

RESOURCE
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DISTRICT
Greater San Diego County

Healthy Soil Program projects RCD of Greater San Diego County

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FIRE SAFETY



SCHOOL
EDUCATION



COMMUNITY
GARDEN



HABITAT
RESTORATION



POLLINATOR
SUPPORT



CARBON
FARMING

OUR PARTNERS:

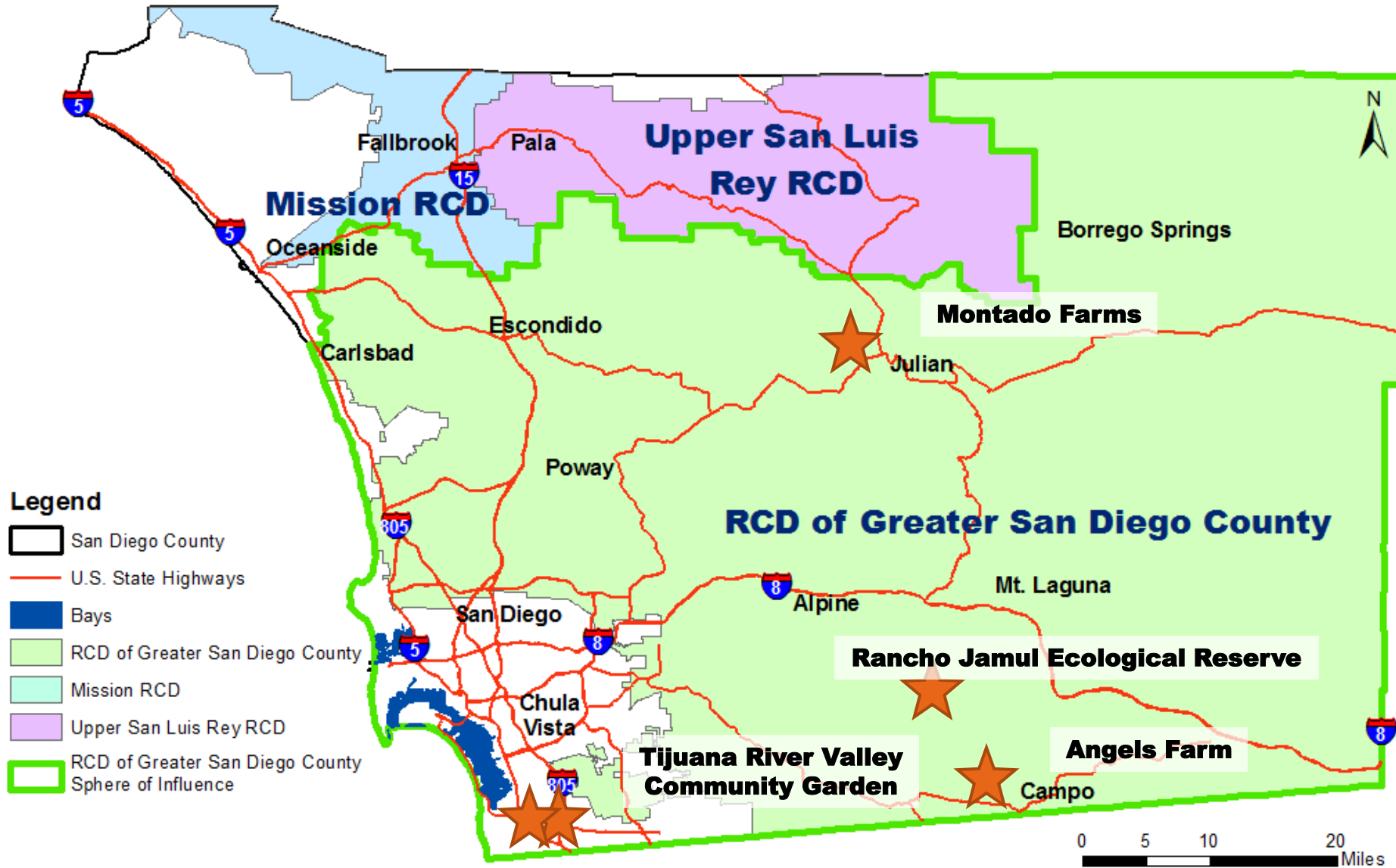


RCD related carbon farming projects

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Montado Farm, Santa Ysabel

- ▶ First Carbon Farm Plan in San Diego, by Dr. Chandra Richard



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Tijuana River Valley, Hedgerow

