

Compost & SB 1383

Jurisdictions working with Agriculture to Sequester Carbon

Leo Beckerman, Director of Operations





"Global adoption of regenerative practices across grasslands and cropland could sequester more than 100% of current anthropogenic emissions of CO2"

Source: Regenerative Agriculture and the Soil Carbon Solution;

Jeff Moyer, Andrew Smith, PhD, Yichao Rui, PhD, Jennifer Hayden, PhD The Rodale Institute

Theory of Change

A few cents per purchase

Adds up to big investments in soil and more acres of regenerative farming.

This improves our food and restores our climate.

Climate Benefit Per Dollar



\$ PER TON CO2e



CARBON BENEFIT

Name +	E Practices +	, Total Cost + S	S P actice Cost +	# Total Acres - 1	: Total CO2e -	≡ тар →	\$ TAP cost -	J _s Climate ROI -
delante S.,	Compost Application Mulching Tree/Shrub Establishment	\$16,000.00	\$14,000.00	18.0	1195.00	JCANR	\$2,000.00	\$13.39
lundi Farm	Compost Application	\$19,900.00	\$19,900.00	63.0	931.24	JCANR	\$0.00	\$21.37
ickert Ra	Range Planting	\$24,500.00		200.0	500.00	Point Blue Conservation	\$0.00	\$49.00
vergreen	Compost Application Dover Over			50.0	435.63	San Diego RCD	\$3,000.00	\$57.39
erucchi R	EXCERP	r CR	N M	25.0	431.63	Gold Ridge RCD	\$4,100.00	\$66.26
asbar Far	Compos EXCERP			540.0	369.00	Dixon RCD	\$500.00	\$67.91
findrose	Compos			44.0	196.09	Upper Salinas-Las Tabl	\$2,000.00	\$72.42
/indrose	Compose Ripertant CAGE	5 A N 17	Γ	47.0	216.32	Upper Saïnas-Las Tabl	\$2,000.00	\$74.89
lacci Dal	Riperian	KAN		16.0	253.31	Sonome RCD	\$3,000.00	\$78.95
onoma C				3.2	315.00	California Land Trust In	\$0.00	\$79.37
/arnecke		DVC	F	50.0	260.23	Sonome RCD	\$5,000.00	\$90.47
nite Buff	Compost A	DAU		20.0	47.40	UCANR	\$0.00	\$105.06
odega Pa	Compost A	IN THE	WFEDS	255.8	244.64	Gold Ridge RCD	\$4,100.00	\$118.81
un Track	Compose A Cover Cross Cover Cross Cover Cross			32.2	37.00	Point Blue Conservation		\$118.92
alorio's F	Compost Ap	\$2,301.00	\$2,301.00	6.0	18.80	Monterey RCD	\$0.00	\$122.39



- Over \$2 million
- 120 carbon farming projects
- 7000 acres
- 50,000 tons of CO2e sequestered

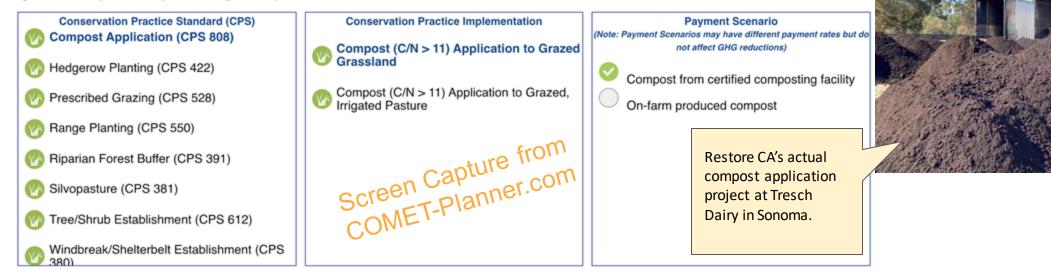


USDA United States Department of Agriculture Colorado Natural Resources Conservation Service



cdfa Carbon and greenhouse gas evaluation for NRCS conservation practice planning

Step 3: Select a NRCS Conservation Practice Standard, Conservation Practice Implementation, and Payment Scenario associated with conservation planning objectives that best describe your project. You may add multiple practices, including from different agricultural systems, by returning to Step 2



Approximate Carbon Sequestration and Greenhouse Gas Emission Reductions and Payments Associated with Selected Conservation Practices*

(Click Practice Name for Documentation) [into]Sonoma, CA Compost Application (CPS 808) - Compost (C/N > 11) ilication to Grazed Grassland - Compost from certified composting facility	(acres or feet)	Dioxide	Nitrous Oxide	Methane	Equivalent	Estimated HSP payment dollars for the Project Term \$27,600.00	
	Acre(s)		-1.00	0.10	99.10		

Values were not estimated due to limited data on reductions of greenhouse gas emissions from this practice

Final payment may be different than estimated payment, pending application review and approval



OIN LOG IN

A New California Law Will Create a Lot More Compost—but Will it Make it to Farmland?

