



ORGANIC FARMING RESEARCH FOUNDATION

Fostering the improvement and widespread adoption of organic farming.

OFRF Grant Awards Summary 2016

Dr. Erin M. Silva, University of Wisconsin

[Creating Climate Resilient Organic Systems by Enhancing Arbuscular Mycorrhizal Fungi Associations](#)

Symbiotic microbes such as arbuscular mycorrhizal fungi (AMF) increase plants' access to vital nutrients and water. Dr. Silva will be studying cultivar-AMF interaction on working organic farms, evaluating the contribution to carrot growth as well as the contribution of potential cultivar-symbiont selectivity on AMF populations in a variety of soil types across organic farms in Wisconsin.

Impact: Increased access to water and nutrients

Dr. Amelié CM Gaudin, University of California Davis

[Developing Integrated Irrigation Management Strategies to Improve Water and Nutrient Use Efficiency of Organic Processing Tomato Production](#)

This project aims at developing integrated irrigation practices that capitalize on soil health to improve the efficiency of irrigation water and decrease pest pressure and potential N losses of California organic processing tomato production. Dr. Gaudin will compare the impact of three different water management scenarios that delay onset of irrigation and/or advance irrigation cutoff on tomato water-use efficiency, yield and fruit quality and monitor shifts in water acquisition dynamics, N leaching and pest pressure.

Impact: Trial results could help convert 259,000 acres of processing tomatoes to organic production and provide techniques to mitigate and adapt to shifts in resource availability.

Dr. Juan Carlos Melgar Jimenez, Clemson University

[A New Approach for Successful Organic Peach Production in the Southeast](#)

The production of organic peaches is extremely difficult under the humid conditions of the Southeast due to high pest and disease pressures, and the lack of effective, organically approved pesticides. Dr. Melgar Jimenez will be evaluating the use of paper bags to physically protect the fruit from pests and diseases to reduce reliance on spray applications and increase yields.

Impact: Increased economic opportunity for fruit farmers in the southeast and reduced reliance on pesticides

Dr. Gladis Zinati, Rodale Institute

[Field Evaluation of Designed Compost Extracts for Organic Weed Suppression](#)

In 2013-2014, OFRF funded Dr. Zinati to perform laboratory and greenhouse trials on the weed suppressing ability of chemically- and biologically-designed compost extracts (DCE). This new project builds off of the laboratory and greenhouse work to test the DCEs in the field and evaluate them as an alternative tactic to reduce weed pressure, soil degradation, and yield losses of field-grown organic cabbage.

Impact: Reduced weed pressure, soil degradation, and yield loss



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Dr. Justin M. Renkema, University of Florida

[Flowering Plants in Organic Strawberry Fields to Enhance Natural Enemies and Pollinators and Improve Pest Control and Fruit Quality](#)

The objective of this research project is to manage for both predators and pollinators in Florida organic strawberries through intentional use of flowering plants. Dr. Renkema will target conservation of minute pirate bug, *Orius* spp., in the hope of showing how flowering plants support high levels of *Orius* spp. and pollinators, resulting in lower thrips populations and crop damage and improved crop pollination and fruit quality.

Impact: Improved crop pollination and fruit quality in Florida organic strawberries.

Iris Vaisman, University of Manitoba

[Nutrient Budgeting in Organic Grain Production](#)

Green manures play an essential role in organic grain-based systems on the Canadian prairies by contributing to soil health, cash crop yield, and grain quality. The goal of this project is to increase the use and proper management of green manures. The researchers want to help farmers better understand their whole-farm nutrient budget and increase the adoption of green manures to enhance soil health and farm resiliency.

Impact: Improved soil health, cash crop yield, and grain quality through the use and proper management of green manures.