintaining a certain distance between animal and produce operations. However, these guidelines do not provide information that is specific to a particular site. This project will test a novel growers' risk assessment biomarker investigative tool kit in locations that have nearby animal and produce operations. The tool detects DNA from feces of animals (swine, poultry, cattle) using a paper-based device and produces a color change (like a pH strip). The tool also incorporates data from local weather conditions and air quality to determine their influence on the contamination risk. Results of this study will be summarized in project reports, presented at the annual CPS Research Symposium, and published in peer-review journals.	$431,874.00
California Department of Food and Agriculture	$23,411,759.30	47. A Metagenomic Approach to Food Safety Risk Mitigation in Pears	The Center for Produce Safety (CPS) will partner with Virginia Polytechnical Institute and State University (Virginia Tech) to determine the microbiome profiles of marketable and unmarketable fresh pears. Research on conditions that can support the growth of foodborne pathogens on fruit surfaces has primarily been focused on fresh apples or stone fruit, leaving the pear industry without science-backed recommendations to prevent contamination or control microbial growth under industry-relevant conditions. To help inform the pear industry, this project will conduct experiments to better understand the pear surface microbiome before storage, how the storage environment impacts the microbiome of marketable and unmarketable pears, and how key organisms in the microbiome can impact food safety risks, such as Listeria monocytogenes, throughout pear storage. Results from these studies will yield data for the fresh pear industry on metagenomic profiles of marketable and unmarketable pears.	$366,580.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	48. Control of Salmonella and Listeria Monocytogenes on Peaches through Spray-Bar Brush Bed Sanitizer Intervention	The Center for Produce Safety (CPS) will partner with Washington State University to provide data on the antimicrobial effectiveness of sanitizer treatments in peach packing lines. Recent multistate foodborne illness outbreaks linked to peaches and other stone fruits indicate that Salmonella and Listeria monocytogenes can survive and persist during production and postharvest handling and packing, highlighting the need to control these pathogens. Although sanitizers interventions have been used in stone fruit processing, there is a lack of data on the antimicrobial efficacy of current sanitizers under commercial packing conditions for peaches. To address this knowledge gap, this project will first validate the efficacies of selected sanitizers against Salmonella and L. monocytogenes on peaches at the lab scale and in a pilot-scale spray-bar brush bed system, and then verify the selected sanitizer interventions in multiple commercial peach packing lines. Critical operating parameters for chlorine and chlorine dioxide will be assessed and compared with two other commercial sanitizers, peracetic acid and JC9465 (an oxidizing wash process aid). Also, this project will evaluate Enterococcus faecium NNRL B-2354 as a surrogate for Salmonella and L. monocytogenes on peaches for the sanitizer intervention studies.	$434,426.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	49. Supplementing Food Antimicrobials in Commercial Edible Coatings to Enhance the Safety and Extend the Shelf-Life of Stone Fruits	The Center for Produce Safety (CPS) will partner with the University of Tennessee to evaluate commercial edible coatings supplemented with commercial food antimicrobials to enhance the safety and extend the shelf life of stone fruits. This project will supplement five commercial coatings for stone fruits with generally-recognized-as-safe food antimicrobials effective against common foodborne pathogens and fungi. The physical, chemical, and antimicrobial properties of various edible coating–antimicrobial formulations will first be established. Selected antimicrobial coating formulations will be applied on yellow peaches and white nectarines inoculated with Escherichia coli O157:H7, Listeria monocytogenes, and Salmonella enterica, and the survival of these pathogens and native fungi, as well as the quality and decay of the coated fruit, will be evaluated during storage at simulated retail conditions. The project findings will contribute directly to the enhanced microbial safety and extended shelf life of stone fruits.	$351,967.00
California Department of Food and Agriculture	$23,411,759.30	50. Optimizing Methods for the Detection and Quantification of Infectious Human Norovirus from Fresh Berries Using Human Intestinal Enteroids	The Center for Produce Safety (CPS) will partner with University of Georgia to optimize the detection of infectious viral pathogens, human norovirus (HuNoV) and hepatitis A virus (HAV), from berries. Berries can become contaminated with these viral pathogens that originate in human feces, leading to gastrointestinal illness outbreaks, chronic health complications, and product recalls. The sources of berry contamination include unhygienic food handlers and contact with unclean water or food-contact surfaces. This project will harness the latest technology in norovirus cell culture to first optimize the standard extraction and detection methodology to recover infectious HuNoV and HAV virus from berries, and then fill critical knowledge gaps regarding detection and persistence of these viruses in common types of fresh berries postharvest. Early detection of infectious viruses in berries will provide better protection for consumers and for industry to avoid recalls of contaminated product. The outcomes of the project will be an improved detection method for industry and regulators and a better understanding of the risks associated with the presence of viruses on berries.	$221,269.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
California Department of Food and Agriculture	$23,411,759.30	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$1,449,904.01
Colorado Department of Agriculture	$824,248.02	1. Consumer Outreach Through Bus Tours and Colorado Reader	The Colorado Fruit & Vegetable Growers Association (CFVGA) will offer deeper consumer education of produce farming and nutrition through public bus tours and a Colorado Reader-produce edition. Bus tours will focus on adult education, while the Colorado Reader will focus on upper elementary student and teacher education.	$22,000.00
Colorado Department of Agriculture	$824,248.02	2. Promotion of Colorado Produce to Commercial Buyers	The Colorado Fruit & Vegetable Growers Association will encourage commercial produce buyers to buy for the first time or to increase their purchases of Colorado produce by contracting a professional chef and nutritionist to extol how increased produce consumption from local sources improves human gut health and immunity. The contractor will provide cooking demos and nutrition talks to groups of commercial produce buyers, explaining how local produce can improve consumer health.	$15,715.00
Colorado Department of Agriculture	$824,248.02	3. Nursery and Greenhouse Spanish and English Continuing Education Live Classes and Videos	The Colorado Nursery and Greenhouse Association will provide classes and training for greenhouse and nursery staff to increase their technical knowledge about nursery and greenhouse crops. Our industry is diverse, and many of our staff are Spanish speaking. Providing online (video) training helps us reach members and staff who can't attend classes in person, including members and their employees in parts of the state where we are not able to offer classes as frequently, such as on the Western Slope. There is also a need for classes for our Spanish-speaking members and employees, so they are equally served in our training processes. Providing for digital capture of both English and Spanish training ensures that members and employees can take part in the same training if they can't attend the live classes.	$25,150.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Colorado Department of Agriculture	$824,248.02	4. Expanding Potato Exports to Mexico	The Colorado Potato Administrative Committee will establish a potato promotion program in the interior of Mexico working with retailers and importers in Mexico. Working with our consultant in Mexico, G&G Gestoria en Comercio Exterior, we will partner with interested retailers to promote Colorado Potatoes through in-store displays, sample demonstrations, point of sale displays, recipe postcards, and posters. We will conduct market analysis to determine the best potential importer partners and provide them with point of sales material for their customers. This program will establish brand recognition for Colorado Potatoes in Mexico and increase the demand for Colorado Potatoes in Mexico.	$80,000.00
Colorado Department of Agriculture	$824,248.02	5. Evaluation of AgriPhotoVoltaics for Grape Production in Western Colorado	Colorado State University will evaluate the effect of solar panels placed above grapevines (AgriPhotoVoltaics) on grape yield and quality, environmental conditions (temperature, relative humidity, solar radiation, wind speed, soil moisture), and temperature stress (heat and cold) and disseminate results to specialty crop growers through field days and conferences. The long-term goal of this project is to determine if AgriPhotoVoltaic (APV) systems will provide benefits to perennial cropping systems (wine grapes and tree fruit) in the hot, semi-arid growing region of Western Colorado.	$152,643.00
Colorado Department of Agriculture	$824,248.02	6. Introducing Labor Saving AG Tech and Fostering the Best Solutions for Colorado Growers	Colorado State University Extension will address workforce recruitment and retention issues on Colorado vegetable farms by delivering farm field days in 2023 and 2024, demonstrating private sector labor saving technologies for up to 50 beneficiaries with 25 reporting technical knowledge gained about producing vegetable crops.	$12,728.10

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Colorado Department of Agriculture	$824,248.02	7. Specialty Crop Production Research, Technical Support, and Coordinator for Colorado Growers: 2023	The Colorado State University (CSU) Specialty Crops Program (SCP) will enhance the competitiveness of specialty crops in the state by conducting applied research that will enhance growers' capacity to apply sustainable practices to their production systems. The mission of the CSU SCP is to empower growers and producers throughout Colorado by supplying them with science-based information to inspire innovation, competitiveness, and success. The Program collaborates with researchers both in Colorado and nationally to address the needs of specialty crops producers. Projects will include studies to increase yield, reduce inputs, increase efficiency, increased economic return, and/or conservation of resources. The results will be disseminated to stakeholders through grower meetings, our website, and a field day. In addition, the SCP Coordinator will convene a group of other SCBGP project leads at a conference in Denver, CO to enhance communication between specialty crops projects across the state.	$90,192.00
Colorado Department of Agriculture	$824,248.02	8. Supporting Organization of Two Conferences with Colorado Fruit and Vegetable Growers Association (CFVGA)	Colorado State University Extension will lead the Colorado Fruit and Vegetable Growers Association to develop, deliver and evaluate an annual conference and labor conference in 2023 with 70 stakeholders gaining technical knowledge about producing specialty crops. A 2023 CFVGA produce labor conference will be held to further address the ongoing labor challenges of Colorado produce farms.	$28,226.86

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Colorado Department of Agriculture	$824,248.02	9. Web-Based Peach Cold Hardiness Prediction Tool for Grower Frost Control Informed Decision-Making	The Colorado State University will address peach cold damage challenge in Colorado through cooperation among researchers, tree fruit growers and agricultural professionals and will develop decision-support tools to mitigate cold damage. More specifically the team will develop peach cold hardiness prediction models, validate the performance of cold hardiness prediction models across different CO locations and develop a web-based cold hardiness forecast tool by integrating prediction models with weather stations. This project will enhance the competitiveness of the peach industry in Colorado by increasing productivity and profitability and has become a research priority of the industry. Farmer decision-making will be impacted through website access to the developed tools and via multiple grower educational activities.	$96,854.00
Colorado Department of Agriculture	$824,248.02	10. Improved Irrigation Management for Sustainable Potato Production in Colorado	GeoVisual Analytics will help advance irrigation scheduling capabilities towards cost-effective, precise, and uniform water application, specific to potato farmers in the San Luis Valley but applicable to other Colorado specialty crops. GeoVisual will track scheduling recommendations, soil moisture measurements and crop conditions during field trials for a better understanding of crop irrigation needs in relation to actual applied amounts. This information will be used to identify and share with the grower community best-of-class technologies and practices to help drive water conservation and sustainable water use.	$95,354.61

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Colorado Department of Agriculture	$824,248.02	11. Pueblo Chile 2.0	The Greater Pueblo Chamber of Commerce will work with the Pueblo Chile Growers Association to launch Pueblo Chile 2.0, an awareness & educational campaign. Sample kits and promotional materials will be distributed to wholesale food distributors, buyers, retail establishments, culinary professionals, restaurants, and institutional kitchens showcasing the unique and outstanding characteristics of the Pueblo Chile. The Greater Pueblo Chamber of Commerce will work with the Pueblo Chile Growers Association on an awareness & educational campaign focusing on wholesale food distributors, buyers, retail establishments, culinary professionals, restaurants, and institutional kitchens on the unique and outstanding characteristics of the Pueblo Chile.	$105,000.00
Colorado Department of Agriculture	$824,248.02	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$67,290.80
Connecticut Department of Agriculture	$436,671.91	1. Reduction and Diagnosis of Transplant Shock in Landscape Trees in Connecticut Nurseries and Urban Sites	The Connecticut Agricultural Experiment Station (CAES) will partner with Connecticut city tree planting programs and nurseries to test mycorrhizal inoculation in order to reduce transplant shock in landscape trees and develop diagnostic tools to detect and predict transplant shock. The project has two goals: 1) quantify benefits of mycorrhizal inoculation on transplant shock of 300 landscape trees in urban tree planting sites and partnering nurseries, and 2) use non-structural carbohydrates as a diagnostic tool for quantifying the benefit of mycorrhizal inoculation for tree health, and for predicting tree survival.	$96,313.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Connecticut Department of Agriculture	$436,671.91	2. The Effects of Management Practices on the Nutritional Quality of Cut-and-Come-Again Greens from Urban Farms in Connecticut	The Connecticut Agricultural Experiment Station (CAES) will analyze the mineral nutrient content of successive harvests of greens grown using cut-and-come-again harvesting practices in a controlled experiment and on urban farms to identify the effect of different management practices on crop quality and develop cut-and-come-again production guidance. Greens are a high-value crop with high nutrient content and relatively quick growing times. This makes them a valuable crop in urban agriculture where space is limited, and food security is a motivational factor. Information gained from the analysis of leaf samples from farms using cut-and-come-again harvesting will enable us to identify management practices that promote high quality greens, especially from later harvests, and start to develop management guidance.	$58,494.69
Connecticut Department of Agriculture	$436,671.91	3. CT Farm to School – Supply Chain Facilitation and Training	UConn Extension will increase the number of active supply chain relationships between farmers, food hubs, and school buyers leading to an overall increase in the volume of locally grown products served in K-12 school districts.	$99,629.00
Connecticut Department of Agriculture	$436,671.91	4. Bolstering Specialty Crop Production Through Farmer-to-Farmer Tool Lending and Education	The New CT Farmer Alliance (NCTFA), a fiscally sponsored chapter of the National Young Farmers Coalition, will bolster specialty crop production by coordinating an active network of tool sharing for farmers in Connecticut and nurturing a strong web of farmer-to-farmer support and education across the state. New and beginning farmers will participate in community building events and trainings to help build a culture of cooperation and to learn from their peers about best practices in tool sharing, specialty crop production, and environmental sustainability. As a result of this project, farmer participants will be empowered to manage their production of specialty crops and more acres more effectively and sustainably will be brought into specialty crop production.	$35,632

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Connecticut Department of Agriculture	$436,671.91	5. Conducting a Feasibility Study for a Plant-Based Food Innovation Center in Connecticut	The University of Connecticut, College of Agriculture, Health, and Natural Resources will conduct a feasible study to determine the need for a plant-based food innovation center in Connecticut. The food innovation center would provide translation research to help growers and producers develop new plant-based products to benefit the state economy. The proposed project is expected to enhance all specialty crops grown in Connecticut.	$60,700.65
University of the District of Columbia	$243,001.17	1. Specialty Crop School Garden Support Program at the Washington Youth Garden	Friends of the National Arboretum will build on lessons learned from previous SGBGP grants to increase youth awareness, access, and enjoyment of specialty crops through a comprehensive School Garden Support Program, consisting of the Summer Institute for Garden-Based Teaching, the school-year Educator Coaching Program, and student activities including field trips, Garden Lessons, and grow-at-home kits. Over 10,000 youth in grades K-6 and over 900 adults from Title 1 schools in Wards 5, 7, and 8 will have increased knowledge of, increased access to, and/or increased technical knowledge of how to produce specialty crops.	$71,290.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
University of the District of Columbia	$243,001.17	2. Conducting Sensory Panels to Evaluate Consumer Acceptance of a New Specialty Crop, Hikudrum™ 'Yao green' Hibiscus	The University of the District of Columbia (UDC) will collaborate with the Food Quality Laboratory at the USDA-ARS to conduct sensory panels of Hikudrum™ 'Yao green' hibiscus. 'Yao green' is a new specialty crop currently being evaluated for plant variety protection. Currently, the only major commercial variety of edible hibiscus is a red variety, often known as 'Thai red.' Prior research at UDC indicates that 'Yao green' is a superior plant to cultivate in the Mid-Atlantic region and equally nutritious to 'Thai red.' The main difference between the two varieties is that 'Yao green' has green plant parts, including its calyx, whereas 'Thai red' has red plant parts. This influences the color of the food products made from these two plants and may alter consumer preference. We will grow 'Yao green' and 'Thai red' at UDC's Agricultural Experiment Station and harvest leaves, flowers, and calyces. Organoleptic quality of these plant parts will be assessed via trained sensory panels followed by consumer panels. Sensory attributes and consumer acceptance of "Yao green" and "Thai red" will be compared. The results will be presented at a minimum of one conference and published in a peer-reviewed journal and cooperative extension factsheet.	$149,770.00
University of the District of Columbia	$243,001.17	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$2,500.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Delaware Department of Agriculture	$348,807.26	1. Agrivoltaics Research and Outreach in Delaware – Combining Solar with Fruits and Vegetables	University of Delaware (UD) Cooperative Extension will develop outreach programs on agrivoltaics - combining solar with specialty crop production. Local research will be conducted to determine the synergistic benefits of co-locating photovoltaic arrays on vegetable and fruit farms. Outreach programs will be developed to extend information on best practices for agrivoltaics on farms. This will include developing electronic resources, budgets, factsheets, and workshops on agrivoltaics; forming an agrivoltaics working group to guide outreach activities; surveying farmers to determine interest in growing specialty crops with solar; identifying current solar fields on farms and identifying if they have potential for agrivoltaics; creating demonstration areas with growers; and evaluating the experimental agrivoltaics installations being built at UD Newark and Georgetown farms.	$29,264.00
Delaware Department of Agriculture	$348,807.26	2. Expansion of Specialty Crop School Garden Program in Delaware with a focus on FFVP Schools	Healthy Foods for Healthy Kids (HFHK) designs and implements school specialty crop vegetable garden programs which support the science education curriculum for kindergarten-8th grade students. (HFHK-EC). This project will support 4 additional school partnerships across Delaware, with a focus on FFVP schools in Kent and Sussex Counties. In addition, a pilot program will be introduced at a minimum of at least 2 Delaware schools which will engage parents and guardians of the students in tasting and learning about the specialty crops being grown.	$60,000.00
Delaware Department of Agriculture	$348,807.26	3. Identifying Varieties and Management Practices for Summer Production of Lettuce and Other Greens	This University of Delaware Cooperative Extension Vegetable and Fruit Program project will develop strategies for summer production of salad greens which would allow growers to produce and supply this type of product year-round. Variety trials with multiple planting dates conducted over two years will identify new heat tolerant lettuce varieties and alternative salad greens crops that can be produced in Delaware during the summer. Additional trials will test the combined use of reflective mulch and shade cloth for producing high quality summer lettuce. Research results will be shared with growers through presentations, articles, and trial reports.	$30,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Delaware Department of Agriculture	$348,807.26	4. Out with the Old: Supporting the Watermelon Industry in the Sanitary Design of Transportation Equipment.	The Delaware Department of Agriculture hopes that through this grant, we can successfully complete two things: (1) contractually work with University Delaware Extension to identify and provide guidance to the proper resources needed to retrofit transportation equipment used in the Delaware watermelon industry. (2) Provide financial assistance to those who successfully compete a retrofitting process.	$65,000.00
Delaware Department of Agriculture	$348,807.26	5. Pest and Disease Monitoring Tools for Delaware Beekeepers	The Delaware Department of Agriculture (DDA) will provide all beekeepers registered in Delaware with tools for assessing bee colony health, with the aim of reducing colony losses. These tools will include sampling kits to monitor for Varroa mites, American Foulbrood and European Foulbrood test kits, and resources to help identify pests and diseases of honeybees. Increasing the availability of pest and disease testing resources will help beekeepers to address colony health issues promptly.	$24,391.17
Delaware Department of Agriculture	$348,807.26	6. Poultry House Retrofit Opportunities for Growing and Marketing Fruits and Vegetables	Owens Premium Produce in cooperation with Pete Pappas & Sons Inc produce buyers and the University of Delaware Cooperative Extension will address the issue of out of production poultry by creating a demonstration unit for lighted indoor hydroponic production of strawberries, peppers, cherry tomatoes, and other high value produce in a retrofitted poultry house and the initiation of a grower's cooperative to market produce from converted houses. Information from these efforts will be extended through electronic resources, field days, grower informational meetings, and on-farm training sessions.	$37,564.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Delaware Department of Agriculture	$348,807.26	7. Reducing Vegetable Rotational Intervals to Improve Weed Control And Herbicide Resistance	The University of Delaware's Weed Science Program seek to improve weed control options for DE vegetable farmers by expanding the availability of herbicides used in crop rotations. A more diverse approach to weed control will increase overall effectiveness, while reducing selection pressure for herbicide-resistance. We will engage with herbicide manufacturers to allow for a reduction in time between herbicide application and planting key vegetable crops. Information will be shared with Delaware farmers through field days, meetings, and online newsletters. UD Weed Science program has been successful in working with herbicide manufacturers and the Delaware Department of Agriculture obtaining special labels to allow shorter herbicide rotations.	$27,611.00
Delaware Department of Agriculture	$348,807.26	8. Using the Network for Environmental and Weather Applications Tools for Integrated Pest Management	The Fruit and Vegetable Growers Association of Delaware (FVGAD) will work together with the University of Delaware Cooperative Extension to increase the utilization of Network for Environmental and Weather Applications (NEWA) tools. Eight weather stations will be installed to increase coverage in Delaware. During the project, outreach will be conducted to educate growers on the weather tracking and forecasting components of NEWA. The weather components are then used in the NEWA software to develop pesticide spray recommendations based on target pest and crop growth stage, allowing growers to more accurately identify when pesticide sprays are needed and reduce the overall number of sprays or result in more timely sprays. Digital and print resources will be developed by Extension to help growers understand the value of NEWA's tools.	$25,444.00
Delaware Department of Agriculture	$348,807.26	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$27,855.15

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Florida Department of Agriculture and Consumer Services	$4,012,588.20	1. Potential Threat of Two Recently Identified and Widely Distributed Viruses on Watermelon Production in Florida	The University of Florida will test the fruiting-wall training system to manage excessive vegetative growth, reduce labor cost, and improve yield and fruit quality of low-chill peach under subtropical climates. Developing a fruiting-wall orchard that can reduce peach tree vigor in the Florida environment will reduce production costs, while at the same time improve fruit quality, size, and open opportunities for developing profitable orchard systems. Testing a fruiting-wall will provide an opportunity to manipulate vegetative growth. Controlling excessive vegetative growth mechanically in peach will reduce costs and environmental impacts of production, while increasing yield and fruit quality and improving disease management, thus contributing to sustainable production and integrated farm management.	$129,532.00
Florida Department of Agriculture and Consumer Services	$4,012,588.20	2. Testing and Registration of Insecticides for Management of Asian Bean Thrips on Florida Snap Beans	University of Florida and the IR-4 pesticide registration program will evaluate the efficacy of a new pest control product, ISM-555, to manage the invasive Asian bean thrips which was first found in the US in 2020 on snap bean. Bean is a high value specialty crop, and Florida is the primary domestic producer growing 30,000 acres a year. This project is important and timely because Asian bean thrips, Megalurothrips usitatus is a newly detected thrips species in Florida that causes substantial damage to bean flowers, buds and leaves reducing yield by 30%. The proposed project will determine the efficacy and residue of new pest technology that has demonstrated effective control of thrips on other crops. The goal is to register ISM-555 as an EPA-approved pesticide for specialty crop growers to be used in pest control programs.	$171,370.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Florida Department of Agriculture and Consumer Services	$4,012,588.20	3. Genome-Editing for Rapid Development of Powdery and Downy Mildew Resistant Cucurbits	The University of Florida will develop a long-term solution to the challenge caused by powdery mildew (Podosphaera xanthii) and downy mildew (Pseudoperonospora cubensis) in watermelon and squash by leveraging CRISPR-cas9 gene-editing technology to develop novel cultivars through silencing of S-genes that make plants susceptible to the causative pathogens. The two diseases can infect cucurbit plants at any growth stage and across all seasons, often resulting in reduced marketable yield, as well as undesirable fruit qualities characterized by poor flavor and shortened storage life. No cultivars resistant to the two pathogens are currently available for both crops, and resistance from wild species has been difficult to transfer into cultivars due to lengthy breeding processes and linkage drag (carry-over of unwanted traits). This project will deploy CRISPR- cas9 gene-editing technology to create durable and broad-spectrum resistance to powdery and downy mildew by creating loss-of-function in susceptibility genes (S-genes) that act as recognition sites for the two pathogens in the host.	$186,936.00
Florida Department of Agriculture and Consumer Services	$4,012,588.20	4. Field Evaluation and Introduction of New UF-bred Low-chill Blackberry Cultivars for Florida Growers	The University of Florida will propagate new UF-bred low-chill experimental blackberry cultivars, conduct replicated field trials of these cultivars in central and north Florida, partner with Florida growers to conduct on-farm trials, and disseminate results to growers and the industry.	$170,768.00
Florida Department of Agriculture and Consumer Services	$4,012,588.20	5. Root-zone Application of Controlled-Release Fertilizers to Reduce Nitrogen Inputs and Leaching in Strawberry Production	University of Florida will develop a new fertilization technique to improve nitrogen use efficiency in strawberry production. Currently, strawberry growers use drip injection to deliver water-soluble fertilizers to the entire planting bed after transplanting. It is also common to apply large amounts of nitrogen (>20% of the total-season input) during establishment to promote initial plant growth. By contrast, our new fertilization technique will apply a small amount of controlled-release fertilizers in planting holes immediately before transplanting. By releasing nutrients slowly and directly to the root zone, it is anticipated that this new technique will improve nutrient use efficiency, while reducing nitrogen inputs and risks for nitrate leaching and groundwater contamination.	$148,040.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Florida Department of Agriculture and Consumer Services	$4,012,588.20	6. Smart and Variable Rate Fertilizer for BMPs	University of Florida's Southwest Florida Research and Education Center will develop a smart and variable rate fertilizer applicator for Florida tree crops. The overall goal of this project is to promote an environmentally friendly Best Management Practice (BMP) by developing a smart fertilizer technology utilizing sensor fusion and artificial intelligence. This technology has a real potential to deliver more productive and sustainable agriculture, based on a more precise and cost-efficient approach, especially in a scenario of farming labor shortage and climate change. Dissemination of results will occur at grower meetings, field days, industry meetings, and production videos illustrating the technology.	$121,516.00
Florida Department of Agriculture and Consumer Services	$4,012,588.20	7. Cost-effective Adoption of Grafting to Improve Nitrogen-use Efficiency, Yield, and Quality of Watermelon	This project led by the University of Florida researchers and extension experts is a timely response to stakeholder's critical needs to obtain up-to-date research-based information on cost-effective adoption of grafted plants as a BMP tool to advance the long-term environmental and economic sustainability of the Florida watermelon industry. A project advisory committee will be established to provide feedback for implementing the project, addressing stakeholder needs, and measuring project success. A researcher-stakeholder network will be developed to promote cost-effective, integrative use of watermelon grafting for solving site-specific production challenges related to nutrient and water management beyond disease control. This project is expected to help improve BMPs of Florida watermelon production and assist growers with decision-making of grafting adoption.	$185,576.98
Florida Department of Agriculture and Consumer Services	$4,012,588.20	8. Low Cost and Quick Diagnosis of Strawberry Nutrient Deficiencies via a Vision-Electrochemical Sensor Suite	The University of Central Florida and the University of Florida will increase the efficiency and speed in detecting nutrient deficiencies in strawberry plants by developing a low-cost, vision and electrochemical sensor device, and by disseminating the results to stakeholders through field days, publications, and grower meetings. The main outcome of the project is a low cost, plug-in-play nutrient deficiency sensing device. This device can quickly detect nutrient deficiencies and assist growers with fertilizer management decisions.	$150,140.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Florida Department of Agriculture and Consumer Services	$4,012,588.20	9. Development of Microbial-Based Tools to Improve Management of Spotted Wing Drosophila in Florida Berry Crops.	The goal of this project is to develop effective and sustainable microbial-based strategies to protect Florida berry crop production and economic interests impacted by an invasive fly pest, the spotted wing drosophila. To expand the management tactics against SWD, we propose developing microbial-based attractants, repellents, and semiochemicals to improve SWD monitoring efficiency and to combine with chemical insecticides to enhance standard management treatment.	$150,811.00
Florida Department of Agriculture and Consumer Services	$4,012,588.20	10. Fruiting-wall Training System to Reduce Labor Costs and Increase Sustainability in Low-chill Peaches	The University of Florida will test the fruiting-wall training system to manage excessive vegetative growth, reduce labor cost, and improve yield and fruit quality of low-chill peach under subtropical climates. Developing a fruiting-wall orchard that can reduce peach tree vigor in the Florida environment will reduce production costs, while at the same time improve fruit quality, size, and open opportunities for developing profitable orchard systems. Testing a fruiting-wall will provide an opportunity to manipulate vegetative growth. Controlling excessive vegetative growth mechanically in peach will reduce costs and environmental impacts of production, while increasing yield and fruit quality and improving disease management, thus contributing to sustainable production and integrated farm management.	$165,947.00
Florida Department of Agriculture and Consumer Services	$4,012,588.20	11. Identifying Commercially Significant Autochthonous Yeasts from Florida Vineyards for New Signature Wine Styles	The main goal of this project is to generate an extensive biorepository of autochthonous yeast species from Florida vineyards and explore the new winemaking qualities and commercial applications. Native yeast samples will be collected from FAMU's CVSFR research vineyard and 5 commercial vineyards throughout Florida. Spontaneous fermentations will be used to generate pure cultures of the yeasts and DNA sequencing will be done for identification and classification. The customized "Electronic Nose" analytical tool will be deployed to define the cultures with the greatest winemaking capabilities.	$127,932.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Florida Department of Agriculture and Consumer Services	$4,012,588.20	12. Developing St. Augustine Grass with High Resistance to Gray Leaf Spot by Accumulating QTL for Resistance	In this project, DNA marker-assisted selection will be performed to identify St. Augustine grass progenies that have accumulated QTL for high level of disease resistance. The resistant lines will be evaluated in variety trials to select superior varieties for commercial production in Florida sod industry. The outcomes will play a key role in development of resistant cultivars and their use in sod production, landscaping, and home lawns.	$157,403.00
Florida Department of Agriculture and Consumer Services	$4,012,588.20	13. Development of Non-Transgenic Canker Resistant Sweet Orange and Grapefruit Varieties Using CRISPR-Cas Technology	In this project, University of Florida will generate nontransgenic canker resistant sweet orange and grapefruit varieties by editing the promoter or the coding region of LOB1 using CRISPR-Cas technology. All genome-modified plants will be tested for resistance against canker and other horticultural traits. This project will improve elite Florida citrus varieties against canker, which can be directly used by citrus growers. In addition, tools developed in this project can be used for generating non-transgenic HLB-resistant for the Florida citrus industry.	$282,840.00
Florida Department of Agriculture and Consumer Services	$4,012,588.20	14. Identification and Characterization of New Tomato Infecting Ilarvirus in Florida	This project, with the University of Florida is being the partner, will be carried out at the Southwest Florida Research and Education Center in Immokalee. We will conduct genomic and biological characterization of this putative novel ilarvirus and studying its etiology and epidemiology to assess its importance and develop diagnostic tools. Specifically, we will first identify the complete genome sequence of the novel virus and subsequently conduct inoculation experiments using different lab hosts and tomato varieties to study disease symptomology. Later, we will develop a rapid, sensitive, and reliable detection method for disease diagnosis. The results of this project will provide a better insight into the biology of this virus and grower recommendations for preventing disease outbreaks in Florida. Lastly, developing a rapid disease detection method and a management strategy will help with early detection to prevent its establishment and further spread and reduce its threat to Florida tomatoes.	$37,748.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Florida Department of Agriculture and Consumer Services	$4,012,588.20	15. The Chemical, Physical, and Sensory Evaluation of Beer Brewed with Greenhouse Cultivated Florida Hops.	The University of Florida will develop indoor hop cultivation practices which will maximize hop aromatic and flavor characteristics to produce Florida-grown hops for commercial use by members of Florida's Brewers Association. An additional goal of this project is to enhance existing entomological efforts by developing and expanding upon the use of banker plant systems for key pests of hops.	$146,656.00
Florida Department of Agriculture and Consumer Services	$4,012,588.20	16. Sweet Pepper Cultivars with Improved Resistance to Bacterial Spot and Broad Mite.	University of Florida's pepper breeding program aims to develop new cultivars of sweet peppers improved for resistance to bacterial leaf spot disease and broad mite. With the goal of creating high quality, novel specialty peppers with disease and pest resistance, we will use conventional crop breeding tools to develop hybrids between heirloom varieties of sweet peppers and specific pepper accessions with known disease and pest resistant traits. Improved pepper lines will be tested in field trials and the results extended to pepper growers via a field day and extension publications.	$88,946.00
Florida Department of Agriculture and Consumer Services	$4,012,588.20	17. Improving the Competitiveness of the Florida Blueberry Industry Through In-Depth Investigation of Consumer's Purchasing Preferences	Researchers at the University of Florida will enhance the marketability of Florida-grown fresh blueberries by analyzing consumer's preferences and willingness to pay for blueberry quality attributes. To help local growers in differentiating Florida-grown fresh blueberries in the increasingly competitive marketplace, this unique project will conduct consumer experiments to investigate all three types of attributes, some of which are unique to Florida production. In addition to investigating WTP for product attributes, this project will characterize target consumer segments favoring Florida-grown blueberries to improve marketing practices implemented by Florida blueberry operations and retailers. During the outreach stage of this project, we aim to promote consumer awareness of the premium quality of Florida-grown blueberries.	$189,116.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Florida Department of Agriculture and Consumer Services	$4,012,588.20	18. Extending the Postharvest Storage Life of Caladium Tubers for the Florida Environmental Horticulture Industry	The University of Florida will evaluate the effect of storage temperatures and postharvest treatments on caladium tubers with the goal of identifying practical means to extend the storage life of Florida-produced caladium tubers to meet the increasing year-round need and to supply caladium tubers for greenhouse growers, nurseries, and landscapers.	$166,243.00
Florida Department of Agriculture and Consumer Services	$4,012,588.20	19. Evaluation of Nitrogen-Fixing Endophytes to Decrease Fertilizer Needs in Turfgrasses	The University of Florida's UF/IFAS Fort Lauderdale Research & Education center will study and evaluate the use of endophytic (residing within the plant) nitrogen-fixing microorganisms in turfgrasses to decrease external N fertilizer needs. The project will survey nitrogen-fixing endophytes in different species of turfgrasses with molecular methods, isolate potential N-fixing endophytes from different grasses and establish culture collections of endophytes and attempt to inoculate turfgrasses with N-fixing endophytes and evaluate their performance over time in greenhouse trials under different N-fertilization schemes.	$245,992.00
Florida Department of Agriculture and Consumer Services	$4,012,588.20	20. Agroview: Yield and Fruit Quality Prediction Utilizing Remote Sensing and Artificial Intelligence	In this project, novel AI models will be developed to integrate data from sensing systems with soil and weather data to accurately predict yield information, especially in a scenario of climate change. Dissemination of results will occur at grower meetings, field days, industry meetings, and production videos illustrating the technology. This interactive and user-friendly application can: (i) detect, count, and geo-locate plants and plant gaps; (ii) estimate plant height and canopy size (plant inventory); (iii) develop individual plant stress maps; and (iv) determine plant nutrients concentration and create fertility maps compatible with variable rate fertilizer applicators (among other features). This platform can serve as a digital twin of an agricultural field.	$97,216.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Florida Department of Agriculture and Consumer Services	$4,012,588.20	21. Large Scale Avocado Germplasm Screening for Identification of Laurel Wilt Resistance Sources	The University of Florida, Tropical Research and Education Center, will provide the avocado industry with a sustainable and long-term solution to the devastating Laurel Wilt Disease of avocado by identifying genotypes that are resistant or tolerant to the disease and adapted to the local growing conditions.	$204,387.00
Florida Department of Agriculture and Consumer Services	$4,012,588.20	22. Development of An Infrared-Functionalized Microbalance Sensor for Cyclospora Cayetanensis Detection and Differentiation	The Center for Produce Safety (Project Partner) will partner with U.S. Department of Agriculture, Agricultural Research Service – Beltsville Agricultural Research Center to develop a novel detection system for the parasite Cyclospora cayetanensis. This project represents the first step toward producing a new tool that can be used by growers, processors, researchers, and testing laboratories to detect and quantify C. cayetanensis rapidly and cost effectively. This project will develop and test a novel detection system that pairs infrared microscopy with cantilever-based microsensor technology. Such a tool could significantly improve the understanding of C. cayetanensis risk and risk factors contributors and be used to improve the safety of the fresh produce available to consumers.	$114,513.00
Florida Department of Agriculture and Consumer Services	$4,012,588.20	23. A Viability Assay for Cyclospora and its Surrogates Eimeria	The Center for Produce Safety will partner with U.S. Department of Agriculture, Agricultural Research Service, Animal Parasitic Diseases Laboratory – Beltsville Agricultural Research Center to develop a rapid and sensitive method that can detect viable Cyclospora. Cyclospora cayetanensis is a protozoan parasite known to infect humans. The outcome of this research—a rapid, sensitive, specific, and robust assay to diagnose parasite contamination and to test the presence of viable protozoan pathogens, particularly Cyclospora, by using Eimeria as surrogates—will be of practical use to the produce industry and regulators.	$240,763.00
Florida Department of Agriculture and Consumer Services	$4,012,588.20	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$130,855.61