January 2018
Planting day



One year later



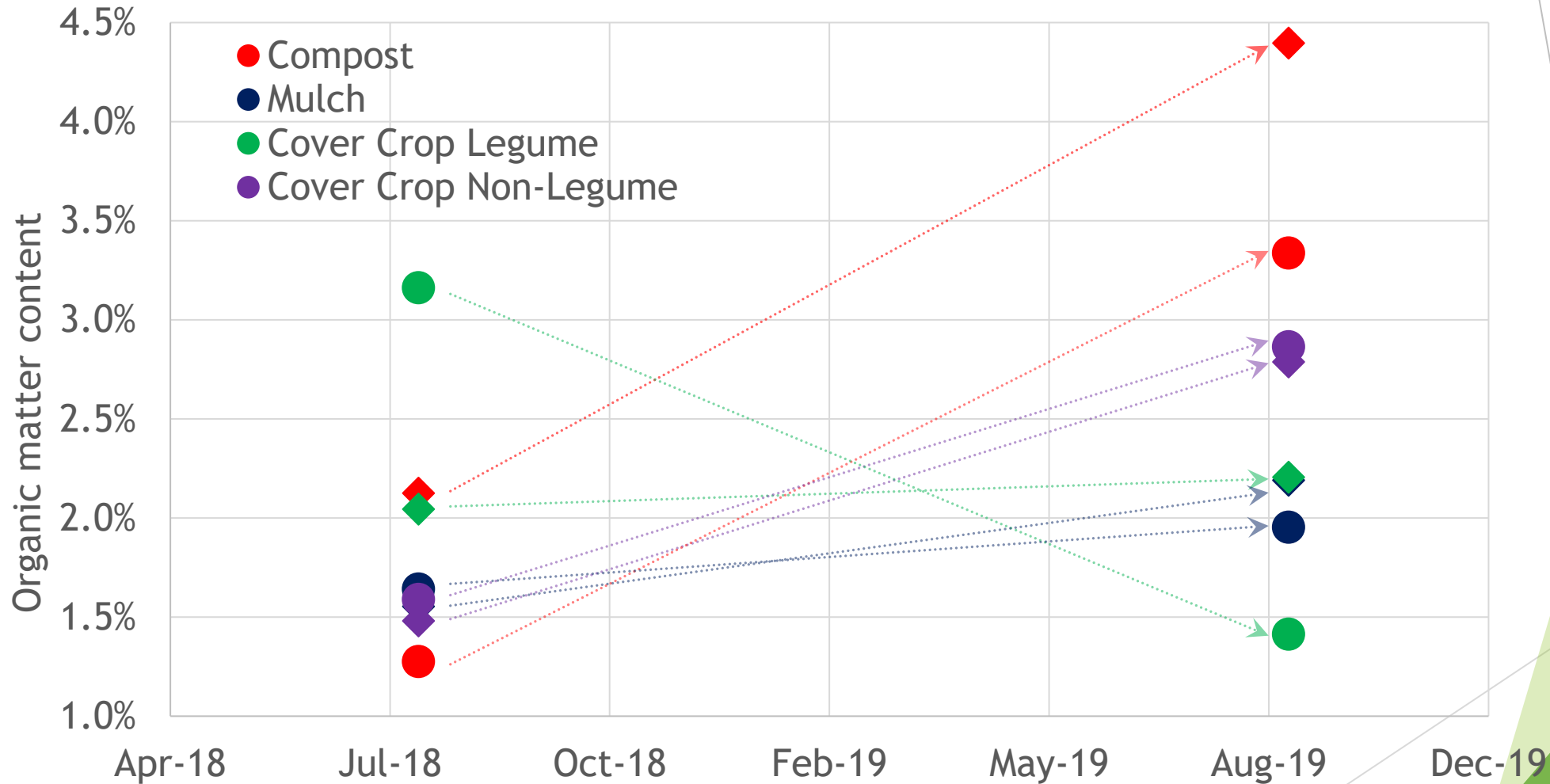
Tijuana River Valley

- ▶ Healthy Soils Demonstration Project grant funded by CDFA
- ▶ Started August 2018
- ▶ Farmed by our Head Gardener, Gregg Cady
- ▶ 3 practices (with test and control plots)

