

California Department of Food and Agriculture  
 2017 Healthy Soils Program (HSP) Demonstration Projects - Second Solicitation  
 Projects Selected for an Award of Funds (Updated as of July 9 2018)

Recipient Organization	Project Description	Amount Awarded	Estimated Cost Sharing	County	GHG Reduction Estimation (Tonnes CO <sub>2</sub> eq/yr)
Agriculture and Land-Based Training Association	<p>Compost Education, Demonstration, and Research (CEDAR) will provide a compost demonstration trial on .75 acres. An application of three tons/acre of a high-nitrogen compost will be compared to five tons/acre of a low-nitrogen compost and a control (i.e., no compost). Agriculture and Land-Based Training Association (ALBA) will plant the same crops and use consistent growing practices across treatment plots. Soil tests will be performed to measure changes in soil organic matter, as well as soil chemical composition.</p> <p>Through the CEDAR program, ALBA will conduct a variety of field days and workshops and produce written materials related to compost, soil health, and vegetative conservation practices. ALBA will also provide technical assistance to farmers regarding sourcing, applying, and recording the use of compost per organic requirements.</p>	\$100,000	\$51,199.00	Monterey	1.6
Gold Ridge Resource Conservation District	<p>The project will demonstrate benefits of implementing two conservation management practices on a certified organic dairy in western Sonoma county. The work plan includes compost application on 30.0 acres of grassland, and one acre of riparian forest buffers. The recipient will engage with at least 120 ranchers and farmers through demonstration field days. The project utilizes a completed Carbon Farm Plan as the basis for implementation. The project will work to increase adoption of conservation management practices that mitigate greenhouse gas (GHG) emissions and increase soil health through implementation and demonstration of GHG-beneficial practices, in support of ongoing carbon farming extension and education work with local ranchers and farmers.</p>	\$99,991	\$23,476.00	Sonoma	140.1
Mission Resource Conservation District	<p>The goal of the project is to first reduce Greenhouse Gases (GHG) from the operation by sequestering carbon, which will increase organic matter. The project will also attempt to reduce soil salinity and improve water infiltration rates. These goals will be pursued through the adoption of the following healthy soils management practices, cover cropping, reduced tillage, composting and mulching. These goals will be measured by lab soil tests, Electrical Conductivity Mapping (for soil texture change) and Natural Resources Conservation Services, Soil Quality Test Kit tests. The outcomes identified by the project are to see the adoption of these healthy soils practices by growers in the region and to reach 120 to 140 growers through the outreach activities of the project.</p>	\$47,346	\$15,884.25	San Diego	104.3
The Regents of the University of California, Davis	<p>The goal is to demonstrate successful cover cropping management for almond producers to 1) sequester carbon (C), 2) build healthy soils to enhance orchard resilience to water shortages, and 3) improve overall sustainability and productivity of almonds. The recipient will demonstrate the impact of winter cover cropping strategies on long term C sequestration and the implications for resource use efficiency of almond production. The recipient will provide detailed measurement on soil C associated with planted or naturally vegetated winter floor cover, conduct a cost-benefit analysis, and host outreach events to extend information to growers.</p>	\$99,828	\$239,431.00	Tehama Merced	4.5
The Regents of the University of California, Davis	<p>The future of agriculture is to decrease environmental impact while increasing yield. Increased system complexity through the incorporation of cover crops in agriculture has received attention as a potential means of accomplishing this goal through increased ecosystem services and improved soil health, resulting in improved plant and human health. The proposed project will collaborate with organic growers and the regional farm advisor to better elucidate the role of cover crops in determining system carbon sequestration, greenhouse gas emissions, soil health, and tree performance. The incorporation of cover crops may improve the nutrient status of the tree, particularly in iron, since crops in the lake county region are prone to iron chlorosis. Carbon sequestration will be determined by measuring soil organic matter, soil organic carbon, and microbial biomass carbon. Greenhouse gas emissions will be assessed by measuring soil respiration, soil water content, soil oxygen concentrations, and soil temperature. Measurements of soil health include pH, nitrogen availability, and iron availability. Measurements of tree performance include mid-day stem water potential, root carbohydrates, root respiration, total leaf nitrogen, leaf iron, and chlorosis stress. An improved understanding of the effect of cover crops on the rhizosphere and soil health through advanced on-farm research will better inform management decisions to improve pear orchard yield per resource input and long-term sustainability.</p>	\$92,213	\$61,696.00	Lake	4.0

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Upper Salinas - Las Tablas Resource Conservation District	<p>To increase the health of soils in San Luis Obispo County, the Upper Salinas – Las Tablas Resource Conservation District (USLTRCD) is partnering with Vineyard Professional Services (VPS) to implement conservation practices (i.e. no-till and cover crops) on multiple ranches in northern San Luis Obispo County. The goal of the project is to develop a better understanding of the outcomes of different soil health conservation practices based on feasibility, cost, and ecological benefits. The project will entail a total of four ranches with 419 vineyard acres of healthy soil conservation practices applied. The project will increase the soil organic matter, and improve soil water retention and carbon sequestration. The USLTRCD will develop baseline data and ongoing monitoring of the project to measure the effectiveness of each conservation practice applied. Assessment of baseline site conditions such as soil class, average annual precipitation, and soil organic matter (SOM), implementation of National Resource Conservation Service (NRCS) soil health conservation practices, and monitoring of conditions found at each vineyard ranch will yield useful information such as the cost benefit and ecosystem rewards. These will then be demonstrated to other stakeholders in the area by way of workshops and a site-tour to each vineyard to increase the efficacy and application within the region.</p>	\$90,000	\$231,257.50	San Luis Obispo	154.0