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Georgia Department of Agriculture	$1,437,091.41	1. Removing Economic Hurdles to Sound Food Safety Practices on Farm Operations (FSMA)	The Georgia Fruit and Vegetable Growers Association (GFVGA) will provide a reimbursement opportunity for staff hourly fees for 1) on-farm food safety education through on-farm mock audits, 2) development of all or partial food safety programs which includes SOP documentation, checklists, risk assessments, trainings, and direct cost reimbursement, 3) for third party food safety audit fees, and 4) for agricultural, harvest, and packing operation water tests required by FSMA regulations, 3rd party food safety audits, and/or buyer/marketer mandates. GFVGA can help alleviate the cost to and regulatory burden on specialty crop operations by helping develop comprehensive food safety programs unique to each operation, increase understanding and implementation of federal food safety regulation and market-driven food safety audits. This comprehensive approach to farm food safety is intended to increase the competitiveness of Georgia's specialty crop industry by enhancing the marketability of produce through food safety programs and audits, as well as assist in FSMA readiness.	$48,880.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Georgia Department of Agriculture	$1,437,091.41	2. Marketing Georgia Grown Products to Increase Specialty Crop Producers Market Share (IFPA)	The Georgia Fruit and Vegetable Growers Association (GFVGA) will carry-out this project. The majority of Georgia's specialty crop growers' market and sell their products on the fresh market to either retail grocery chains or food service distributors (restaurants, schools, etc.). This project will provide Georgia specialty growers the opportunity to highlight the Georgia Grown brand and present thousands of wholesale buyers a focused platform as to the diversity and quality produce grown in Georgia. GFVGA, working in cooperation with growers, commodity organizations and agribusiness companies across Georgia, will bring together farm and ranch producers to feature Georgia's specialty crop fresh produce industry at the 2022 IFPA Global Produce and Floral Show in Orlando, FL (formerly called PMA). This show will host more than 25,000 produce industry leaders, including retail store and food service buyers looking for new suppliers, gathering new product information and investigating new technologies. This event offers Georgia fresh produce growers a tremendous opportunity to meet buyers, market to current customers and identify new outlets for their produce.	$65,020.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Georgia Department of Agriculture	$1,437,091.41	3. Accessing Education the Key to Increasing Specialty Crop Producer's Profitability (SERFVC)	The Georgia Fruit and Vegetable Growers Association (GFVGA) will carry-out this project, recognizing that the production, management, and marketing of specialty crops in Georgia is ever changing with new technologies, new practices, new regulations and new management opportunities. GFVGA will plan and coordinate the 2023 Southeast Regional Fruit and Vegetable Conference (SERFVC), a four-day in-person educational conference and trade show to be held in Savannah, GA. The Conference is considered by growers/packers/shippers, large and small/limited resource, to be the premier educational event in the Southeast. The Conference will continue to give specialty crop producers access to the most up to date information as they make daily decisions related to selection of specialty crop seed/plant varieties, pest management, labor relations operations, crop marketing choices and compliance with the new FSMA food safety regulations. The 2023 conference will pilot a live broadcast of several selected speakers/topics that have broad subject matter appeal. Having this live broadcast component of several key areas will allow farmers not able to travel and attend the full conference the opportunity to still access this critical educational material.	$95,000.00
Georgia Department of Agriculture	$1,437,091.41	4. Supporting Growers in Engaging and Educating Consumers to Increase Produce Consumption (Marketing/GA Grown)	The Georgia Fruit and Vegetable Growers Association (GFVGA) will undertake this project. GFVGA will continue efforts aimed at engaging and educating consumers, students, and retailers that "Every Bite Counts" therefore purchase Georgia grown produce when it is in season. The consumer's purchase is their "vote" and the individual choices of consumers and retailers come together to have tremendous economic impacts for farms and their employees, local communities, counties, state, and ultimately the nation. This effort will be accomplished through a concerted targeted social media ad campaign that will direct consumers to the ProduceBites.com website as well as through grassroots, grower, and industry social media content.	$200,230.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Georgia Department of Agriculture	$1,437,091.41	5. Furthering Educational Opportunities to Increase the Profitability of Georgia's Ornamental Horticultural Crops	To better meet the need of our growers and the green industry in Georgia, the Georgia Green Industry Association seeks to host a three-day educational conference and trade show that will connect the different segments of our industry and address the common challenges facing our industry. The trade show will allow producers, suppliers, and other industry professionals to connect business to business, and ample opportunity for our industry professionals to learn from one another and share ideas to work toward solutions to industry challenges. We expect our efforts to yield a higher level of professionalism, better crop yield, improved environmental stewardship, improved crop management, and improved efficiencies in crop production and maintenance.	$75,000.00
Georgia Department of Agriculture	$1,437,091.41	6.A Multi-Strategy Marketing Approach to Increase Sales of Georgia Pecans	The Georgia Pecan Growers Association (GPGA) will execute 3 distinct marketing projects to reach targeted consumer bases to increase sales and enhance the competitiveness of Georgia Pecans as follows: Georgia Pecan Restaurant Week which will host a week-long event to promote Georgia Pecans in featured dishes in select metro Atlanta and Georgia Coastal restaurants working with renowned chefs and establishments; Woodford Reserve Sip and Savor Tasting Event which will host a month-long project that partners Georgia Pecans with Kentucky's Woodford Reserve Bourbon to promote the pecan flavor used in the bourbon among select metro Atlanta restaurant locations; and Our Family Pecan Farm Booklet which will develop and distribute a kid-friendly guidebook that promotes the tradition of Georgia Pecans and the pecan growing process for use in state-wide distribution to school children participating in Ag field days and other Ag events.	$50,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Georgia Department of Agriculture	$1,437,091.41	7. Offsetting the Quality-Quantity Tradeoff of Hydroponically Grown Tomatoes via Foliar Inoculation	Researchers at Kennesaw State University will test whether foliar application of plant growth promoting bacteria can offset a commonly observed tradeoff between fruit quality and quantity of tomatoes grown in a hydroponic setting. The expected outcomes of the proposed trials include a protocol that details best practices and cost-benefits estimates, a detailed quantification of the expected quality gains in tomato fruits, and an improved mechanistic understanding of plant microbial interactions and their physiological impacts on growth. We propose a research design that will enable us to iteratively optimize the microbial application protocol in order to achieve best results. The widespread implementation of foliar inoculation as tested in our study has the potential to significantly impact Georgia's growing hydroponic industry by improving quality and perception of Georgia-grown tomatoes – a commodity that ranks amongst the top crops in terms of customers' willingness to pay a premium for higher quality.	$80,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Georgia Department of Agriculture	$1,437,091.41	8. The Future of Peachtree Borer Management After the National Chlorpyrifos Ban	The University of Georgia Research Foundation (UGARF) proposes to develop ecologically based and cost-effective sustainable IPM strategies to manage the devastating peach pest, peach tree borer (Synanthedon exitiosa), in Georgia. With the recent ban of the broad-spectrum insecticide, chlorpyrifos, on usage in food crops, peach growers are left with a limited number of effective management options for boring insects. The borer larvae feed in the inner bark and cambium tissue of stone fruit trees, and if not controlled, borers can significantly reduce tree vigor, productivity, and subsequently lead to tree death. Previous research demonstrated that peach tree borer prefers to attack peach trees over similar plum trees, and as such, grafting peach trees on the plum hybrid rootstock 'Sharpe' may impart a natural resistance to peach tree borer. Our proposed research will determine the viability of peaches "high budded" on the 'Sharpe' rootstock as a management tactic for peach tree borer by comparing this to current standard grafting practices and evaluating borer attack. Developing an effective, non-insecticide management tactic to manage borers will help growers save money due to the reduction in insecticide use, labor, and tractor/fuel costs.	$90,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Georgia Department of Agriculture	$1,437,091.41	9. A Sustainable Protected Culture System for Water Spinach in Georgia	This project will evaluate water spinach (Ipomea aquatica). Until recently water spinach was prohibited from being grown in Georgia, as it was classified as a noxious weed. With some restrictions being lifted, an opportunity exists to create a production system that will provide growers the ability to profitably grow this crop, outline the steps necessary to reduce movement of this plant into the natural ecosystem, and provide new market opportunities. The University of Georgia Research Foundation will develop best management practices for the protected culture of water spinach using greenhouse hydroponic methods and in-ground high tunnel production. We will optimize fertilizer nutrient management for hydroponic production and determine planting schemes for in ground production. Research will be conducted at two locations, Watkinsville, and Tifton, which will provide diverse soil types and differences in temperatures allowing our results to be adapted state-wide. Nutrient usage/removal data, harvest optimization and yield determination and the development of a production schedule/guide for growers the state of Georgia will be outcomes from this project.	$92,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Georgia Department of Agriculture	$1,437,091.41	10. Sustainable Management of Pantoea Spp. to Enhance Competitiveness of Onion in Georgia	The University of Georgia Research Foundation (UGARF) aims to improve the competitiveness of Vidalia onion production by reducing losses due to bacterial diseases mainly by center rot. In this proposal, we aim to reduce bacterial survival between two onion seasons by assessing crops that are grown in summer. Our collaborative efforts with UGA extension agents resulted in identification of a Pantoea spp. (P. stewartii subsp. indologenes) that can survive on row crops (pearl millet, rye, corn) in summer and can potentially be transmitted to onion crops in winter, acting as a green bridge between two onion crops. Other Pantoea spp. lack this ability to survive between two onion crops in the field. We will assess and identify summer crops that will either support or inhibit bacterial survival (in plant and in crop debris), assess the risk of bacterial transmission to winter-grown onion crops, and assess the efficacy of copper- and biological-based bactericides in reducing foliar Pantoea spp. populations in summer crops, reducing the risk of transmission to winter-grown onion. We will conduct economic analysis to assess if it is practical for Vidalia onion growers to include bactericide applications in summer-grown crops. The information generated from this proposal will be extended to the Vidalia onion growers, extension agents and crop consultants in Georgia, as well as other Allium growers.	$90,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Georgia Department of Agriculture	$1,437,091.41	11. Plant Sap Analysis to Optimize Fertilizer Application for Sustainable Vegetable Production	Fertilizer costs represent +30% of the total production costs for vegetable growers and managing plant nutrition effectively is critical to the economic viability of any crop. Growers and scientists have been studying methods to improve fertilization and nutrient use efficiency using leaf tissue and soil analysis to determine the nutrient status of vegetable crops, which only provide indications about nutrients available for plant uptake, not which nutrients are being utilized by the plant. Plant sap analysis outputs the plant mineral nutrient levels and shows deficiencies and excesses before disrupting plant development and yield. Researchers from the University of Georgia aim to determine the most accurate and cost-effective sampling/extraction and analysis methods and provide sufficiency ranges for tomato, cucumber, and lettuce, allowing growers to add plant sap analysis to their toolbox for assessing plant nutrition and optimizing fertilizer applications.	$60,000.00
Georgia Department of Agriculture	$1,437,091.41	12. Fertilization Rates, Soil Amendments and Pruning Techniques on Blueberry Production	The University of Georgia Research Foundation (UGARF) will establish an agreement with the Georgia Department of Agriculture (GDA) to lead and execute a project to determine the long-term effects associated with the use of different soil amendments, fertilization rates, and pruning techniques. The primary goal of this research is to assess the impact of combining different fertilizer rates, soil amendments and pruning techniques on plant growth, development, and productivity of southern highbush blueberries (SHB) to reduce production-associated costs without affecting yield and quality. The outcomes of this project are 1. Determine the impact of different soil amendments, fertilization rates and pruning techniques on blueberry growth, development, and productivity, 2. Estimate the effect of different pruning techniques on blueberry growth and fruit production, and 3. Develop a budget cost and budget return to estimate the economic feasibility of using different soil amendments, fertilization rates and pruning techniques. The results from this project can help producers reduce production and establishment cost, while increasing the environmental sustainability of the blueberry production system and maintaining yield and quality.	$92,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Georgia Department of Agriculture	$1,437,091.41	13. Understanding the Environmental Conditions for Georgia Boxwood Blight Infection	Wholesale sales of boxwood was valued at $126 million in the USA (2012 Census of Ag). Although an economic value for boxwood use and maintenance within the landscape industries has not been measured, it is likely in excess of this. Boxwood blight, caused by the fungus, Calonectria pseudonaviculata, severely threatens the production and use of this economically important ornamental plant. Current boxwood blight management recommendations include remediation of the site, removal of infected plants, repeated fungicide applications, and use of resistant cultivars. We propose to investigate the important and understudied components of boxwood blight reproduction and dormancy. We plan on sharing our information with a cooperator at Oregon State University to improve a boxwood blight disease risk model app to accurately reflect southern conditions. Our goal is to provide landscapers, nursery growers, extension agents and the public more refined and effective strategies to control boxwood blight through improved disease development information and an updated predictive disease risk model for targeted fungicide applications.	$70,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Georgia Department of Agriculture	$1,437,091.41	14. Biomarker-Based Evaluation of Scab Resistance in Pecans	The University of Georgia Research Foundation (UGARF) will develop a rapid and reliable biomarker-based method for the evaluation of resistance to pecan scab. Pecan scab is a devastating disease which necessitates the application of numerous expensive fungicide sprays throughout the growing season. In wet years scab infection still often results in great yield loss (50-100% in susceptible varieties) and deterioration of nut quality. Current methods to evaluate resistance to pecan scab require either multiple years of field screening or laboratory techniques that are too cumbersome for the evaluation of large numbers of seedlings. This project will break the bottleneck of resistance screening by finding biomarkers for scab resistance that will enable the rapid selection of seedling breeding progenies. To achieve these goals, “mature biomarkers” for scab resistance of fruiting pecan trees will be identified and characterized and “early biomarkers” for scab resistance of pecan seedlings at the initial infection stage will be ascertained. This work will change the paradigm of pecan breeding from phenotype-based mass selection to biomarker-assisted selection.	$94,270.00
Georgia Department of Agriculture	$1,437,091.41	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$114,514.27
Guam Department of Agriculture	$245,554.42	1. Introduction and Establishment of Black Pepper Seed Stock for Local Producers on Island	Guam Department of Agriculture in collaboration with the University of Guam for the introduction of black pepper as a potential crop for local producers in establishing a viable specialty crop in Guam towards a niche market and sustainability. The expected outcomes of the project include: (1) finding suitable propagation methods of black peppers as a new crop for Guam; (2) introducing a new agricultural crop that will be distributed through the Guam Department of Agriculture which has potential as a value-added export crop; (3) increasing the practical knowledge and potentially adopting black pepper production by beginning and veteran farmers in Guam; and (4) increasing awareness of black pepper production in Guam.	$238,174.03

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Guam Department of Agriculture	$245,554.42	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$7,366.21
Hawaii Department of Agriculture	$469,036.82	1. Conservation of Green Lacewings in Avocado Groves to Suppress Avocado Lace Bug Populations	The University of Hawaii at Manoa will scientifically demonstrate the effectiveness of predatory insects (green lacewings) in reducing avocado lace bug populations and promote the use of flowering cover crops in avocado groves to attract and retain the predators. Results and developed methods will be disseminated to stakeholders through a field demonstration, written publications, and educational online videos.	$40,000.00
Hawaii Department of Agriculture	$469,036.82	2. The Accessibility and Value of Hawaii Floriculture Products	In order to educate buyers on how to acquire Hawaii tropical flowers and foliage, the Hawaii Floriculture and Nursery Association will premiere the HFNA Hui Box Program in 2023. Customers will be able to collaborate on ordering their floral needs in a way that provides them with substantial savings. Promotional materials will be created and distributed throughout the floral industry and will be available on the HFNA website. The program will also be promoted at the Island Floral Design Workshops and Nursery Tours during the summer of 2023 when tropical flowers and foliage are most abundant. The workshops will showcase varieties distinctive to each island through beautiful designs demonstrated by professional floral designers for special events and weddings. The workshops and tours will be recorded for use in the Celebrations 2023 Webinar. The full-length video will be aired statewide and housed on HFNA's website.	$38,425.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Hawaii Department of Agriculture	$469,036.82	3. Improving Breadfruit Cultivar Access for Industry Expansion and Quality	The College of Tropical Agriculture and Human Resources (CTAHR) at the University of Hawai'i at Mānoa will support success and expansion of Hawaii's fledgling breadfruit industry by developing local micropropagation capacity, increasing access to clean, local planting material and making available currently inaccessible varieties of breadfruit. Disease-free saplings will be propagated at scale through tissue culture, established in soil-less media, and made available to agricultural producers statewide. The project staff anticipate establishing tissue culture capabilities for six varieties (Fiti, Maopo, Lipet, Afara, Puupuu, Ea) currently unavailable locally, and distributing a minimum of 2,000 trees by the end of the grant period.	$29,269.00
Hawaii Department of Agriculture	$469,036.82	4. HTFC's 2023-2024 Import Replacement Plants Distribution Program	The Hawaii Tropical Flower Council (HTFC) will collaborate with researchers and extension agents from the University of Hawaii College of Tropical Agriculture and Human Resources (CTAHR) and private propagators to increase the propagation and distribution of plants that were originally cultivated as import replacement plants by the Plant Quarantine division of the Hawaii Department of Agriculture. Nursery growers will be polled to ascertain their willingness to grow some, or all, of the varieties.	$29,200.00
Hawaii Department of Agriculture	$469,036.82	5. Evaluating the growth and yield of Celery and Cilantro Varieties Statewide to Increase Local production	The University of Hawaii will be conducting field days to evaluate the suitability of at least 10 varieties of celery and cilantro statewide to determine best varieties suitable for various/each location in Hawaii and increase local production of the two crops. The project team will conduct field trials and containers (pots) to grow the two crops/their varieties, to evaluate suitability for both conditions and develop recommendations for growers and homeowners. The project includes conducting workshops and field days to disseminate the project findings among local growers and stakeholders in the community. The project team will produce extension bulletins that will include recommendations on the best varieties of each crop at each location of the evaluation.	$55,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Hawaii Department of Agriculture	$469,036.82	6. Statewide Stakeholder Collaboration Increasing Access to Asian Vegetable Specialty Crops	Hawaii Seed Growers Network (HSGN) will collaborate with agricultural stakeholder organizations: UH College of Tropical Agriculture and Human Resources University of Hawaii, GoFarm Hawaii, Seeds of Honua, Hawaii Island Seed Bank, and independent seed producers across the State of Hawaii to enhance the competitiveness of specialty crops through identifying, sourcing, and increasing production and sale of specialty crop cultivars. The project will identify valuable open pollinated specialty Asian vegetables, important in local cuisines, and collaborate with GoFarm Hawaii (and various independent growers) to trial varieties while engaging beginner farmers in variety selection processes. Further, HSGN will collaborate with UH CTAHR Extension Agents in a Citizen Science project to identify superior pea varieties intended for market for Hawaii by having gardeners, school garden networks, and farmers grow out varieties as part of a statewide screening program. Finally, HSGN will engage with Seeds of Honua to facilitate the Hawaii Heirloom Seed search intended to identify heirloom, open pollinated, well adapted cultivars brought to Hawaii within local immigrant communities.	$47,271.00
Hawaii Department of Agriculture	$469,036.82	7. Increasing the Number of Sweet Potato Storage Roots to Increase the Yield of Sweet Potato Crops in Hawaii	The University of Hawaii at Manoa will conduct trials aiming to increase the yield of sweet potato crops by developing and implementing sustainable practices focusing on irrigation and fertilization strategies for sweet potato crops, with an overarching goal of increasing sweet potato yield and reducing losses due to high or low irrigation and fertilizer applications, especially at the time of tuber (storage roots) development and to achieve higher number of storage roots. This project will benefit the sustainability of sweet potato production in Hawaii. Results of this project will be disseminated to stakeholders through field days and workshops, publishing extension bulletins, public presentations, and educational video demonstrations.	$40,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Hawaii Department of Agriculture	$469,036.82	8. Gourmet Mushroom Production in Hawaiian Agroforestry Systems	Hawaii Agriculture Research Center (HARC) plans to investigate and demonstrate the potential productivity of log grown specialty mushrooms (Shiitake and Oyster) to utilize residual wood waste produced from agroforestry thinnings, invasive species removal, and land clearing. The proposed project will investigate wood waste from four local tree types (Koa, Formosan Koa, Eucalyptus spp., Albizia) for suitability in local mushroom production. Protocols will be developed for log cultivation of forest mushrooms in Hawaii, including selection of logs, inoculation with selected spawn, forced fruiting and harvest. The project will investigate the potential markets for these novel, specialized mushroom products. The project will have three research sites: one in Hilo, Hawaii, one in Waialua on the Kaukonahua Ranch on Oahu, and one at HARC's Maunawili Research Station on Oahu.	$38,202.00
Hawaii Department of Agriculture	$469,036.82	9. Comparing Production of Melons Using Field and Protected Methods under Hawaii's Conditions	The University of Hawaii will conduct a trial of melon varieties suitable for local production and evaluate using pest-exclusion structures to protect the melon crop. Trials will be conducted both on Kauai and Oahu: two regions identified as being difficult for melon production but also key for local food security. To disseminate the project findings among the local growers, the project staff will be providing outreach through educational activities through field days and workshops on growing melons open to both farmers and interested members of the community.	$40,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Hawaii Department of Agriculture	$469,036.82	10. Kahumana Food Hub: Increasing Waianae Growers' Production to Meet the Demand for Locally Grown Foods	In 2017, Alternative Structures International dba Kahumana launched the Kahumana Food Hub (KFH) project to improve access to markets for socially disadvantaged and beginning farmers on the Leeward Coast of Oahu and to improve access to locally produced food for low-income consumers. Since the pandemic KFH had to aggregate local produce from the entire state. In this grant, KFH will re-focus on Waianae growers and build the capacity of new and existing KFH specialty growers that are in proximity to Kahumana. Some of the producers would be selected for forward contracting, based on their readiness, to provide them with a more stable market. In order to meet the goal of supporting more Waianae specialty growers, KFH will hire a full-time outreach coordinator, prepare growers for FSMA regulations, increase collaboration with Hawaii Ulu Cooperative, grow the number of CSA locations and minimally processed products, and conduct workshops for orchard management focused on breadfruit production and food safety.	$41,500.00
Hawaii Department of Agriculture	$469,036.82	11. Enhancing the competitiveness of Hawaiian Limu in recognition of the Year of the Limu	Hawaii Department of Agriculture (HDOA) will issue a Request for Proposals (RFP) for this project and will partner with the entities that are eligible and will award the project under the procurement rules governing project partner selection/s. The project seeks to select a proposal for an award that will have Outcomes and Indicators that enhance the competitiveness of Hawaiian Limu in recognition of the Year of the Limu 2022.	$31,315.00
Hawaii Department of Agriculture	$469,036.82	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$34,460.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Idaho State Department of Agriculture	$2,060,813.85	1. Building Awareness, Demand of Idaho Apples through Retail Promotions, National Media, and Social Media	Building Awareness, Demand of Idaho Apples through Retail Promotions, National Media, and Social Media", outlines a project that will be conducted by the Idaho Apple Commission. The goal will be to work with a marketing agency to build a marketing program. The National Advertising will bring a positive aspect to the proposal with bringing awareness of Idaho Apples on a National Level. The proposal will have an increased awareness of social media and media presence. Radio advertising continues to bring a positive message for the Idaho Apple industry and will be continued. The program builds consumer awareness to encourage consumer purchases of Idaho Apples.	$64,400.00
Idaho State Department of Agriculture	$2,060,813.85	2. Integrating Cereal Cover Crops and Soil-Applied Herbicides for Weed Control in Dry Beans	The Idaho Bean Commission through the University of Idaho is proposing to establish field studies to determine the weed suppressive ability of fall-planted cereal cover crops, and the effect of cover crop biomass on weed control efficacy of soil-applied herbicides (under four herbicide resistance scenarios), and bean yield.	$101,583.00
Idaho State Department of Agriculture	$2,060,813.85	3. Social Media and In-store Demos Increase Awareness and Sales of Idaho Cherries	The Idaho Cherry Commission's goal is to increase demand, and sales, for Idaho Cherries, and to build strong relationships with local retailers. The project will include an enhanced Social Media program and advertising in a trade publication to let buyers know when Idaho Cherries are available.	$20,200.00
Idaho State Department of Agriculture	$2,060,813.85	4. Creating Awareness and Demand for Idaho Hops through Tours, Social Media, Domestic Promotions, and Conventions	Creating Awareness and Demand for Idaho Hops through Tours, Social Media, Domestic Promotions, and Conventions outlines a project that will be conducted by the Idaho Hop Growers Commission. The two-year project will include tours of the Idaho Hop Growing Region as well as domestic promotions that will tie in with some of the tours. The Commission will be involved with other domestic promotions to continue to build awareness of Idaho Hops. The Commission's Social Media will enhance the domestic promotions the Commission will be involved with.	$48,275.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Idaho State Department of Agriculture	$2,060,813.85	5. Domestication, Propagation and Commercialization of New-Generation Native Idaho Plant Products Emphasizing Woody Plants	Idaho Nursery and Landscape Association (INLA) will provide a unique, economically impactful output: marketable, superior native plant products to enhance the plant palette offered to consumers by the Idaho landscape nursery industry. In addition, the project will enhance consumer aspirations to improve landscape sustainability, conserve natural resources (including water), support pollinators, and create urban habitat.	$135,701.00
Idaho State Department of Agriculture	$2,060,813.85	6. Enhancing the Competitiveness of Frozen, Dehydrated, and Fresh Idaho Potatoes in Mexico	The Idaho Potato Commission will focus on enhancing the distributor and partnerships relationships to ultimately increase consumption of Idaho potatoes, in all forms, throughout Mexico. This will be achieved by developing strategic partnerships with retailers and operators where program objectives will focus on increasing consumption and sales of the targeted Idaho potato product.	$159,500.00
Idaho State Department of Agriculture	$2,060,813.85	7. Idaho Preferred's Retail, Restaurants, Agritourism, and Digital Marketing Specialty Crops Connection Promotion	Idaho Preferred®, an Idaho State Department of Agriculture program within its Market Development Division, will continue to successfully promote Idaho specialty crops with a traditional and digital marketing strategy. Tactics include business to consumer (B2C) and business to business (B2B) promotions, targeted advertising, and public relations. The COVID-19 pandemic continues to positively influence consumer interest locally produced product purchases.	$251,174.42
Idaho State Department of Agriculture	$2,060,813.85	8. Enhanced In-Season Nitrogen, Pest, and Irrigation Management for Idaho Potato Cropping Systems.	Idaho State University is seeking to improve the competitiveness of Idaho agronomists and potato growers by developing and implementing technology-based methods to improve in-season potato crop pest sampling, tissue sampling and soil moisture measurement practices in Idaho and subsequent data interpretations that drive in-season agronomic recommendations to improve environmental and economic sustainability outcomes.	$130,412.20
Idaho State Department of Agriculture	$2,060,813.85	9. Driving Awareness of Idaho Wine in A Post-Pandemic World	The Idaho Wine Grape Growers and Wine Producers Commission (IWC) led by Executive Director, Moya Dolsby, is committed to helping wine grape growers, winemakers and cideries in the state of Idaho produce the best quality wine and cider in the region. Dolsby will continue to guide all project elements associated with advancing the industry.	$190,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Idaho State Department of Agriculture	$2,060,813.85	10. Vineyard Health and Education to Increase Production of Idaho Wine Grapes	The Idaho Grape Growers and Wine Producers Commission will facilitate, with Professor Edward Lewis and staff, a research project determining the impacts of soil amendments on soil health, plant health and yield, and populations of pest and beneficial soil fauna as it relates to the production of wine grapes. This will be accomplished by soil sampling four times a year on vineyards of varying ages in three American Viticulture Areas also known as AVAs.	$150,000.00
Idaho State Department of Agriculture	$2,060,813.85	11. Building Demand and Awareness of Idaho-E. Oregon Onions with Social Media, Marketing, and Missions	Building Demand and Awareness of Idaho-E. Oregon Onions with Social Media, Marketing, and Missions", outlines a project that will be conducted by the Idaho-Eastern Oregon Onion Committee (IEOOC). Through this project the IEOOC will look for new markets and build on existing markets. Staying in front of International and Domestic buyers, foodservice professionals, and consumers, and offering them continued education for these industry segments of Idaho and Eastern Oregon Onions in regard to the benefits, versatility, and availability is vital.	$89,000.00
Idaho State Department of Agriculture	$2,060,813.85	12. Tools to Predict and Stabilize Onion Yield and Quality from Extreme Weather Conditions	The Idaho-Eastern Oregon Onion Committee (IEOOC) through a contractual relationship with the University of Idaho will develop regional specific predictive models and decision support system to predict onion yield and quality and how it relates to weather conditions over the growing season. The project will also develop tools which could help stabilize losses from heat stress as well as investigating the why June temperatures appear to be critical to influencing the yield of drip irrigated onions. This will be investigated through series of greenhouse and field experiments, as well as an in-depth analysis of historical datasets of onion field trials in the region. The outcomes of the project will be presented at field days and grower meetings as well as the availability of the decision support system as a web-based application.	$99,230.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Idaho State Department of Agriculture	$2,060,813.85	13. Improving the Harvesting Performance of Orchard Robot (OrBot)	The Robotics Vision Lab of Northwest Nazarene University has developed Orchard Robot (OrBot), which was designed for harvesting fruits. OrBot is composed of a machine vision system to locate fruits on the tree, a robotic manipulator to approach the target fruit, and a gripper to remove the target fruit. The main goal of this proposal is to improve the performance of OrBot specifically increasing both harvesting speed and harvesting success rate. In addition, OrBot will be evaluated for nighttime fruit harvesting, extending the robot's working hours. The results of this research project will be reported online, through local agricultural field days, tours to different commercial orchards, presentation at conferences, and publications in scientific journals.	$100,719.00
Idaho State Department of Agriculture	$2,060,813.85	14. Sunnyslope Wine Trail Marketing Project	The Sunnyslope Wine Trail is seeking to expand their advertising presence beyond their immediate location south of Caldwell using a combination of new advertising opportunities while capitalizing on their established brand. Upon the recommendation of the Idaho Wine Commission and their collaborator, Destination Caldwell, the wine trail would like to launch a 2-year ad campaign with Northwest Travel & Life magazine as well as the local Scout Guide produced here in Boise. We will reach new consumers by using new avenues of advertising, attracting them to our winery tasting rooms.	$40,000.00
Idaho State Department of Agriculture	$2,060,813.85	15. Developing Optimum Management Strategies for Bacterial Rot Diseases of Potato	The University of Idaho will develop best practices for the optimum management of bacterial rot diseases in potato caused by Pectobacterium and Dickeya species. This will be achieved by determining which bacterial species are present in Idaho potatoes and then designing species specific real-time PCR protocols for the most important pathogens. These assays will be used to develop a seed testing system and also to determine the relative importance of the individual sources of inoculum (seed, soil, water). The project results will be disseminated in grower meetings and field days.	$144,617.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Idaho State Department of Agriculture	$2,060,813.85	16. Enhancing Quality and Market Potential of Idaho Grapevines: Development of New Diagnostic Tools	University of Idaho will characterize the entire virome of grapevine samples collected in Idaho vineyards, to compare the found sequences with common strains present in the area in order to develop specific tools for general detection and differentiation of newly described viral genomes. The new-generation sequencing (NGS) technology will be used to obtain whole genome sequence of the divergent leafroll-associated virus variants and other viruses present in the Idaho grapevines and linked to fruit quality. The outcomes of this project will include: 1) a better understanding of the leafroll disease virus populations in Idaho; 2) new diagnostic assays that are able to detect and distinguish identified variants of leafroll disease-associated viruses.	$95,944.00
Idaho State Department of Agriculture	$2,060,813.85	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$77,104.24
Illinois Department of Agriculture	$588,645.58	1. Educational Support, Outreach, and Marketing for Illinois Specialty Growers through conferences and a video library.	The Illinois Specialty Growers Association (ISGA) will offer specialty crop farmers educational programs through their annual hybrid Illinois Specialty Crop Conference with a technology platform that will allow for educational live sessions, an interactive exhibit hall and an industry-exclusive virtual educational resource library available to growers year-round.	$114,111.00
Illinois Department of Agriculture	$588,645.58	2. Strengthening Regional Specialty Crop Farmers	Angelic Organics Learning Center will improve farm viability for specialty crop farmers by providing high impact educational resources such as training and connections with an eye towards removing barriers for socially disadvantaged farmers.	$69,438.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Illinois Department of Agriculture	$588,645.58	3. Increasing Demand Among Low-Income Clients For Specialty Crops Sold at the 61st Street Farmers Market	The 61st Street Farmers Market, a program of the Experimental Station, seeks to return to and further expand our Market's educational programming and partnership with Carnegie Elementary School and Jackson Park Terrace to rebuild local knowledge of the nutritional benefits and pleasure of consuming fresh and healthy foods, and knowledge of how to grow and prepare them. This grant will enable us to provide enhanced at-Market, point-of-promotion, in-school, after-school, and year-round educational programming aimed at teaching more than 2,000 low-income children and adults how to identify, grow, purchase, prepare and enjoy Illinois Specialty Crops sold at the 61st Street Farmers Market.	$32,611.00
Illinois Department of Agriculture	$588,645.58	4. Developing Cold-Hardy American Persimmon as an Alternative Specialty Fruit Crop for Illinois Growers and Consumers	Savanna Institute, an Illinois- and Wisconsin-based nonprofit focused on expanding agroforestry systems and tree crop utilization, will lower key barriers for American persimmon production to contribute to the viability of the Illinois specialty crop industry by jump-starting persimmon crop improvement for the state. Working through our Illinois research hub, Savanna Institute will identify existing persimmon genetics that have superior cold-hardiness and other key production traits over a range of Illinois climate and soil conditions, establish baseline genetic and genomic information to enable new cultivar development, and utilize our education, outreach, and supply chain development capacity to put these key information resources in the hands of Illinois farmers, nursery operators, and researchers.	$73,867.50
Illinois Department of Agriculture	$588,645.58	5. Cultivating Holistic Illinois Specialty Crop Resources, From Seed to Sale to Supper Plate	The Land Connection (TLC) will increase knowledge and consumption of Illinois specialty crops by cultivating a comprehensive guide of local vegetables, fruits, and herbs – from seed to supper plate. We will expand our offering of both Specialty Crop "Use and Nutrition" and "How to Grow" cards, while also producing new video content and other digital learning tools to accompany new and existing card series.	$63,444.61

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Illinois Department of Agriculture	$588,645.58	6. Enhancing Specialty Crop Education and Consumer Awareness Through Illinois Agriculture in the Classroom: Agritourism and Farmers Markets	Illinois Agriculture in the Classroom (IAITC) seeks to extend its model to offer and emphasize opportunities for specialty growers and farmers markets to engage in consumer education through participation in state-wide trainings, offering local program support, and access to free educational resources.	$35,000.00
Illinois Department of Agriculture	$588,645.58	7. Promoting Asian Bitter Melons as Anti-Diabetic Diet in Illinois	The Southern Illinois University will promote Asian bitter melons in Illinois by collecting and disseminating data on current market analysis; functional food processing and nutritional analysis; and cooking demonstrations at farmers markets and at the Neighborhood Coop in Carbondale.	$68,962.00
Illinois Department of Agriculture	$588,645.58	8. Sanitization of Specialty Crops Using Microplasma Based Far-UVC Light	The University of Illinois will study the potential for sanitizing specialty crops with microplasma-based far-UVC lamps. Ensuring the safety of specialty crops is a major and enduring challenge. The proposed work will systematically investigate the ability of a microplasma-based far-UVC lamp system to inactivate two bacteria that are commonly associated with the safety problems of specialty crops, Escherichia coli (gram-negative) and Listeria monocytogenes (gram-positive), on samples of lettuce, strawberries, and tomatoes. The impact of such treatment on produce color will also be evaluated, as an index of overall quality.	$65,326.00
Illinois Department of Agriculture	$588,645.58	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$16,903.69

