Conservation Innovation Grants (CIG)

2019 Award Recipients

Pollinator Habitat

University of Minnesota (MN)
$493,613
Maximizing Summer Cover Crop Conservation Benefits for Improved Vegetable Production

The University of Minnesota will evaluate twelve cover crop rotations for vegetable systems and quantify the impact on, and potential habitat improvement, for pollinators. Data will be collected on cover crop flowering time and beneficial insect species richness and abundance during flowering. The project will assess the impact of increasing pollinator services on farmer profitability and the effect of the cover crops on nitrogen use.

Virginia Polytechnic Institute and State University (TN, VA)
$882,922
Bee-friendly beef: Integrating native wildflowers into Southeastern grazing systems

Virginia Tech University will explore the use of pollinator-friendly plant species in grazing systems. Project partners intend to explore several aspects of the approach such as wildflowers that show potential to support pollinators, economic factors such as weight gain in livestock foraging on the vegetation and ecological factors such as the impact of different grazing pressures.

Oregon State University (OR)
$850,000
New opportunities for establishing NRCS pollinator habitat in the Pacific Northwest

Oregon State University will demonstrate establishment of pollinator habitat in multiple Pacific Northwest ag systems with three mini-studies. These studies will explore pollinator opportunities by adding cover crops to fruit growing systems, identifying blooming perennials that are compatible with herbicides, and testing new management methods and perennial forage plants for dryland livestock-pasture systems.

Urban Agriculture

University of Rhode Island (RI)
$312,980
How much is too much? Managing fertilizer nutrients in high tunnel vegetable production

The University of Rhode Island will monitor soil temperature, moisture and mineralization of nitrogen and phosphorus from organic matter in established high tunnels on six farms in southern New England. Data will be used to revise soil mineralization models and create a Nutrient Prediction Tool to assist farmers in monitoring inputs, predicting plant available nitrogen and phosphorus, and optimizing inputs to meet production goals while minimizing costs.

Pennsylvania State University (PA)
$299,171
Spectrally-Selective Solar Films for Operational Energy Conservation of Urban Greenhouses

Penn State University will save operational energy and extend the growing season of greenhouses and high tunnels using unique nanotechnology-based solar films that can be applied to existing high tunnel structures. The project will demonstrate and evaluate the S3 nanotechnology-based films that generate solar visible light benefits and provide thermal mitigation, producing a cooler high tunnel environment in the summer and a warmer environment in the winter.

Greenprint Partners (IL, PA)
$974,097
Unlocking the value of green infrastructure incentive programs for urban agriculture by leveraging private and public investment

Greenprint Partners will pilot a green stormwater infrastructure program targeted to urban farmers, developing and publicizing a series of best practices to establish a scalable model for cities to co-locate green stormwater infrastructure BMPs on their urban agriculture land. The proposal demonstrates the potential for collocating green stormwater infrastructure practices and urban agriculture operations to improve water, soil, and energy conservation as well as create and enhance pollinator habitats and increase productivity.

Water Quantity

Oklahoma State University (CA, MS, OK, UT)
$860,714
Innovative Technologies for Water Conservation in Flood Irrigation Systems

Oklahoma State University will improve water conservation in flood irrigation systems which currently represent 33% of irrigated land in the US. Project partners will evaluate, demonstrate and transfer innovative technologies by looking at water delivery, water use, and water removal. The project will also evaluate social dimensions of conservation adoption and conduct coordinated extension activities with partners throughout the project area.

University of Hawaii (CA, GU, HI, MP, NE)
$900,000
Forecasting daily reference evapotranspiration and rainfall for water resources conservation and sustainable agriculture

The University of Hawaii will demonstrate use of an innovative artificial neural network approach to more accurately forecast daily evapotranspiration and rainfall by breaking down complex long-term time-series into simpler units. By more accurately modeling and forecasting existing conditions, the project partners intend to show that farmers can conserve more water and use water resources more effectively than using existing forecasting methods.

Whatcom Conservation District (WA)
$415,291
Demonstration of the Benefits of Subirrigation Using Water Level Control Structures for Improved Agricultural Irrigation Water Use

Whatcom Conservation District will evaluate the performance of water level control structures (WLCS) by comparing fields with and without WLCS. Project partners will measure a variety of variables including silage corn/perennial silage grass yield, real-time root zone soil moisture, irrigation water inputs, depth to groundwater, soil inorganic nitrogen, nitrate leaching, and surface and groundwater quality. WLCS are a promising tool to better manage surface and groundwater and enhance the economic and environmental benefits of a limited water supply.

