



Transportation and Marketing Specialty Crop Multi-State Program

Fiscal Year 2017

Description of Funded Projects

Number of Grants Awarded: 11
Amount of Funds Awarded: \$7,030,784.00

For more information, please visit the grant program's website: <https://www.ams.usda.gov/scmp>

NOTE: The below project descriptions were provided by the grant recipients.

California

Recipient: California Department of Food and Agriculture
Sacramento, CA **Award Amount:** \$483,278.00

Project Type: Food Safety

Supporting Food Safety and Honey Bee Health Through Veterinary Education

The California Department of Food and Agriculture will partner with the University of California's Western Institute for Food Safety & Security and Oregon State University to study the role of honey bees in specialty crop production, specifically related to high colony losses. The project will train veterinarians and apiculture educators to support beekeeper understanding of Veterinary Feed Directive (VFD) complexity in order to maintain strong, healthy colonies for specialty crop pollination and safe honey production. Training will be provided through a comprehensive online bee biology course and train-the-trainer programs.

Recipient: California Department of Food and Agriculture
Sacramento, CA **Award Amount:** \$770,356.00

Project Type: Pest and Plant Health

Optimizing Phasmarhabditis Nematodes for Mitigating Invasive Gastropods in Western U.S.

The California Department of Food and Agriculture will partner with the University of California and Oregon State University to develop and optimize a nematode biological control agent to mitigate invasive specialty crop gastropods in California, Oregon and Washington. Project staff will develop treatments for quarantine and nuisance or contaminant gastropods; educate stakeholders; and provide training on finding, recognizing and mitigating invasive slugs and snails in nurseries and home gardens.

Recipient: California Department of Food and Agriculture
Sacramento, CA

Award Amount: \$410,985.00

Project Type: Pest and Plant Health

Understanding and Managing Esca Trunk Disease in Multiple Grape-Production Systems

The California Department of Food and Agriculture will partner with USDA's Agricultural Research Service, Washington State University, and the University of California-Davis to identify the cause of Esca (Black Measles) in California table grapes, and its impact on the State of Washington's wine and juice grape production systems. Project staff will also evaluate pruning-wound protectants and develop extension tools for Esca prevention. A comprehensive outreach program is also planned, combining mixed-media approaches, in-person presentations, and pre- and post-project stakeholder group surveys to determine the current knowledge of target growers.

Indiana

Recipient: Indiana State Department of Agriculture
Indianapolis, IN

Award Amount: \$495,635.00

Project Type: Crop-Specific Project

Filling a Critical Need: Diversifying Sod Production with Sustainable Turfgrasses

The Indiana State Department of Agriculture will partner with Purdue University to provide tangible resources, production guidance, and marketing research for farmers who grow cool-season turfgrass sod in 36 northern states. The project will benefit existing sod growers looking to diversify their operations by shifting or expanding acreage to grow new low-input sod varieties. Agronomic and market research along with the enterprise budget tools will allow growers to assess potential profitability and risks of growing low-input sod varieties. New and beginning farmers will also benefit from the project as enterprise budgets will reduce risk and help determine the feasibility of producing low-input sod.

Nebraska

Recipient: Nebraska Department of Agriculture
Lincoln, NE

Award Amount: \$479,751.00

Project Type: Pest and Plant Health

Improving Aronia Berry Sustainability and Fruit Quality

The Nebraska Department of Agriculture will partner with the University of Wisconsin and the University of Nebraska to study the marketability of aronia berry with the goal of increasing small family farm profitability. The project will characterize the genetic diversity of aronia produced in U.S., and introduce new cultivars with improved characteristics. Researchers will also establish nutritional and flavor benchmarks of aronia fruit and determine pre-harvest factors associated with improved berry quality. Finally, the project will identify key flavor compounds contributing to the unfavorable taste of aronia berry, and apply food processing technologies to increase consumer preference.

Pennsylvania

Recipient: The Pennsylvania Department of Agriculture
Harrisburg, PA

Award Amount: \$806,739.00

Project Type: Pest and Plant Health

Regional Approach to Cucurbit Downy Mildew Prevention Monitoring and Management

The Pennsylvania Department of Agriculture will partner with The Pennsylvania State University, collaborating with universities in Georgia, Maryland, Wisconsin, South Carolina, Mississippi, Missouri, New York, Ohio, North Carolina, Kentucky, West Virginia, Louisiana, and Florida, to study Cucurbit downy mildew (CDM) on vegetables grown in the U.S., namely watermelon, cucumber, squash, pumpkin, and muskmelon. Specifically, project staff will: 1) monitor and forecast cucurbit downy mildew using the Cucurbit ipmPIPE cyberstructure and downy mildew sentinel plot network; 2) assess fungicide efficacy and mating types to improve the understanding of host interactions and facilitate the development of cucurbit host-specific management recommendations; 3) develop educational materials and train extension educators, crop consultants and other stakeholders in the identification and management of cucurbit downy mildew to improve forecasting and monitoring of cucurbit downy mildew through accurate identification and reporting; and 4) engage in citizen science through the training and utilization of state Master Gardener programs to improve forecasting and monitoring of cucurbit downy mildew through accurate identification and reporting. The research will improve producer ability to monitor and forecast CDM through continued operation and refinement of the CDM forecasting system, leading to less fungicide application per year.