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Indiana State Department of Agriculture	$486,095.35	1. Specialty Crop Block Grant-Honey Education Trailer	At Ease Orchard will develop an education plan across the State of Indiana utilizing a Bee Demonstration Trailer and experience beekeepers. The demonstration trailer will consist of live bees in an enclosed demo box, harvesting equipment, hive equipment and the ability to demonstrate harvesting honey from the hives and multiple other beekeeping techniques such as sanitizing a hive and queen rearing. The trailer will be manned and attend events at 4H clubs, Farm Shows, Bee Club events, and schools. The Goal is a minimum one event per month. Similarly, the Bee Trailer will meet Indiana Health Department standards for Honey harvesting and be available to support assisting with on-site training at residences to teach beekeepers how to properly harvest and bottle honey. The outcome of this grant is educational in honey food safety, support to beginning farmers/beekeepers in honey harvesting allow it to become a commercial or wholesale item and therefore increasing the popularity and knowledge of honey as a specialty crop.	$67,315.84
Indiana State Department of Agriculture	$486,095.35	2. Leveraging Farm to ECE Partnerships to Increase Demand and Access for Specialty Crops	Green Bridge Growers will increase demand for locally grown produce through a Farm to Early Care and Education (ECE) initiative that incorporates local food sourcing, food and agricultural education, and family engagement to promote healthy eating practices right from the start for young children and their caregivers. ECEs are an important market for small farmers because of relatively low barriers to entry and have the added benefit of promoting household nutrition knowledge and the consumption of specialty crops. By partnering with ECEs to better understand and influence the role farmers can play in this market, our project will develop replicable models, outreach on best practices for other farmers entering the ECE market and expand food access for under-resourced families throughout the state.	$87,413.90

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Indiana State Department of Agriculture	$486,095.35	3. Local Food Ecosystem Project + Seed to Store	The City of Indianapolis requests funding for its Local Food Ecosystem project, Seed to Store, which is a farm to retail program that fosters connections between local minority-led urban farms and small businesses in Indianapolis and Marion County. Indianapolis' Division of Community Nutrition and Food Policy will act as the lead agency in administering this project in partnership with farmers, grocers, and other business owners. Seed to Store aims to boost specialty crops sales, build capacity for the local food economy, and improve access to and awareness of healthy specialty crops through direct-to-consumer marketing. Seed to Store partner farms grow specialty crops such as collards, watermelon, tomatoes, lettuce, peppers, and eggplant. Now in its second year, Seed to Store will implement infrastructure improvements through cold storage, farm labor support, and software for inventory management and ecommerce. Targeted marketing and promotions initiatives will also help develop connections between consumers and the specialty crop industry and provide education for increased accessibility.	$129,846.00
Indiana State Department of Agriculture	$486,095.35	4. Developing a Novel Multi-Year Production System for Strawberries Grown on Plastic Mulch in Indiana	Purdue University will address two of the greatest barriers to the profitability and sustainability of multi-year plasticulture strawberry production in Indiana by improving runner management through cultivar selection and chemical runner suppression and establishing safe and effective weed management strategies. There is increased demand for local pick-your-own strawberries and decreased access to the timely and abundant labor required to grow the crop. This project represents the first meaningful research effort into a multi-year plastic mulch production system for strawberries in Indiana and directly addresses the most pressing concerns identified by stakeholders. Recommendations generated from this project will be used to ensure that growers adopting multi-year plasticulture production have the greatest likelihood of sustainable success through cultivar selection and chemical control of runners and effective weed management strategies.	$123,744.34

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Indiana State Department of Agriculture	$486,095.35	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$38,887.64
Iowa Department of Agriculture and Land Stewardship	$334,996.23	1. Farmer to Farmer Knowledge Sharing to Improve Cut-Flower Production & Profitability	Since 1985, Practical Farmers of Iowa and our members have specialized in farmer-to-farmer knowledge sharing. Beginning and advanced specialty crop farmers in Practical Farmers' membership are always looking to improve their product quality and profitability and have identified that working crop-by-crop, looking at other farmers' production, harvest and packing systems is a valuable learning process that quickly provides actionable ideas for their own farms. The central objective of this project is to improve the competitiveness of specialty crops in Iowa through in-depth, crop-specific knowledge sharing related to cut flower production and marketing among farmers at conferences, field days, and meetups.	$24,000.00
Iowa Department of Agriculture and Land Stewardship	$334,996.23	2. Development and Demonstration of No-till Vegetable Production Systems in Iowa	Rodale Institute - Midwest Organic Center (RI-MOC), located in Marion, IA, will continue the IDALS SCBG-funded research project established in 2021 in collaboration with Practical Farmers of Iowa farmer cooperators to understand the potential for permanent bed, no-till vegetable production to advance soil health, improve crop yields, and mitigate weed pressure. Researchers aim to determine why some vegetables produced in permanent, no-till beds yielded less than those produced in beds with conventional tillage. Data collection will focus on differences in soil temperature, soil moisture, soil fertility (i.e., nitrogen availability) during key stages in plants' lifecycles, and plant tissue testing. Results will be compared to experiences of Practical Farmers of Iowa farmer cooperators with the goal of compiling recommendations for best practices for no-till vegetable production. Results and recommendations will be shared with specialty crop growers through field days and presentations at regional conferences.	$23,976.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Iowa Department of Agriculture and Land Stewardship	$334,996.23	3. Climate Smart Irrigation Sensors and Technologies for Iowa Vegetable Growers	Water is fundamental to food production. The importance of sustainable water management will continue to grow as the impact of climate change intensifies. Iowa vegetable growers rely heavily on irrigation to maintain crop yields and quality, however, irrigation management aspects such as amount, scheduling, etc. is not well understood and often arbitrarily decided. There is lack of information on efficient management of irrigation and how sensors, sensor technology, and automation can be utilized for sustainable water management. The goal of this two-year study is to identify, evaluate, and introduce relevant soil moisture sensors and sensor technology to enhance irrigation efficiency and overall sustainability of our vegetable production systems.	$23,983.00
Iowa Department of Agriculture and Land Stewardship	$334,996.23	4. Reimbursement for On-Farm Food Safety Improvements for Fruit & Vegetable Growers	Since 1985, Practical Farmers of Iowa and our members have specialized in farmer-to-farmer knowledge sharing. Specialty crop farmers in PFI's membership are always looking to improve their product quality and profitability. Seeing other farmers' production, harvest and packing systems, and sharing about how to address issues such as food safety, provide valuable learning opportunities that quickly provides actionable ideas for their own farms. The central objective of this project is to improve the competitiveness of specialty crops in Iowa by supporting on-farm enhancements through a cost share program and though in-depth knowledge sharing at a field day.	$24,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Iowa Department of Agriculture and Land Stewardship	$334,996.23	5. Improvement of Blueberry Establishment in Iowa Soils	The Department of Horticulture at Iowa State University will conduct an experiment to improve the establishment of blueberry plants in Iowa soils. The establishment of two new cultivars will be evaluated with various soil treatments. The aim of the project is to reduce establishment costs while obtaining optimal soil pH for blueberry growth. Blueberry plants will be evaluated for plant growth and development, photosynthetic output of leaves, and foliar nutritional content to assess any stress levels affecting plant growth, and the impact of soil amendments. Soil will be monitored for nutrient content, pH, and electric-current changes to determine overall soil health and assess the amendments. Results will determine if soil treatments facilitate overall plant and soil health during plant establishment, as well as reduce establishment costs.	$23,818.00
Iowa Department of Agriculture and Land Stewardship	$334,996.23	6. Winemaking Practices to Improve Cold-Hardy Wine Quality Over Time	The Department of Food Science and Human Nutrition at Iowa State University will evaluate the quality of red and white wines produced from cold-hardy interspecific grape varieties using two winemaking practices over time after bottling. Wines produced in Iowa tend to be sold to consumers a few years after their production and consumers may keep wines for a longer time before consumption, which leads to a decrease in wine quality over time. In this project, red wines from cold-hardy grapes will be made using an extended maceration process and white wines from cold hardy grapes will be made following the standard operating procedure. Before bottling, three concentrations of sulfur dioxide, a common preservative, will be added to both wines to evaluate the best amount to preserve wine quality.	$22,214.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Iowa Department of Agriculture and Land Stewardship	$334,996.23	7. Iowa Specialty Crop Producers Conference	In 2019 the Iowa Wine Growers Association and the Iowa Fruit and Vegetable Association created a partnership and began working with representatives of the Iowa Department of Agriculture and Land Stewardship to plan a combined specialty crop producers conference. For the past three years the conference has brought together specialty crop producers from across the state to network with each other and engage in education. The conferences have been very well received by our association's members and the specialty crop industry. The Iowa Wine Growers Association will work with the Iowa Fruit and Vegetable Growers Association, Iowa Department of Agriculture and Land Stewardship, and other industry members and connections to plan, prepare and carry out the 2023 Iowa Specialty Crop Producers Conference.	$24,000.00
Iowa Department of Agriculture and Land Stewardship	$334,996.23	8. The Kitchen: Where Small Communities & Food Business Grow in North Iowa	Healthy Harvest of North Iowa, in partnership with Simply Nourished – Mason City and local organizations, will create "The Kitchen" – a shared-use space offering commercial-grade equipment, storage space, and technical assistance to businesses to support the development value-added products from specialty crops, increase farm profitability, and decrease food waste in North Iowa. HHNI will evaluate current local offerings of technical assistance to small, specialty crop and local food businesses and work to develop a comprehensive suite of workshops and resources to best support the success of these businesses to be hosted by HHNI and their partners.	$24,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Iowa Department of Agriculture and Land Stewardship	$334,996.23	9. Teaching about Vineyards & Grape Production	The Iowa Agriculture Literacy Foundation will increase the educational material available to teach about fruit production (grapes) in Iowa by developing lesson plans, hands-on activities, and career connection highlights for educators and students to engage with. The lessons and activities will include vineyard management, grape processing, product production, and career connections. The lessons will be used by Agriculture in the Classroom educators across the state and other formal and informal educators. This project will inspire more students and their families to consider the work and resources used in the production of grapes (viticulture). It will also increase interest in careers related to viticulture which will provide new technologies and methods to the industry.	$14,569.00
Iowa Department of Agriculture and Land Stewardship	$334,996.23	10. Developing Digital & Print Marketing Tools for Shared Use Amongst Iowa's Specialty Crop Market & Producers	With input from a broad range of specialty crop producers and local food system partners, the Iowa Food Foundation will create, execute, and share the results of a yearlong digital and print marketing campaign focused on the community benefits of buying regional specialty crops, both economically and environmentally. The project will utilize paid website ads, social media ads, print materials and pop-up events. Content from this campaign will be readily available for shared use by producers, farmers markets and food hubs across the state of Iowa.	$24,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Iowa Department of Agriculture and Land Stewardship	$334,996.23	11. Business Basics Bootcamp for Iowa Specialty Crop Producers	Iowa State University will partner with the Food Finance Institute and Darcy Maulsby & Co. to increase financial and marketing business knowledge of Iowa specialty producers. This will be done by offering both a financial bootcamp and a marketing bootcamp offering producers information and follow-up progress reporting to ensure the information is understood and being utilized in their operations. The bootcamps will combine training, one on-one consulting, and the opportunity for networking amongst producers. After the bootcamps follow-up reporting will be conducted so that producers can check in with staff to assist in applying financial and marketing information and strategies to their own operations. As a result of the bootcamps, financial and marketing workbooks, will be created for wider distribution to producers who do not participate in the bootcamps. We anticipate that this would then impact more than 100 producers beyond the initial bootcamps.	$24,000.00
Iowa Department of Agriculture and Land Stewardship	$334,996.23	12. Understanding Capacity & Feasibility of a Fruit & Vegetable Processing Facility in Iowa	This project will investigate and determine best practices for processing facilities in other states; conduct market analysis and a feasibility study for a processing facility; and gain understanding into the potential economic impact that a processing facility for local fruits and vegetables could be for our state. This will be completed with both Iowa State University staff and outreach to organizations currently engaged in the procurement and purchasing of local foods to understand the viability of this business.	$36,200.00
Iowa Department of Agriculture and Land Stewardship	$334,996.23	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$31,170.66

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Kansas Department of Agriculture	$336,867.33	1. Let's Explore	Children First CEO Kansas Inc. and its partners will enhance the competitiveness of specialty crops by increasing knowledge and sales of specialty crops in the Sedgwick County metro area (Sedgwick, Butler, Harvey, Kingman and Sumner counties), through: Continuing development of three education gardens impacting 434 low-income minority students, their families and neighbors using in-school trainings, community nights, and field trips, and launching a media campaign called "Let's Explore," which will increase awareness of specialty crops as demonstrated from a partnership with Meadowlark Farm Orchard & Cidery, in Rose Hill, Kansas.	$68,132.00
Kansas Department of Agriculture	$336,867.33	2. Increasing Specialty Crop Access Through School and Community Gardens	Kansas City Community Gardens will increase access to specialty crops for low-income residents and increase willingness to consume crops among low-income children in Wyandotte and Johnson counties. They will do this by creating, expanding, and improving food-producing gardens at schools and community sites.	$25,044.19
Kansas Department of Agriculture	$336,867.33	3. Increasing Consumer Knowledge and Consumption of Specialty Crops On-farm in Wyandotte County, Kansas	The Farm School at Gibbs Road Inc., doing business as KC Farm School at Gibbs Road, will increase consumer consumption and awareness of specialty crops through youth and adult educational opportunities on-farm in Wyandotte County, Kansas. This will be achieved in collaboration with KC Farm School's farmers market partners who grow specialty crops, produce value-added products including Kansas specialty crops as well as community educators. The team will implement nine workshops at KC Farm School's on-farm farmers markets and in KC Farm School's PK-adult education programming for individuals aged 4-100 including Ag Explorers for youth aged 4-8, Jr. Growers for youth aged 9-12, Farm Apprenticeships for youth aged 13-18, Let's Grow Wyandotte!	$45,375.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Kansas Department of Agriculture	$336,867.33	4. Marketing Mastery Academy (MMA) for Specialty Crop Growers	The Kansas Department of Agriculture will partner with a local marketing entity with proven specialty crop experience to facilitate a marketing training program for Kansas specialty crop growers that helps producers learn marketing practices and develop marketing plans to implement for their operations to increase the sale of specialty crops. Through the marketing curriculum, specialty crop growers will be guided through topics such as social media content creation and management, marketing cohesion, public relations, and news features, developing a marketing plan and budget, analyzing marketing results and traction, direct to consumer networking and interaction, wholesale relationships and marketing and elements of successful advertising.	$72,076.80
Kansas Department of Agriculture	$336,867.33	5. Generating Youth Interest in Specialty Crop Production through Expanded Programming at Willow Lake Student Farm	Kansas State University (K-State) will expand its research and educational offerings at Willow Lake Student Farm (WLSF) to position the farm as the premier small to mid-scale, diversified farm research and training center in the Midwest. Building on recent infrastructure improvements, WLSF will hire a full-time farm manager to lead production activities, expand sales to campus dining facilities, and help organize student-led activities. These activities include an annual Spring Field Day—an event covering basic specialty crop production and an overview of WLSF research and education projects; and a Fall Harvest Festival—a student-led event to attract youth and families to learn about small to mid-scale specialty crop production. Leveraging the commitment of K-State students to sustainable specialty crop production, this project will extend its reach into the community to attract youth and their families, creating a pipeline of future students and specialty crop growers in Kansas.	$66,396.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Kansas Department of Agriculture	$336,867.33	6. Expanding Food Safety Training, Aggregation Capacity and Access to Local Food in North Central Kansas	The Mitchell County Regional Medical Foundation (MCRMF) will partner with the High Plains Food Cooperative (HPFC) and Advancing Rural Prosperity, Inc. (ARPI), a Kansas team of local food system specialists, and collaborate with a group of food champions in the region, to offer food-safety education and training to producers, processors, institutions, and community care team members in North Central Kansas (NCKS). The project partners plan to increase aggregation capacity for specialty crops for producers in the region and increase access of local food in NCKS through a community care network.	$33,250.00
Kansas Department of Agriculture	$336,867.33	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$15,861.92
Kentucky Department of Agriculture	$333,320.94	1. Central Kentucky Transitional and Specialty Crop Farmer Cohort Pilot Program	The Lexington Farmers Market will address long-term agricultural stability and sustainability by collaboratively implementing a support and training program for farmers in underrepresented groups (specifically beginning, socially disadvantaged, and/or veteran farmers) who are engaging in direct-to-consumer sales and transitioning to organic production practices. This project addresses an ongoing lack of holistic technical support for growers entering the specialty crop marketplace by utilizing the expertise of a number of stakeholders and partner organizations to provide technical assistance and support for a broad spectrum of needs specific to new direct-to consumer specialty crop producers in Kentucky.	$69,188.00
Kentucky Department of Agriculture	$333,320.94	2. Evaluation of Organic Control Tactics for Management of Harlequin Bugs on Cruciferous Crops	The University of Kentucky through a series of field research trails evaluate organically applicable strategies to effectively control harlequin bug attacking cruciferous crops and disseminate the results to Kentucky stakeholder groups through producer field days and meetings and more broadly through scientific publications.	$30,465.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Kentucky Department of Agriculture	$333,320.94	3. Exploring Energy-Efficient Strategies to Improve the Kentucky Floriculture Industry	The University of Kentucky seeks to explore energy-efficient strategies to improve the Kentucky floriculture industry by evaluating unheated high tunnel bedding plant production; determine bedding plants species suitable for unheated high tunnel production; explore methods to mitigate delays in plant development and marketability; and document carbon and water foot-printing to promote environmental stewardship. Upon completion, this project will develop efficiency benchmarks for Kentucky growers; an energy-efficient greenhouse grower's guide; 12 bedding plant-specific factsheets; and showcase low-cost technologies available to assess energy consumption and water usage for greenhouse growers. In addition, educational programs will be provided to greenhouse growers and Extension personnel to showcase research findings and disseminate developed resources.	$44,374.00
Kentucky Department of Agriculture	$333,320.94	4. Resistant Cultivars and Time of Planting as a Fungicide Free Option for Management of Lettuce Drop in High Tunnels in Kentucky	The University of Kentucky Vegetable Crops Extension will evaluate the use of different resistant cultivars and different planting dates in spring and fall for management of lettuce drop, a common fungal disease of lettuce in high tunnels. Information will be disseminated to growers and county agents through trainings, videos, and fact sheets.	$44,641.00
Kentucky Department of Agriculture	$333,320.94	5. Farm Sustainability Assessment Tool with Kentucky Farmers to Increase Adoption of Best Management Practices and Improve Specialty Crop Competitiveness	The Organic Association of Kentucky (OAK) will implement a two-year project piloting a Farm Sustainability Assessment Tool (FSAT) by adapting an open-sourced self-assessment tool that farmers can use to improve the sustainability of their in-field management practices. The tool produces a scored assessment based on globally recognized sustainability standards giving participating farms a competitive advantage to communicate the environmental and social benefits of their farming practices. This will drive Kentucky specialty crops to remain competitive in an evolving marketplace that is predicted to grow in favor of climate-smart crops.	$47,043.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Kentucky Department of Agriculture	$333,320.94	6. Peer Promotion of Community Supported Agriculture in Employer CSA Programs	The University of Kentucky (UK) Department of Ag Economics will work with the University's Health and Wellness program to develop Community Supported Agriculture (CSA) peer promotion groups. CSA has become a popular direct marketing channel for diversified produce farmers in Kentucky and across the US. This increased consumer interest is partly the result of employer-funded CSA voucher programs. For instance, UK offers over 1000 vouchers to employees to cover a portion of a CSA subscription. This and similar employer programs have increased knowledge of and participation in CSA across Central KY. However, not all of these vouchers are being redeemed.	$49,433.00
Kentucky Department of Agriculture	$333,320.94	7. The Use of Stropharia as Under-Vine Weed Control Management Strategy	The University of Kentucky will develop a weed management program for KY vineyards using King Stropharia inoculated mulch as an alternative to synthetic herbicide use. Stropharia spawn will be cultivated under-vines to reduce the need for herbicides, maintain soil health, and increase overall grapevine health.	$47,022.00
Kentucky Department of Agriculture	$333,320.94	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$941.97
Louisiana Department of Agriculture and Forestry	$394,986.52	1. Apprenticeship Project for Growing New Beekeepers in Louisiana	The competitiveness of Louisiana-grown specialty crops will be enhanced and concerns regarding the long-term growth of the beekeeping industry in the state will be addressed through the continuation and improvement of the Apprenticeship Project for Growing New Beekeepers in Louisiana (LDAF). LDAF, working in partnership with high school agricultural teachers, will offer a beekeeping apprenticeship project reaching approximately 200 high school agriculture students. Through the Apprenticeship Project for Growing New Beekeepers in Louisiana, LDAF will sponsor five high school agriculture programs/educators with up to $10,000 in beehive/beekeeping resources to establish with the help of students an apiary (bee yard) of up to eight beehives at their schools.	$50,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Louisiana Department of Agriculture and Forestry	$394,986.52	2. Application of Combined MAP with UV-C to Reduce Microbial Loads and Extend Strawberries' Shelf Life	A pilot-scale Modified Atmosphere Packaging (MAP) and ultraviolet light combined system (MUCS) at LSU Agricultural Center is designed to reduce pathogen and spoilage microbial loads. The proposed study is to determine the effectiveness of the MUCS in reducing Salmonella enterica, Listeria monocytogenes, and Escherichia coli O157:H7 levels on the surface of strawberries and in reducing spoilage microbial loads for extending the shelf life. MUCS is expected to assist growers in reducing pathogens on produce surfaces and extending the shelf life without compromising the overall quality of strawberries during refrigerated storage. The outcome of the study will benefit Louisiana growers and consumers.	$55,502.00
Louisiana Department of Agriculture and Forestry	$394,986.52	3. Promoting Louisiana-Grown Pecans - Phase 2	The Louisiana Department of Agriculture and Forestry (LDAF) will enhance the competitiveness of Louisiana-grown pecans by implementing a successful promotional campaign for a second year. The marketing strategies for a Phase 2 effort will include continuing Louisiana-grown pecan promotion through (1) use of outdoor advertisements in major metropolitan areas in Louisiana, (2) use of web/social media pages of Louisiana Department of Agriculture and Forestry and the Louisiana Pecan Growers Association, (3) placing advertisements in trade publications, and (4) developing a pecan promotion video for social media.	$69,500.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Louisiana Department of Agriculture and Forestry	$394,986.52	4. Developing Practices to Minimize the Food Safety Risk Associated with Cryptosporidium on Specialty Crop	Cryptosporidium spp is the major agent responsible for diarrhea related outbreaks and around 8% cases accounts for the domestically acquired foodborne cryptosporidiosis in the US. The purpose of this project is to understand how Cryptosporidium behaves in Louisiana weather and develop practices to minimize the food safety risk associated with Cryptosporidium. This project will take place at the LSU AgCenter. Project activities will focus on examining the effect of temperature and relative humidity on Cryptosporidium oocyst in soil and soil amendments. A scientifically based practice measure will be identified to minimize the risk of Cryptosporidium oocyst on specialty crops. The results from this study will be disseminated to Louisiana specialty crop growers through Dr. Adhikari's ongoing food safety training, LSU AgCenter extension outreach programs, and presentation during Louisiana Fruit and Vegetable Growers Association meeting.	$59,994.00
Louisiana Department of Agriculture and Forestry	$394,986.52	5. Biopolymer-based Active Coatings Combined with Rosemary Extract to Enhance Produce Safety	Cantaloupe is a popular fruit, but foodborne illnesses associated with the fruit are a concern. Irrigation water and wildlife can be good vehicles for transferring pathogenic bacteria to the cantaloupe. The proposed study aims to determine the efficacy of the biodegradable biopolymer coatings containing rosemary extract in reducing E. coli O157:H7 and Listeria monocytogenes levels on the surface of cantaloupe and in reducing microbial spoilage loads.	$49,273.00
Louisiana Department of Agriculture and Forestry	$394,986.52	6. Best Practices to Reduce Heavy Metals in Louisiana Sweet potatoes for Increased Competitiveness and Food Safety	The LSU AgCenter will undertake on-farm surveys and research station experiments to identify management practices that reduce heavy metal presence in Louisiana sweet potatoes. The project will generate GIS-based farm-specific risk maps of heavy metal presence in sweet potato growing areas. It will also conduct on-station studies to identify the role of pH, nutrients, irrigation water, and organic matter in reducing heavy metal presence in sweet potato. Individual grower training sessions will be conducted to enable the grower to interpret the risk maps and develop location-specific management strategies. The overarching goal of this project is to engage stakeholders to ensure that learning, action, and enhanced productivity goals are achieved.	$78,480.43

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Louisiana Department of Agriculture and Forestry	$394,986.52	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$31,543.42
Maine Department of Agriculture, Conservation, and Forestry	$613,572.55	1. The Millennial Opportunity: Expanding Supply, Demand, and Infrastructure for a New Era of Maine Wild Blueberry Sparkling Wine	Bluet, creator of Maine's first nationally viable wild blueberry sparkling wine and a recipient of Specialty Crop Block Grant support since fall 2020, has been working with a broad set of stakeholders to expand the supply, demand, and infrastructure for sparkling wines made with 100% Maine wild blueberries. This project will leverage wine's unparalleled ability to add market value and express the most compelling stories of the state's wild blueberry landscape, advancing our goals of boosting field prices for Maine growers and growing a multi-million wild blueberry wine industry with broad, deep, lasting benefits for Maine.	$100,00.00
Maine Department of Agriculture, Conservation, and Forestry	$613,572.55	2. Maine Produce Safety Improvement Project III	The Maine Organic Farmers and Gardeners Association (MOFGA) will continue to enhance food safety and increase the number of farms able to come into compliance with the Food Safety Modernization Act (FSMA) Produce Safety Rule, and/or a GAP/GHP audit, by providing educational trainings, workshops, and demonstrations about food safety, one-on one technical assistance, and financial resources to Maine farmers. MOFGA's team of experienced and knowledgeable service providers will continue to offer, to a new group of 15 farmers, needed technical assistance to improve on-farm produce safety, help with SOP plans, and recommendations for upgrades, system changes, and facility layouts.	$91,806.32

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Maine Department of Agriculture, Conservation, and Forestry	$613,572.55	3. Investigating Cultural Practices to Improve Integrated Pest Management Practices for Potato Viruses of Potato. (Year 2 of 3)	The Maine Potato Board will investigate the efficacy of cultural practices to reduce the incidence and spread of potato virus Y (PVY) and Potato Leafroll Virus (PLRV); specifically the practices of intercropping (mixed- species planting or nurse cropping), grain-seeded spray alleys to prevent potato plant damage and mechanical PVY infection, grain-seeded field borders as PVY buffers, and improved targeting and management of environmental inoculum provided by volunteer potatoes and solanaceous weeds. Project results will be shared with Maine potato producers through grower meetings, and through a written report on Integrated Pest Management Strategies for PVY in Maine.	$83,705.00
Maine Department of Agriculture, Conservation, and Forestry	$613,572.55	4. Improving Leaf Spot Management to Enhance Wild Blueberry Health, Yield, and Climate Resilience	This University of Maine project will support the sustainability of wild blueberry by examining the effects of leaf spot diseases on wild blueberry health and yield, and the use of fertilizer, fungicides, and irrigation to mitigate the effects of leaf spot infection under the current and a warming climate. We will test effective, low-cost, and environmentally friendly disease management techniques to secure and improve wild blueberry production. This project will also identify the fungi found in leaf spot infected leaves to determine whether fungi living in blueberry leaves aid in plant protection or cause further damage.	$93,469.00
Maine Department of Agriculture, Conservation, and Forestry	$613,572.55	5. Drought Stress Management for Wild Blueberry Growers	The University of Maine System Wild Blueberry Research and Extension Team will identify specific recommendations for wild blueberry growers to manage drought stress through soil amendments and irrigation timing. Research and education supported by this program has led us to the conclusion that drought stress is a major current and future limitation to wild blueberry production. In this project we will continue studying amendments to aid in soil moisture retention while expanding our research into irrigation timing and soil health.	$63.058.30