Accelerating the Pace and Scale of Conservation Adoption

American Forest Foundation (MD, PA, VA, WV)
$700,000
Piloting the Family Forest Carbon Program in the Central Appalachian Region

American Forest Foundation (AFF) will pilot an innovative carbon accounting system to unlock carbon markets for small, privately-owned forest plots. By partnering with The Nature Conservancy and Terra Carbon, among others, AFF plans to develop a practice-based approach to carbon accounting and test it with family foresters in the Central Appalachian region.

Appalachian Sustainable Development (KY, NC, OH, TN, VA, WV)
$386,539
Increasing Landscape-scale Adoption of Agroforestry Systems in Central Appalachia through Market-based Incentives

Appalachian Sustainable Development will create a transferable economic incentive system for use by small, historically underserved forest owners to conserve threatened forest ecosystems and regenerate previously mined and mono-cropped land. The project focuses on using market-based incentives to help forest owners pilot the alley cropping pf high value forest botanicals using NRCS's Multi-Story Cropping conservation practice.

California Rice Commission (CA)
$757,964
The Pacific Flyway Wildlife Program

California Rice Commission will implement a new water bird habitat program in California's Central Valley, using new decision support tools that allow for a more dynamic and farmer-friendly approach. The program intends to enroll 10,000 acres of bird habitat by 2022, working with farmers to make the habitat available during critical migration periods. The project includes an initiative to design a sustainable funding strategy to support implementation of the program over the long term.

The Conservation Fund (GA, NC, SC, WV)
$630,109
Building Economic Access and Land Opportunities

The Conservation Fund will provide historically underserved producers with innovative and individualized training and tools, based on decision science, to overcome key challenges to adopting conservation practices and systems. The project will provide targeted assistance to 160 producers and overall engage with over 300 producers to increase the adoption of conservation with a population of farmers facing unique challenges.

Croatan Institute (National)
$700,000
Rural Regenerative Agricultural Districts

The Croatan Institute will develop an innovative, place-based financing model to support the adoption of farming systems that improve "soil wealth," a term that captures the concepts of soil health and rural community wealth. The project will develop and pilot a Rural Regenerative Agricultural District concept to help agricultural producers and landowners find up-front capital to build soil wealth as part of the ag operations.

Iroquois Valley Farms (IL)
$700,000
Innovative Financing Instruments to Help Agricultural Producers Increase the Pace and Scale of Conservation Adoption

Iroquois Valley Farms will establish an innovative working capital initiative to provide working capital and farm mortgages and leases for up to 100 farmers. The capital financing will be available to producers with organic production systems looking to implement conservation practices and systems to improve their operations.

University of Kentucky (KY, VA)
$361,674
Ecological and Economic Benefits of Resource Conservation on Horse Farms

The University of Kentucky will monitor and analyze the ecological and economic effects of horse farmers that participated in NRCS's Regional Conservation Partnership Program (RCPP). The project can serve as a model for RCPP partners, which are now required to report on the conservation (and economic, if possible) outcomes of their projects.

University of Nebraska (CO, KS, NE, OK)
$850,000
Accelerating Adoption of Water Conservation Technologies and Management Practices Through Innovative Engagement Programming

The University of Nebraska will mature and expand its Testing Ag Performance Solutions (TAPS) program, which uses a science-based, risk-free environment to test the efficacy of water conservation practices and systems. TAPS fosters experiential learning, peer-to-peer interaction among producers, and a social positive learning environment based on competition. Conservation, economic and social outcomes are shared with the public and through educational materials for dissemination to ag producers.

MAD Agriculture (MT, NE, CO)
$817,000
The Perennial Fund: Combining Innovative Finance with Carbon Farm Planning and Training

MAD Agriculture will develop and implement the Perennial Fund, an innovative financing vehicle to support the accelerated adoption of regenerative and organic ag systems. The Perennial Fund pilot will leverage CIG funding to build a low-cost funding source that supports farmers through a transition period and create a replicable model for future carbon farm and organic transition plans across the Nation.

Perennial Farming Initiative (CA)
$575,000
Restore California and Healthy Soil Carbon Fund

Perennial Farming Initiative will launch a consumer-driven complement to California's Healthy Soils Program, creating a framework that connects food consumers with ag producers to incentivize the adoption of conservation practices and systems. Through Restore California, restaurant and food service operation customers pay a small surcharge into a Healthy Soil Carbon Fund. Proceeds from the Fund are disbursed to ag producers to implement conservation practices that sequester carbon and reduce greenhouse gas emissions.

Conservation Innovation Grants (CIG) are competitive grants that drive public and private sector innovation in resource conservation. CIG projects inspire creative problem-solving, creating systems and technologies that boost production on farms, ranches, and private forests and improve water quality, soil health, and wildlife habitat.