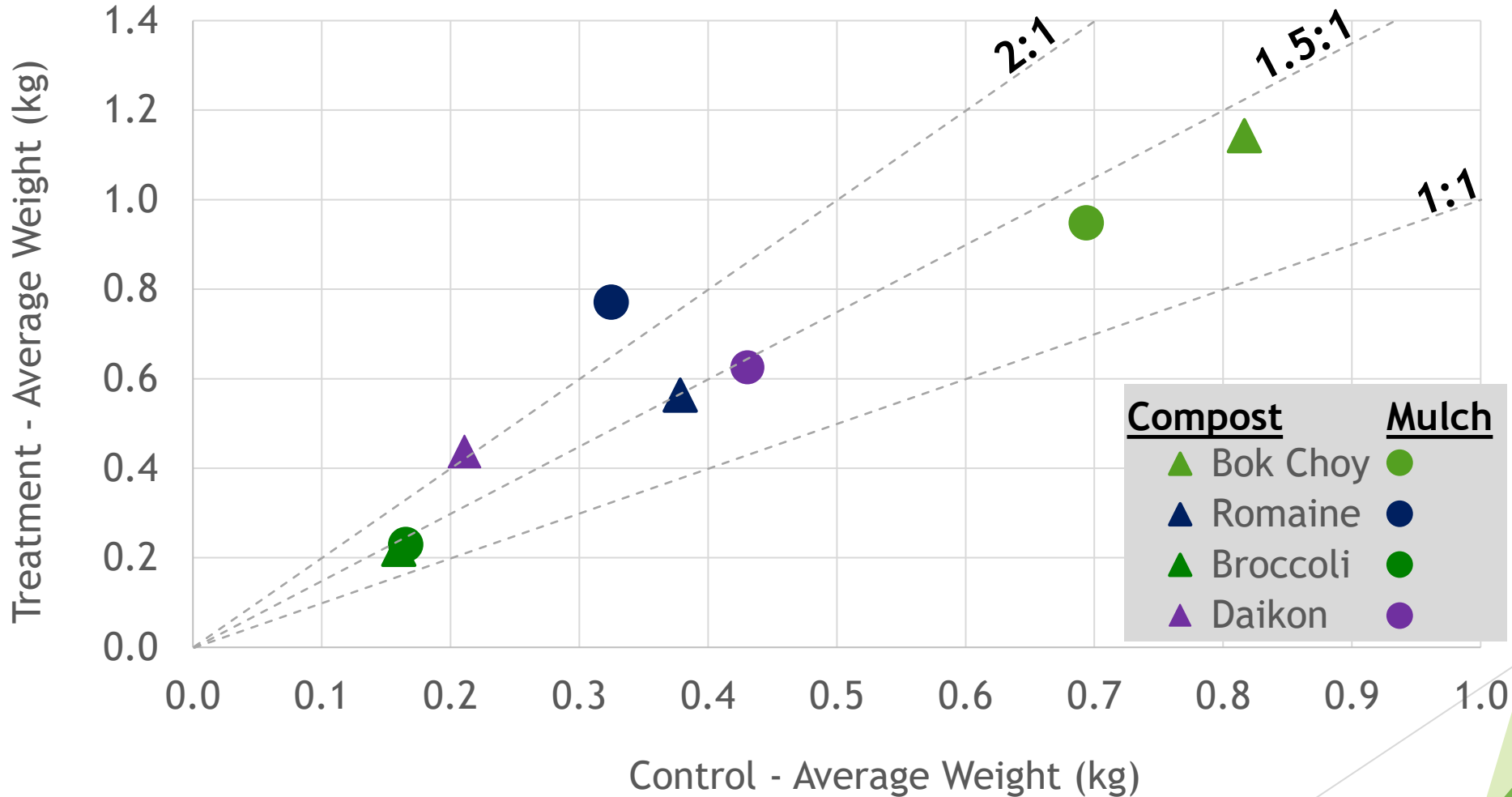
Compost
Mulch
Legume cover crop
Non-legume cover crop