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Maine Department of Agriculture, Conservation, and Forestry	$613,572.55	6. Enhancing the Efficacy of Managing Soilborne Diseases in Potato Production through Integrated Soil Improvement	The University of Maine propose to conduct laboratory and field studies to identify the microorganisms responsible for accelerated degradation of fumigant and find a solution to remediate impaired soil. The outcome will be expected to improve soil fumigation and soil health. We will team up with potato extension specialist and plant pathologies. Data from these studies will aid in soil treatment and disease management. Information generated will be disseminated to stakeholders though field days, Maine potato conferences, Extension meetings and academic conferences.	$76,280.00
Maine Department of Agriculture, Conservation, and Forestry	$613,572.55	7. Fresh Maine Wild Blueberries: Industry, Extension, Academic collaboration to protect and enhance safety and quality	The University of Maine College of Natural Sciences Forestry and Agriculture and Cooperative Extension will partner with Maine wild blueberry growers to enhance food safety and quality of fresh product by assessing its sanitary quality throughout small scale fresh pack processing environments, developing improved handling techniques to extend fruit shelf life, and developing educational materials to be disseminated to industry members through grower meetings, factsheets, and webinars.	$50,614.00
Maine Department of Agriculture, Conservation, and Forestry	$613,572.55	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$52,407.18
Maryland Department of Agriculture	$479,561.03	1. Building Better Beekeepers in Maryland	The University of Maryland's Bee Lab will engage with Maryland (MD) beekeeping associations and equipment suppliers to foster better beekeeping practices in the state by developing, delivering, and promoting best practices for protecting MD pollinators. The extension materials will include efforts to help "wannabee" beekeepers decide if beekeeping is right for them by transparently presenting the resources and efforts needed to keep colonies alive. We will develop a "Beekeepers Creed" that will outline the broad responsibilities associated with beekeeping. A Maryland-specific Best Management Practices (BMPs) document will also be developed and distributed.	$40,378.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Maryland Department of Agriculture	$479,561.03	2. Evaluating Apple Rootstock Performance in High-Density Plantings Under Maryland Conditions	University of Maryland will evaluate the influence of a panel of ten different apple rootstocks established in combination with the high-value commercial cultivar Buckeye Gala in a high-density planting, on key tree, fruit quality and ripening pattern characteristics. These features will be assessed for two consecutive growing seasons under Maryland environmental conditions. Findings from this study will be used to provide apple growers critical information and recommendations that will allow them to select the best performing rootstocks under local conditions, and therefore increase the value and marketability of their crop that can lead to greater profits.	$30,111.00
Maryland Department of Agriculture	$479,561.03	3. Harvesting Chestnuts: Reviving Maryland's Oldest Specialty Crop	SilvoCulture, Inc., a Maryland-based non-profit organization, plans to create a viable chestnut harvesting system that will generate revenue for Maryland farmers and provide a marketable locally produced food source. Through a collaboration with organizations such as the Northern Nut Growers Association and the Pennsylvania-based Swallowtail Farm, SilvoCulture Inc. will 1) identify and document the location of Maryland chestnut orchards; 2) establish a chestnut harvesting hub that will function beyond the project; 3) promote best practices for chestnut production, harvesting, and marketing; and 5) design, build, and test a solar dryer for chestnut processing. Results will be published in a series of documents to include a final report; survey results for Maryland chestnut orchards; and the design and testing of the solar dryer.	$30,000.00
Maryland Department of Agriculture	$479,561.03	4. Maryland's Best – Promoting Specialty Crops to Maryland Consumers and Distributors	Maryland Department of Agriculture's Agriculture Marketing Section will promote local specialty crops to consumers and distributors through advertising, a podcast highlighting specialty crops and the farmers who produce them, the website Marylands.Best.net, Maryland Public Television, business to business meetings, and point of sale.	$166,954.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Maryland Department of Agriculture	$479,561.03	5. Produce Safety GAP/GHP Programs to Provide Market Access and FSMA Produce Safety Rule Compliance	The Maryland Department of Agriculture Food Quality Assurance Program will partner with the University of Maryland Plant Sciences and Landscape Architecture Department, University of Maryland Extension, University of Maryland Eastern Shore, and the University of Maryland Agricultural Law Education Initiative to continue providing coordinating food safety programs based on research; lessons learned from previous projects; identified gaps in specialty crop growers food safety knowledge; and updates to GAP and Produce Safety Rule standards to assist specialty crop producers in complying with the Food Safety Modernization Act Produce Safety Rule and maintaining/gaining market access through GAP certification.	$123,853.00
Maryland Department of Agriculture	$479,561.03	6. Safety, Consumption and Sustainability of Specialty Crops	Aarons Place Inc, a non-profit will be collaborating with University of Maryland Extensions, a local female farmer, and a local Latino farmer to raise a variety of specialty crops for distribution to food insecure families, while increasing one's nutritional and food safety knowledge and consumption of specialty crops with measurable outcomes. The main focus of this project is to expand the consumption of specialty crops in a manner that benefits food insecure communities. Particular attention will be given to those of various ethnicities, as Aaron's Place serves a large Latino and Haitian population that would greatly benefit from the expansion of specialty crops. Aaron's Place's goal is to advance the knowledge and distribution of specialty crops through both famers and consumers with this grant.	$35,000.00
Maryland Department of Agriculture	$479,561.03	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$53,365.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Massachusetts Department of Agricultural Resources	$465,122.39	1. Cultural Connections through Specialty Crop Production and Education	Mill City Grows will conduct the Cultural Connections program to facilitate access to and education about fresh, local, culturally connected specialty crops for socially disadvantaged communities with a focus on Southeast Asian, Latinx, and African Diaspora communities in Lowell, Ma. Purchase and consumption of culturally connected specialty crops will increase as a result of this project. This will be accomplished through conducting community and field research on the most desirable specialty crops and how to grow them in our region, expanding point of sale education with staffed outreach tables and multilingual marketing, and the development of a network of regional grower support.	$68,487.47
Massachusetts Department of Agricultural Resources	$465,122.39	2. Eating Seasonally: Learning How to Store and Preserve Local Specialty Crops Year-Round	Through Coastal Foodshed's Learn to Love Local program, we will educate customers on the seasonality of Massachusetts grown specialty crops through free workshops where participants will learn simple and affordable ways to preserve and store seasonal crops. We will also develop a comprehensive marketing campaign and materials to be distributed through our markets, social media channels, and housed on our website to reach additional community members. Finally, we will compile all this information into a digital resource to also be permanently available on our website and to be shared with partnering organizations and farmers for further distribution.	$62,690.00
Massachusetts Department of Agricultural Resources	$465,122.39	3. Expanding Agroforestry & Nut Crops in Massachusetts through Peer-to-Peer Farmer Education and Consumer Outreach	The Massachusetts Chapter of the Northeast Organic Farming Association (NOFA/Mass) will provide outreach and education to farmers and consumers in an effort to increase the prevalence of agroforestry production systems and demand for local nut crops in Massachusetts through agroforestry systems development plans, education events, and outreach initiatives geared toward farmers and consumers.	$80,832.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Massachusetts Department of Agricultural Resources	$465,122.39	4. Groundwork Lawrence Community Cooking Classes to Improve Local Nutrition and Increase Specialty Crop Consumption	Groundwork Lawrence (GWL) will promote the purchase and utilization of specialty crops and create a healthier Lawrence by re-establishing our community cooking classes following the lifting of COVID-19 restrictions and increased vaccination rates. Resident interest in learning cooking techniques and use of both familiar and new produce will be addressed through a series of intentionally focused cooking classes with 190 participants over the three-year grant period. Through this work, GWL will increase the consumption of specialty crops in Lawrence and foster improved public health.	$58,726.00
Massachusetts Department of Agricultural Resources	$465,122.39	5. Laser Scarecrow Pest Control for Beginning and Disadvantaged Farmers	Farm & Community Collaborative, Inc. (“F&CC”), in partnership with farmer and technical advisor Ken Elliot and mechanical engineer Carlton Brule, will provide four Massachusetts small farms, with priority given to beginning and/or socially disadvantaged farmers, with 23 “Green Scarecrow” laser units as well as one-on-one technical assistance in the 2023 season. Green Scarecrow is an eco-friendly laser technology that mitigates bird damage in orchards, vineyards, and field crops. The goal of this project is to improve pest control processes to increase production yields and economic return for small farms, which would ultimately increase consumer purchasing and consumption of specialty crops.	$76,500.00
Massachusetts Department of Agricultural Resources	$465,122.39	6. Training Underserved Communities to Drive Specialty Crop Consumption in Hampshire County	The Collaborative for Educational Services (CES) will partner with Community Involved in Sustaining Agriculture (CISA) to train up to 120 historically underserved Hampshire County residents and up to 120 other participants on managing businesses and/or programs that increase sales of Massachusetts specialty crops. CES will coordinate a needs assessment to develop a 12-part training series; enroll and support program participants; disseminate a training resource for future adoption; and evaluate the program’s success. CISA will develop and present the training program’s modules; offer one-on-one coaching to support underserved residents; and develop and disseminate a training resource	$79,840.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Massachusetts Department of Agricultural Resources	$465,122.39	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding. .	$37,137.00
Michigan Department of Agriculture and Rural Development	$2,153,501.01	1. International and Domestic Promotion of Michigan Specialty Crops	The Michigan Department of Agriculture & Rural Development's (MDARD) International Marketing Program will continue collaborative work with the Cherry Marketing Institute, Michigan Bean Commission, Michigan Apple Committee, the Michigan Blueberry Commission, the Michigan Asparagus Advisory Board, the Michigan Vegetable Council, and the Michigan Potato Industry Commission to promote Michigan specialty crops both domestically and internationally. The International Marketing Program will collaboratively work with the specialty crop commodity groups to provide mini grants to bring either domestic or international buyers to Michigan. The goal of all activities is to increase purchases of Michigan specialty crops and provide markets for producers.	$164,507.50
Michigan Department of Agriculture and Rural Development	$2,153,501.01	2. Increasing Access to and Consumption of Community Garden Fruit Crops Consumption of Community Garden Fruit Crops Consumption of Community Garden	The Charter Township of Canton, Leisure Services Department, strives to increase the access to and consumption of specialty crops by planting and harvesting fruit trees and bushes that will be planted in designated community gardens. Leisure Services' Parks and Recreation staff and volunteers will plant and care for crops, disseminate educational materials and share crops to targeted areas. Beneficiaries of the nutrition program and produce will include seniors, food assistance recipients, Farmers Market attendees and community event participants. By increasing access and awareness of nutritious foods, Canton looks forward to reducing food insecurity and improving community health.	$19,410.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Michigan Department of Agriculture and Rural Development	$2,153,501.01	3. Advancing Control and Mitigation Strategies for an Emerging Hop Disease in Michigan	The Hop Growers of Michigan, in collaboration with the Small Fruit and Hop Pathology Laboratory at Michigan State University, will investigate multiple approaches to chemical and cultural management strategies for a new disease named halo blight, caused by Diaporthe by 1) developing diagnostic tools for hop cone diseases, 2) continuing to evaluate fungicide efficacy of Diaporthe, 3) determining the role of herbicides in Diaporthe infections, 4) evaluating the impact of fungicides on Diaporthe infection through in vitro assays, and 5) collaborating with growers to determine the effect of mechanical crown scratch on inoculum levels and disease severity. This project will allow the researchers at Michigan State University to develop scientifically derived management strategies for this emerging hop disease and will be disseminated by various annual outreach activities and grower focused events.	$99,000.00
Michigan Department of Agriculture and Rural Development	$2,153,501.01	4. Michigan GROWN, Michigan GREAT Streaming and Digital Advertising Campaign	The Michigan Ag Council will promote the sales of Michigan-grown specialty crops to consumers through streaming commercials and paid content articles which will target specific demographics responsible for making purchasing decisions for the household.	$100,000.00
Michigan Department of Agriculture and Rural Development	$2,153,501.01	5. Developing a Sustainable Asparagus Beetle Management Program for the Michigan Asparagus Industry	The Michigan Asparagus Advisory Board (MAAB) will establish an agreement / contractual relationship with the Michigan Department of Agriculture & Rural Development to develop scientifically based, practical measures for asparagus beetle management and disseminate results to stakeholders through grower meetings and field days. The project outcome will include a more effective management program for asparagus beetles -- the most important insect pest of asparagus in Michigan.	$97,862.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Michigan Department of Agriculture and Rural Development	$2,153,501.01	6. Validation of Improved Dry Bean Varieties, Maturities, and Integrated Weed Management Systems: PHASE II Managing Production for an Evolving Market	The Michigan Bean Commission (MBC) will work to improve environmental and economic sustainability of dry bean production in Michigan while improving quality and reducing the use of synthetic crop inputs to better meet the demands of a changing marketplace. For Michigan Producers to remain the leader in dry bean quality demanded by the consumer into the future, research needs to focus on the reduction of reliance on harvest-aid applications.	$100,000.00
Michigan Department of Agriculture and Rural Development	$2,153,501.01	7. Enhanced Strategies to Communicate the Value of Michigan Dry Beans: Conventional and Digital Educational Programs to Increase Bean Consumption for Today's Health-Conscious Consumers	The Michigan Bean Commission (MBC) will work to enhance consumer awareness through educating and engaging them directly regarding the health benefits of incorporating nutrient dense dry beans in their daily diet. This will be achieved through the implementation of multifaceted strategies to communicate and educate the value of Michigan dry beans. It is proposed that conventional and digital approaches (social media and web-based resources) designed for specialized educational programs be targeted to increase Michigan dry bean consumption.	$119,600.00
Michigan Department of Agriculture and Rural Development	$2,153,501.01	8. A Deep-Rooted Problem: Addressing a New Disease in Michigan Carrots	The Michigan Carrot Committee, along with Michigan State University, will investigate a newly reported disease, black rot, on Michigan carrots. This disease is incited by the soil-borne, fungal pathogens, Alternaria radicina and Alternaria carotiinucultae. Symptomatic carrots at three stages in carrot maturity – seedling, plants in the field, and stored carrot roots – will be sampled and cultured for the causal pathogens of the disease, Alternaria radicina and A. carotiincultae. The pathogen(s) will be identified through combined morphological examination, molecular sequencing, and pathogenicity testing; the results of the study will be shared with growers through meetings, field days, and the Great Lakes Expo. Findings will serve as a foundation for disease control strategies.	$96,332.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Michigan Department of Agriculture and Rural Development	$2,153,501.01	9. Aster Yellows Detection in Leafhoppers to Improve Sustainable Crop Management	Researchers at Michigan State University will develop a new DNA-extraction method to improve the diagnostics-based management for aster yellows and disseminate results to stakeholders. The project's outcome will include a more effective diagnostic program for aster yellows, a disease transmitted by aster leafhoppers to vegetable crops across Michigan.	$86,742.00
Michigan Department of Agriculture and Rural Development	$2,153,501.01	10. Determining the Role of the Fusarium Species Associated with Michigan Celery "Meltdown"	Celery Research Inc. has partnered with Michigan State University (MSU) researchers to address celery "meltdown" which reduces quality and yield. "Meltdown" includes stunting, wilting, chlorosis, crown rot and plant death. The purpose of this grant is to determine the specific causes of celery "meltdown" and to develop a guide of diagnostic symptoms of "meltdown" to aid in on-farm diagnosis and a rapid PCR assay to detect the pathogens that cause Fusarium Yellows on celery. We will test isolates previously collected from diseased plants for their ability to cause "meltdown" symptoms to determine their pathogenicity. If a difference in pathogenicity is observed by cultivar, these results will inform the selection of cultivars and serve as an important outcome of this project. Results and recommendations will be communicated to celery growers and stakeholders.	$96,271.00
Michigan Department of Agriculture and Rural Development	$2,153,501.01	11. Evaluating the Samba Wasp as a Promising New Biocontrol Agent for Spotted-Wing Drosophila in Michigan	The Michigan Cherry Committee, in collaboration with entomologists at Michigan State University, will establish a contractual relationship with MDARD to begin rearing, releasing, and assessing establishment of Ganaspis brasiliensis (a.k.a. the samba wasp) a promising new biological control agent of spotted wing drosophila, the most economically important insect pest of Michigan's cherry and blueberry industries.	$99,993.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Michigan Department of Agriculture and Rural Development	$2,153,501.01	12. MCTA Website Reboot: Using the Internet to Increase Awareness and Access of Michigan Christmas Tree Farms	The MCTA will contract with Courtland Consulting to overhaul the MCTA website with the current most up-to-date software. In addition to the website overhaul, the MCTA is requesting additional funding for targeted advertisements to be placed on social media platforms such as Facebook and Instagram, during the holiday's directing potential customers to the MCTA website. Once on the website, consumers will gain awareness and knowledge of the industry and access to Michigan Christmas tree farms. Updating the MCTA website will aid in promoting the industry through greater access to farms by connect more customers to Michigan Christmas tree farms, ultimately having a positive impact on Michigan's economy.	$30,900.00
Michigan Department of Agriculture and Rural Development	$2,153,501.01	13. Using Greenhouse Lighting to Limit Losses from Downy Mildew on Bedding Plant Impatiens	This proposal submitted by the Michigan Greenhouse Growers Council (MGGC) in conjunction with Michigan State University (MSU) researchers aims to reduce or eliminate losses from the impatiens downy mildew (IDM) pathogen and enhance the quality of bedding/ seed impatiens (Impatiens walleriana) by introducing new strategies. A direct outcome of this project will be the reduction in exposure and costs to control IDM by greenhouse growers and landscapers through reducing the need for chemical fungicides. We propose to reduce reliance on fungicides and enhance plant quality by 1) quantifying the effect of low-intensity lighting of different light qualities on a) the IDM pathogen, b) the plant's susceptibility to IDM c) determining if growth or development are affected by different light qualities, and 2) providing grower outreach regarding fungicide alternatives.	$80,470.00
Michigan Department of Agriculture and Rural Development	$2,153,501.01	14. Onion Thrips and Foliar Disease Management in Commercial Onions in Michigan	The Michigan Onion Committee, working with Michigan State University, will identify a more effective management program for onion thrips, the most important insect pest of onions, that incorporates an understanding of their interactions with important onion diseases. Researchers at Michigan State University will develop scientifically based practical measures for onion thrips and disease management and disseminate results to stakeholders through grower meetings and field days.	$97,862.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Michigan Department of Agriculture and Rural Development	$2,153,501.01	15. Integrated Volunteer Potato and Colorado Potato Beetle Control for Sustainable Potato Production in Michigan	Michigan State University will conduct field studies to assess impacts of integrated volunteer potato and Colorado potato beetle (CPB) control on commercial potato production. This project will investigate new control options for volunteer potatoes and CPB in Michigan and includes partners that will create multi-disciplinary interactions (MSU Potato Specialist, Weed Scientist, Entomologist, and Pathologist) to form integrative solutions and make long-lasting contributions to the Michigan agricultural industry. The findings of this research will be disseminated to local, regional, and national stakeholders through extension and scientific meetings.	$100,000.00
Michigan Department of Agriculture and Rural Development	$2,153,501.01	16. Estimating Financial and Environmental Sustainability of Apple Production in Michigan	The Michigan State Horticultural Society, in collaboration with Michigan State University, will support the financial and environmental sustainability of the apple industry by creating a cost of production estimate for commercial apple farming in Michigan, including carbon emissions and sequestration. The estimate will be generated by gathering the range of costs associated with individual components of production, conducting an economic analysis, and synthesizing the data into a decision tool for individual use. Educational sessions and resources will be created to inform industry members of the cost of production estimate and decision tool, and how to use them. These products may be used to inform decision making from individual farms to industry-wide levels.	$58,246.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Michigan Department of Agriculture and Rural Development	$2,153,501.01	17. Assessing and Managing Fungicide Resistance in Strawberry and Raspberry	The Michigan State Horticultural, in collaboration with the Small Fruit and Hop Pathology Laboratory at Michigan State University, will focus on assessing fungicide resistance and developing management strategies for two major fungal diseases of strawberry and raspberry, powdery mildew and gray mold, which reduces harvestable yield, lowers fruit quality, and causes postharvest fruit decay. The objectives of this study are to 1) investigate current and new products for powdery mildew and gray mold control in raspberry and strawberry, 2) screen fungicide resistance in raspberry B. cinerea isolates, 3) conduct fungicide resistance screening in strawberry B. cinerea and strawberry P. aphanis isolates, 4) develop molecular markers to detect fungicide resistance in strawberry powdery mildew, and 5) communicate fungicide resistance findings to stakeholders.	$99,000.00
Michigan Department of Agriculture and Rural Development	$2,153,501.01	18. Michigan Tree Fruit Industry Survey	USDA-NASS Great Lakes Regional office will conduct a tree fruit industry survey of sweet cherry, tart cherry, apple, peach, and plum grower acreage in Michigan. Additionally, information on access to farm workers, and other operational questions will be asked. This survey will provide key data as these tree fruit industries make decisions related to research, marketing, education, and operations of the industry. It will allow the fruit industry and policy makers to make sound business, marketing, and policy decisions that will competitively position Michigan's fruit industry in both national and global markets.	$96,486.00
Michigan Department of Agriculture and Rural Development	$2,153,501.01	19. Pest Risk and Management in High-Density Apples and Cherries	Michigan State University will compare pest activity and damage in high-density and conventional plantings of 'Honeycrisp' apples and sweet cherries. The project will test the efficacy of netting as a pest management technique in high-density plantings for pest birds (in apples and cherries), apple maggot and codling moth (in apples), and spotted wing drosophila (SWD; in cherries), through a replicated field experiment. We will assess the effects of netting on fruit quality. The results will be disseminated to growers through meetings, field days, and extension articles.	$99,321.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Michigan Department of Agriculture and Rural Development	$2,153,501.01	20. Testing New Ways to Monitor and Manage Cucurbit Downy Mildew	The Michigan Vegetable Council has partnered with Michigan State University (MSU) researcher, Dr. Mary Hausbeck, to develop novel strategies to protect the state's cucumbers from the downy mildew pathogen, Pseudoperonospora cubensis. The goal of this project is to improve management of downy mildew by basing fungicide spray intervals on environmental conditions and comparing an intermediately resistant cucumber variety to a susceptible variety. The outcomes will be a tool to help growers apply fungicides when the weather favors disease resulting in reduced management costs and optimum production and yield. Another outcome will be that a recommendation will be provided to growers about how to incorporate intermediately resistant varieties into existing management programs.	$96,486.00
Michigan Department of Agriculture and Rural Development	$2,153,501.01	21. Development and Dissemination of Practical Methods that Protect Michigan's Chestnut Yields from Brown Rot	Midwest Nut Producers Council (MNPC), in partnership with the Michigan State University (MSU) chestnut team, will link researchers, extension educators and commercial growers to identify, share and implement practical and affordable brown rot management options affecting the chestnut industry. This project builds on previous research that identified multiple organisms that cause nut rots and documented their relative significance. The project will focus on the following objectives to identify and implement practical methods that protect Michigan's chestnut yields from brown rot: 1.) evaluate field management strategies for brown rot through replicated trials that assess the efficacy of candidate fungicides and orchard floor management practices; 2.) identify key pathogens causing nut disorders, and 3.) develop and disseminate practical and prescriptive recommendations on brown rot management to growers and processors through annual MSUE events, MNPC meetings, journal publications and trade publications.	$100,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Michigan Department of Agriculture and Rural Development	$2,153,501.01	22. Integrating Sweet Cherry Row Covers to Combat Environmental Factors to Increase Production, Expand Retail Markets	Riveridge Produce Marketing will integrate row covers into established sweet cherry orchards to combat environmental factors to increase production, expand retail markets and share key learnings with other growers and researchers in the state.	$78,577.00
Michigan Department of Agriculture and Rural Development	$2,153,501.01	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$125,481.96
Minnesota Department of Agriculture	$1,368,798.17	1. Optimizing Protected Culture Strawberry Production for Environment and Financial Sustainability	Twin Cities Berry Company LLC, a research and production farm, will be developing climate resilient practices for high-density strawberry production within protected culture structures, allowing new and emerging farmers to overcome spatial and environmental hurdles to financial sustainability. Twin Cities Berry Company, supported by several industry stakeholders, proposes research to modify caterpillar tunnels- inexpensive infrastructure already common on many small farms with new and emerging farmers (NEFs)- into completely enclosed ecosystems that combine tabletop 'horizontal' strawberry fruit production with hanging trough 'vertical' fruit production. Properly utilizing the tunnel space this way allows for a minimum 2.32x increase in planting density. Plants are managed in containers within the tunnels, modified with insect exclusion netting to be passively resilient against pest and climate pressures. These enclosed ecosystems will henceforth be referred to as "Fruit Factories". Project objectives and outcomes will be evaluated by Dr. Petran and project stakeholders.	$123,235.81

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Minnesota Department of Agriculture	$1,368,798.17	2. Management of SWD in Small Fruit with Botanical-Based Repellents and Classical Biological Control	This project from the University of Minnesota will investigate botanical-based repellents to prevent infestation of small fruit by spotted-wing drosophila (SWD) and facilitate the rearing and release of Ganaspis brasiliensis in Minnesota for biological control of SWD. This project will advance sustainable integrated pest management of SWD in small fruit by developing two new technologies to protect fruit and suppress SWD populations.	$124,980.00
Minnesota Department of Agriculture	$1,368,798.17	3. Developing Enterprise Budgets to Inform Marketing Channels for Specialty Crop Producers	University of Minnesota personnel will create enterprise budgets for six crops in Minnesota that have been identified as most desirable for school food service professionals and develop decision-making tools about which crops to grow for Farm to School markets, and at what scale. The Department of Horticultural Science faculty member and extension educators at the University of Minnesota will work with local produce farmers who aim to sell to institutions to develop enterprise budget and decision tools. As institutions across Minnesota invest in farm to institution (e.g., schools) relationships and sales, farmers need to know how to profitably produce the crops that food service professionals are looking for.	$124,868.00
Minnesota Department of Agriculture	$1,368,798.17	4. Cold-hardiness Evaluation for Breeding and Variety Release Using Thermal Analysis in Grapes	This project by the University of Minnesota uses differential thermal analysis to assess grape buds for hardiness to inform breeding decisions, make selections and variety release decisions, speed up the breeding process, and understand the genetics of winter survival in grape. Winter hardiness is critical to variety success for Minnesota grapes. Typically, cold hardiness is considered as plants surviving extreme low temperatures and the USDA hardiness zones approximate these expected temperatures. However, the paradigm for defining hardiness is shifting with additional emphasis on adaptation in fall in response to temperature and day length, acclimation to cold temperatures (extreme cold hardiness), de-acclimation in spring, and spring frost avoidance	$124,653.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Minnesota Department of Agriculture	$1,368,798.17	5. Fostering Stable, Resilient Botanical Farms and Value-added Ventures Through Business Law Education	Farm Commons will empower botanical producers with essential business law information that enables them to create resilient botanical production operations and value-added enterprises that satisfy growing market demand. Farm Commons will increase the resilience and ability of botanical growers and value-added ventures to expand by providing training on the most crucial business law issues facing these producers. At least 200 specialty crop growers will increase their knowledge on 8 specific learning objectives that center around compliance with food safety regulations, product/content labeling, insurance and licensing needs, marketing, and health claims as well as employment law obligations.	74,117.40
Minnesota Department of Agriculture	$1,368,798.17	6. Implementing New Strategies to Expand Hard Fescue Seed Production in Northern Minnesota	The University of Minnesota will optimize hard fescue seed production in northern Minnesota through agronomics and breeding. Hard fescue is a new crop that benefits Minnesota producers economically, while reducing environmental impacts. This project aims to optimize hard fescue establishment in a seed production system for farmers in northern Minnesota. Our approach involves both agronomics and plant breeding.	$125,000.00
Minnesota Department of Agriculture	$1,368,798.17	7. Developing Variable Rate Nitrogen and Water Management Strategies for Sustainable Potato Production	This University of Minnesota project will develop and evaluate variable rate nitrogen and irrigation management strategies to increase nitrogen and water use efficiencies and reduce nitrate leaching losses to support sustainable potato production in Minnesota. The University of Minnesota is submitting this grant proposal to evaluate the potential benefits of variable rate nitrogen (N) and irrigation management in terms of potato tuber yield, quality, N and water use efficiencies, economic returns, nitrate-N leaching losses and develop integrated variable rate N and irrigation management strategies to support sustainable potato N management in Minnesota. Minnesota stands as the seventh potato-producing state in the country with 42,000 acres planted for potatoes in 2021.	$124,663.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Minnesota Department of Agriculture	$1,368,798.17	8. New Dual-purpose Potato Clone MN13142 with Long Dormancy: Extension Bulletin Development for Growers	This University of Minnesota project will improve potato production sustainability in the Midwest by adopting a new variety with improved tuber quality, long-term storage, and reduced chemical use. Certified seeds will be developed for commercial potential evaluation. The University of Minnesota is submitting this grant proposal to release a new potato variety for local fresh pack and organic potato growers. With increasing concern over the use of chemicals in our food supply, the potato industry must identify/develop cultivars with minimal or no chemical use	$124,978.00
Minnesota Department of Agriculture	$1,368,798.17	9. Protecting Minnesota's Christmas Tree Industry from Elongate Hemlock Scale	Elongate hemlock scale is an invasive species found on Minnesota Christmas trees imports 2018-2021. Prior work suggests Elongate Hemlock Scale (EHS) can overwinter in at least the southern third of the state. This Minnesota Department of Agriculture project, with research done at the University of Minnesota, will determine the effect of host on winter survival. The MDA will establish a contract with Dr. Aukema at the U of MN to determine the host effect on cold hardiness of elongate hemlock scale. EHS is an insect that infests Fraser fir (a popular Christmas tree) and other firs and spruces. Its preferred host is hemlock. EHS is native to Japan, but has spread through much of the range of hemlock in the eastern U.S.	$124,854.00
Minnesota Department of Agriculture	$1,368,798.17	10. Grow and Gather! Farm to School & Early Care Grant Support and Evaluation	IATP seeks to support the success and formally evaluate MDA’s grant program reimbursing schools for purchases from MN farmers as the program grows beyond its pilot. Building on our FFY20 Specialty Crop grant, 2.5 years of continued funding will cover pivotal growth, as MDA’s grant doubled between the first and second rounds of funding and is poised to again double funding and expand eligibility to include early care providers with the next round of grants.	$72,760.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Minnesota Department of Agriculture	$1,368,798.17	11. Statewide Promotion of Minnesota Grown Specialty Crops Through Sponsored Search and Social Media	Minnesota Department of Agriculture's Minnesota Grown Program is the statewide program charged with promoting locally grown fruits, vegetables, and other specialty crops. Since it received its first permanent funding from the state legislature in 1987, this public-private partnership has grown to include nearly 1,300 producer members and approximately 80% of these producers' market at least one specialty crop. The program includes a robust online platform and directory to connect consumers with producers; an extensive array of marketing materials for member farms and retailers; a limited amount of paid TV and digital advertising across Minnesota; and public relations activities.	$83,972.35
Minnesota Department of Agriculture	$1,368,798.17	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$134,305.71
Mississippi Department of Agriculture and Commerce	$436,232.34	1. Raspberry Cultivar Evaluation Trial in Mississippi	Raspberries are functional foods rich in mineral nutrients and health beneficial phytochemicals. They are ranked as the third most popular berry following strawberries and blueberries in the US. Due to their health benefits, consumer interest in raspberries has been increasing rapidly in recent years. Raspberries grow best in regions with cool summers and mild winters. However, newer cultivars have been developed to tolerate more heat and sun. Local Mississippi growers are interested in incorporating raspberries into their productions to diversify crop profiles to meet increasing consumer demands and improve farm incomes	$33,649.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Mississippi Department of Agriculture and Commerce	$436,232.34	2. Characterization of Melatonin and 2,4,6-T as Herbicide Safeners in Tomato and Protective Responses Induced by Safeners	The Mississippi State University will provide effective control of problematic weeds in tomato production systems by increasing tolerance of tomato to effective herbicides using safeners. The main goal of this project is to use safeners to increase tolerance of tomato to herbicide that are effective in controlling problematic weeds, including yellow and purple nutsedge, annual grasses, and pigweed species. We will also confirm if the use of safeners do not produce any antagonistic effects with the herbicides tested. Results from this project will be made available to approximately 1,200 stakeholders at the Vegetable Field Day, American Society of Horticultural Science, and Southern Weed Science Society Annual Meeting, combined.	$38,082.00
Mississippi Department of Agriculture and Commerce	$436,232.34	3.Instrumented Assessment of Sweet Potato Harvest and Packing Line Impacts Towards Damage Reduction	Mississippi State University will collaborate with local sweet potato growers and packers to reduce mechanical impact damage during harvest and packing line operations. This project is to: 1) measure impacts due to mechanical harvest and packing lines using an impact recording device, 2) quantify visual damage on sweet potato storage roots through image analysis, and 3) determine sweet potato impact damage thresholds. Research-based findings will be published in peer-reviewed journal articles and widely shared with stakeholders via extension publications, electronic newsletters, webpages, and social media.	$50,000.00
Mississippi Department of Agriculture and Commerce	$436,232.34	4. Mississippi Sweet Potatoes - Superfood of the South	The Mississippi Sweet Potato Council will work to promote Mississippi Sweet Potatoes. This program will work to broaden markets in high traffic areas across the nation and educate consumers of how healthy sweet potatoes are and where their food comes from. This project will also promote sweet potatoes within Mississippi by distributing educational material at large attendance events.	$59,500.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Mississippi Department of Agriculture and Commerce	$436,232.34	5. Determine Viral Infections and their Main Routes of Circulation in Mississippi Queen Breeding Operations	Mississippi State University in collaboration with queen breeders will empirically analyze honeybee queen samples to identify viral infections circulating among queen breeding operations in the state of Mississippi. Utilizing advanced diagnostic tools in the upstream level of apiculture industry (queen breeding) will help to make informed decisions on management strategies to mitigate viral diseases in queen producing operations and prevent further spread. The goal is to enhance agricultural biosecurity by improving honeybee queen quality and reducing honeybee colony mortality.	$65,110.00
Mississippi Department of Agriculture and Commerce	$436,232.34	6. Effect of Low Rate of 2,4-D on Tomato at Different Growth Stages and its Progeny	Mississippi State University will determine the effect of low rates (simulated drift rate) of 2,4-D on tomato at different growth stages and possible contamination of the fruit (food safety). The experiment will be conducted in the greenhouse. The results of this research will show the sensitivity of tomato growth stages to low rate of 2,4-D and if 2,4-D will translocate in the fruit. Results from this project will be made available to stakeholders at the Vegetable Field Day, Workshop, and SWSS Annual Meeting.	$26,838.00
Mississippi Department of Agriculture and Commerce	$436,232.34	7. Making Mississippi Specialty Crops FARMtastic	The Mississippi State University Extension Service's FARMtastic program will promote Mississippi specialty crops through a minimum of four major regional school-based events per year, as well as two major statewide Ag Expos designed to educate children and adults about the agriculture industry. Elementary students have little understanding of agricultural systems. Cooperative Extension in numerous states has sought to address this problem through agricultural education programs delivered to elementary students. Emerging evidence suggests students who are aware of their relationship to farms and the natural environment are more likely to make healthier food choices, subsequently resulting in better health outcomes.	$69,811.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Mississippi Department of Agriculture and Commerce	$436,232.34	8. Public Relations and Marketing Campaign to Promote Buying Mississippi Blueberries	Farm Families of Mississippi will develop and implement a promotional campaign educating consumers on the benefits of buying Mississippi grown blueberries. We will establish a baseline figure from the 2022 crop year of consumers who gained knowledge of specialty crops through the television advertisement Farm Families of Mississippi produces and airs on local television stations across the state. We will then compile viewership data including total number of commercials aired, number of impressions, and frequency in which those commercials were seen for the 2023 crop year to compare with the 2022 figure.	$56,649.49
Mississippi Department of Agriculture and Commerce	$436,232.34	9. Educating Our Youth About Growing and Harvesting Crops	The 100 Black Men of Jackson will lead a group of community youth through the process of cultivating and growing crops in their greenhouse. The youth will be educated about farming, cultivating, and tending a garden with vegetables. This group has been experimenting with the planting process for several years and their challenges are the local deer who have snuck into the high tunnel to eat everything. They will use the grant money to repair the areas where the deer are able to gain access to the high tunnel and they will also purchase new supplies for the upcoming season.	$3,500.00
Mississippi Department of Agriculture and Commerce	$436,232.34	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$32,251.00
Missouri Department of Agriculture	$419,680.45	1. Dissecting Genetic Determinants of Grape Berry Acids in Chambourcin-based Hybrids	Missouri State University proposes research to develop the first 'Chambourcin', linkage map via both SSR and SNP markers. In preparation for the localization of quantitative trait loci (QTLs), phenotyping protocols for evaluating berry acids will also be established. In this proposal, our focus is on the exploration of the heritability and genetic architecture of berry acid traits. The ultimate goal of this project is to utilize DNA markers to optimize the production and quality of 'Chambourcin'-derived hybrids for future cultivar releases.	$49,974.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Missouri Department of Agriculture	$419,680.45	2. Developing an Understanding of the Virus Situation with Missouri Elderberry	This project, led by the University of Missouri, will employ the latest technologies to develop an understanding of the viruses most commonly associated with elderberry production in Missouri. Important viruses will be identified, and then plants throughout Missouri will be screened. Based on project results, mitigation and management strategies for elderberry viruses will be developed and disseminated to growers.	$49,804.00
Missouri Department of Agriculture	$419,680.45	3. Water Quality and Good Agricultural Practices Certification for Produce Growers	Based on the success of our previous and current produce safety outreach efforts, the University of Missouri (MU) Extension will provide continued resources and training to Missouri produce growers related to water quality and water treatment options to improve produce safety.	$42,340.44
Missouri Department of Agriculture	$419,680.45	4. Springfield Community Gardens Field and Farm	Springfield Community Gardens will leverage the existing investment of multiple local and federal stakeholders for beginning and established urban and rural farmers (many of whom are socially disadvantaged) into a long-term solution towards financially viable agricultural careers.	$41,400.00
Missouri Department of Agriculture	$419,680.45	5. Enhancing Extension Specialists Capacity in Teaching Hydroponics for Specialty Crops	This project led by University of Missouri Extension seeks to train extension educators and beginning and established farmers on hydroponic cultivation methods of specialty crops. The education program will cover technical information on hydroponic specialty crop production and investment estimates for commercial production.	$49,950.00
Missouri Department of Agriculture	$419,680.45	6. Promotion of Specialty Outdoor Mushroom Production	Truman State University will establish a mushroom cultivation yard demonstration site on our farm in Northeast Missouri and host four workshops educating local farmers, ranchers and public on outdoor specialty mushroom production. The goal is to increase the number mushroom producers that will utilize currently unused woodland to generate additional farm income while at the same time increasing the culinary offerings of local markets, an outcome desirable for both producer and consumers.	$17,951.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Missouri Department of Agriculture	$419,680.45	7. Growing Native Ferns as Specialty Crops in Missouri	The Specialty Crops Program at Lincoln University will conduct an education project to promote native ferns as specialty crops. This project will assess availability of ferns commercially and consumer preferences across the state; identify five to ten species native to Missouri that are easy to grow; and develop publications with propagation protocols that nursery producers and small farmers can adopt.	$47,985.00
Missouri Department of Agriculture	$419,680.45	8. Fingerling Potato Production in Moveable High Tunnels	The University of Missouri will evaluate eight different cultivars of fingerling potatoes in both the hoop house and compared to in field production. There is tremendous interest in fingerling potato by consumers and the profitability is great for Missouri specialty crop growers.	$28,216.88
Missouri Department of Agriculture	$419,680.45	9. Weed Management Practices to Increase Sweet Potato Production in Missouri	The University of Missouri, Division of Plant Science and Technology will compare various combinations of herbicides and cover crops for early season weed management in 'Beauregard' sweet potatoes grown on raised beds.	$28,080.00
Missouri Department of Agriculture	$419,680.45	10. Investigating Pathogen Spread and Developing Management Strategies of Boxwood Blight	Lincoln University proposes to develop tactics to manage boxwood blight and disseminate research results to stakeholders through grower meetings. Boxwood is a popular broadleaf evergreen plant that is widely planted in home gardens, public and private landscapes, and urban areas in Missouri. However, boxwood blight, a notorious disease caused by Calonectria spp., has caused a significant economic loss in Missouri and other states.	$29,688.27
Missouri Department of Agriculture	$419,680.45	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$33,512.14

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Montana Department of Agriculture	$3,077,116.72	1. The Regional Pulse Crop Diagnostic Lab: Serving Montana Pulse Growers	This is a proposal from Montana State University's Regional Pulse Crop Diagnostic Lab (RPCDL). The RPCDL is the only laboratory in the United States exclusively dedicated to pulse crop (chickpea, lentil, and dry pea) diagnostics. The RPCDL enables pulse crop exports by rapid and accurate detection of regulated plant pathogens. The outcomes of this project will include sustained services of the laboratory, monitoring for new pathogens of concern and fungicide resistance, testing new products for farmers, and extension outreach. The RPCDL assists growers in selling pathogen free seed, making seed treatment and planting decisions, and supports conventional and organic growers. RPCDL educates agricultural stakeholders on the importance of seed health and phytosanitary issues, protecting trade where 80% of the crop is exported.	$168,176.00
Montana Department of Agriculture	$3,077,116.72	2. Predicting Soilborne Disease Risk of Pulse Crops	This proposal from Montana State University will help farmers predict disease risk in fields they are planning to plant to pulse crops (pea, lentil, and chickpea). If farmers know the risk of disease, particularly aphanomyces, pythium, and fusarium root rot, are high, they may choose to plant a different crop or use cultural methods or seed treatment fungicides to reduce disease risk. This project will monitor soil samples for new pathogens of interest and fungicide resistant pathogens.	$444,174.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Montana Department of Agriculture	$3,077,116.72	3. Sniffing Out PVY: Using Dogs to Detect PVY in Potatoes	Dogs have been trained to detect potato virus PVY and have demonstrated detection efficiency similar to laboratory methods. Montana State University proposes to evaluate dogs for their sensitivity of detection for PVY in postharvest potato test samples and early generation plantings of seed potatoes. For postharvest tuber samples, this project will have the dogs smell the samples and record the sample as positive or negative for PVY. Sniffing results will be validated in the Hawaii winter grow out and in the lab at MSU using Immunocapture RT qPCR. If the dog can reliably detect PVY in tuber samples, seed lots testing negative would not require further testing (postharvest grow out or lab testing) saving considerable expense to the farmer. For early generation potatoes, MSU will test the dog's ability to pre-screen clonal seed potato families before they are planted in the field. In this study, the sniffing results will be compared to visual inspection of the emerged plants for disease, followed by laboratory screening for PVY in leaves using Elisa.	$110,214.00
Montana Department of Agriculture	$3,077,116.72	4. Agronomic Strategies and Cultivar Selection for Production of High Protein Field Pea	Montana growers are facing great challenges in producing consistent high protein peas because protein concentration is influenced by genetics, environment, and agronomic management. Unlike cereal crops, farmers do not apply nitrogen fertilizer in field pea crop. Therefore, enhancing plant biological nitrogen fixation through genetic improvement and agronomic management will be the key for protein improvement. In this project, project partner Montana State University, will select pea cultivars to be grown in different environments to investigate the genetic and environmental effects on plant growth, carbohydrate and protein accumulation, and final biomass and seed yield. In the meantime, agronomic management experiments including irrigation, fertilization, rhizobium, and plant growth regulator, will be conducted in Sidney, MT to investigate the effects of management strategies on nitrogen fixation, yield, and protein.	$158,635.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Montana Department of Agriculture	$3,077,116.72	5. Building Specialty Crops Water Management Network (SCWMN) for Drought Resiliency in Montana	This project is to be carried out by an interdisciplinary research group at Montana State University and includes - the precision ag lab, seed potato lab, plant sciences and plant pathology, and MSU Western Agriculture Research Center. In this research, MSU proposes the development of a Specialty Crop Water Management Network (SCWMN) for MT using an irrigation decision support system (IDSS) based on time and cost-effective soil, canopy, and aerial reflectance (drones and satellite imagery) sensors. The IDSS will be a practical tool for growers to lower production costs, increase profit margins, and conserve water. Research results and management practices will be shared through publications and workshops.	$402,257.00
Montana Department of Agriculture	$3,077,116.72	6. Understanding Cold-hardy Berry Phenology and Physiology to Improve Cultivar Selection, Management, and Harvestability	Montana's berry industry is expanding with new growers investing heavily in haskap, currant, and other small-fruit plantings. As these perennial crops mature, efficient management and harvest of high-quality fruit is critical to their profitability. This project, led by Montana State University's Western Agricultural Research Center, will determine how temperature affects berry plant dormancy, bud break, flowering, and ripening to identify which cultivars are best suited to Montana's different sites and climates. This will be complemented by efforts to improve harvest management and organic production practices. The results will be used to inform berry management, harvest decision making, and future berry plantings to increase long-term profitability of plantings.	$631,442.00
Montana Department of Agriculture	$3,077,116.72	7. Field Evaluation of Pulse Crop Breeding Lines in Montana	Dr. Kevin McPhee from Montana State University proposes statewide variety testing of new pea and lentil breeding lines to aid in identification of new varieties for the state of Montana. These evaluations will include crop growth and post-harvest evaluation of protein content and other seed traits important to the industry. This project will generate valuable data on the breeding lines present in the pulse breeding program and generate the necessary data to justify release. It will also lay the basis for future variety development.	$439,452.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Montana Department of Agriculture	$3,077,116.72	8. Enhancing Pea Tolerance Against Drought Stress Using Beneficial Bacteria	In this project, Montana State University researchers aim to mitigate growth damages of pea caused by drought using beneficial microbes. Beneficial bacteria are recruited by the stressed plant to cope with the drought stress and enhance plant adaption. Our goal is to identify and characterize beneficial bacteria to enhance pea resilience under drought stress conditions. Pea plants and rhizosphere soils will be sampled from the growing areas and the associated bacteria will be isolated. The effects of the isolates on plant growth will be tested under drought conditions to identify the beneficial strains. Special attentions will be given to bacteria of the pseudomonas group because they are well known in plant growth promotion and the PI has over 10 years research experiences on pseudomonas beneficial bacteria. The identified beneficial bacteria could also reduce the levels of irrigation requirement.	$186,634.00
Montana Department of Agriculture	$3,077,116.72	9. From Traditional to Unique Wines – Strategies to Improve Montana's Fermentation of Novel, Local Fruits	With 28 wineries and cideries and almost 150 vineyards, orchards, berry farms, the cider and wine industry in Montana is poised to profit from value-added and agritourism-based specialty crop production. For many of these new cold-hardy varieties there is a clearly defined need for research to identify appropriate methods for production of desirable and profitable fermented products. Montana State University will fill this need by pioneering fermentation processes for fruit wines, grape wines, and apple ciders. This project will also evaluate novel products from winery waste streams to take advantage of pomace that would otherwise be disposed of. Knowledge for northern wine and cider fermentation will be developed and shared via booklets, website resources, and workshops at regional conferences; these data will be combined with sensory evaluation to identify best practices.	$389,054.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Montana Department of Agriculture	$3,077,116.72	10. Post-harvest Processing to Improve Health Attributes and Economic Value of Small-Fruit	Montana State University will initiate post-harvest evaluations of small fruits for their local market. Storage work will focus on in-cooler light-emitting diode (leds) supplementation, an inexpensive technology demonstrated to improve quality and reduce deterioration of other small-fruits under extended storage conditions. Like fresh market, cold hardy berries have great opportunities as value-added processed products due to their flavor and reported health benefits (high antioxidant levels). Little is known about how post-harvest handling and processing affects these qualities. Thus, this project will also investigate how storage conditions and processing techniques affect flavor and health compounds towards value-added products.	$184,622.00
Montana Department of Agriculture	$3,077,116.72	11. Montana Berry Growers Association Education and Marketing Grant	The Montana Berry Growers Association (MTBGA), through sponsorship by the Missoula County Weed District and Extension will focus on grower education and marketing. The marketing efforts will focus on developing a marketing campaign using various media to introduce Montana berries and their health benefits to Montana consumers. The MTBGA will have three conferences during the grant cycle and bring in experts depending upon the information requested by association members. This will also provide the opportunity for members of the MTBGA to attend conferences outside of Montana to learn from more experienced berry growers this will include various types of media including, but not limited to, print and social media formats. The material will be used by Montana Berry Growers Association members and the association to promote the different types of berries and their nutritional values and health benefits.	$34,000.00
Montana Department of Agriculture	$3,077,116.72	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$148,327.89