Recipient: The Pennsylvania Department of Agriculture
Harrisburg, PA

Award Amount: \$770,360.00

Project Type: Pest and Plant Health

Reliable and Customized Bio-control for Fusarium Wilt of Tomato

The Pennsylvania Department of Agriculture will partner with The Pennsylvania State University, University of Maryland, and University of Florida to develop reliable, safe, effective, and economical biocontrol strategies for individual specialty crops and production systems. Specifically, they will characterize how diverse Trichoderma species/strains (soil fungi) interact with tomato roots and soil microbes, as well as their persistence in different types of soil. The researchers will also evaluate and improve the effectiveness and reliability of biocontrol for Fusarium wilt via greenhouse and field trials. Finally, staff will disseminate resulting insight and resources to expand and support biocontrol use and research for other specialty crop diseases. The researchers hope the results of this study will help develop effective and reliable biocontrol strategies for other specialty crop diseases.

Recipient: The Pennsylvania Department of Agriculture
Harrisburg, PA

Award Amount: \$293,000.00

Project Type: Marketing and Promotion

Making America Healthier with Sweet Potatoes

The Pennsylvania Department of Agriculture will partner with The U.S. Sweet Potato Council, Inc., collaborating with the Louisiana Sweet Potato Commission, North Carolina Sweet Potato Commission, Mississippi Sweet Potato Commission, California Sweet Potato Council, and Alabama Sweet Potato Association, to enhance the competitiveness of sweet potatoes by studying the effectiveness of targeted messages and marketing in relation to customer expectations. Researchers will determine who consumes sweet potatoes and how they use them; determine the driving motivation to buy sweet potatoes; explore what happens in the potato retail category; and identify the most popular form of consumption – fresh, canned or frozen. It is expected that by the end of the project, project staff will be able to identify baseline sales dollars, volume and all-commodity volume distribution that will allow us to define a benchmark for measuring sales increases by dollar, percentage lifts, and distribution increases.

Texas

Recipient: Texas Department of Agriculture
Austin, TX

Award Amount: \$743,878.00

Project Type: Food Safety

Improving Nitrogen Use Efficiency and Food Safety in Spinach Production

The Texas Department of Agriculture will partner with Texas A&M University and the University of California to develop spinach varieties that more efficiently use nitrogen. They will also investigate natural variation in the antimicrobial compounds and microbiota of spinach germplasm against foodborne pathogens. The outreach plan will focus on disseminating research outcomes and providing information to spinach breeders, extension agents and specialists to incorporate identified traits into new spinach varieties, explain new advances in technology to efficiently use nitrogen and improved spinach cultivars, and emphasize the importance of these new traits with regard to farming practices, product development and enhancement, and market acceptance.

Wisconsin

Recipient: Wisconsin Department of Agriculture, Trade and Consumer Protection
Madison, WI

Award Amount: \$777,203.00

Project Type: Research

Expanding North American Hazelnut Production Through the Hedgerow Hazelnut System

The Wisconsin Department of Agriculture, Trade and Consumer Protection will partner with The University of Wisconsin-Madison and the University of Minnesota to expand hazelnut production in the United States outside of the Willamette Valley of Oregon, allowing the United States to profit from the growing worldwide demand for hazelnuts. Specifically, the project will develop a hazelnut hedgerow system for the Upper Midwest (WI, MN, IA, IL) based on the growth and study of American hazelnut (*Corylus americana*) genetics. Researchers will also develop mechanical harvesting equipment optimized for the hazelnut hedgerow system use.

Recipient: Wisconsin Department of Agriculture, Trade and Consumer Protection
Madison, WI

Award Amount: \$999,599.00

Project Type: Pest and Plant Health

Optimizing Disease Management and Yield in Potato via Microbiome-based Prediction

The Wisconsin Department of Agriculture, Trade, and Consumer Protection will partner with the University of Wisconsin-Madison and Michigan State University to identify soil-borne potato production diseases. The project will address the on-farm application gap for upper Midwest potato production, evaluate the efficacy of microbial inoculants for disease suppression and yield promotion across the region, and use the resulting data to develop and validate disease prediction models and decision tools.