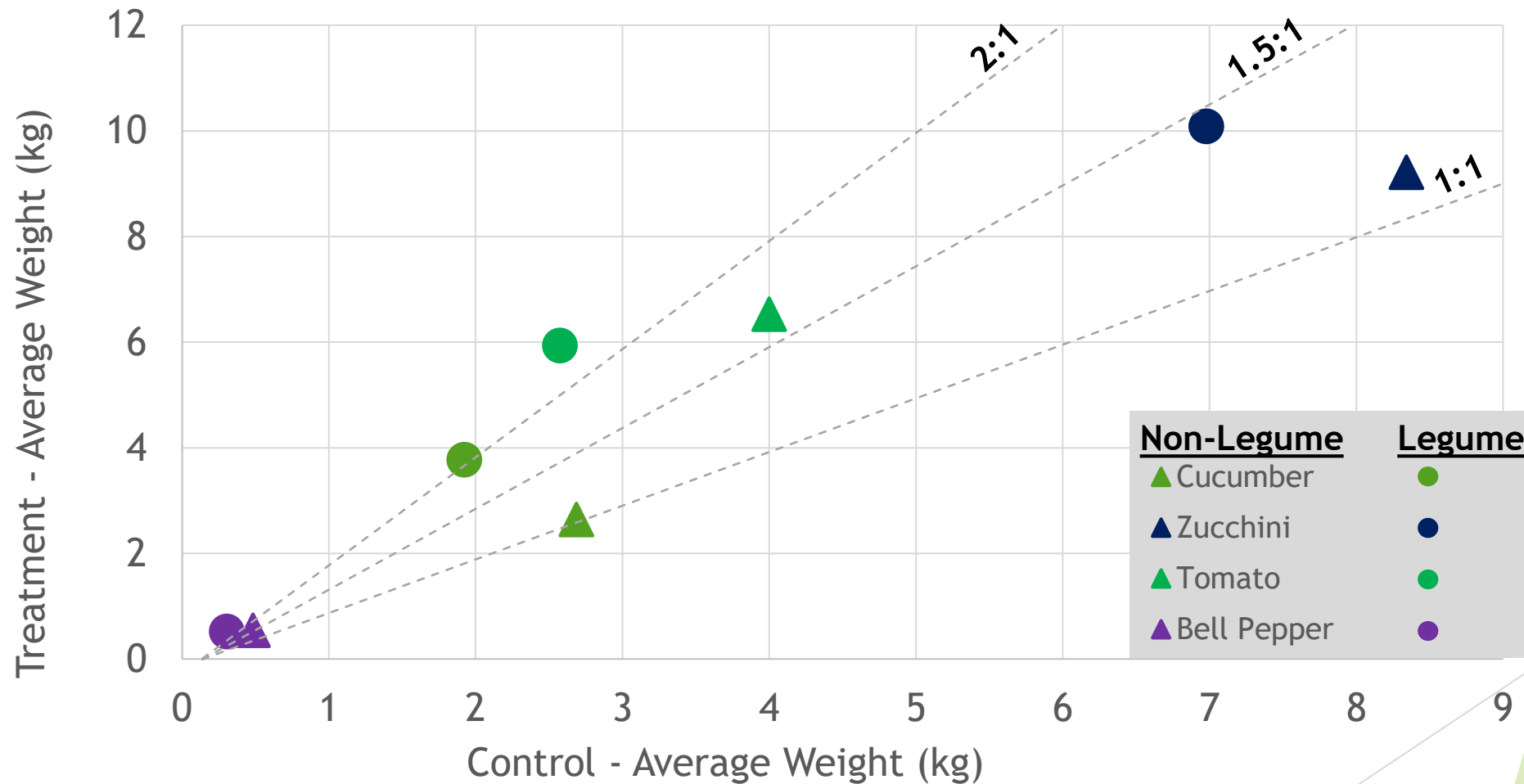
Increased soil organic matter in most fields



Crop yields - compost & mulch



Crop yields - cover crops



Rancho Jamul Ecological Reserve

- ▶ Healthy Soils Demonstration Project grant funded by CDFA, 2019
- ▶ Prescribed grazing



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Cap and Trade
Dollars at Work