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Nebraska State Department of Agriculture	$831,404.93	1. Mitigation of a Newly Introduced and Potentially Devastating Virus Disease of Tomato	The University of Nebraska – Lincoln, Department of Plant Pathology, in a contractual relationship with the Nebraska Department of Agriculture, will develop a protocol that would make four tomato varieties (Roma, Beefsteak, Grape and Cherry) tomatoes amenable to genetic modifications to provide resistance against tomato brown rugose fruit virus (ToBRFV), a newly identified and serious virus in the U.S. The protocol will offer quick and targeted development of resistant commercial tomato cultivars able to overcome a potentially disastrous ToBRFV disease thereby stabilizing productivity and availability of this important vegetable crop. The goal of this project is to equip Nebraska grown tomato varieties with molecular genetic modifications for resistance against ToBFRV.	$46,100.00
Nebraska State Department of Agriculture	$831,404.93	2. Mechanisms of Yield Reduction in Dry Edible Bean	The University of Nebraska – Lincoln (UNL), in a contractual relationship with the Nebraska Department of Agriculture, is proposing an experiment where the shade avoidance response would be induced and direct competition for resources is prevented. This will quantify the impact of the weed interference in the absence of crop/weed competition. The goal of this study is to create, under a controlled condition, the shade avoidance response in dry beans, and then compare the yield loss impacts of the shade avoidance response compared to full competition between dry beans and weeds.	$57,346.00
Nebraska State Department of Agriculture	$831,404.93	3. Characterization of Pea Bacterial Blight Pathogen and Identification of Resistant Pea Germplasm for Nebraska	The University of Nebraska – Lincoln (UNL), in a contractual relationship with the Nebraska Department of Agriculture, will characterize pea bacterial blight pathogen complex, an important disease for Nebraska pea production, and establish a greenhouse screening method for the disease. Diseased samples of the production fields will be used to isolate and characterize the pathogens. The method will be established using field pathogens and USDA pea germplasm will be screened using the method. Deliverables will be a pathogen, disease screening method, and resistant pea genotype.	$58,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Nebraska State Department of Agriculture	$831,404.93	4. Late-season Palmer Amaranth Interference in Dry Edible Bean	The University of Nebraska – Lincoln (UNL), in a contractual relationship with the Nebraska Department of Agriculture, is proposing to quantify the impact on dry bean caused by mid-season palmer amaranth interference after the loss of pre-crop emergence herbicide efficacy. The goal is to provide actionable thresholds that farmers and agronomists can use to guide management decisions. If this level of palmer density can be quantified, dry bean growers in Nebraska will have a better understanding of the expected impact it can have on their dry bean production and what adjustments can be made to manage growing practices accordingly.	$28,500.00
Nebraska State Department of Agriculture	$831,404.93	5. Climate Resilient Specialty Crops: Biobased Approaches for Mitigating Drought Stress	The University of Nebraska – Lincoln (UNL), in a contractual relationship with the Nebraska Department of Agriculture, will expand specialty crop research and development in Nebraska through field trials across two years that will explore the potential for arbuscular mycorrhizal fungi, compost, and biofabric mulch to mitigate drought stress in carrots and strawberries. Research conclusions that allow for implementation of new grower practices will be shared at regional grower conferences and in scientific publications.	$71,917.00
Nebraska State Department of Agriculture	$831,404.93	6. Use of Desiccation Herbicides in Dry Edible Bean to Reduce Herbicide-Resistant Weed Seed Production at Harvest	The University of Nebraska – Lincoln (UNL), in a contractual relationship with the Nebraska Department of Agriculture, is proposing to compare the performance of four desiccation herbicides in reducing weed biomass and weed seed production prior to harvest. The impact of different desiccation herbicide on weed seed production and on weed biomass reduction, prior to harvest, has not been previously investigated for herbicide-resistant weeds in dry edible beans. Results of this research will benefit dry bean growers in Nebraska who have uncontrolled herbicide-resistant weeds at harvest.	$15,582.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Nebraska State Department of Agriculture	$831,404.93	7. Increasing Economic Sustainability by Using UV Light as the Latest Weapon in The Battle Against Powdery Mildew in the Vineyard	Mac's Creek Vineyards, in a contractual relationship with the Nebraska Department of Agriculture, will investigate the feasibility of eliminating or reducing chemical pesticide spraying for disease control against powdery mildew in vineyards via the usage of Ultraviolet (UV) light. This proposal is designed to develop environmentally preferable disease control practices that have a less harmful effect on human health and the environment when compared with competing traditional practices. This will lead to eco-friendly alternatives resulting in environmentally sound practices with equal or improved disease control reducing harmful environmental impact and disease resistance.	$58,200.00
Nebraska State Department of Agriculture	$831,404.93	8. Omaha Urban Farm Zoning Guide and Registry	The City of Omaha Planning Department, in a contractual relationship with the Nebraska Department of Agriculture, will develop an Urban Farm Zoning Guide and Registry to increase access to specialty crops and expand specialty crop production and distribution. The guide will educate producers about specialty crops and aid in navigating the city's new urban agriculture zoning, which increases points of access. Through partner organizations, registry participants will receive training and assistance that increases productivity and promotes the purchase of specialty crops.	$13,800.00
Nebraska State Department of Agriculture	$831,404.93	9. Developing a Novel Technology Combined Flavor-detection Method with Machine Learning Algorithm to Improve the Competitiveness of Nebraska Hops	The University of Nebraska-Lincoln (UNL), in a contractual relationship with the Nebraska Department of Agriculture, will develop a novel technology combined flavor-detection method with machine learning algorithm to enhance the flavor and use of Nebraska grown hops, therefore improving the sustainability of the Nebraska hop industry. By collaborating with hop farms and breweries in Nebraska, UNL will characterize the flavor profile of Nebraska hops, investigate hops function in beers, and enhance the flavor of Nebraska hops with precise computation models.	$73,024.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Nebraska State Department of Agriculture	$831,404.93	10. Potato Cyst Nematode 2022	This project is designed to maintain Nebraska's Potato Cyst Nematode (PCN) pest-free status by the Nebraska Department of Agriculture (NDA) conducting comprehensive soil surveying throughout Nebraska to confirm the presence or absence of PCN in Nebraska. Maintaining Nebraska's PCN pest-free status requires official annual soil surveys of potato fields, to confirm the presence or absence of PCN in the state. This data makes it possible to certify potato products, particularly seed potatoes, for international trade. The cumulative years of data is beneficial in maintaining markets and opening new markets. Should PCN be found, survey data could be used to determine the extent of the infestation, and potentially mitigate the impact on trade.	$85,000.00
Nebraska State Department of Agriculture	$831,404.93	11. Developing Pea Varieties for Nebraska	The Nebraska Dry Pea and Lentil Commission, in a contractual relationship with the Nebraska Department of Agriculture, will focus on developing high yielding, superior pea varieties for Nebraska. Superior varieties are those which have high percentage of superior quality seed proteins, important non-protein nutrients, and low levels of anti-nutritional factors. Developing a pea crop tolerant to abiotic stresses common in Nebraska (including heat, drought, and winter hardiness (winter pea only)) and proper plant architecture for lodging tolerance and harvest ease is of paramount importance.	$120,000.00
Nebraska State Department of Agriculture	$831,404.93	12. Novel Iron-Chelating Agent for Improving Yield and Iron Quantity in Nebraska Pea	The University of Nebraska-Lincoln (UNL) Panhandle Research and Extension Center (PHREC), in a contractual relationship with the Nebraska Department of Agriculture, will work to improve iron in pea, which is important for human health. UNL will conduct a 2-year field trial to test if iron-cucurbituril oligomer improves iron quantity and quality in pea compared to commonly used products. Peas will be planted in the field and four iron treatments will be applied. The harvested seed will be used to determine iron content and quality. Deliverables will be a noble product to improve iron in pea.	$45,706.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Nebraska State Department of Agriculture	$831,404.93	13. Microbial Solution to Address Iron Deficiency Chlorosis in Dry Edible Beans	The University of Nebraska-Lincoln (UNL) Panhandle Research and Extension Center (PHREC), in a contractual relationship with the Nebraska Department of Agriculture, will evaluate biological management for iron deficiency chlorosis (IDC) in dry edible beans in high-pH soils. The 2-year trial will be conducted to evaluate the efficacy of siderophore-producing microbial solution to address IDC in dry beans. The IDC is a complex problem related to soil properties, pH, temperature, moisture, and carbonate content. Chlorosis can also occur in dry beans when there is high soil residual nitrate level. Depending on the severity, IDC can cause a significant bean yield loss.	$50,400.00
Nebraska State Department of Agriculture	$831,404.93	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$66,295.85
Nevada Department of Agriculture	$273,176.55	1. The Farm2Food Accelerator: Energizing Growth for Nevada's Female Specialty Crop Producers 2022-2025	The Farm2Food Accelerator is a 15-week program that equips female specialty crop producers and food entrepreneurs using specialty crop ingredients to expand production of their food products and enter new regional markets. This project will accomplish the following: 1) Integrate Nevada specialty crop producers into the Farm2Food Accelerator and evaluate the effectiveness of the program and 2) Use research findings and feedback from the Nevada 2021-2022 Farm2Food Pilot Program to continue to adapt the Farm2Food Accelerator to better serve Nevada producers.	$99,098.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Nevada Department of Agriculture	$273,176.55	2. Beans: Direct Harvest-to-Consumers Market	The University of Nevada, Reno Extension will conduct specialty crop research and demonstrations to evaluate seven diverse varieties of beans, including heirloom and tepary beans for agronomic parameters and preference for marketability in northern Nevada. The addition of bean varieties will enhance the competitiveness through increased production and thus consumption by introducing this new crop to the local community and growers through a series of outreach activities, including extension publication, conference presentations, field demonstrations, and teaching school students the concept of sustainable agriculture through a presentation during their Ag Day events or classroom teaching.	$74,070.16
Nevada Department of Agriculture	$273,176.55	3. A Survey of Pest and Beneficial Thrips (Thysanoptera) Associated with Grapes and Other Nevada Specialty Crops	The Nevada Department of Agriculture will survey for and collect thrips from targeted specialty crops during the growing season to assess pest specific and beneficial species that impact specialty crops. The project will result in an increased knowledge of the species present on crops and their distribution in Nevada. This will in turn be used to heighten the awareness of what diseases might be transmitted to the crops by thrips. The determination of what predatory thrips are present can lead to them being included in integrated pest management programs for the crops.	$79,519.93
Nevada Department of Agriculture	$273,176.55	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$14,289.83
New Hampshire Department of Agriculture, Markets and Food	$206,681.23	1. Innovative Pest Management Using Soil Steaming Technology	The Merrimack County Conservation District aims to make accessible to Merrimack County, NH, specialty crop producers a soil steamer to reduce pest pressure, increase crop yields, and reduce the use of pesticides in high tunnels and crop land. This shareable equipment will reduce weeds, invasive species, pathogens, and potentially reduce the presence of invasive jumping worms on farms.	$42,530.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
New Hampshire Department of Agriculture, Markets and Food	$206,681.23	2. Promoting New Hampshire Hard Cider to the European Market	The New Hampshire Department of Business and Economic Affairs (BEA), Office of International Commerce (OIC) is proposing to help NH cider producers realize new economic opportunities by helping them take advantage of selling overseas. This project will address new international marketing opportunities for New Hampshire's hard cider with a focus on the European market.	$63,393.00
New Hampshire Department of Agriculture, Markets and Food	$206,681.23	3. Buy New Hampshire Specialty Crops Targeted Social Media and Spotify Advertising Campaign in Partnership with NH Division of Travel & Tourism Development	The NH Department of Agriculture, Markets and Food proposes to utilize specific marketing concepts-- Instagram Stories, Collection Ads and MediaMath Display-- to engage audiences on traditional social media platforms (Facebook and Instagram) about NH specialty crop farms and products.	$86,132.01
New Hampshire Department of Agriculture, Markets and Food	$206,681.23	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$14,626.22
New Jersey Department of Agriculture	$873,944.58	1. Developing Culturally Preferred Nutrient-Dense Leafy Greens As Promising Specialty Crops For New Jersey Farmers	Rutgers University has a long history of studying high-value specialty crops that appeal to the diverse ethnocultural groups that reside in New Jersey. Our project will identify and screen promising land races, cultivars, and our own selections of amaranth and roselle that do well under New Jersey growing conditions and characterize their nutritional and phytochemical composition. We will share our findings with existing and beginning growers and conduct outreach to consumers about better handling and preparation techniques.	$37,040.00
New Jersey Department of Agriculture	$873,944.58	2. Growing the New Jersey Wine Industry: Rutgers Grape And Wine Science Certificate Program	Rutgers, The State University of New Jersey, will create and deliver a Grape and Wine Science Certificate educational program which will train 75 graduates. The program will provide much needed workforce development to the wine industry of New Jersey and enhance the competitiveness of this industry.	$37,037.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
New Jersey Department of Agriculture	$873,944.58	3. Mitigating Blueberry Scorch Virus Using Artificial Intelligence And Autonomous Drones	Rowan University will mitigate the spread of blueberry scorch virus by developing artificial intelligence (AI) software that allows an aerial drone to fly autonomously over blueberry fields and perform early and accurate detection of infected plants. Results will be disseminated to stakeholders through demonstrations of our technology at grower meetings and through deploying our technology at selected blueberry farms in South Jersey to assess its effectiveness.	$36,404.00
New Jersey Department of Agriculture	$873,944.58	4. Identifying New Fungicides For Cranberry Fruit Rot Control Using A Novel Bioassay	The American Cranberry Growers' Association (ACGA) has established "Identification of fungicides with activity against fruit rot pathogens" as a research priority. The existing fungicide toolbox is limited to four groups of fungicides. The funding will support researchers at the Rutgers University Philip E. Marucci Center for Blueberry and Cranberry Research and Extension to complete a high throughput bioassay system for identification of new fungicides for fruit rot control.	$39,998.01
New Jersey Department of Agriculture	$873,944.58	5. Who's Your Hunterdon County Farmer?	The Hunterdon County Board of Agriculture would like to develop an interactive online education and marking portal for consumers to easily reach Hunterdon County farmers. The website would be able to be maintained by the Agriculture Board as well as the farms having access to their personal pages. The main page will highlight different farmers every week. We will also have chances for schools to request classroom visits from farmers, educational information about latest trends in farming, old family farm recipes, and links to sites such as Jersey Fresh, USDA, Rutgers Extension, etc. The county board would like to also have a farmer's only page with links for useful articles, upcoming meetings, and any info needed from the State that pertains to farmers.	$15,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
New Jersey Department of Agriculture	$873,944.58	6. Expanding Awareness, Education, And Demand For New Jersey's Specialty Crops	The Foodshed Alliance will create a "Know Farms, Know Food" campaign providing significant exposure to north and central New Jersey's specialty crop farmers. The campaign will include three main components: social media campaign spotlighting the individual specialty crop farms, what they grow, and how they grow it; On the Farm Tastings and Tours at individual specialty crop farms, and a series of consumer workshops on the benefits of eating healthy, delicious locally produced food, as well as providing hands-on education on how to incorporate it into their lives (instructions on cooking, processing, preserving, etc.	$39,949.00
New Jersey Department of Agriculture	$873,944.58	7. Advertising Jersey Fresh Blueberries – 2022-2023	As part of a more extensive research and promotion program, The New Jersey Blueberry Growers Association seeks Specialty Crop Block Grant funding for a project to promote awareness and purchase of local, New Jersey grown blueberries in season via a radio campaign and aerial banners over the Jersey Shore during the height of New Jersey's blueberry growing season.	$40,000.00
New Jersey Department of Agriculture	$873,944.58	8. Expanding Specialty Crop Knowledge And Producer-Consumer Connections Through Educational Web-Based Forums And Social Media	The New Jersey Agricultural Society (NJAS) proposed project addresses opportunities to significantly expand knowledge of a wider range of specialty crops through web-based forums and expanded social media outreach among students within the 22 Learning Through Gardening (LTG) schools. This approach will enrich learning opportunities for the students, all of whom were significantly impacted by COVID-19 closures/restrictions which resulted in lost learning time. Additionally, the project focuses on expanding the visibility of specialty crop farmers to connect them more directly to consumers of such crops and will support expanded reach of the LTG program to broader audiences, e.g., teachers, school staff, students' families, and the public.	$37,065.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
New Jersey Department of Agriculture	$873,944.58	9. Competitive Marketing Of Jersey Fresh And Local Jersey Peaches	The New Jersey Peach Promotion Council will direct and coordinate a group of approved and successful techniques to market locally grown New Jersey (NJ) peaches using expert consultants, volunteers, director peach growers, peach marketers and expert fruit scientists from Rutgers University and the New Jersey Department of Agriculture. The outcome will be focused on maintaining and enhancing the sustainability of a competitive peach industry in the state of New Jersey. This will be done by improving the visibility of the local peach crop using competitive consumer and trade advertising and other marketing technology.	$40,000.00
New Jersey Department of Agriculture	$873,944.58	10. Promoting The Sale Of Deciduous And Flowering Trees And Landscape Confers Through A Replanting And Marketing Campaign	New Jersey Forestry Association, Inc. will partner with New Jersey growers to increase the sale of deciduous and flowering trees and landscape conifers to offer replacement seedlings to landowners and municipalities. To guarantee the success of this replanting program, marketing and education will be provided.	$20,000.00
New Jersey Department of Agriculture	$873,944.58	11. Promoting Specialty Crops Grown And Sold By The Members Of The New Jersey Council Of Farmers And Communities	The New Jersey Council of Farmers and Communities (NJCFC) will promote New Jersey grown specialty crops through marketing and promotion using both traditional, social media, and online venues to increase awareness, and provide wholesome produce and outlet locations for sales of New Jersey Specialty Crops. Increasing farm to table Specialty Crops directly through our 30+ farmers' markets and farm roadside stands comprises our non-profit organization's membership and our mission.	$40,000.00
New Jersey Department of Agriculture	$873,944.58	12. Expanding Organic Dry Bean Production For Year-Round Farm Income In New Jersey	The Northeast Organic Farming Association of New Jersey will increase the supply and demand of organic dry beans throughout New Jersey by conducting field research, consumer marketing, and education, training, and technical support for farmers. By increasing the diversity of crops produced in New Jersey and by increasing the ability of farms to sell shelf-stable goods year-round, this project will support farms' financial viability and local food system security.	$14,489.50

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
New Jersey Department of Agriculture	$873,944.58	13. Project To Maximize The Effectiveness Of The Jersey Fresh Advertising Program In 2023 And Beyond	The New Jersey Department of Agriculture seeks Specialty Crop Block Grant funding to raise awareness of locally grown specialty crops and to drive sales through a multi-faceted marketing campaign. The Department seeks to increase the overall effectiveness of the marketing of all specialty crops in New Jersey through the continuation of the proven successful efforts of the Jersey Fresh program. This will be accomplished using outdoor advertising (digital billboards and bus sides), print ads, radio, point of sale materials, social media, and other online promotions.	$402,366.21
New Jersey Department of Agriculture	$873,944.58	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$60,036.81
New Mexico Department of Agriculture	$565,724.94	1. Protecting NM Chile and Tomato Crops from Disease while Generating Electricity through Agrivoltaics	This project, performed by New Mexico State University (NMSU) researchers at two New Mexico locations, seeks to evaluate the degree of protection against Curly Top Virus (CTV) infection provided to chile and tomato plants grown under solar panel shading. Electrical output will also be gauged to estimate potential economic benefits to producers benefiting from less CTV crop loss and electricity generation.	$27,600.78
New Mexico Department of Agriculture	$565,724.94	2. Genetic Dissection of Phytophthora capsici Resistance in Chile pepper using Epigenomic and Transcriptomic Approaches	In the proposed project, New Mexico State University (NMSU) will facilitate the development of Phytophthora capsici resistant chile pepper varieties in New Mexico using powerful epigenomic and transcriptomic tools. In this proposed study, DNA methylation profiling will be conducted to understand the impact of methylation on the expression of genes related to P. capsici resistance. RNA-sequencing will be used to discover functional SNP markers for molecular breeding. Results from this study will render novel insights into the genetic architecture of the P. capsici-Capsicum pathosystem which can direct breeding and selection efforts to improve disease resistance of chile pepper in New Mexico.	$92,922.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
New Mexico Department of Agriculture	$565,724.94	3. Jujube Cultivar Selection Through Open Pollinated Progenies	New Mexico State University (NMSU) Alcalde Center will start the jujube cultivar selection through open pollinated progeny. With their existing jujube cultivar trials, they will collect open pollinated fruit from target maternal cultivars. They will plant 400-500 seedlings and select promising seedlings with reasonable tree growth, good fruit quality and yield for further testing. In the long run, they expect to have some U.S. selected jujube cultivars.	$39,225.00
New Mexico Department of Agriculture	$565,724.94	4. Selecting Adapted Cultivars of Lavender for Northern New Mexico	New Mexico State University (NMSU) Sustainable Agricultural Science Center at Alcalde will select hardy lavender cultivars adapted to the growing conditions of northern New Mexico. They plan to sow 3000-5000 seed to generate as many individuals with as much genetic variation as possible. The first stage will begin in 2023 with propagation from seed at Farmington, New Mexico. The first-generation plants will go through a heavy rogueing in 2023 when weak plants will be eliminated before being transplanted to the field.	$28,659.17
New Mexico Department of Agriculture	$565,724.94	5. Phase 2: Expanding Statewide Value Chain Coordination to Grow Specialty Crop Sales and Related Infrastructure Duration: 3 Years	In this “Phase 2” project, the New Mexico Farmers’ Marketing Association will advance the foundational statewide value chain coordination work that begun in 2018 to increase sales of, and access to specialty crops produced by small and midscale growers, many of whom are socially disadvantaged farmers from native American and traditional Hispanic communities. The value chain work being performed in this project supports the middle of the supply chain by providing food safety training, quality assurance, HGAP+ certification, and a variety of technical assistance to specialty crop farmers and local food hubs who distribute their produce. An innovative pilot will test forward contracting for producers, and the project will also support food hub participation in a new shared data measurement system.	$312,783.51

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
New Mexico Department of Agriculture	$565,724.94	6. Nursery and Greenhouse Training/Continuing Education and Plant Guide for New Mexico	The Colorado Nursery and Greenhouse Association (CNGA) manages the professional organization for New Mexico Greenhouses and Nurseries through its NM Chapter. This project will provide classes and training for NM greenhouse and nursery staff to increase their technical knowledge about nursery and greenhouse crops and will develop a NM Plant Guide.	$19,154.00
New Mexico Department of Agriculture	$565,724.94	7. ISO 17025 Quality Manager for New Mexico State University Food Safety Laboratory	The NMSU Food Safety Laboratory plans to hire a quality manager (QM) to help us obtain and maintain ISO 17025 accreditation. The activities required to demonstrate laboratory competence under ISO 17025 are extensive and require a lot of recordkeeping.	$43,499.00
New York State Department of Agriculture and Markets	$1,310,855.05	1. Kale Hybrids with Improved Producer and Consumer Qualities	Cornell University will establish an agreement to lead and execute this project. The new kale F1 hybrids introduced through this effort will provide improved products in the three primary market classes: green curly, red curly and Toscano. These hybrids will have improved quality and taste for NY consumers while incorporating yield and production improvements for NY growers such as black rot tolerance. This effort will capitalize on over a decade of work developing new and improved kale inbred lines and parents that will form the base for these new hybrids. This has involved significant prior efforts incorporating improved taste, texture, quality, and regional adaptation.	$90,960.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
New York State Department of Agriculture and Markets	$1,310,855.05	2. Developing a Management Strategy for Halo Blight of Hops in New York	Cornell University will establish an agreement to lead and execute this project. The implementers will survey hop gardens in NY to assess the prevalence, incidence, and severity of Halo Blight, assess the contribution of Halo Blight to cone disease, screen fungicides for control, assess the susceptibility of different varieties of hop, and provide growers with the necessary information to enable them to identify and manage this emerging disease. Diseases of hop are one of the main drivers of yield and quality of hop cones. Growers in NY are familiar with the main diseases such as powdery and downy mildew, and while these remain challenging to control, there is considerable information available for growers to utilize. Conversely, Halo Blight caused by a newly described fungus (Diaporthe humulicola) is a recently described disease which has become problematic in the Northeast, and for which there is little information available.	$91,396.00
New York State Department of Agriculture and Markets	$1,310,855.05	3. Integrating Tarps and Other Soil Health Practices to Enhance Climate Resilience of Small-Scale Vegetable Farms	Cornell University will establish an agreement to lead and execute this project. This grant will support the adoption of reduce tillage (RT) practices, Cornell University will trial black plastic tarps as a scale-appropriate and labor-saving management tool to terminate winter hardy cover crops, improve soil nutrient availability, suppress weeds, and increase crop productivity. With increasing adoption of RT and tarping among small-scale vegetable farmers, there is a growing need for research-based information and best practices that work to integrate cover crops within their intensive rotations. Our research and extension team, together with collaborating farmers, will engage 340 farmers and educators by facilitating on-farm experimentation, hosting regional field days across the state, and conducting applied research to demonstrate how tarps provide a new strategy to improve RT success with winter hardy cover crops.	$60,212.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
New York State Department of Agriculture and Markets	$1,310,855.05	4. Enhancing Midwinter Cold Hardiness and Frost Resistance in Grapevines with Foliar Calcium	This proposal aims to test foliar calcium sprays for their impact on cold hardiness level throughout two winters, and two springs. Long-term outcomes include the protection of sensitive grapevine varieties, improved vine health and vineyard economic sustainability. Results will be processed and shared through outreach and extension efforts using Cornell Cooperative Extension and presentations at the BEVNY and LERGP industry conferences. At the conclusion of the study, results will be summarized and published in Appellation Cornell as well as in peer-reviewed format.	$86,580.00
New York State Department of Agriculture and Markets	$1,310,855.05	5. Educating New York Producers to use UV Light to Improve Specialty Crop Health and Profitability	Icahn School of Medicine at Mount Sinai will establish an agreement to lead and execute this project. The goals of this project are to (a) educate producers and extension staff involved in research or producer education and outreach about the effectiveness of UV-C light in combating and preventing specialty crop disease, (b) show the value of UV-C light-based systems as a cost-effective and safe tool for integrated pest management on small and large farms, and (c) teach producers how to build and deploy simple UV-C systems on their own farms using commercially available components.	$93,218.00
New York State Department of Agriculture and Markets	$1,310,855.05	6. Establishing Bulbous Bluegrass as a Living Mulch in Perennial Crop Systems to Improve Soil Health and Reduce Herbicide Use	Cornell Cooperative Extension of Suffolk County will establish an agreement to lead and execute this project. This proposal focuses on evaluating Bulbous Bluegrass (Poa bulbosa L. ssp. Vivipara) as a living mulch for use as a viable weed management strategy. There is also great interest in using perennial green covers to reduce or eliminate herbicide use and to improve soil physical, biological, and chemical properties. Results will be communicated to growers via field meetings and through both print and on-line publications.	$79,015.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
New York State Department of Agriculture and Markets	$1,310,855.05	7. Automated Irrigation Management of Apples to Maximize Fruit Size and Crop Value	Cornell University will establish an agreement to lead and execute this project. We propose to use fruit growth rate and stem water potential to determine a threshold of stem water potential which maximizes fruit growth rate for use in an automated apple irrigation system we will develop. The automated system will involve cutting edge sensors (micro-tensiometers) and a control system. To develop the systems, we will pair fruit growth rate sensors from Italy and micro-tensiometer sensors from USA in field studies at Geneva and Ithaca in 2023 and 2024. We will then develop and implement the automated irrigation system in 2024.	$89,150.00
New York State Department of Agriculture and Markets	$1,310,855.05	8. GAP Reimbursement Program	New York State Department of Agriculture and Markets (AGM) will continue work that previous SCBG Good Agricultural Practices (GAP) projects successfully implemented. The proposed project will promote the GAP audit as the best way to prepare for new regulatory programs and standards to be implemented under the Food Safety Modernization Act (FSMA). We will continue to focus support for first time and potentially subsequent GAP audits as New York GAP program data indicates that a significant number of farms continue participation with GAP audits after having their initial audit.	$50,000.00
New York State Department of Agriculture and Markets	$1,310,855.05	9. Marketing and Promotion of New York Specialty Crops	New York State Department of Agriculture and Markets (AGM) will continue our consumer-facing marketing campaign to increase the competitiveness of NY specialty crops by increasing wholesale and retail awareness, demand, and distribution avenues which will lead to an increase in NY specialty crop sales by 5%. Marketing activities will focus on a coordinated presence at key national and regional tradeshows, thereby building awareness and expanding sales networking opportunities for various New York State specialty crop commodities and their representatives. Activities will also include the production and distribution of promotional materials, including an updated buyer's guide, for use at trade shows and special promotional events, as well as providing samples of specialty crops for participants to try.	$504,023.74

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
New York State Department of Agriculture and Markets	$1,310,855.05	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$98,401.80
North Carolina Department of Agriculture and Consumer Services	$1,356,136.64	1. JoCo Grows Specialty Crops	The Johnston County Tourism Authority in partnership with NC Cooperative Extension of Johnston County and the JoCo Grows Agriculture Steering Committee, will endeavor to educate residents, visitors, and consumers within the region, the value and benefits of specialty crops grown in Johnston County therefore increasing direct sales for our farmers. Connecting farmers to the resources available in Johnston County, and statewide for marketing and promotional purposes will take the awareness of specialty crops for sale in Johnston County to another level, increase revenues, create, and maintain jobs, and reach under-served communities through increased accessibility of local foods. Our objectives will be met by executing several innovative marketing projects, holding public on-farm events, designing a marketing plan template, and engaging in educational outreach to support agricultural profitability, distribution, and productivity for Johnston County specialty crop farmers.	$149,315.00
North Carolina Department of Agriculture and Consumer Services	$1,356,136.64	2. Producing North Carolina Ginger	North Carolina Agricultural & Technical University (NC A&T) will promote ginger and its production by identifying the best cultivars. Ginger, as one of the most important spices and food additives, sells at $15-20 per pound in Farmers Markets and brings high profits to small, limited resource, and socially disadvantaged farmers. Six to eight commercially available ginger cultivars will be evaluated for two seasons in field and high tunnels in the Piedmont, Southeast and Northeast regions of North Carolina. Seed ginger (mature ginger rhizome) production will also be explored using ginger produced in high tunnels, with a goal of mitigating the reliance of seed gingers from Hawaii. A ginger production guide reflecting the production techniques of the best cultivars identified from the trials will be published for growers and county extension agents.	$148,542.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
North Carolina Department of Agriculture and Consumer Services	$1,356,136.64	3. Expanding NC Fraser Fir Brand Awareness	The North Carolina Christmas Tree Association will build on previous successful Specialty Crop Block Grant projects by expanding its social media distribution across current platforms using shared value strategies to extend brand awareness of the superior quality of "North Carolina Fraser fir, the perfect Christmas tree" to consumers, and to provide a counterpoint to extensive misinformation from the artificial tree manufacturers. Improvements in genetics, production, pruning and shearing, and in postharvest tree care all set North Carolina Fraser firs above the competition. Branding can draw on this scientific advantage as well as tree characteristics and attributes. This project will also support both growers and Christmas tree retailers by providing new and updated educational and promotional materials across print, social media, and video formats.	$102,704.50
North Carolina Department of Agriculture and Consumer Services	$1,356,136.64	4. NC Hops to Beer	North Carolina State University will conduct a field trial of selected hop plants for evaluating yield, brewing test beers, and releasing the selections to NC hop growers. In this project, we will grow 20 plants of each of the five selections in a replicated trial. These plants will produce yields for us to provide the hops to collaborating breweries for brewing test beers. We will also collect data from these selections on yield and responses to disease and insect pressures. These data will be used for releasing these selections for NC hop production.	$74,932.00
North Carolina Department of Agriculture and Consumer Services	$1,356,136.64	5. Protecting Hemlocks in Nurseries and Forests	Hemlock trees are critical to North Carolina tourism, watershed protection, and biodiversity. Hemlocks are also a major nursery crop and important to the economy of central and western North Carolina. Unfortunately, introduction of an invasive insect, hemlock woolly adelgid (HWA), has decimated hemlock forests and much of the hemlock nursery industry. North Carolina State University will improve sustainable hemlock pest management and conservation by developing integrated pest management practices for hemlock production in nurseries to include least toxic insecticides and resistant hemlock genotypes. Hemlocks grown with these practices will protect the environment and will not harm biological control organisms released by state and federal agencies for hemlock conservation in forests.	$150,000