A lack of uniform rules and the state's past missteps could keep farmers from getting access to 'brown gold'—and the many climate and farm benefits it offers.

BY GOSIA WOZNIACKA + MARCH 2, 2022

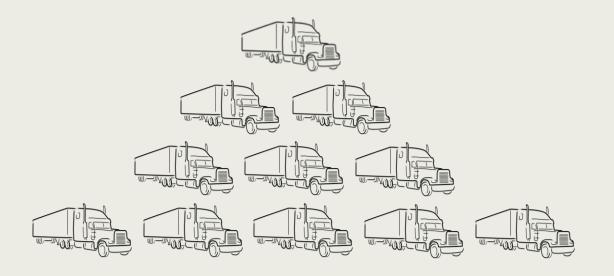


A pile of compost in the farm field at Shone Farm, a teaching farm at Sonoma State University in California. (Photo by Emma K. Morris)

Compost: A Primary Solution

- Estimated ~90 New facilities across CA
- Increase in supply of ~5M tons per year
- Annual procurement requirements~1.8M tons

That's 90,000 Truckloads!!





Where to PUT IT ALL?

"If compost were applied to a 25% of CA's rangeland, the soil could absorb 75% of CA's yearly GHG emissions"*

24,000,000 Acres of Farm Land

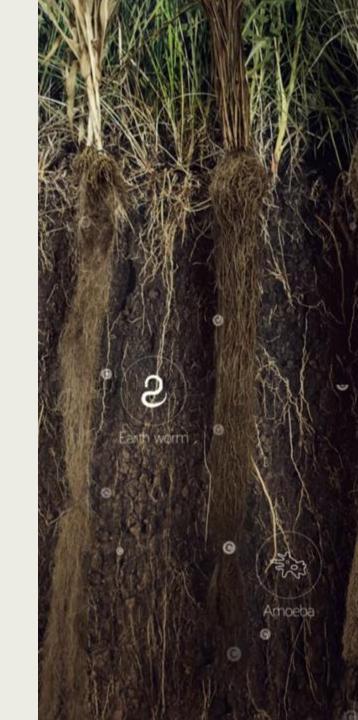
Procurement Costs

True Costs:

- Compost: \$25/ton
- Freight and Spreading: \$50/ton
- Real world costs average \$50-\$100/ton of compost

Compost Connector Costs:

- Flat per ton fee to jurisdiction
- Real world costs shared between ZFP, farmer, other grant programs (Healthy Soils, USDA, etc)
- **Cost Saving to Jurisdiction**



Looking for compost?

Search by address or location



Compost Connector

Prior to placing your order:



Fill out the form on our website and sign your contract



Login to your portal to reserve compost credits and secure your rate



You will have 90 days to place your order and submit documentation

Upon placing your order:



Make arrangements with your chosen facility and pay for your compost order



Take two photos of the compost delivery or spreading



Upload photos and invoice to your portal and receive your reimbursement



Enter a new claim at any time through your portal

Compost Request Database

Geolocation + Cost Share + Practice Standard Compliance

A Business Name 👻	CA County 👻	O Land Type 🔹	# Tons 👻	≣i Month -		Cost Share/Freight
Rojas Tepetitla Orga	Monterey	Annual crops	100.0	December	Central Coast Compost L	I will pay for 100% of the freight o
SUI SEEKEI Failii	MOILERY	rtangelanu (240.0		Central Coast Compost L	I will pay for 100% of the freight c
off-beet farm	Solano	Annual crops	56.0	April (abril)	Cold Creek Compost, Inc	I can pay part of the freight cost a
Happy Goat Inc.	Mariposa	Rangeland (600.0	Septembe	Highway 59 Compost Fac	I will pay for 100% of the freight c
Suncatcher Farm	Sonoma	Annual crops	200.0	March (ma	Recology Jepson Prairie	I can pay part of the freight cost a
Wilkinson Acres LLC	Solano	Annual crops	60.0	February (Recology Jepson Prairie	I can pay part of the freight cost a
Our Global Family F	San Luis Obis	Annual crops	2.0	April (abril)	Composting Facility (Alta	I will make arrangements to pick i
Shepherdess Land	Ventura	Perennial cro	100.0	October (Agromin Ag. Composting	I can pay part of the freight cost a
West East Herbal Pl	Sonoma	Perennial cro	3.0	Septembe	West Marin Compost	I will make arrangements to pick i
Live Oak Farm	Sonoma	Annual crops	50.0	January (e	Cold Creek Compost, Inc	I can pay part of the freight cost