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
North Carolina Department of Agriculture and Consumer Services	$1,356,136.64	6. Informing Apple Thinning with Emerging Technologies	Thinning (the intentional removal of flowers and/or fruit) is a critical annual management decision for apple growers. Apple trees produce an excessive number of fruit, and over 70% must be removed (thinned) to optimize crop value, enhance fruit quality, and ensure consistent cropping. Thinning decisions have serious economic consequences ($5,000 to $10,000 difference in crop value per acre). Application(s) of plant growth regulators (thinners) are the most cost-effective and efficient method that growers have to thin fruit. The North Carolina State University will advance the development of a portable-handheld meter to predict apple crop load during the chemical thinning window. This promising technology will allow growers to rapidly assess the efficacy of a chemical thinner application and determine whether a follow-up application is needed to reach a target crop load.	$117,350.00
North Carolina Department of Agriculture and Consumer Services	$1,356,136.64	7. Soil Alkalinization to Manage Bacterial Wilt	Bacterial wilt of tomato, caused by the Ralstonia solanacearum species complex (RSSC), limits tomato production in North Carolina (NC) due to its long persistence in the soil, widespread distribution across the state, and the lack of effective and sustainable management options. Some evidence suggests that soil alkalinization (increase in soil pH) can reduce the incidence of this disease in susceptible crops, but the effectiveness of this tactic to manage bacterial wilt on tomato is supported only by anecdotal observations in NC. Faculty at North Carolina State University propose this project which aims to: 1) investigate the practice of soil alkalinization to manage bacterial wilt on tomato in NC; 2) understand the impact of soil alkalinization on the persistence and viability of RSSC in soil; and 3) identify recommendations for nutrient management under an alkaline soil.	$172,299.50

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
North Carolina Department of Agriculture and Consumer Services	$1,356,136.64	8. Smart Farming Using Digital Diagnostic Sensors	Emerging plant diseases and pest outbreaks reduce crop production with serious economic implications for North Carolina growers. In this project, research scientists and extension specialists at NC State will work with extension, grower, and crop consultants to understand the pathogen biology of an emerging Phytophthora species attacking the tomato and potato. We have identified a Phytophthora infestans look-alike, P. nicotianae, as the cause of severe disease in some potato and tomato fields. This more heat tolerant Phytophthora species has emerged with climate change. We will use smartphone-based LAMP technology to deliver a cost effective molecular diagnostic assay to the field so that we can identify Phytophthora species that infect potato and tomato in NC more rapidly.	$101,593.00
North Carolina Department of Agriculture and Consumer Services	$1,356,136.64	9. Breeding New Blueberries for Mechanical Harvest	The North Carolina State University Blueberry Breeding Program has long supported and collaborated with NC blueberry growers to breed cultivars that stand up to our challenging climate and meet the needs of high yield, quality, and machine harvestability. New machine-harvest trials will inform the release of new NC State blueberry cultivars, while new technologies such as machine learning and in vitro micropropagation will allow us to grow and test larger numbers of selections in our berry evaluations. In addition, our cooperative breeding and partnership with NC blueberry growers help develop new varieties faster.	$145,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
North Carolina Department of Agriculture and Consumer Services	$1,356,136.64	10. Genomic Resilience to Christmas Tree Pest	This project will be a collaboration between the Christmas Tree Genetics Program and the Molecular Tree Breeding Lab in the Department of Forestry and Environmental Resources at NC State University. Our goal is to improve resilience of Fraser fir Christmas trees to a major regulatory pest, the Elongate Hemlock Scale (EHS), through an integration of genomic tools with traditional tree breeding approaches. Fraser fir is one of North Carolina's most important specialty crops with annual revenues between $125 - 250 million. Conventional IPM approaches to manage EHS require extensive inputs and are largely unsuccessful. Our project aims to identify and develop Fraser fir Christmas tree genotypes with enhanced genetic resilience to EHS. The results of our efforts will benefit the NC Christmas tree industry and contribute to genetic conservation of native Fraser fir populations in NC.	$176,219.16
North Carolina Department of Agriculture and Consumer Services	$1,356,136.64	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$16,095.98
North Dakota Department of Agriculture	$3,309,650.38	1. North Dakota Specialty Crop Education Series	The North Dakota Department of Agriculture (NDDA) will offer a series of workshops around the state to educate producers in growing, preparing, marketing, and selling specialty crops. At the conclusion of these events, attendees will have gained knowledge about food safety and will learn new business practices to improve specialty crop production and distribution.	$73,625.84
North Dakota Department of Agriculture	$3,309,650.38	2. Supporting Seed Potato Exports to Canada	The North Dakota Department of Agriculture (NDDA) will support exports of seed potatoes grown in North Dakota to Canada by conducting a survey of Potato Cyst Nematodes or PCN (Globodera pallida and G. rostochiensis). A survey showing field specific negative results for PCN is required for shipments of seed potatoes into Canada. Results will be disseminated to participating potato growers. NDDA will partner with North Dakota State Seed Department (NDSSD) to complete this project.	$79,925.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
North Dakota Department of Agriculture	$3,309,650.38	3. Honeybee Virus and Pathogen Survey and Research Publication	The North Dakota Department of Agriculture (NDDA) will document the presence or absence of various honeybee pests and pathogens through a comprehensive survey and provide outreach and education to the beekeeping industry and the general public. NDDA will also publish a booklet with all the previously funded research projects funded by various grant programs that NDDA administers.	$102,094.00
North Dakota Department of Agriculture	$3,309,650.38	4. Increasing the Availability of SSR Genotyping for Variety Identification in Chickpea and Field Pea	The National Agricultural Genotyping Center will develop two genotyping panels for variety identification in chickpea and field pea for the seed industry. Certification of field peas in North Dakota requires variety confirmation by genotyping, but upgrades to the existing diagnostic technology are needed to increase the efficiency and accuracy of variety identification.	$322,497.00
North Dakota Department of Agriculture	$3,309,650.38	5. High-throughput Screening for the Genetic Markers of Africanized Honeybee Colonies	The National Agricultural Genotyping Center (NAGC) will develop a high-throughput genetic test to survey colonies for a common marker associated with Africanized honeybees (AHB). The test will help apiary inspectors and beekeepers identify AHB and limit the further spread of aggressive colonies and AHB traits associated with reduced honey production.	$118,426.00
North Dakota Department of Agriculture	$3,309,650.38	6. International Export Expansion of N.D. Specialty Crops	The North Dakota Trade Office (NDTO) seeks to increase the market share of N.D. specialty crops by strategically expanding internationally. We plan to do this by providing up to six N.D. companies the opportunity to exhibit at SIAL Paris, France, in 2022; Increasing the exposure of pulse crops for up to four N.D. companies to the Middle East and North African Region by exhibiting at Gulfood 2023 in Dubai, United Arab Emirates; and executing an NDTO lead trade mission to India based on the market research to a promising region where up to five companies will meet with prescreened buyers and develop relationships for lasting success.	$307,706.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
North Dakota Department of Agriculture	$3,309,650.38	7. Screening for Pea Root Rot Disease Resistance in Newly Developed NDSU Breeding Lines and Germplasm	North Dakota State University Williston Research Extension Center will maintain Aphanomyces and Fusarium root rot breeding nurseries by infesting the soil with pathogen inoculum and growing susceptible host crops and screen North Dakota State University pea breeding lines for resistance to Fusarium and Aphanomyces root rot. Maintaining these nurseries will serve as a resource to the pulse breeding community for many years to come and screening NDSU breeding lines will aid in the development of root rot resistant varieties adapted to the North Dakota growing region.	$84,438.00
North Dakota Department of Agriculture	$3,309,650.38	8. Improving Management of Two Important Foliar Leaf Spotting Diseases of Potatoes Improving Management of Two Important Foliar Leaf Spotting Disease	Plant pathologists from North Dakota State University will conduct research to improve management recommendations for early blight and brown leaf spot of potato caused by Alternaria pathogens. Results from pathogen aggressiveness trials, fungicide efficacy evaluations and pathogen sequencing will increase our understanding of the brown leaf spot pathogen complex including the levels of SDHI fungicide resistance.	$197,715.00
North Dakota Department of Agriculture	$3,309,650.38	9. Defining Verticillium on Tubers with Image Analysis During Bulking	North Dakota State University will develop improved grower recommendations, earlier diagnosis for Verticillium dahliae, and increase economic return by determining bulking rate of three russet potatoes. The purpose of this study is to understand the effects of planting dates on the develop of bulking rates and to define V. dahliae accumulation of Dakota Russet, Bannock Russet and Russet Burbank utilizing traditional laboratory methods and developing a new imaging analysis.	$141,392.00
North Dakota Department of Agriculture	$3,309,650.38	10. Weed Control in Dry Pea, Lentil, and Chickpea Using Fall Cover Crop and Herbicides.	North Dakota State University will evaluate using a winter rye (Secale cereale) cover crop combined with fall-applied herbicides to control winter annual weeds and early spring-emerging weeds like kochia and Russian thistle. The project goal is to utilize the competitive shading ability of winter rye combined with fall-applied herbicides to reduce the density and size of weeds that compete with pulse crops.	$57,311.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
North Dakota Department of Agriculture	$3,309,650.38	11. Identifying Dry Bean Germplasm and Genomic Regions with Resistance to New Soybean Cyst Nematode Populations	The Department of Plant Pathology at North Dakota State University (NDSU) will evaluate 250 dry bean cultivars, germplasm, and breeding lines for their resistance to the new virulent soybean cyst nematode (SCN) populations HG type 2.5.7 and HG type 1.2.5.7 detected in North Dakota and perform a genome wide association study (GWAS) for identifying genomic regions and genes associated with resistance to SCN in dry bean in cooperation with the Dry Bean Breeding Program at NDSU.	$126,062.00
North Dakota Department of Agriculture	$3,309,650.38	12. Strategic Management of Dry Bean Rust: Pathogen Surveillance, Host Genetics, and Economics of Resistance	North Dakota State University researchers propose a multifaceted rust management strategy that includes rust surveillance, evaluation of genetic resistance, and determination of the economic impact of that resistance when used by growers. Surveillance activities will involve identifying and characterizing rust races in North Dakota using traditional and genomics approaches. The newly released rust-resistant bean cultivars and new breeding lines from the NDSU dry bean breeding program will be screened against those pathogen races to determine the efficacy of genetic resistance and identify potential threats of resistance breakdown.	$192,347.00
North Dakota Department of Agriculture	$3,309,650.38	13. Identifying Dry Beans and Rhizobia That Can Withstand Soil Salinity and Waterlogging.	North Dakota State University aims to improve cultivar selection of dry beans for waterlogged and saline soil conditions, and to also determine how these conditions influence efficiency of BNF. The goals of this project will be accomplished by conducting waterlogging and salinity tolerance field and greenhouse experiments to isolate conditions, dry bean cultivars and breeding lines, to assess inoperable conditions for existing inoculum and to identify rhizobia within the nodules of bean plants growing under these two soil conditions and evaluate their potential for development as salinity and flooding-tolerant inoculants.	$160,380.00
North Dakota Department of Agriculture	$3,309,650.38	14. Molecular Approaches to Identify Ascochyta Resistance in Chickpea	Plant breeders and plant pathologists of North Dakota State University will work together to unravel the molecular aspects of Ascochyta rabiei – chickpea interaction and use this data to identify durable resistance of chickpea to the devastating disease Ascochyta blight.	$312,883.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
North Dakota Department of Agriculture	$3,309,650.38	15. North Dakota Garlic From Field to Fork	North Dakota State University will establish an agreement relationship with the State Department of Agriculture to lead and execute the project that will work toward the increased production of garlic in North Dakota and encourage consumers to use more garlic on their menus, especially to encourage vegetable and specialty crop consumption. We propose to conduct a garlic variety trial to evaluate garlic cultivars transplanted at three intervals for growth, development, yield, and quality when all other production variables remain constant.	$86,019.00
North Dakota Department of Agriculture	$3,309,650.38	16. Evaluation of Woody Ornamental Shrubs for North Dakota	North Dakota State University will conduct this project to provide information to growers and users (landscape companies and homeowners) for new ornamental woody shrubs for North Dakota landscapes. Increasing woody plant species for use in landscaping applications would have a significant impact on residents' specifically in North Dakota and throughout the region.	$71,635.00
North Dakota Department of Agriculture	$3,309,650.38	17. Evaluating Aronia for Edible and Ornamental Use for North Dakota	North Dakota State University will evaluate 21 different cultivars/unreleased accessions of Aronia and provide information to commercial small fruit growers and the North Dakota Greenhouse, Nursery and Landscape Association on cultivar use for edible and ornamental use. Recommendations will be made available through websites, newsletter articles and field day presentations.	$58,919.00
North Dakota Department of Agriculture	$3,309,650.38	18. Fumigation Effects on Carryover of Herbicides in Potato Production	North Dakota State University will determine the effects of fumigation on herbicide carryover in potato production systems. This project will determine the breakdown rate of herbicides when fumigated the fall after summer herbicide application. Research plots will be established to include different herbicides with and without fumigation. Soil samples will be taken and evaluated for herbicide residues to determine what effects fumigation has on the availability of these herbicides. Plants growth with be monitored and yield taken to be associated with soil samples.	$132,368.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
North Dakota Department of Agriculture	$3,309,650.38	19. Adding Pre-biotics to Pro-biotics: Chemoattractants Support Rhizosphere Bacteria, Enhancing Plant Growth and Disease Resistance	Researchers at North Dakota State University are proposing the use of pre-biotic plant root exudates to support the pro-biotic inoculant rhizosphere bacteria that are currently being used for peas but are still in the research state for tomatoes and cucumbers. There is a growing body of evidence that plant beneficial pro-biotic bacteria use these substances to chemotax and swim through the soil towards the plant roots. The resulting symbiosis between plant and bacteria enhances plant growth and health, as well as disease resistance.	$190,007.00
North Dakota Department of Agriculture	$3,309,650.38	20. Optimizing the Deployment of Fungicides for Management of Foliar Diseases in Field Peas	The North Dakota State University Carrington Research Extension Center, in cooperation with the NDSU North Central and Langdon Research Extension Centers, will conduct multi-location field trials to develop rigorous disease management recommendations for optimizing the deployment of fungicides for improved management of Ascochyta blight and powdery mildew in field peas.	$128,884.00
North Dakota Department of Agriculture	$3,309,650.38	21. Evaluating New Brassica Cultivars Yields and Health Attributes to Increase Opportunities for Local Foods	North Dakota State University Agriculture Experiment Station will establish an agreement relationship with the State Department of Agriculture to lead and execute the project to evaluate new broccoli (Brassica oleracea var. italica), and cauliflower (Brassica oleracea var. botritis) cultivars for floret yield, quality, composition, and health benefit attributes compared to commonly grown broccoli and cauliflower cultivars.	$105,095.00
North Dakota Department of Agriculture	$3,309,650.38	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$152,057.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Commonwealth of the Northern Mariana Islands Department of Lands and Natural Resources	$244,550.44	1. Promotion and Marketing of CNMI's Specialty Crops	The aim of this project is for the Commonwealth of the Northern Mariana Island Division of Agriculture to market and promote Northern Mariana Island specialty crops within the community. The challenge that encourages this project is due to the little knowledge of what specialty crops are. This project will enable the program to properly promote the specialty crops to all walks of life possible. The program will partner with local farmers, farmer's associations, and Garapan Public Market to help promote and market specialty crops that are locally grown to people within the community of the Commonwealth of the Northern Marianas. The main objective is to ensure that the locally grown specialty crops are properly marketed and extensively promoted within the community for the benefit of the people's health and their overall understanding of locally grown crops.	$37,930.00
Commonwealth of the Northern Mariana Islands Department of Lands and Natural Resources	$244,550.44	2. Plant Disease and Pest Detection/Management Program	Plant disease and pest detection/management program will be a project implemented to help identify plant diseases and pest that are attacking or destroying specialty crops. In addition to identification, the program will be hosting workshops on various methods or techniques of managing pest and diseases. Commonwealth of the Northern Mariana Island Division of Agriculture will partner with Northern Marianas College, Community Research Education and Extension Services to conduct a survey of specialty crops around Saipan, Tinian, and Rota; to identify common and imminent plant diseases and pest that are attacking crops around the island. The survey will enable the program to develop informative brochures or posters for public use on available pest and disease management. Poster and brochures will include information like, pest or disease descriptions, signs and symptoms, and management techniques.	$65,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Commonwealth of the Northern Mariana Islands Department of Lands and Natural Resources	$244,550.44	3. Increased Crop Production (Import substitution)	Commonwealth of the Northern Mariana Island Division of Agriculture will partner with local farmers within the CNMI (Saipan, Tinian, and Rota) to conduct on-farm trials, testing stable specialty crops within the CNMI. The purpose is to simply identify varieties that will thrive well and produce acceptable yield for the farmers. Each selected farmer will be responsible for maintaining the trial plots and reports back on information like type of crops grown, number of rows, length of rows, fertilizer used, method of farming applied, rate of germination, pest and diseases, environmental stressor, and plant growth rate.	$70,000.00
Commonwealth of the Northern Mariana Islands Department of Lands and Natural Resources	$244,550.44	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$52,045.02
Ohio Department of Agriculture	$654,234.65	1. Improving Apple Quality to Fill Gaps in the U-pick Market	A team of scientists and extension specialists at The Ohio State University will work towards identifying emerging apple selections that fill existing gaps in the Midwestern U-pick market. The current apple U-pick market lacks diversity in varieties that meet consumer demands in terms of flavor, texture, application, and color, and grower needs in terms of seasonality, keeping quality, and disease resistance. Enabling this diversity will allow a market advantage to U-pick operations by providing high-quality apples that cannot be purchased at a typical grocery store. The goal of this project is to evaluate up-and-coming apple selections for their taste, flavor, and texture attributes that will provide value to local growers and consumers and create distribution materials and infographics to share with farmers and consumers about the differences in sensory characteristics of evaluated apples.	$109,945.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Ohio Department of Agriculture	$654,234.65	2. Refining Best Management Practices for Nitrogen Applications to Cool-Season Turfgrass Lawns Across Ohio	The Ohio State University Turfgrass Science team will provide refined best practices for nitrogen fertilizer applications for multiple turfgrass species to help stakeholders make environmentally friendly decisions while maintaining lawns that provide ecosystem services and safe recreational surfaces. Two-year research studies will be established in Central, Northeast, Northwest, and Southwest Ohio. We will examine new and old cultivars of perennial ryegrass, Kentucky bluegrass, tall fescue, and hard fescue to determine if new cultivars require less nitrogen by treating plots with varying amounts.	$109,297.00
Ohio Department of Agriculture	$654,234.65	3. Small Farm Diversification through the Adoption of Specialty Annual Fruits	A team of Ohio State University research and extension personnel will deliver a multi-faceted program aimed at improving small-farm viability through diversification into high value specialty annual fruit crops. Our project will establish best practice and economic information for six annual fruit crops which have been selected for their dual-purpose applicability for fresh retail or processing for jams, juice, and cider. These crops include three solanaceous berries (Goldenberry, Litchi Tomato, Garden Huckleberry) and three melon varieties with edible skin (Sakata Sweet Melon, Lemon Drop Mini-watermelon, Ginkaku Melon). Separate trials will be conducted to evaluate the suitability of the new crops for juice processing, as well as their application in brewing and cidermaking.	$109,984.00
Ohio Department of Agriculture	$654,234.65	4. Managing Key Early-Season Pests of Tree Fruit in Ohio	Ohio state University will partner with local tree fruit growers to test the efficacy of reduced risk insecticides and pheromone disruption in tree fruit to decrease the negative impact of insect pests and disseminate results to growers through online publications and in-person presentations. In completing this project, we anticipate an increase in the knowledge of how to use both pheromones and insecticides to target these pests, an increase in adoption of either management practice and a corresponding reduction in the environmental impact of pest management in Ohio orchards.	$73,100.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Ohio Department of Agriculture	$654,234.65	5. Advancing High Tunnel Production: Research-based Support and Technologies to Speed and Enhance Grower Success	The Ohio State University will speed and improve the success of high tunnel specialty crop growers through a coordinated effort integrating educational programming and research addressing growers' needs for improved methods, technologies, and resources of vegetable crops. This project features an extension and applied-research plan calibrated to stakeholder characteristics (e.g., experience, scale, market, setting, and approach) and interests. Stakeholders have taught us that integrating a) on-station and on farm research and b) coordinated, stakeholder-focused extension activities and resource development is most beneficial to them.	$72,880.55
Ohio Department of Agriculture	$654,234.65	6. Establishing Science-based Strategies for Prevention and Mitigation of Human Pathogens in Hydroponic Specialty Crop Systems	Researchers from the Ohio State University Departments of Plant Pathology, Human Nutrition, and Horticulture and Crop Sciences will evaluate the nutritional attributes of leafy greens produced in hydroponically with nutrient solutions modified to reduce the risk of human pathogen contamination and develop clean break protocols for two hydroponic leafy green production systems, nutrient flow technology (NFT) and deep-water culture (DWC). Research results from the proposed studies, and previously funded studies, will be synthesized and translated into a comprehensive, self-paced, fully on-line, and accessible to the public, education program for the hydroponic specialty crop industry that integrates good food safety practices (GFSPs) specific to hydroponics with crop management training, as well as through industry partners and OSU Extension.	$110,000.00
Ohio Department of Agriculture	$654,234.65	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$14,330.82

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Oklahoma Department of Agriculture, Food, and Forestry	$576,587.51	1. Understanding Tomato Virome In Oklahoma	The University of Tulsa will focus on determining what type of viruses are infecting tomatoes and their impacts on yields as well as possible management methods. We will survey and identify virus types, their transmission vectors, and determine possible sources of resistance in tomato varieties. This information will be useful in future integrated pest management strategies adopted by tomato growers.	$86,924.00
Oklahoma Department of Agriculture, Food, and Forestry	$576,587.51	2. Insect Response To Regenerative Agriculture Practices In Pecan Orchards Under Cattle Grazing	Oklahoma State University will improve pecan production by quantifying beneficial and pest insects in grazed pecan orchards under regenerative agriculture management. Results will be shared with stakeholders at grower meetings, field days and scientific conferences.	$63,931.00
Oklahoma Department of Agriculture, Food, and Forestry	$576,587.51	3. Improving Nitrogen and Nutrient Uptake Efficiency Of Pecans Using Mycorrhizal Fungi	Oklahoma State University seeks to investigate a means to increase the uptake efficiency of Nitrogen and other nutrients by pecan roots in different types of pecan orchards using mycorrhizal fungi. Nitrogen is an essential nutrient that affects pecan growth and production. Our research will target specific types of mycorrhizal fungi with abilities to increase Nitrogen uptake and to identify the best biotypes for Oklahoma pecan trees.	$84,705.00
Oklahoma Department of Agriculture, Food, and Forestry	$576,587.51	4. Fertility Management In Soilless Growth Media For Vegetable and Ornamental Crop Production	Researchers from the Department of Horticulture and Landscape Architecture at Oklahoma State University will partner with The Soil, Water and Forage Analytical Laboratory from Oklahoma Cooperative Extension Service, with the goal to generate reliable interpretations of soilless growth media test results and recommendations for fertilization based on crops specified.	$82,570.00
Oklahoma Department of Agriculture, Food, and Forestry	$576,587.51	5. Oklahoma Gardening QR Code Signage	Oklahoma State University Department of Horticulture and Landscape Architecture has a premier television show, Oklahoma Gardening. For the past several decades, Oklahoma Gardening has provided research-based horticulture information to Oklahomans. This grant will enable OSU Extension to further its horticulture education outreach by providing information directly to the public who visit botanic gardens and demonstration gardens around the state.	$23,012.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Oklahoma Department of Agriculture, Food, and Forestry	$576,587.51	6. Investigating Novelty Trees For Their Edible and/or Ornamental Potential For The Oklahoma Green Industry	Oklahoma State University will conduct a study to determine if plants considered marginally cold hardy will be at least ornamental or ideally be able to set fruit for fresh consumption and/or for other culinary uses. Deliverables and expected research-based outcomes include recommendations to Oklahoma specialty nurseries regarding plant varieties that met OSU trial standards for green industry professionals to expand their specialty fruit tree inventory as well as suggested varieties that could be marketed and sold as edible ornamentals also for Oklahoma and surrounding states and regions.	$55,150.00
Oklahoma Department of Agriculture, Food, and Forestry	$576,587.51	7. Development Of A Turf Management Curriculum For Secondary Education In Oklahoma	Oklahoma State University seeks to enhance sustainability of the turfgrass industry through workforce development targeted at secondary education levels. The project will develop, publish, and disseminate a Turf Management teaching curriculum for FFA, 4H, and STEM classes in Oklahoma.	$69,737.00
Oklahoma Department of Agriculture, Food, and Forestry	$576,587.51	8. Woody and Luminescent Cut Flowers As A Value-Added Product	Oklahoma State University will evaluate use of woody nursery crops as potential cuts for cut flower growers. This research will evaluate multiple species across two different specialty crop groups. Quantitative data on number and size of cut stems produced with and without gibberellic acid application and brightness in terms of application rates of glow-in-the-dark products will be used to make recommendations to growers.	$62,864.73
Oklahoma Department of Agriculture, Food, and Forestry	$576,587.51	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$45,990.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Oregon Department of Agriculture	$2,098,097.03	1. Establish, Maintain PFA-FF Area for Milton-Freewater	Viability of Milton-Freewater fruit industry relies on early access to markets before larger competitive regions. This project will determine the occurrence and origin of the three separate Apple Magot detections in 2020 and the two separate detections in 2021. 2021 Apple Magot detections were in the same vicinity as the 2020 Apple Magot detections, additional trapping, and delimitation for three growing seasons will further narrow down the sources of introduction. Finally, these efforts should re-establish fly free (FF)-pest free area (PFA) standing for Apple Magot in Milton-Freewater. Re-establishing fly free-pest free area standing will allow for early access to the market for the Milton-Freewater fruit industry.	$110,000.00
Oregon Department of Agriculture	$2,098,097.03	2. Farm To Families: Expanding The Market For Specialty-Crop Farmers	Adelante and its key partners (at the school district and county level) will collaborate to expand the local farm-direct market for fresh produce from Latinx farmers to be purchased by community partners and the community at large to be distributed to food-insecure families across Washington County, Oregon. During the grant period we will connect Oregon specialty crop vegetable, fruit, and herb farmers to new food-insecure consumers through diverse food bank distribution sites.	$90,280.00
Oregon Department of Agriculture	$2,098,097.03	3. Family Nurturing Center - Growers' Cooperative Family Food Education Site	The Family Nurturing Center's Farm and Food Program will establish a Growers' Cooperative Family Food Education Site to increase families' access to local fresh food and nutrition education, to increase local consumption of specialty crops, and to provide local farms a market for their product that educates consumers about local agriculture.	$54,479.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Oregon Department of Agriculture	$2,098,097.03	4. Enhancing The Safety Of Oregon Specialty Crops	In collaboration with the Oregon Department of Agriculture, the International Food Protection Training Institute (IFPTI) will enroll specialty crop personnel (growers, packers, and processors) into two online certificate training programs, creating a cadre of "go to" individuals. Training will include the Listeria Control Specialist (LCS) and the Enteric Viruses Control (EVC) certificate programs, developed by food safety professionals from the frozen food industry and IFPTI Instructional Systems Designers. The programs are self-paced, interactive, and upon successful completion learners receive a certificate from IFPTI's learning management system.	$86,299.00
Oregon Department of Agriculture	$2,098,097.03	5. Developing An Integrated Pest Management Program For Spotted Wing Drosophila	The Northwest Berry Foundation (NBF), in partnership with the Oregon Blueberry Commission and the Oregon Raspberry and Blackberry Commission, will address the bottlenecks in shifting Spotted Wing Drosophila (SWD) management strategies at the grower, packer, and buyer level. This project plans to demonstrate an effective SWD Integrated Pest Management (IPM) program in the field and produce online resources for IPM SWD management. It will also bring together stakeholders from every aspect of the Oregon berry industry through industry forum events to find ways to refine management standards and expand knowledge and use of alternative management strategies around this pest. The overall goal is to develop an effective Integrated Pest Management (IPM) plan for SWD that utilizes fewer insecticide applications and spares beneficial insect populations, saving farmers money, and lessening the environmental impact of multiple sprays thereby advancing the competitiveness and producibility of blueberries and cranberries in Oregon.	$166,664.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Oregon Department of Agriculture	$2,098,097.03	6. Oregon Craft Cider Market Development Via National Cider Conference	The Northwest Cider Association (NWCA) project will address domestic market development and access issues that will benefit up to 80 Oregon cideries. Craft, alcoholic ciders are value-added products that utilize Oregon farmers' supplies of apples, grapes, cane berries, stone fruit, cranberries, hops, and botanical herbs. In January 2024, the American Cider Association will bring CiderCon®, the annual national cider conference, to Portland attracting over 1,000 cideries, media, buyers, and suppliers to Oregon. Through this grant, the NWCA will be able to collaborate with the American Cider Association to accomplish the following three objectives and key activities: (1) provide conference content that meets the marketing and operational needs of Oregon cideries and specialty crop farmers they purchase from; (2) Increase Oregon cideries' product exposure through (a) hosting in-bound buyers events, (b) media / influencer events, (c) promoting Oregon Cider Week and (d) building out a trade focused web portal on existing website so product availability content for buyers lives on past the grant period; and (3) Collaborative marketing opportunities.	$174,094.00
Oregon Department of Agriculture	$2,098,097.03	7. Before Harvest – Behind The Scenes Of Oregon's Specialty Crops	Oregon Aglink will create in-depth educational video series for middle school classrooms with supplemental extension activities showcasing production practices and highlighting the stories behind the choices farmers make throughout the growing season for Oregon specialty crops in different growing regions around the state. By partnering with farms, students will hear directly from the voices working to bring crops to market while seeing the various stages, including risks and threats, of specialty crops before harvest which will increase their knowledge, appreciation, and familiarity with Oregon specialty crops.	$44,743.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Oregon Department of Agriculture	$2,098,097.03	8. Oregon Blueberry Export Expansion To Southeast Asia	The Oregon Blueberry Commission (OBC) will conduct retail, foodservice, and culinary school promotions in Singapore, Vietnam, the Philippines, and Malaysia. This is an expansion of programming initiated in 2021 to include one new market (Malaysia). Since Vietnam and the Philippines opened to fresh Oregon blueberries in 2019 and 2020, respectively, OBC has proactively worked to generate attention for Oregon blueberries. Funds are set aside to continue this work in 2022 but with the hope of direct consumer interaction with live retail sampling promotions. OBC's promotional strategy will emphasize retail promotions as these remain the most important mechanism through which product trial and purchase can be affected. Activities will include point-of-sale material production, advertising, retail demos, and in-store sampling, along with culinary school trainings to help educate foodservice targets about the versatility of blueberries. Where possible, some promotions will include frozen blueberries and processed products that incorporate Oregon blueberries as an ingredient.	$175,000.00
Oregon Department of Agriculture	$2,098,097.03	9. Cultivating Seed Starting Champions! Driving Sales Of 50 Specialty Crops	The Oregon Potato Commission (OPC) will establish agreements with Oregon State University Extension (OSU), with OSU Food Hero leading this project and coordinating partners. This is a market access and development project rigorously designed to enhance the competitiveness of 50+ specialty crops through increasing child and adult nutrition knowledge and consumption of specialty crops by expanding access and sales at schools. Project activities will expand OSU's successful Grow This! social marketing campaign to strategically reach up to 60,000 youth across Oregon through curating and distributing (1) 500 Oregon Potato Champion classroom kits and (2) 1,500 Seed Starting kits.	$174,998.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Oregon Department of Agriculture	$2,098,097.03	10. Overcoming Barriers To Cover Crop Use In Hazelnut Production	Oregon State University will collect and communicate information that will help producers incorporate cover crops into hazelnut production. Cover crops can increase Oregon hazelnut producers' competitive edge by increasing resilience to weather and market fluctuations, decreasing input costs such as fertilizers and herbicides, and increasing the marketability of hazelnuts based on sustainability and soil health goals. We will conduct a survey to identify the major barriers for grower adoption and aggregate data on the methods and practices local producers are using to make cover crops work. We will conduct follow up interviews to create a partial budget analysis comparing net farm profitability after a change to new practices. In the survey, we will gauge willingness to participate in a peer-to-peer network for sharing successful strategies.	$109,333.00
Oregon Department of Agriculture	$2,098,097.03	11. Fertility, Population Dynamics, And Pollinator Attractiveness Of Standard and "Sterile" Butterfly Bush To Inform Regulation	Oregon State University helps inform regulation of butterfly bush at the Oregon Department of Agriculture by collecting field and greenhouse data for 34 cultivars with varying levels of fertility and using modeling to predict the relative ecological threat of each by comparing to known distribution of fertile varieties. The current amendment to the ban of Buddleja davidii was made more than 10 years ago and requires assessment and update – our findings will help determine how successful the amendment has been and serve both the ecological and economic sustainability of Oregon. Additionally, the evaluation of pollinator attraction will be correlated with fertility to determine how breeding for low fertility impacts pollinator visitation.	$53,228.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Oregon Department of Agriculture	$2,098,097.03	12. Viable Solutions For Symphylans In Specialty Crops- Alternatives To Chlorpyrifos	Oregon State University and USDA-Agricultural Research Service seeks funding to identify viable solutions for symphylan management by establishing a cross-commodity collaborative project for a comprehensive understanding of this pest's biology and ecology across cropping systems and enhancing crop productivity by utilizing new management tools. We will evaluate the extent of symphylan damage by conducting field surveys in spinach grown for seed, strawberry, and grass grown for seed. Field and lab bioassays will be conducted to evaluate the efficacy of new insecticide chemistries against symphylans. Identification of promising alternatives and knowledge gain of their viability by analyzing cost-benefit data will be disseminated to the Oregon Department of Agriculture and growers promptly through publications, social media tools, field days, growers' meetings, etc. The project findings will help growers to incorporate these strategies in their integrated pest management (IPM) plans to enhance the productivity of specialty crops of Oregon.	$161,539.00
Oregon Department of Agriculture	$2,098,097.03	13. Collaborative Market Development For Climate Resilient Vegetables In Oregon	The Culinary Breeding Network and Oregon State University (OSU) will lead collaborative market development and promotion efforts for dry-farmed tomatoes, dry-farmed melons, chicory greens (radicchio, frisée, endive), and winter radishes to support growers during pandemic recovery. The specific goals are to: 1) promote dry-farmed tomatoes and melons, chicory greens, winter radishes through a marketing and education campaign; 2) increase consumer interest and understanding of these vegetables; 3) increase sales of Oregon grown dry-farmed tomatoes, dry-farmed melons, chicory greens, and winter radishes; 4) evaluate project impacts.	$173,363.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Oregon Department of Agriculture	$2,098,097.03	14. Certifying Oregon Wine Grapes as Bee Friendly	Oregon State University, in partnership with LIVE (Low Input Viticulture & Enology), Pollinator Partnership and eight commercial vineyards, will develop: 1) a tool to evaluate the nectar and pollen resources for bees in Oregon vineyards, 2) a reporting system and vineyard management program enabling vineyards to be certified as a bee friendly farm, 3) an Oregon Bee Friendly Farming Vineyard Workshop to train growers on bee friendly farming practices, and 4) an Oregon Bee Friendly Wine Tour with accompanying promotional materials. Ultimately, this work looks to bridge the gaps between bee friendly vineyard practices, bee biodiversity, plant diversity that supports bees, and public recognition of the efforts being made to protect bees.	$174,997.00
Oregon Department of Agriculture	$2,098,097.03	15. Expanding And Developing BIPOC Specialty Crop Farm Businesses And Markets	Outgrowing Hunger will provide support to immigrant, refugee, and African American new and beginning farmers in the Portland metro area to preserve and enhance demand for traditional specialty crops. Tasks will include increasing capacity and effectiveness of growers and producers, conducting marketing campaigns, providing support and leadership for farmer organization into co-ops to leverage efforts into three distribution channels, and developing appropriate point of sale systems. This will increase the supply of traditional specialty crops, increase the ability of community-based farmers to meet supply needs and preserve and expand latent demand for traditional specialty crops in the population.	$169,124.00
Oregon Department of Agriculture	$2,098,097.03	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$167,135.86

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Pennsylvania Department of Agriculture	$1,097,981.58	1. Expanding Use and Effectiveness of IPM Strategies on Mushroom Farm	Penn State University faculty and staff will mitigate mushroom phorid fly populations in the community and on mushroom farms by developing and facilitating the adoption of novel control methods for flies on mushroom farms in Southeastern Pennsylvania. We will develop and establish effective fly monitoring programs for implementation across the mushroom industry. Penn State faculty and staff will host and participate in industry and community meetings to disseminate the results of this study.	$98,466.00
Pennsylvania Department of Agriculture	$1,097,981.58	2. Evaluate and Identify Early Fresh Market and Chipping Potato Varieties for Pennsylvania Growers	The Pennsylvania State University will cooperate with Pennsylvania Co-Operative Potato Growers, Inc. to conduct this project to evaluate and identify early season potato varieties with high qualities for early fresh market and for early chipping under Pennsylvania field conditions. We will select two to three potato varieties with high yielding, attractive appearance, and disease resistance for early fresh market and one to two varieties with high yielding, good chipping color out of field and disease resistance for early chipping market under Pennsylvania field conditions. These selected varieties will be recommended to all Pennsylvania potato growers and industry.	$74,592.00
Pennsylvania Department of Agriculture	$1,097,981.58	3. Enhanced Preparedness Against Diverse Pathogens Threatening Specialty Crop Production and Markets	This proposal builds on a long-term partnership between Penn State and the Pennsylvania Dept. of Agriculture (PDA) Plant Disease Diagnostic Laboratory (PDDL) to enhance the state's preparedness against diverse pathogens. This project aims to carry out the following objectives: a) evaluate the risk of Phytophthora pathogens to specialty crops, b) characterize bacterial pathogens collected from tomato, potato, and pepper by PDA to determine their diversity and variation, c) optimize molecular diagnostic protocols for three regulated pathogens, and d) disseminate the resulting resources to diverse stakeholders via multiple channels.	$75,888.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Pennsylvania Department of Agriculture	$1,097,981.58	4. Increasing Specialty Crop Sales Through FMNP Distribution and Redemption	The Lehigh Valley Food Policy Council, a program of Community Action Committee-Lehigh Valley, will implement a strategic outreach and communications plan to increase distribution and redemption of Senior and WIC Farmers Market Nutrition Program Vouchers in Northampton and Lehigh counties. The strategies include a coordinated outreach campaign, printed materials that help program participants learn where to use the checks, timely reminders about check availability and seasonal availability of desirable specialty crops, pop-up markets at key locations to mitigate transportation and access barriers, ensuring location information is accurate across all platforms, and increasing the number of specialty crop growers enrolled in the program. This project will also work to address barriers specific to the two distinct demographics served by FMNP – mothers and seniors – by increasing knowledge about local specialty crops and how to use them, and incentivizing check use.	$46,739.00
Pennsylvania Department of Agriculture	$1,097,981.58	5. Monitoring Bee Populations in Pennsylvania to Support Stable Pollination Services	This project will establish a bee monitoring program through Penn State Extension through participatory science. Specifically, we aim to (1) develop a standardized set of protocols for assessment of the diversity and distribution of wild bees across the state; (2) collect quantitative data to detect of bee population declines and increases over time; and (3) facilitate the detection of the arrival and spread of non-native bee species. The successful completion of this project will provide growers of pollination-dependent crops and state agencies crucial information about the status of wild bee populations in Pennsylvania to be able to develop mitigation and management programs that sustain optimal crop pollination services.	$112,564.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Pennsylvania Department of Agriculture	$1,097,981.58	6. Youth Farmer Educators	Through the Youth Farmer-Educator program, the LEAF Project will harness the energy and talents of the youth growers within our program to support, educate, and equip their community members to grow, cook, and buy specialty crops through providing a range of support services about growing specialty crops. The youth will provide support ranging from customized educational resources for garden design and planting timelines, to hands-on workshops on gardening tips and tricks, and to on-site support for new and underserved populations to grow specialty crops. The LEAF Project will engage 30 youth farmers as community gardening educators while supporting more than 1,500 community members in growing their own specialty crops.	$35,616.00
Pennsylvania Department of Agriculture	$1,097,981.58	7. Promoting Family Nutrition Knowledge and Consumption of Western Pennsylvania Specialty Crops	The “Welcome To The Table” project will work with individuals and families in low-income communities in Western Pennsylvania to increase education about and consumption of specialty crops grown by Western Pennsylvania farmers. Community Partnership will design a nutrition education program that will be deployed in the communities served by our mobile farmers market and will assess the effectiveness of this nutrition education program on consumer’s acceptability towards specialty crop consumption. Activities conducted under this nutrition education program will include cooking demonstrations, food tastings, the provision of recipes, and agricultural education on growing methods and the economic and environmental benefits of consuming locally grown food.	$59,890.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Pennsylvania Department of Agriculture	$1,097,981.58	8. Impact of Soil Microbes on Bean Nutrient Quality in Organic and Conventional Systems	Rodale Institute will evaluate the impact of soil microbes on nutrient quality in bean varieties in organic and conventional systems. Soil samples will be assessed for microbial composition and enzyme activities, as well as for phospholipid fatty acids (PLFA). Green and black bean crop and tissue will be assessed for phenols, sugars, anthocyanins, and vitamins. The interrelationships between soil microbes' structure and function (enzyme activities); and their influence on beans nutrient levels will be determined. The findings will be disseminated using educational venues and provide guidance to specialty growers to make informed decisions in selecting cropping systems that promote soil health and enhance production and marketability of nutrient-dense bean.	$130,230.00
Pennsylvania Department of Agriculture	$1,097,981.58	9. Promoting PA Produce at Philadelphia Schools and Farmers Markets	The Food Trust (TFT) will promote and increase consumption of Pennsylvania (PA) products at schools, early childhood education sites and farmers markets by implementing Harvest of the Month activities, coordinating farmers market field trips, filming virtual PA farm visits, and creating promotional materials for farmers markets.	$56,794.00
Pennsylvania Department of Agriculture	$1,097,981.58	10. Maximizing Sustainable IPM: Economic Ornithology for IPM of Phorid Files	This work will enhance the competitiveness of mushrooms though building capacity of sustainable practices of production resulting in increased yield by reducing Phorids through beneficial birds feeding on them; will reduce inputs that rely on labor thereby increasing overall mushroom growing efficiency; increase economic return by decreasing green mold impact; and provide for conservation bird habitat by creating habitat for beneficial birds. It will enhance the competitiveness of mushrooms through more sustainable, diverse, and resilient, ecologically based systems.	$39,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Pennsylvania Department of Agriculture	$1,097,981.58	11. Indiana County Community Hub for the Advancement of Specialty Crops	Building off previously awarded grants, the Indiana County Conservation District (District) will establish the Indiana County Community Hub for the Advancement of Specialty Crops (Hub) by creating a community greenhouse, additional specialty crops demonstration sites at County Area Aging Services (senior centers) locations, and through regional community education events and programs. The District will utilize the greenhouse to propagate seeds (harvested from previously planted specialty crops) to be planted at demonstration plots in consecutive growing seasons.	$62,048.00
Pennsylvania Department of Agriculture	$1,097,981.58	12. 2023 PA Veggies Promotion and Farmer Support	The Pennsylvania Vegetable Marketing and Research Program (PVMRP) will bolster the competitiveness of specialty Pennsylvania vegetables through strategic marketing planning and execution throughout the Spring, Summer and early Fall months leading up to PA Produce Month in August and continuing through October. The campaign and PA Produce Month aim to drive sales of local vegetables by consumers across the state as well as provide resources for farmers to promote their crops in retail and wholesale markets. By using a combination of existing materials from past successful SCBG campaigns and building upon them in 2023, this program aims to increase consumption of local produce and continue to grow the PA Veggies brand equity and loyalty across the state.	$81,450.00
Pennsylvania Department of Agriculture	$1,097,981.58	13. Increasing Specialty Crop Markets through Education, Consumption, and Promotion	Farm to Table Buy Local increases the competitiveness of local specialty crops by leveraging efforts to market and promote specialty crops. Farm to Table will partner with local specialty crop farmers, farmers markets, and urban gardens to provide specialty crop education programming. These activities will increase education and awareness of specialty crops and therefore, consumption and consumer purchasing of specialty crops. Specialty crop farmers will speak at community events, school programs, lunch and learns, and online forums. The presentations will educate the audience about the work involved to produce a specialty crop and benefits of consumption, including nutrition, freshness, and preparation for crops.	$77,755.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Pennsylvania Department of Agriculture	$1,097,981.58	14. Employing Agronomic Biofortification Techniques to Produce High-Value Functional Vegetable Crops	Penn State University will compare alternative soilless production systems and agronomic biofortification approaches applied to leafy vegetables and microgreens to produce high-value functional (health-promoting) vegetable products and will transfer the knowledge developed to PA specialty crop growers and industry stakeholders. Science-based knowledge, results, and solutions generated will be transferred to PA specialty crop growers and industry stakeholders to assist them in implementing the most efficient soilless growing systems and agronomic biofortification techniques for the production of high-value functional vegetable.	$61,845.00
Pennsylvania Department of Agriculture	$1,097,981.58	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$16,978.62
Departamento de Agricultura de Puerto Rico	$483,689.91	1. Protecting the Fruit Sector of Puerto Rico from the Fruit Fly	The Department of Agriculture and the Innovation Fund for Agricultural Development are interested in helping the fruit sector by providing the necessary assistance to reduce or eliminate the incidence of the fruit fly in Puerto Rico.	$155,342.40
Departamento de Agricultura de Puerto Rico	$483,689.91	2. Let's Feed the Family With Breadfruit	Breadfruit has excellent potential to contribute to food security. The Puerto Rico Department of Agriculture and the Innovation Fund for Agricultural Development are interested in each Puerto Rican family planting a breadfruit tree. This initiative will require the participation of farmers in the production of trees and agronomists from the Agricultural Extension Service of the University of Puerto Rico to offer talks in the community and in activities. As part of the project, training courses will also be offered for farmers, agronomist and producers who wish to produce breadfruit trees.	$201,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Departamento de Agricultura de Puerto Rico	$483,689.91	3. Promote the Development of the Agricultural Sector Achieving a High-Level Participation in the Local and International Market	The Puerto Rico Department of Agriculture (PRDA) continues to make great efforts to ensure that local producers of specialty crops are aware of market conditions and characteristics through participation in local and international trade fairs. The general purpose of the project is to direct efforts to increase the presence and participation of beginning farmers and/or producers, as well as for other local specialty crop products within the Puerto Rico market (local events). In addition, expose specific products in international events to obtain and increase export sales.	$125,500.00
Rhode Island Division of Agriculture	$270,342.13	1. Improved IPM for Rhode Island Tree Fruit Growers Through Accurate Weather Data	The Rhode Island Fruit Growers Association (RIFGA) will install and maintain four weather stations throughout Rhode Island which will be linked to Cornell's Network for Environment and Weather Applications (NEWA), allowing Rhode Island specialty crop growers to make timely and accurate Integrated Pest Management (IPM) decisions based on real time, on-the-ground conditions, accurate to the area of management.	$22,260.00
Rhode Island Division of Agriculture	$270,342.13	2. Outreach and Education to Socially Disadvantaged Farmers for Growing Specialty Crops to Meet Underserved Markets	Southside Community Land Trust (SCLT) will provide outreach and education to 31 farmers in order to enhance the competitiveness of up to four specialty crops in low-income Rhode Island communities. The project will identify crops where there is significant consumer demand but low supply. We will work with up to 6 socially disadvantaged farmers to develop demonstration plots to successfully grow the new crops. We will provide on field tours, training resources to encourage 12 farmers in our network to begin production of at least one new crop during the term of the grant. We expect 2400 consumers to benefit from access to these new, high demand crops.	$38,559.39

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Rhode Island Division of Agriculture	$270,342.13	3. Equitable Growth: Technical Assistance for Small and Beginning Rhode Island Specialty Crop Producers"	The Rhode Island Food Policy Council (RIFPC) has been working toward a more equitable, accessible, economically vibrant, and environmentally sustainable food system in Rhode Island for over 10 years. Our efforts are focused on ensuring all Rhode Island residents have access to culturally appropriate, affordable food by addressing the most pressing needs across farming, fishing, food processing, distribution, consumption, and waste management.	$29,987.60
Rhode Island Division of Agriculture	$270,342.13	4. Growing Local Food Champions: Exploring Local Food with Culinary Students	Through farmer, chef, and classroom-based training, Farm Fresh Rhode Island will connect culinary students with the skills and resources necessary to become local food advocates in their schools and future careers. These trainings will provide educational experiences that bring more local food into schools and empower the next generation with the skills they need to purchase, prepare, and cook specialty crops.	$37,089.00
Rhode Island Division of Agriculture	$270,342.13	5. Increasing Yields in High Intensity Specialty Vegetables for Regional Growers Through Integrated Cropping Methods.	The RI Farm Incubator will lead this project to disseminate and share new and cutting-edge integrated cropping techniques appropriate for use by small scale, organic, and beginning growers in the region. The Incubator will create and facilitate a collaborative regional information network across small farms in Rhode Island to increase efficacy of and adoption of integrated cropping methods. Methods like stale bed preparation including the use of cover crops are critical to move carbon to the soil, decrease erosion, decrease nuisance plants, mitigate the effects of drought as well as reduce the amount of nitrogen fertilizer required to grow specialty vegetables.	$32,541.00
Rhode Island Division of Agriculture	$270,342.13	6. The RI Grown Campaign-Enhancing Marketing Toolkit	The Rhode Island Department of Environmental Management – Division of Agriculture (RIDEM) will support RI Grown specialty crops by building upon past projects, specifically the further roll out of our marketing toolkit which was piloted in 2021. RIDEM Division of Agriculture will also develop an internal partnership with the RIDEM Communications department, to allow for an increased statewide marketing opportunity for the RI Grown Campaign.	$59,413.16

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Rhode Island Division of Agriculture	$270,342.13	7. Enhancing Market Access for RI Specialty Crop Growers	The Rhode Island Department of Environmental Management – Division of Agriculture (RIDEM) has proven success with implementation our previous Specialty Crop Block Grant "Enhancing Market Access" projects. While new, this project will build from the previous momentum of the proposals. The need for new markets and assistance in joining those new markets is at an all-time high due to the Covid-19 pandemic. As new local markets are on the rise in Rhode Island, and largely increases by grant related funds applied for by RIDEM, technical assistance like this project will be used to allow Rhode Island farmers, access to those newly formed market opportunities.	$28,042.40
Rhode Island Division of Agriculture	$270,342.13	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$28,042.40
South Carolina Department of Agriculture	$591,930.28	1. Development of a Novel Preharvest Spray Program to Improve Management of Bacterial Spot-on Peach	Bacterial spot is a major disease that causes the South Carolina peach industry millions of dollars in annual losses. Management of bacterial spot in peach is challenging due to the lack of disease-resistant cultivars and limited chemical control options. Currently, there is no effective chemical spray program in place for controlling this disease during the three-week preharvest period, making peach fruit at risk for new infection and lesion development, which will reduce the yield of marketable fruit at harvest.	$49,864.00
South Carolina Department of Agriculture	$591,930.28	2. Which Pythium Species Cause Cottony Leak on Pickling Cucumbers in South Carolina?	Clemson University will reduce the impacts of cottony leak on pickling cucumber by identifying the species of the water mold Pythium that cause cottony leak, which will help growers plan crop rotations that avoid field crops susceptible to these species. The recent increase in acreage of pickling cucumber in South Carolina has led to an increase in outbreaks of cottony leak, a fruit rot caused by the water mold Pythium. Only one of the three species of Pythium that can cause cottony leak has been confirmed in South Carolina. Knowing if the other two species also cause cottony leak will help growers plan crop rotations that avoid field crops susceptible to these species.	$9,324.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
South Carolina Department of Agriculture	$591,930.28	3. Choose Local Food Hospitality Program	Ace Basin Growers (ACE), a nonprofit 501c3, will enhance the competitiveness of specialty crop growers in South Carolina with a collaborative multi-organizational project designed to increase farm resilience and economic viability, reduce costs of distribution systems, and increase specialty crop consumption across multiple counties in South Carolina. ACE will partner with the South Carolina Department of Agriculture's Fresh on the Menu and Certified SC program, Nourish LLC, publisher of Edible Charleston and Edible Columbia, the Gullah Cooperative, SC State University Small Business Development Centers, and Clemson Extension Agribusiness to address challenges specialty crop producers are facing with farm to wholesale channels in the foodservice industry.	$57,500.00
South Carolina Department of Agriculture	$591,930.28	4. Assessing Tomato and Watermelon Cultivar Susceptibility to Spider Mites and Potential for New IPM Strategies	Dr. Tom Bilbo, vegetable and strawberry entomologist at the Clemson Coastal Research and Extension Center, is proposing a project to evaluate tomato and watermelon cultivars for their susceptibility and tolerance to the two spotted spider mite (TSSM). The purpose of this project is to determine which cultivars are least and most susceptible to TSSM so that growers can use this knowledge to guide their crop selection and reduce pest problems. Furthermore, this project will lay the necessary groundwork to determine the potential for a new IPM strategy for this pest—genotypic intercropping, as well as the potential for breeding enhanced crop lines. Other outcomes include increasing stakeholder knowledge regarding TSSM management and biological control, which will result in reduced inputs, improved yields, and increased profitability for growers.	$23,027.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
South Carolina Department of Agriculture	$591,930.28	5. Advancement of the Produce Safety Education and On-Farm Improvement Initiative	The South Carolina Department of Agriculture Produce Safety Program will assist produce growers in increasing food safety knowledge and processes regarding the requirements of the Food Safety Modernization (FSMA) Act Produce Safety Rule. Through this project, we will make education more attainable for growers by offering the required Produce Safety Alliance Grower Training at a reduced cost. We will also offer a cost-share program that will assist growers in implementing on-farm produce safety improvements that will help them meet the requirements of the rule and improve the safety of their products.	$34,378.81
South Carolina Department of Agriculture	$591,930.28	6. Air or Soil Temperature: Understanding the Cues for Dormancy Transition in Peach	Clemson University will improve the economic sustainability of the South Carolina peach industry by enabling the development of climate-resilient peach cultivars with moderate chilling and increased heat requirement to reduce fruit and flower exposure to potentially crop-destroying spring frosts.	$49,434.00
South Carolina Department of Agriculture	$591,930.28	7. Continuing to Expand Market Opportunities for Small Growers through a Cold Storage Cost Share Program	The SC Specialty Crop Growers Association is seeking funds to continue to administer a program for small and medium-sized specialty crop growers. This project will provide funding for a cost-share reimbursement program for cold storage modification units. Specialty crop growers who build a CoolBot cold storage unit may request up to $750 to reimburse the cost of this on-farm enhancement. This project will not only continue to enable smaller growers to obtain a larger share of the marketplace but also create a safer fresh produce supply maintaining the cold chain.	$10,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
South Carolina Department of Agriculture	$591,930.28	8. Stakeholder Needs Assessment and Evaluation Trials to Initiate Quality-focused Vegetable Breeding Programs for South Carolina	Clemson University will conduct germplasm evaluation trials and survey South Carolina vegetable industry stakeholders to prioritize and translate needs into breeding objectives that will drive the initiation of quality-focused vegetable breeding programs for South Carolina. While consumers are willing to pay a premium for locally grown produce in South Carolina (Carpio & Isengildina-Massa, 2009), the vegetable industry faces many obstacles that prevent it from fully capitalizing on this demand. The warm, humid climate of the Southeastern United States, while ideal for the production of many fruits and vegetables, also supports a wide range of pests and diseases that can be difficult to manage. Cultivars selected primarily for long shelf life may be missing the flavors and nutritional quality that fresh market consumers crave. Superior quality, yield, and local adaptation can seldom be found together in the same vegetable variety.	$44,955.00
South Carolina Department of Agriculture	$591,930.28	9. SC Green Industry Association's Certified Nursery Professional Program	The South Carolina Green Industry Association (SC Green) will revise and rebrand its Certified Nursery Professional Program, complete with updated research, information, and graphics in order to educate growers, plant nurseries, and their employees on the best practices for producing plants. Educational research will aim to provide better service for state growers and nurseries' customers, enhance the competitiveness of local horticultural crops, and contribute to a healthy environment in South Carolina communities. Further, this manual will be used as a resource for statewide horticulture programs on the collegiate level.	$27,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
South Carolina Department of Agriculture	$591,930.28	10. Farm to Food Hub Inbound Transportation: Logistics to Increase Cost Efficiency and Reduce Costs of Local Food Distribution	Over the course of three years, Grow Food Carolina will implement an inbound specialty crop pickup program for partner farmers in South Carolina, providing a regularly serviced route that will save growers the time and cost of delivering their specialty crops to the warehouse, as well as providing sufficient transport volume—thus providing a means for increased production by existing partners (e.g., by providing a means to transport otherwise prohibitively large quantities) and/or for new partner growers who otherwise would not be able to regularly drop off produce to Grow Food, all of which will result in increased specialty crop sales. The goal is to seed this program with funds that may lead to a “pay it forward” fund that will allow inbound logistics to be more sustainable in the long term.	$85,615.28
South Carolina Department of Agriculture	$591,930.28	11. Establishing Clonal Propagation Systems for Golden Camellia, a Valuable Yellow-flowering Selection.	Clemson University will enhance the competitiveness of South Carolina’s floriculture industry by developing efficient propagation methods for golden camellia, a valuable yellow-flowering species with high market demand. Currently, golden camellia is selling for ~$10 higher than common camellias per plant or scion and is sold out quickly. This project will build on what we have achieved with the approaches of rooting cuttings, grafting, and micropropagation and aims to achieve greater propagation success. We will establish collaboration with a South Carolina camellia nursery for the growth evaluation of the propagated plants. The efficient propagation methods will benefit camellia breeders and commercial producers.	$45,665.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
South Carolina Department of Agriculture	$591,930.28	12. Continuing to Increase Food Safety Technology Access through a Water Analysis Cost Share Program	The South Carolina Specialty Crop Growers Association (SCSCGA) is seeking funds to administer a program designed to encourage on-farm water testing for specialty crop growers. This project will provide funding for a cost-share reimbursement program for water quality analysis for generic E Coli and Coliform bacteria for South Carolina specialty crop farmers. This project will continue to increase specialty crop farmers' access to food safety technologies, increase specialty crop producers' understanding of food safety threats, and mitigate potential bacterial contaminations from water sources by allowing specialty crop producers to establish proper on-farm pre-and post-harvest food safety protocols.	$10,180.00
South Carolina Department of Agriculture	$591,930.28	13. Cultivating Novel Discovery in Economic and Nutritional Value of Specialty Crops Typically Left Unharvested	Partners Lisa K. Johnson Consulting, Growers for Grace, and Society of St. Andrew will measure postharvest losses in South Carolina specialty crops and share sustainable market pivots that can return benefit to growers through novel applications. Consumers and retailers are demanding a greater commitment to sustainability and social responsibility across all industries and geographies. With the heightened attention to these issues, it has now become pivotal for growers to provide measurement and reporting on Environmental, Social, and Governance (ESG) performance, regardless of farm size. With these figures, growers can directly report on many key sustainability metrics previously considered difficult like waste reduction and greenhouse gas emissions savings – all critical aspects in communicating climate strategy to consumers and stakeholders.	$46,000.00
South Carolina Department of Agriculture	$591,930.28	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$97,456.87

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
South Dakota Department of Agriculture	$391,836.80	1. Increasing The Economic Viability Of Year-Round High Tunnel Production In South Dakota's Climate	Wayward Springs, LLC will stimulate the growth of locally available specialty crops by engineering, assembling, and monitoring the performance of a commercial scale solar high-tunnel capable of year-round warm climate crop production such as tomatoes, peppers, strawberries, and passion fruit without relying on the volatile expense of fuels. The design will apply state-of-the-art research while focusing on local materials and minimizing costs to enable economic viability for local producers. Results of the project will be shared through online webinars, onsite tours, published designs, and assembly guidelines for growers.	$73,254.00
South Dakota Department of Agriculture	$391,836.80	2. Profitable Early Market Sweet Corn Using Clear Plastic Mulch With Cover Crops For Weed Control	Cox Farm Stand and Cedar Creek Gardens, LLC will explore affordable season extension of early sweet corn and effective weed-suppression strategies. These are critical to growing early sweet corn under clear plastic to get a jump on early market share.	$16,296.00
South Dakota Department of Agriculture	$391,836.80	3. Supporting Specialty Crop Producers Through Education And Training, Support System Development, And Connection To Industry	South Dakota (SD) Specialty Producers Association will support producers and raise awareness of the specialty crop industry. This will be done through hosting webinars on hiring employees and developing apprenticeship programs, webinars on how to find and have a successful internships, classes for business development, a podcast series on profiting from your market garden, developing the producer support system through intentional producer networking and mentorship, assuring there is a strong representation of the specialty crop industry within the SD Local Foods Coalition; and improving connection and awareness of specialty crops through events and promotion.	$120,117.75
South Dakota Department of Agriculture	$391,836.80	4. "EAT, SD": Education And Training In Sustainability And Development (Part II)	Western Dakota Tech is home to several national award-winning aquaponics projects. For this project, we propose to design and test a cost-effective open-resource modular aquaponics system by placing prototypes in in two partner test sites, one small and one large. Data from these prototypes will be collected and tested to determine the best design for a modular aquaponics system.	$63,270.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
South Dakota Department of Agriculture	$391,836.80	5. Mitigating Freezing Damage In Emerging Wine And Seedless Table Grapes During Fall Acclimation And Spring Deacclimation	South Dakota State University (SDSU) research and extension faculty will conduct evaluation of emerging wine and seedless table grape selections, the potential of using freeze mitigation treatments with new cold hardy hybrid grapevines and disseminate information to growers. The leading purpose of this project is to improve yield consistency and economic sustainability of new cold-hardy seedless table and wine grape selections. This research will assess the ability to modify acclimation and deacclimation in critical fall and spring periods using chemical mitigation techniques. It is critical to test these strategies on new hybrid cultivars to identify viticultural practices to aid in mitigating potentially damaging spring and fall freeze events.	$97,571.00
South Dakota Department of Agriculture	$391,836.80	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$1,426.00
Tennessee Department of Agriculture	$545,843.71	1. Blackberry Production Utilizing Different Trellis Systems for Maximum Yield	Agricenter International will initiate the testing of various trellis systems for blackberry production. This project will evaluate and report the costs associated with field preparation, trellis construction, and net gains from blackberry yield. The results from this study will provide growers information to successfully grow profitable blackberries and provide strong recommendation for types of trellis systems for blackberry growers in Tennessee.	$48,330.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Tennessee Department of Agriculture	$545,843.71	2. Specialty Crop Training, Demonstration, and Community Engagement Farm	Cul2vate grows and delivers nutritional food into local food deserts, providing access to nutritious food in underserved communities. This project will collaborate with other organizations to provide end user education related to nutritional information, food safety, good agricultural practices, and the implementation of urban agriculture projects. All food is grown in the context of a 3-phase agricultural training/educational program that targets the chronically under-employed and provides these individuals with agricultural skills and job readiness training to prepare them for job placement and micro-business launch. Program graduates will go on to assist/educate new students and local farms in best practices that align with food safety standards and regulations.	$50,000.00
Tennessee Department of Agriculture	$545,843.71	3. Enhancing Industry Skills: Tennessee Farm Winery Employees	Hillside Winery will increase the knowledge and education base of employees within the Tennessee Grape and Wine Industry. In partnership with Pellissippi State Community College and the Viticulture Enology Science and Technology Alliance, certifications will be pursued for employees engaged in the production of value-added products using specialty crops. The aim of the project is a continuing increase in skilled individuals to be placed throughout the wineries and vineyards of Tennessee.	$46,200.00
Tennessee Department of Agriculture	$545,843.71	4. Landmark Nutrition Education Program	The Landmark Nutrition Education Program will increase awareness and distribution of specialty crops by providing hands-on education for growing and consuming specialty crops in order to increase access to specialty crops while enhancing knowledge about the nutritional benefits of specialty crops.	$32,061.00
Tennessee Department of Agriculture	$545,843.71	5. Smart Drip Irrigation Robot for Strawberry Farming	Middle Tennessee State University will develop a smart, low-cost drip irrigation robot capable of obtaining real-time soil moisture data, observing plant health conditions, and communicating with the irrigation controls to optimize water usage to increase yields through improved irrigation efficiency and plant health, while also reducing labor and management costs.	$44,295.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Tennessee Department of Agriculture	$545,843.71	6. Munford High School Farm Fresh Center Hydroponic Facility	Munford FFA is collaborating with the Tennessee Department of Agriculture to establish a Farm Fresh Center at Munford High School in the Tipton County school system. This new specialty crop production facility will serve three purposes that include educating community members of innovative methods of raising food on limited land area, providing a "Buy Local, Buy Fresh" option in Munford, Tennessee, and delivering healthy produce to local food pantries. The Farm Fresh Center will bring together farmers, master gardeners, economically disadvantaged families, veterans, and food pantries to build a program that is unique and beneficial to the local community.	$33,324.00
Tennessee Department of Agriculture	$545,843.71	7. Pick TN Conference Scholarships and Conference Costs	The Pick TN Conference is an annual conference to expand revenue for TN specialty crop growers by providing educational workshops for farmers across the state. It is made up of eight statewide member associations: TN Fruit and Vegetable Association, TN Association of Farmers Markets, TN Flower Growers Association, TN Farm Winegrowers Alliance, TN Christmas Tree Growers Association, TN Beekeepers Association, TN Organic Growers Association and TN Agritourism Association. Partners Include: TN Department of Agriculture, University of Tennessee Extension and University of Tennessee Center for Profitable Agriculture. This project will fund scholarships for farmers who may not normally be able to afford attending the conference, AV services at the conference center, and lunch and learn workshops during the conference.	$50,000.00
Tennessee Department of Agriculture	$545,843.71	8. Creating Demand for TN Specialty Crops through Children’s Farmers Markets and Consumer Education	This project aims to increase consumption and enhance access and awareness of Tennessee specialty crops by holding ten children's farmers markets and 5 cooking sessions at elementary schools in Greene County, TN. This project will investigate how these in-school activities may increase demand at local farmers markets and affect BMI scores in students. Results will be disseminated through teacher in-services and through coordination with health educators. Twenty-five teachers will also receive materials to support students in learning outcomes related to science, nutrition, and the economics of specialty crops.	$21,540.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Tennessee Department of Agriculture	$545,843.71	9. Tennessee Grape and Wine State-Wide Event Activation	The Tennessee Farm Winegrowers Alliance (TFWA) will engage in a series of consumer education campaigns to increase awareness of grape and fruit varieties that grow well in Tennessee, and the styles of wines created with them. As the sole state-wide representative of Tennessee wineries and grape famers, TFWA is situated in an ideal position to support efforts to bring Tennessee wine products directly to consumers. This project will engage consumers through direct experiential marketing and event activations for wine festivals in each grand division of Tennessee.	$50,000.00
Tennessee Department of Agriculture	$545,843.71	10. Diagnosis of Emerging Vascular Streak Dieback Threat of Redbud in Nurseries	Tennessee State University, Tennessee Department of Agriculture, plant pathologist and inspectors are working closely with nursery growers in the region to accurately diagnose an emerging threat in the redbud nurseries that has caused significant economic losses over the last few years. This project will be able to provide a clear resolution to this novel threat in the nursery industry. Accurate identification of the causal agent and its epidemiology will greatly contribute to the design of effective management plans to reduce the losses in redbud production due to the Vascular Streak Dieback.	$46,255.00
Tennessee Department of Agriculture	$545,843.71	11. Development of Insecticide Treatments for Control of Regulatory Pests in Containerized Nursery Stock	The Tennessee State University Otis L. Floyd Nursery Research Center will mitigate the spread of regulated pests impacting nursery crops by developing scientifically based methods for expanding approved regulatory treatments for Japanese beetle in large diameter nursery containers and reduced drench volume treatments for imported fire ant in nursery containers. Results will be disseminated to regulatory personnel and nursery producers through nursery field days.	$22,671.09

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Tennessee Department of Agriculture	$545,843.71	12. Establish Best Practice Irrigation Methods For Growing Truffles in TN Orchards	The TN Truffle Association will lead this project to develop best practices for irrigating truffle orchards in TN. The project will measure the spread of truffle mycorrhiza to irrigated and non-irrigated roots and nearby soils during tree establishment. The study will help determine the optimum approach to irrigation in our region. This will be established by implementing three diverse irrigation solutions and measuring mycorrhizal colonization in roots inside and outside of the natural drip line.	$24,990.47
Tennessee Department of Agriculture	$545,843.71	13. Improving Quality Production and Marketing of Authentic Tennessee Artisanal Honey in a Deteriorating Honey Market	The University of Tennessee at Knoxville will work with beekeepers and the public to improve quality craft honey production while also advancing the awareness and appreciation of authentic artisanal honey in a deteriorating honey market which contains foreign-mixed and syrup-diluted honey.	$49,042.00
Tennessee Department of Agriculture	$545,843.71	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$1,153.88
Texas Department of Agriculture	$1,497,157.98	1. Producing Resilient Organic Transplants Under Controlled Environment	Texas A&M AgriLife Research at Dallas aims to produce resilient organic transplants under a controlled environment through proper application management of organic fertilizers and growing media and innovative methods of timing and application of biological inoculants at the transplant stage. Outcomes of this project include 1) guidelines and protocols on how to produce resilient transplants; 2) reduced production cost and increased profit and competitiveness of organic farming in Texas; 3) increased knowledge of organic fertilizer management and benefits of biological inoculants in increasing resilience of organic transplants, improvement of soil health, and environmental sustainability; and 4) benefit to both organic and conventional transplant producers.	$133,221.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Texas Department of Agriculture	$1,497,157.98	2. Assessing the Biodiversity of Viruses Infecting Cucurbits in Texas and Development of Appropriate IPM-based Virus Disease Management Strategies	This project, led by Texas A&M AgriLife Extension Service, addresses the key focus area of Plant Health as it pertains to addressing pests (vectors) and diseases (viruses) that affect the production of Texas' cucurbit crops. The overall objective is to improve the competitiveness of cucurbit production in Texas through molecular surveillance and characterization of cucurbit-infecting viruses in plant and vector reservoirs for rapid response to impending outbreaks in cucurbit fields and to maximize IPM strategies for sustainable cucurbit production in the state.	$199,695.16
Texas Department of Agriculture	$1,497,157.98	3. Evaluating Strawberry Varieties Statewide to Increase Producer Competitiveness and Publish Updated Production Guides and Online Training Modules from Current Texas Research	Texas A&M AgriLife, Texas Tech, Prairie View A&M, Poteet Strawberry Growers Association, and growers statewide will collaborate to increase sustainability and improve profitability of Texas strawberry production. With this new project we will: (1) conduct statewide strawberry variety trials on at least 10 collaborating farms to determine performance under Texas' diverse environments and grower production practices; (2) collaborate with AgriLife Extension agents to visit all regions and conduct statewide grower surveys to obtain accurate and current statewide acreage, management techniques, pest problems, and production costs; (3) create an updated, extensive and detailed revised Texas Strawberry Production Guide; (4) supplement the new grower production guide with online videos using hands-on instruction through on-farm demonstration plots utilizing best management practices; and (5) increase the number of face-to-face strawberry trainings across the state of Texas.	$132,567.50

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Texas Department of Agriculture	$1,497,157.98	4. Increasing Onion Productivity Via Integrated Management of Thrips	Changes in cropping systems and mild winter have caused a surge in thrips (Frankliniella occidentalis) populations in the Southern U.S. Onion growers in Texas lack an integrated pest management program to manage thrips. The project will develop an action threshold-based insecticide program on thrips and study olfactory and visual clues of the insect to integrate the knowledge into the existing breeding program to develop insect tolerance cultivars. We will also analyze profiles of metabolites in insect tolerant and susceptible genotypes to identify hormonal biomarkers for onion breeding. The breeding program will seek a public-private partnership that will be used to develop cultivars.	$121,872.00
Texas Department of Agriculture	$1,497,157.98	5. Effect of Cover Crop on Grapevine Growth, Soil Health, and Moisture Status in Texas Vineyards	The Texas A&M AgriLife Extension Service in partnership with the Gulf Coast Growers Association aims to improve the productivity and quality of Texas grapes and wines through a research and extension project to determine the effect of cover crop use on vineyard soil and grapevine health. This project intends to make using cover crops a common practice by testing different mixtures of crops in order to find the ideal combination suitable for vineyards in Texas. In addition, the effect of each mixture on vine growth, soil health and water status, weed control, and insect populations will be assessed. This project serves to enhance the competitiveness and longevity of grape production in Texas.	$60,827.60
Texas Department of Agriculture	$1,497,157.98	6. Unlocking the Potential of Commercial Apricot Production in Texas	Texas A&M AgriLife Extension will partner with Cooper Farms and Studebaker Farms to explore the improved feasibility of commercial apricot production in Texas through 1) protected culture production in high tunnel greenhouses; 2) the expanded field trialing of an extensive collection of new and heirloom apricot varieties; 3) promotion and support of this promising and lucrative crop through a series of educational videos, field day, conferences, and social media posts.	$45,653.22