Reporting

Compost Connector Portal Example

	Farm Name 👻	Project Completion Date	Invoice from supplier	Tons Procured v	True Cost	Modeled CO2e v	County .
1	Sample Farm	6/6/2022	$ \begin{array}{c} B_{1} & \\ B_{2} & \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	64.38	\$4,008.22	35.0	San Mateo
2	Apple Farm	5/30/2022		30.46	\$1,305.05	21.0	San Diego
3	Ray Ranch	4/8/2022	1	113.41	\$6,577.78	216.0	San Mateo
4	Love Farm	6/9/2022		221.44	\$9,214.56	Application rate is outside of	Santa Cruz
5	Organic Farms	6/14/2022		10.00	\$650.00	5.0	Santa Clara
6	Sun Ranch	4/18/2022		9.00	\$900.00	Application rate is outside of	Monterey
7	Tall Oaks	5/4/2022		75.60	\$3,980.00	Application rate is outside of	Sonoma
8	Ethic Apples	5/18/2022		3.67	\$406.20	Application rate is outside of	Sonoma
0.2	Ray Catcher Farm	5/20/2022		189.00	\$10,070.00	Application rate is outside of	Sonoma
10	Blessed Ranch	6/17/2022		16.65	\$1,152.75	17.0	Riverside
11	Dynasty Orchards	5/24/2022	1.75 1.11 1.11 1.11	614.25	\$27,500.00	1056.0	Solano
12	Rescue Ranch	5/19/2022		195.52	\$14,233.86	Application rate is outside of	Yolo
13	Wine Vineyards, LLC	6/1/2022		553.30	\$40,280.24	720.0	Mendocino

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EAR Report

SB 1838 Implementation Record Tool guide.