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Texas Department of Agriculture	$1,497,157.98	7. Developing Pineapple Guava as a New Low-input Fruit & Ornamental Crop for Texas	Stephen F. Austin State University (SFASU) will partner with Texas A&M AgriLife Extension to develop pineapple guava into a new commercial crop for the Texas specialty fruit crop and nursery industry. This will be accomplished through 1) extensive trialing of over 40 varieties at two sites to identify selections with superior fruit quality and ornamental value for the Texas fruit and nursery industries, 2) intensive research into developing more efficient propagation techniques to make these varieties commercially available, 3) explore consumer acceptance and producer interest toward commercialization, 4) promotion of this new and exciting crop through a field day, conferences, and social media.	$30,533.10
Texas Department of Agriculture	$1,497,157.98	8. Developing Consumer-Friendly Mild Onions Using Nanotechnology and Improved Genetics	The objective of this study is to integrate enhanced seed nanopriming technologies using nitrogen-doped carbon dots (N-CDs) with new elite open pollinated, super-sweet, disease-resistant cultivars (TAM 123 and TAM 153) to improve onion physiology, growth, earliness, yield, quality, and resource (water/nutrient) use efficiency. The project will be led by the Texas A&M University's (TAMU) AgriLife Research in partnership with J&D Produce, Winter Garden Produce, Dixon Dale Farms, and Cargil Farms Produce, Texas International Produce Association, National Onion Association and HEB.	$197,015.98
Texas Department of Agriculture	$1,497,157.98	9. Sustainable Irrigation Management for Texas Vineyards: Optimizing Irrigation Practices to Improve Wine Quality and Vineyard Economics	Texas A&M AgriLife Extension Service will partner with Texas Hill Country Wineries, Texas Artisan Vineyards Cooperative, and the Cross Timber Wine and Vineyard Association to develop and disseminate a vineyard irrigation protocol for Texas vineyards that is both data driven and practical for producers to implement. Researchers at the Texas A&M AgriLife Extension Service will work with three cooperating vineyards to test three irrigation regimes at each site. Recommendations will be based on the irrigation regime(s) that prove to most economic based on vineyard management costs and returns, water conservation, and wine quality potential. The results of the project will be further disseminated to members of the Texas wine industry through Extension publications, websites, social media, and presentations.	$116,618.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Texas Department of Agriculture	$1,497,157.98	10. Flexible Risk Process Models to Quantify Residual Risks and the Impact of Interventions	The Texas International Produce Association will partner with the Center for Produce Safety and the University of Illinois at Urbana-Champaign to model the microbiological food safety risks in a supply chain for leafy greens. This project will build a supply chain risk model specific to leafy greens and focusing on two prominent pathogens associated with this commodity, Shiga-toxin producing Escherichia coli (STEC) and Listeria monocytogenes. The goal of this project is to effect real change in how the produce industry assesses which food safety risks merit additional management. Major outcomes will be (i) a comprehensive model of residual risk for STEC and L. monocytogenes simultaneously from current end-to-end practices, ranging from preharvest to consumer, and (ii) a sensitivity analysis of factors that influence risk, thus providing a guide for future risk-based modeling work.	150031
Texas Department of Agriculture	$1,497,157.98	11. Increasing Specialty Crop Awareness	The Texas Department of Agriculture (TDA) aims to focus on two major initiatives under this project: First, to increase awareness by specialty crop producers of the various resources and opportunities available to them through both TDA programs such as GO TEXAN AgriLife, the National Center for Appropriate Technology, and Feeding Texas. Secondly, continue to inform and educate consumers about the availability and nutritional benefits of Texas grown specialty crops. Through ongoing advertising efforts, we hope to reach both new audiences and create “muscle memory” encouraging the purchase and consumption of these Texas produced items.	$145,051.73
Texas Department of Agriculture	$1,497,157.98	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$46,103.54

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Utah Department of Agriculture and Food	$367,707.06	1. USU Extension Pomegranate Variety Research Trials for Home and Commercial Use	Utah State University (USU) will establish an agreement with the State Department of Agriculture and Food to lead and execute the project: to identify region-specific superior pomegranate cultivars; and to conduct outreach activities to educate farmers, homeowners, and consumers to increase awareness and acceptance of pomegranate for specialty crop production in Utah.	$76,251.79
Utah Department of Agriculture and Food	$367,707.06	2. Educating Consumers and Training Growers of Specialty Crops in Southern Utah	Through educational programs and hands-on training on an already well-established and productive small acreage farm, Red Acre Center will work to bring attention, understanding and increase familiarity and knowledge of specialty crops to our broader community. In addition, the Center will focus on changing the perception of specialty crops, increasing consumption, growing, using, marketing, and distributing specialty crops in rural and southern Utah. Specifically empowering individuals with the skills and knowledge needed to acquire land, water, tools, seeds, and plants to grow and market specialty crops in this specific climate and population base. The direct outcome will be more availability of specialty crops grown, sold, and consumed in Southern Utah.	$76,800.00
Utah Department of Agriculture and Food	$367,707.06	3. Commercially Viable Elderberry Varieties For Utah's Challenging Growing Climate	Better Food Farm, in collaboration with other local farms will trial five varieties of elderberries that have been shown to be commercially viable in other parts of the county and measure how well they produce in Utah's climate. The purpose of this project to identify elderberry varieties that produce well in Utah. The primary deliverable will be a full production trial five elderberry varieties. A secondary deliverable will to test the marketability of Utah grown elderberries with any fruit produced during the trial.	$95,505.27

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Utah Department of Agriculture and Food	$367,707.06	4. Understanding and Alleviating Heat Stress in Tart Cherry: Adapting Utah Fruit Production to Climate Change	Researchers at Utah State University will determine the critical time of year when heat or drought stress induces malformed fruit in 'Montmorency' tart cherry. Researchers will also evaluate strategies to alleviate or minimize heat stress at the whole-orchard scale, including foliar sprays, wind machines and improved irrigation. Based on results from the timing studies, prediction models will be adapted to help growers forecast when the critical development periods are likely, and which alleviation strategies might be most viable. From this, growers can avoid the devastating consequences of having high incidence of unmarketable malformed fruit in the face of global climate change.	$66,474.10
Utah Department of Agriculture and Food	$367,707.06	Grant Administration	Ensure that the State Agency and sub awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program Funding.	$15,657.23
Vermont Agency of Agriculture	$317,998.86	1. Testing Organic, No-Till Methods and Sharing with Vermont Producers	Cedar Circle Farm and Education Center will continue to conduct on-farm research on organic, no-till methods and will share results with farms in Vermont and across New England. This project will demonstrate how to grow strawberries in an organic, no-till system, while building soil health. These methods have the potential to both reduce climate impacts and monetary costs. The project and its results will be shared openly, providing Vermont farmers with insights on regenerative farming methods, tactics, and outcomes. Our goal is to develop and refine production systems that mitigate the impacts of climate change on crop production and address resource, labor and knowledge barriers to the adoption of no-till practices on organic farms.	$30,085.00
Vermont Agency of Agriculture	$317,998.86	2. Food Connects Northeast Market Expansion for Specialty Crops	Food Connects will double sales for over 20 Vermont specialty crop producers by developing new wholesale customers, new supply chain relationships, and marketing materials in partnership with Vermont Way Foods, a new brand created specifically to create new market opportunities throughout the Northeast for Vermont producers.	$56,106.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Vermont Agency of Agriculture	$317,998.86	3. Enhanced Digital Communications Platform for Vermont Fruit Producers and Next-Generation food Systems Professionals	The University of Vermont Fruit Program will develop a Food Systems Internship program to revise its comprehensive digital communications platform for the dissemination of research-based technical support information to improve the competitiveness of apple and grape producers in the state.	$13,529.00
Vermont Agency of Agriculture	$317,998.86	4. Supporting VT Bee Producers in Developing Disease and Pest Resistant Bee Stock	The University of Vermont's Bee Lab will support Vermont bee producers in improving their bee stock through hygienic assays and disease diagnostic services. The purpose of the project is to work with a number of Vermont bee breeders to pilot/trial new unhealthy brood odor (UBO) assays—not yet commercially available—as well as additional, established assays and then host workshops to share techniques and findings with the larger community of bee breeders and beekeepers.	$49,345.00
Vermont Agency of Agriculture	$317,998.86	5. Winter Tolerant Vegetable Peas: Dual-Use Legumes for Early Spring Harvest and Soil Health	Researchers and Extension personnel at UVM will test the cold tolerance and growth characteristics of overwintering vegetable peas and then help train and inform growers and consumers about the soil and human health benefits of this nitrogen-fixing dual-use cover crop/new early-season vegetable.	$39,207.00
Vermont Agency of Agriculture	$317,998.86	6. Vermont Maple Container Labeling to Disrupt Supply Chain Interruptions	VMSMA proposes to reclaim a portion of the supply chain for maple producers that has caused extreme interruptions in container accessibility, well before the pandemic. This project includes the purchase of an industrial labeling machine and partnering with Manufacturing Solutions, Inc. (an innovative locally owned Vermont business) to provide food safe labeling and fulfillment services for VMSMA-branded maple containers. VMSMA has a long history of working together with maple producers to innovate and solve problems. This project redefines the process of bringing VMSMA-branded containers to market, where VMSMA becomes an intermediary in ordering containers and labels that ship to the local warehouse for finish work and order fulfillment.	$28,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Vermont Agency of Agriculture	$317,998.86	7. Streamlining Data Reporting Processes to Increase Understanding, Competitiveness, and Strengthen Specialty Crop Marketing Initiatives	The Vermont Agency of Agriculture, Food, and Markets (VAAFM) will continue to refine and understand data collection methods and reporting to ensure Specialty Crop Producers who participate in Agency supported events or farmers market data collection programs have the information they need to be successful and ensure the long-term viability of these market opportunities for specialty crop producers. The Agency will also continue the work from the SCBGP project awarded in 2012, "Improved Coordination for Strengthened Local & Regional Marketing Initiatives," to ensure specialty crop participation and consumer engagement for agritourism and Open Farm Week, both of which are premier consumer facing events and are proven to be excellent opportunities for specialty crop producers to engage with customers and increase sales.	$75,997.31
Vermont Agency of Agriculture	$317,998.86	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$25,414.64
Virginia Department of Agriculture and Consumer Services	$614,225.38	1. Evaluate Plant Activators and Enzymes in Control of Fire Blight Inoculum Using Droplet Digital PCR	In this proposal, Virginia Tech and University of Virginia will optimize viability droplet digital PCR, a diagnostic method that quantifies Ea in cankers, and use it to evaluate effectiveness of PGRs, PRAs and ABEs in killing Ea populations from fire blight cankers. This will expand PGR and PRA uses and be the first step in commercialization of ABEs in the future. These materials are expected to decrease Ea populations in cankers or their emergence. New spray programs with these materials will provide critically needed control options for Ea inoculum and widely benefit Virginia's fruit growers and stakeholders.	$75,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Virginia Department of Agriculture and Consumer Services	$614,225.38	2. Evaluating Specialty Pumpkin Production and Postharvest Treatments for Shelf-Life Extension in Virginia	Pumpkins are an important crop in the Commonwealth of Virginia with a value of $17.6 million produced on 5,500 acres in 2020. Production was estimated at 972,000 hundredweight, ranking Virginia 4th nationally, with the number of producers doubling from 2018 (200) to 2021 (400). Virginia Tech researchers, in cooperation with Virginia Cooperative Extension, will conduct research on 1) increasing shelf-life for pumpkins by reducing postharvest diseases and 2) exploring specialty pumpkins suitable for production in Virginia. These two objectives were identified as the most critical for market sustainability and growth during winter of 2021-2022 grower production meetings. Results will be conveyed to growers, industry personnel and other stakeholders through field days, social media, extension publications and grower meetings.	$74,474.23
Virginia Department of Agriculture and Consumer Services	$614,225.38	3. Developing Aromatic Snacking Pepper Cultivars Suitable for Vertical Agriculture	Virginia Tech will evaluate the agronomic performance of 56 pepper cultivars grown in hydroponics under LED lights in a controlled environment. The researchers will also develop a protocol for measuring the aromatic flavor of pepper fruits and establish a breeding population to select new snacking pepper cultivars with compact plant size, early flowering, and improved fruit flavor. Developing snacking pepper cultivars suitable for vertical farming will make the snacking pepper become a new cash crop and create new job opportunities in Virginia. Because of the rapid production cycling in Controlled Environment Agriculture (CEA), large quantitative and high-quality pepper seeds are required to keep a year-round snacking pepper production. Virginia farmers can dedicate their farms to producing specialized snacking pepper seeds for the CEA business, which can increase farmers' profits. Initiating a snacking pepper breeding program specialized for vertical farming will ensure the success of CEA businesses that are continuously expanding in Virginia. Therefore, our proposed research will largely benefit Virginia agriculture economy.	$74,940.77

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Virginia Department of Agriculture and Consumer Services	$614,225.38	4. Field Pea Production for Virginia: An Emerging Market?	Diversifying Virginia's crop production sector is always a useful venture, especially when considering a late winter/early spring crop that will not directly interfere with other vegetables in production. The yellow field pea would be an ideal rotation host for crops that have high cyst nematode pressure (i.e., potato, soybean, etc.) as the field pea is not a nematode host, while many legume cover crops are nematode hosts. So, while we often plant legumes as cover crops, a non-nematode host legume that doubles as a soil protectant, offers the soil living roots over an otherwise fallow winter season, and fixes N from the atmosphere is a beneficial addition to the rotation. The Virginia Tech Eastern Shore Agricultural Research and Extension Center will work with farmers, Extension agents, and industry to validate the utility of growing yellow field pea in Virginia and will develop production recommendations for vegetable production guides, field days, and grower meetings.	$74,970.92
Virginia Department of Agriculture and Consumer Services	$614,225.38	5. A New Way of Growing and Utilizing Blackberry: from Farms to Bottles	Virginia Tech Flavor Lab at the Department of Food Science and Technology, in partnership with Small Fruit Research and Extension Program at Hampton Roads AREC, proposes to coalesce traditional trellis practices for growing blackberries while maintaining yield and fruit quality, and sustainably utilizing U.S. Grade B or U.S. Choice quality fruits for value-added products. The team is well equipped with experts across growing, fruit quality assessment, and beverage development. Three primary objectives are proposed: 1) Develop a new trellis system for blackberry production suitable for small-sized farms and evaluate the fruit yield, quality, and chemical composition; 2) build straight-forward training flyers for this new growing method and distribute to regional producers through extension efforts; and 3) develop blackberry-based beverages from quality-compromised fruits using easy-recipes.	$74,054.91

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Virginia Department of Agriculture and Consumer Services	$614,225.38	6. Investigating Adjacent Land-use Risks to Improve Good Agricultural Practices	Virginia Tech will investigate the recovery and transfer of aerosolized microorganisms to improve good agricultural practices (GAP) in specialty crop operations that reduce contamination risks associated with adjacent land-use. These findings will directly support the Virginia specialty crop industries by generating data on adjacent land-use and how operations can develop strategies to control potential risks. Results will be communicated to stakeholders through extension activities at grower meetings including Northern Neck Vegetable Growers Association and Local Food Hub, Virginia Cooperative Extension factsheets/presentations, and Virginia-hosted Produce Safety Alliance Grower Trainings.	$73,854.08
Virginia Department of Agriculture and Consumer Services	$614,225.38	7. A Flavor and Shelf-life Focused Study of Virginia Cherry Tomatoes from Field and Indoor Facilities	Virginia Tech Flavor Science Lab at the Department of Food Science and Technology, in partnership with Virginia State University and Virginia Tech Institute for Advanced Learning and Research (IALR), will seek to enhance the competitiveness of Virginia cherry tomatoes by comparing the flavor, nutrition and shelf-life qualities of produce from conventional fields and an indoor hydroponic system. Findings from this study will provide information on the effect of pre-harvest growing conditions on postharvest quality and create a platform for marketing the two types of produce by highlighting their merits in terms of flavor, nutrition, and storability, which will directly support the competitiveness of the Virginia cherry tomato industry and other specialty crops.	$74,920.99

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Virginia Department of Agriculture and Consumer Services	$614,225.38	8. Increasing Market Access for Virginia Growers: Grower/Buyer Opportunities and Food Safety Recordkeeping App	Local Food Hub will introduce new approaches and reintroduce tried-and-true approaches to working with specialty crop growers on market access and food safety. A first of its kind recording keeping app will greatly enhance growers' ability to comply with food safety regulations. The Virginia Black Farmer Directory will build new bridges to market access for underserved farms. The Grower/Buyer Expo will help farmers and purchasers emerge from the pandemic by connecting face-to-face once again. These efforts build upon many years of investment, experimentation, and grower feedback, and will work synergistically to make Virginia's specialty crop sector an even safer, more diverse, and more vibrant part of the agricultural economy.	$67,810.00
Virginia Department of Agriculture and Consumer Services	$614,225.38	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$18,356.41
Washington State Department of Agriculture	$4,736,046.12	1. Develop a Sustainable Strategy to Control Grapevine Leafroll Virus in Washington Vineyards through Mating Disruption	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. 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.	$205,200.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Washington State Department of Agriculture	$4,736,046.12	2. Biological Control of Insect Pests in Non-Crop Habitats	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. This project will benefit pear growers, potato growers, and other vegetable or seed specialty crop growers in Washington State.	$248,699.00
Washington State Department of Agriculture	$4,736,046.12	3. Mitigation of the Blue Mold Fungus of Pome Fruit to Reduce Food Loss	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. 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.	$202,216.00
Washington State Department of Agriculture	$4,736,046.12	4. Interaction of Resident Microbiome and Listeria on Pears During Cold Storage	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. 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.	$250,000.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Washington State Department of Agriculture	$4,736,046.12	5. Improving Food Safety and Minimizing Recalls: Dry Cleaning and Sanitation Strategies for the Onion Industry	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.	$249,846.00
Washington State Department of Agriculture	$4,736,046.12	6. Mitigating Financial Risk with Cost-of-Production Calculators for Washington Grape and Wine Producers	The Washington Wine Industry Foundation seeks to provide updated, current, useful, and readily accessible tools (calculators) for mitigating financial and production risks. 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 wine grape industry. 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. 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.	$125,987.45

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Washington State Department of Agriculture	$4,736,046.12	7. Pesticide Information Center OnLine (PICOL) Rescue	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. This project would completely 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.	$196,603.50
Washington State Department of Agriculture	$4,736,046.12	8. Identifying Areas to Improve the Washington State Agricultural Recruitment System for Specialty Crop Production Activities	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 will consist of conducting in-depth one-on-one (or focus group) interviews with apple, berry, cherry, grape, and pear growers and farmworkers.	$250,000.00
Washington State Department of Agriculture	$4,736,046.12	9. Timely Market Development for Washington Craft Cider and Cider made with Washington Grown Apples	The Northwest Cider Association (NWCA) 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.	$249,377.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Washington State Department of Agriculture	$4,736,046.12	10. Plant Something Pollinator Friendly	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.	$107,890.00
Washington State Department of Agriculture	$4,736,046.12	11. Fusarium Canker: Understanding and Managing an Emerging Disease in Washington Hops	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.	$239,698.00
Washington State Department of Agriculture	$4,736,046.12	12. Alternative Sampling Techniques for Timely Vineyard Nutrient Management	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. All results will be integrated to generate science-based recommendations that will enable growers to make timely and reliable nutrient management decisions.	$235,457.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Washington State Department of Agriculture	$4,736,046.12	13. Preemptive Cultural Management Strategies to Maximize Potato Production Under Extreme Heat and Water Stress	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 it impacts on plant phenotype, yield, and postharvest quality. 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.	$249,980.00
Washington State Department of Agriculture	$4,736,046.12	14. Ensuring Reliable Pollination for Washington Apples with Cultural Practices and Conservation	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 honeybees, 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.	$249,560.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Washington State Department of Agriculture	$4,736,046.12	15. Increase the prominence of Skagit Valley Specialty Crops by Promoting the Genuine Skagit Valley Brand	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. Through this grant, GSV will promote specialty crops grown in this distinct agricultural region by creating On-the-Farm Tasting Events, participating in Taste Washington, supporting Latinx and beginning farmers, and launching 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.	$106,761.00
Washington State Department of Agriculture	$4,736,046.12	16. LULAC Grows Specialty Crop Production, Markets, and Farming for Families and Communities of Color	The Southwest Washington League of United Latin American Citizens (SW-WA-LULAC) 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.	$249,365.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Washington State Department of Agriculture	$4,736,046.12	17. Educational Tools for the Small and Very Small Value-Added Specialty Crop Growers and Food Processors	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.	$246,363.00
Washington State Department of Agriculture	$4,736,046.12	18. Comprehensive HoneyBee Health Tech Transfer Outreach Program: Education, Breeding, Nutrition and Management	The Washington State University honeybee research team will create and deliver comprehensive honeybee 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. 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.	$249,670.00
Washington State Department of Agriculture	$4,736,046.12	19. Specialty Crop Cultivation to Meet Immigrant and Refugee Producer and Consumer Demand	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.	$169,764.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Washington State Department of Agriculture	$4,736,046.12	20. Retooling Leadership Development for Future Generations	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. 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.	$249,997.00
Washington State Department of Agriculture	$4,736,046.12	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$376,729.95
West Virginia Department of Agriculture	$304,627.44	1. Local Fruits and Flowers: Collaborative Marketing, Education, and Celebration of Northern Panhandle Specialty Crops	Grow Ohio Valley's (GrowOV) Local Fruits and Flowers project will unify and coordinate the marketing and promotion of specialty crops in the Northern Panhandle. With our partner producers and retailers, this project will (1) strategize coordinated marketing for northern panhandle specialty crops, (2) provide public education and events celebrating specialty crops, and (3) support innovative entrepreneurship around specialty crop production. In addition to unifying the efforts of existing specialty crop producers throughout our region, this project focuses on investing in youth agricultural and leadership training. Wheeling youth will create and manage their own urban flower farming business. Through this youth engagement, along with a host of community educational events, we are building a culture that celebrates the quality products grown in our region.	$61,110.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
West Virginia Department of Agriculture	$304,627.44	2. Developing Processing and Market Options for West Virginia Tomato Growers	Vandalia, Incorporated will develop a project that creates a kettle system at the KISRA commercial kitchen in Dunbar, WV. This project will include the purchase of a series of kettles that will provide an operational processing avenue for WV locally grown fruits and vegetables to incorporate into finished goods that would be distributed throughout the eastern part of the United States. Vandalia, Inc. would continue to expand their co-packing operations to reach additional small food manufacturers or those currently operating under the WVDA Cottage Foods programs who would look to expand production. In addition, the staff of Vandalia, Inc. would work with these individuals in research and development to create a consistent recipe which could be used in larger production batches or to develop new recipes entirely for new flavors or varieties of the developed product. The Vandalia, Inc. team will also be able to provide these services to other specialty crop-based products such as jams/jellies, dressings, etc.	$80,000.00
West Virginia Department of Agriculture	$304,627.44	3. West Side Grown Expansion	Keep Your Faith Corporation's (KYFC) West Side Grown Expansion project seeks to ramp up the operations of the West Side Grown (WSG) urban farm, in order to increase production of specialty crops for use in their mobile farmers market and the community-owned grocery store that's under development by KYFC. This program will transform WSG's urban farm from strictly educational into a full-scale production farm that grows specialty crops for sale and sustainability of the project. Additionally, this project will employ two youth "farm hands" from the community to learn agricultural and entrepreneurial skills that will benefit the West Side Grown program and increase economic development on the Charleston West Side.	$50,000.00
West Virginia Department of Agriculture	$304,627.44	4.Market Competitive Hops Productions Through Shared Use Equipment	Spotted Horse farm will provide the Hops Cooperative with specialty equipment for increased efficiencies through automation and the production of high standard shelf stabilization of hops to increase market competitiveness of this specialty crop.	$49,600.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
West Virginia Department of Agriculture	$304,627.44	5. Sustainable Management of Grape Black Rot to Promote U-Pick Sale	West Virginia University Extension Service will demonstrate the efficacy of integrated disease management tool for managing grape black rot to vineyard owners and backyard growers that will not only reduce disease incidence and chemical residue but also improve marketable yield. The project will include multiple on-farm trials to demonstrate the results from our proposed integrated method compared to traditional method to growers through field day and outreach activities to promote adoption of integrated option.	$30,260.00
West Virginia Department of Agriculture	$304,627.44	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$33,657.44
Wisconsin Department of Agriculture, Trade and Consumer Protection	$1,318,121.05	1. Specialty Crop Edible Weight Gain Yield Trial Using Compost Tea: Five Vegetable Crops Vs Control	Organic Entourage, a midwestern small farm with diverse experience in supportive agricultural techniques, will evaluate the benefit of a compost tea protocol to increase edible weight in five specialty vegetable crops. Organic Entourage will disseminate the information through a field day and on-line videos.	$42,631.75
Wisconsin Department of Agriculture, Trade and Consumer Protection	$1,318,121.05	2. Alice In Dairyland Education And Promotion Of Wisconsin Specialty Crops	Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) staff in the Division of Agricultural Development (DAD) will promote Wisconsin specialty crops using our most recognized agriculture spokesperson, Alice in Dairyland. Through this project, Alice in Dairyland will use her established social media channels, promotional videos, and presentations with developed educational materials. She will highlight our specialty crops in the state, such as cranberries, ginseng, Christmas trees, maple syrup, apples, honey, potatoes, pumpkins, lavender and more. We will partner with Wisconsin's Ag in the Classroom Program to provide STEM focused, hands-on lessons for students to develop an understanding of how these crops are grown and how to use them.	$99,306.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Wisconsin Department of Agriculture, Trade and Consumer Protection	$1,318,121.05	3. Quantifying The Impacts Of Wildflower Plantings On Cranberry Flower Visitation By Bees Using Automated Monitoring	The University of Wisconsin-Madison will use low-cost automated monitoring systems to characterize the community of wild bees visiting cranberry flowers on farms with and without supplemental wildflower plantings, quantify the amount of cranberry pollen tetrads deposited by wild bee species after a single flower visit, calculate the contributions each bee species makes to pollination services, and communicate our results with the cranberry industry and scientific community.	$99,511.00
Wisconsin Department of Agriculture, Trade and Consumer Protection	$1,318,121.05	4. Cold Hardiness Prediction Model To Reduce Cranberry Yield Losses.	The University of Wisconsin-Madison will develop a bud cold hardiness prediction model that will assist growers in making sensitive decisions to protect cranberry vines from winter injury, thus minimizing crop and vine losses and increasing the long-term sustainability of the cranberry industry in Wisconsin.	$94,713.17
Wisconsin Department of Agriculture, Trade and Consumer Protection	$1,318,121.05	5. Refining Integrated Disease Management Strategies For Environmentally And Economically Sustainable Processing Vegetable Production In Wisconsin	The University of Wisconsin Madison Vegetable Pathology Research and Extension Program will collaborate with the Midwest Food Products Association, the Wisconsin Potato and Vegetable Growers Association, the Wisconsin Fresh Market Vegetable Growers Association, and the Wisconsin Muck Growers Association to enhance the production of healthy processing and fresh market vegetable crops by developing scientifically-based practical measures to mitigate diseases that are emerging or of contemporary and growing concern. Specifically, we will investigate varietal resistance and disease management strategies to reduce vegetable yield and quality losses in carrots, snap beans, and sweet corn. Results will be disseminated to stakeholders through grower meetings and field days.	$87,111.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Wisconsin Department of Agriculture, Trade and Consumer Protection	$1,318,121.05	6. Increasing Mushroom Production Efficiency And Addressing Barriers And Limitations To Wisconsin Specialty Crop Growers	Field and Forest Products will use it's nearly 40 years of experience in the specialty mushroom industry to work with Wisconsin mushroom farmers and other stakeholders to address limitations of existing farms and reduce barriers prospective, beginning, and established mushroom farmers face: cost and farmer profitability, production capacity, crop variety, education, skill, and experience to create sustainable businesses capable of meeting the needs of the rapidly growing industry. We will scientifically evaluate new cultivars and improvements to mushroom fruiting block technology and disseminate results and necessary support and training to stakeholders through comprehensive outreach efforts.	$91,678.00
Wisconsin Department of Agriculture, Trade and Consumer Protection	$1,318,121.05	7. Seasonal Inoculum Dispersal, Wound Susceptibility, And Canker Expansion Of Wood-Infecting Fungi In Wisconsin Apple Orchards	The University of Wisconsin will investigate the biology and epidemiology of wood-infecting fungal pathogens by investigating periods of spore dispersal, tree wound susceptibility to infection, and canker development. The University will disseminate results to stakeholders through grower meetings and extension articles.	$95,786.00
Wisconsin Department of Agriculture, Trade and Consumer Protection	$1,318,121.05	8. Develop And Extend Fungicide Programs To Meet The Maximum Residue Limits For Dried Ginseng Exports	The Ginseng Board of Wisconsin (GBW) has partnered with Michigan State University to develop and extend plant protection programs that meet the standards for dried ginseng exports to Taiwan. The United States (U.S.) establishes pesticide tolerances to allow growers to use plant protection products; these tolerances are called maximum residue limits (MRLs) in Taiwan and other countries. Taiwan does not accept U.S. tolerances, leaving Wisconsin's ginseng exports vulnerable to violations. The project will develop, demonstrate, and implement pest management strategies to reduce pesticide residues on dried ginseng for export that exceed current MRL standards. This will be accomplished by establishing fungicide field plots with grower cooperators and root residue testing.	$99,674.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Wisconsin Department of Agriculture, Trade and Consumer Protection	$1,318,121.05	9. Hyperspectral Imaging For Sustainable Nitrogen Management Of Vegetable Crops	The University of Wisconsin – Madison will promote environmentally and economically sustainable vegetable crop production by 1) validating previously developed biophysical/machine learning models for efficiently monitoring and predicting crop nitrogen status and yield potential, using hyperspectral imaging and on-farm data collected on multiple vegetable crops including potatoes, snap beans, kidney beans, and sweet corn; and 2) disseminating results to stakeholders to encourage adoption of remote sensing through extension/outreach activities including industry-focused workshops, grower meetings, field days, articles in trade journals, etc.	$72,314.00
Wisconsin Department of Agriculture, Trade and Consumer Protection	$1,318,121.05	10. Increasing Specialty Crop Access And Demand Through Innovation In Milwaukee	Hundred Acre and its partners, Feeding America, Sendik's, Marquette University and Sodexo, will increase the availability and demand for specialty crops across various Milwaukee populations, with a focus on underserved communities, by co-marketing distribution and additional access points to end consumers throughout the city. It will also offer hands-on education and training in urban agriculture specifically dedicated to specialty crop production of leafy greens.	$100,000.00
Wisconsin Department of Agriculture, Trade and Consumer Protection	$1,318,121.05	11. Seasonal Flowers Namely Annual Bedding Plants, Begonias And Geraniums; And Potted Flowering Plants, Chrysanthemums	ORC Industries, a non-profit headquartered La Crosse, Wisconsin, whose mission is to provide employment and vocational education to disabled persons, will grow in a greenhouse setting certain specialty crops in Western Wisconsin for disabled persons to learn hands- on what it means to be a farmer, especially in Wisconsin where farming is a significant industry. The project purpose: vocational education of disabled persons, including the mechanics of greenhouse growing and the specialty crops; delivery of quality flowers to other businesses including for profit private, and nonprofit sectors, focusing on sustainability and environmental education. Activities taught and learned are the planting, growing, and sales of annual flowering bedding plants, from the seeding, transplanting, harvesting, packaging, labeling, and distribution.	$88,968.00

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Wisconsin Department of Agriculture, Trade and Consumer Protection	$1,318,121.05	12. The Shiitake Growers Association (ShiiGA) Will Work To Expand And Enhance Wisconsin's Specialty Mushroom Growers Through Education, Producer Development, Mentoring and Marketing	The Shiitake Growers Association (ShiiGA) seeks to remove obstacles for beginning mushroom growers, enabling them to successfully start and harvest their specialty mushroom crop. By providing specialty mushroom farmers the tools, education and instruction needed to increase production, SHIIGA enhances new farmers' ability to network with woodland owners and other grower organizations by sharing proven growing and harvest methods and implementing ways to increase product awareness in their customer base.	$44,900.00
Wisconsin Department of Agriculture, Trade and Consumer Protection	$1,318,121.05	13. Bees, Blossoms, And Bad Weather: Assessing The Impact Of Weather Variability And Land-Use On Pollinators And Crops	The Gratton Lab at the University of Wisconsin-Madison will assess temporal trends in land-use change and weather variability over the past 25 years and forecast 50 years into the future, as they relate to the vulnerability of bees and pollinator-dependent specialty crops. The Gratton Lab will disseminate results to grower and academic audiences through grower newsletters and presentations.	$99,996.00
Wisconsin Department of Agriculture, Trade and Consumer Protection	$1,318,121.05	14. Mobile Processing Model To Increase Supply/Demand For Locally Grown Produce In Northeast Wisconsin Schools	Local farms in Brown County have the capacity to produce many of the specialty crops that local school districts purchase from institutional wholesalers but lack the capacity to process produce into the ready-to-eat form required by school kitchens. To bridge this "processing gap," our coalition of 6 Brown County school districts, local food hub Seasonal Harvest and Green Bay well-being non-profit Wello will implement an innovative Mobile Processing Model (MPM) in which regional produce is aggregated by Seasonal Harvest and delivered to "pop-up" processing hubs within the community to be processed and distributed to schools.	$90,194.00
Wisconsin Department of Agriculture, Trade and Consumer Protection	$1,318,121.05	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$7,773.16

Organization	Amount Funded to Organization	Project Title	Description	Project Budget
Wyoming Department of Agriculture	$340,322.08	1. 2023 Wyoming Specialty Crop Directory (2nd edition); and Wyoming Specialty Crop Directory Searchable Database	Waggener Editorial Services, with help from a contract graphic designer, University of Wyoming (UW) Extension, UW IT, and many others, will develop and disseminate a Wyoming specialty crop agribusiness directory (2nd edition), and develop a searchable database to increase the production and consumption of specialty crops in Wyoming, along with other goals, including specialty crop education and resources.	$50,000.00
Wyoming Department of Agriculture	$340,322.08	2. Evaluation of Peas in Rotation with Annual Crop for Monitoring Productivity and Soil Health	The University of Wyoming will evaluate available and promising genotypes/cultivars of peas in the environments of Wyoming for the phenotypic adaptability and stability for growth, yield, and soil health. There is an increasing interest among the specialty crop producers in growing peas in the USA including Wyoming because of its high food value and market potential.	$96,091.00
Wyoming Department of Agriculture	$340,322.08	3. Optimizing Planting Date and Irrigation Management for Chickpea Cultivars Varying in Maturity in Northern Wyoming	The University of Wyoming proposes to expand the testing of chickpea crop management practices during 2023 and 2024 by better defining optimal irrigation levels and planting dates. The resulting research will provide Bighorn Basin and northern Wyoming crop producers with findings on how to manage chickpea more efficiently.	$43,299.00
Wyoming Department of Agriculture	$340,322.08	4. Developing Food security and Safety through the 307 Kitchen Incubator	Food for Thought through the expansion of the Casper 307 kitchen incubator will provide an opportunity for local specialty crop producers to expand their operations by preserving their harvest and creating value-added products. The kitchen will provide food safety training as well as processing and marketing opportunities to local food producers. The value-added products will provide additional income for producers and expand local value-added products for the community.	$100,000.00
Wyoming Department of Agriculture	$340,322.08	Grant Administration	Ensure that the State Agency and sub-awardees abide by Federal and State requirements and regulations by performing pre-award and post-award activities to administer Specialty Crop Block Grant Program funding.	$50,313.00