Sample County Contract # 12345, Task order #0012

Sample County Contract # 12545, Task Order #0012												
Project Name	Date	Product	Quantity	Unit		Direct Service Provider Name	Product Supplier Name	Product Supplier Location	Product Supplier Contact Information	Details of Product Use	Location of Product Application	Invoice or Receipt File Location
Sample Farm	6/6/22	Compost	64.4	Tons	Direct Service Provider	Zero Foodprint	Central Coast Compost LLC	1206 Shore Rd. Hollister, 95023	(831) 809-6900	Regenerative Agriculture	San Mateo, CA	All documentation in Zero Foodprint Report
Apple Farm	5/30/22	Compost	30.5	Tons	Direct Service Provider	Zero Foodprint	San Pasqual Valley Soils	15777 Old Milky Way San Diego, 92027	(760) 746-4769	Regenerative Agriculture	San Diego, CA	All documentation in Zero Foodprint Report
Ray Ranch	4/8/22	Compost	113.4	Tons	Direct Service Provider	Zero Foodprint	Central Coast Compost LLC	1206 Shore Rd. Hollister, 95023	(831) 809-6900	Regenerative Agriculture	San Mateo, CA	All documentation in Zero Foodprint Report
Love Farm	6/9/22	Compost	221.4	Tons	Direct Service Provider	Zero Foodprint	Z-Best Composting Facility	980 State Hwy. 25 Gilroy, 95020	(408) 313-0444	Regenerative Agriculture	Santa Cruz, CA	All documentation in Zero Foodprint Report
Organic Farms	6/14/22	Compost	10	Tons	Direct Service Provider	Zero Foodprint	Central Coast Compost LLC	1206 Shore Rd. Hollister, 95023	(831) 809-6900	Regenerative Agriculture	Santa Clara, CA	All documentation in Zero Foodprint Report
Sun Ranch	4/18/22	Compost	9	Tons	Direct Service Provider	Zero Foodprint	Central Coast Compost LLC	1206 Shore Rd. Hollister, 95023	(831) 809-6900	Regenerative Agriculture	Monterey, CA	All documentation in Zero Foodprint Report
Tall Oaks	5/4/22	Compost	75.6	Tons	Direct Service Provider	Zero Foodprint	Recology Jepson Prairie Organics Composting Fac	6426 Hay Road Vacaville, 95687	(707) 678-4718	Regenerative Agriculture	Sonoma, CA	All documentation in Zero Foodprint Report
Ethic Apples	5/18/22	Compost	3.7	Tons	Direct Service Provider	Zero Foodprint	Grab N' Grow	2759 Llano Road Santa Rosa, 95407	(707) 575-7275	Regenerative Agriculture	Sonoma, CA	All documentation in Zero Foodprint Report
Ray Catcher Farm	5/20/22	Compost	189	Tons	Direct Service Provider	Zero Foodprint	Recology Jepson Prairie Organics Composting Fac	6426 Hay Road Vacaville, 95687	(707) 678-4718	Regenerative Agriculture	Sonoma, CA	All documentation in Zero Foodprint Report
Blessed Ranch	6/17/22	Compost	16.7	Tons	Direct Service Provider	Zero Foodprint	*Agriscape, Inc.*	37760 Borel Rd. Murrieta, 92563	(951) 696-0651	Regenerative Agriculture	Riverside, CA	All documentation in Zero Foodprint Report
Dynasty Orchards	5/24/22	Compost	614.3	Tons	Direct Service Provider	Zero Foodprint	Recology Jepson Prairie Organics Composting Fac	6426 Hay Road Vacaville, 95687	(707) 678-4718	Regenerative Agriculture	Solano, CA	All documentation in Zero Foodprint Report
Rescue Ranch	5/19/22	Compost	195.5	Tons	Direct Service Provider	Zero Foodprint	*Cold Creek Compost, Inc.*	6000 Potter Valley Road Ukiah, 95482	(707) 485-5966	Regenerative Agriculture	Yolo, CA	All documentation in Zero Foodprint Report
Wine Vineyards, LLC	6/1/22	Compost	553.3	Tons	Direct Service Provider	Zero Foodprint	*Cold Creek Compost, Inc.*	6000 Potter Valley Road Ukiah, 95482	(707) 485-5966	Regenerative Agriculture	Mendocino, CA	All documentation in Zero Foodprint Report

Climate Benefits

Example County Compost Procurement

November 1, 2021- December 31, 2021

Powered by Zero Foodprint



Executive Summary: Using funds supplied by Example County, Zero Foodprint was able to supply two farms with compost totaling nearly 570 tons spread over 119 acres. This will sequester 1,597 tons of CO2 equivalent over three years.

Tons of Compost Procured: 569.7

Compost Attributable to The County: 569.7 Tons/1139.4 Cubic Yards

Total Acres Treated: 119.1 Total Modeled Climate Benefit: 1597 Metric Tons CO2e

Modeled Climate Benefit Attributable to The County: 1597 Metric Tons CO2e

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Project	Names

Example Farm - 234.0 tons Example Orchard - 335.7

Practices

Compost Application Perennial Crop

Compost Application Rangeland (CDFA 5-8 tons/acre)

Compost Producer(s)

Central Coast Compost LLC

Recology Jepson Prairie Organics Composting Fac









STRATEGY Adopted March 2021

Strategy 9. Scale Up the Infrastructure for Sequestration

Goal: Build the physical, social, and economic capacity for successful carbon sequestration.

Objectives:

- 9.1 Create a "sequester local" program to help Sonoma County businesses reinvest carbonoffset dollars within the community.
- 9.2 Secure permanent Resource Conservation District funding for scaling carbon farming, starting with \$2 million and increasing to \$20 million per year within the next ten years.
- 9.3 Scale up the infrastructure necessary to fully implement Carbon Farm Plans.
- 9.4 Develop a comprehensive residential carbon gardening education campaign.
- 9.5 Develop a carbon sequestration training for landscape professionals, and County and municipal parks and recreation staff.
- 9.6 Use policies, civic incentives, and educational efforts to take action and build civic engagement toward achieving Sonoma County's ambitious climate action goals.

Potential implementation partners

- Sequester local program: REcology, Zero Foodprint, Zero Waste Sonoma, and
- local businesses
- Secure permanent RCD funding: Resource Conservation Districts, Zero



THANK YOU

Leo Beckerman LEO@ZEROFOODPRINT.ORG



Zero Foodprint