Angels Farm, Campo

- ▶ Healthy Soils Incentives Program, funded by CDFA
- ▶ Started in 2018



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Angels Farm, Campo

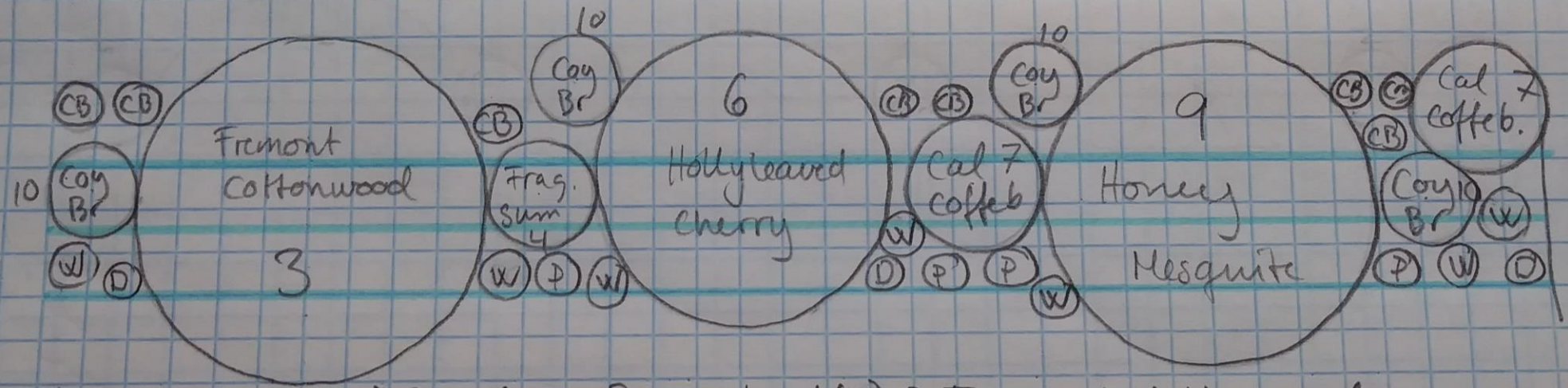
- ▶ Implemented practices:
 - ▶ Legume cover crops
 - ▶ Compost application
 - ▶ Hedgerow
- ▶ Alterations were made to the hedgerow plan
- ▶ Mistakes were made regarding the compost application



-  **Field 1:**
Replacing synthetic fertilizer with compost, CN >11
18 acres, Sequestering 77 metric tonnes CO₂ E per year
-  **Field 1:**
Legume cover crop,
18 acres, Sequestering 5 metric tonnes CO₂ E per year
-  **Field 2:**
Hedgerow, 3,405 feet, 0.63 acres
Sequestering 5 metric tonnes CO₂ E per year
-  Potential future compost facility



Angels Farm, Implementation



1 = White sage (W) 2 = Cali. Buckwheat (CB) 3 = Fremont Cottonwood
4 = Fragrant sumac 5 = Deergass (D) 6 = Hollyleaved Cherry 7 = Coffeeberry
8 = Palmer's abutilon (P) 9 = Honey Mesquite 10 = Coyote Brush



Final order

	Species	Total number of plants	price per plant - 1 gal containers	price
White sage	Salvia apiana	108	\$3.5	\$378
California buckwheat	Eriogonum fasciculatum	144	\$3.5	\$504
Fremont cottonwood	Populus fremontii ssp. Fremontii	18	\$3.5	\$63
Fragrant sumac	Rhus aromatic	18	\$5.25	\$94.5
Deergrass	Muhlenbergia rigens	72	\$3.5	\$252
Hollyleaved cherry	Prunus ilicifolia	18	\$10.25	\$184.5
California coffeeberry	Rhamnus californica *	36	\$4.5	\$162
Palmer's abutilon	Abutilon palmeri	72	\$5.25	\$378
Honey Mesquite	Prosopis glandulosa	18	\$5.25	\$94.5
Coyote brush	Baccharis pilularis	90	\$3.5	\$315
*may be changed to another variety			Estimated total price	\$2425.5
			Cost for transportation	\$125

Additional costs: plastic for weed suppression, gopher cages and irrigation

Angels Farm, Payment rates

3. Establishment of Woody Cover Practices											
Management Practice	Practice Implementation (COMET-Planner)	Scenario Name	Payment Unit	Payment Rate	Acres	Feet	# of years to implement	Total Cost of Practice	Grant Amount Requested	Match Amount	In-Kind Contribution
Hedgerow Planting (CPS 422)	Replace a Strip of Cropland with 1 Row of Woody Plants	Single row with wind protection	Ft	\$5.94	0.625	3405	1	\$ 20,225.70	\$ 18,225.70	\$ 2,000.00	
	Replace a Strip of Grassland with 1 Row of Woody Plants	Single row with wind protection	Ft	\$5.94	0.000		1	\$0.00	\$0.00		

1. Soil Management Practices											
1.1 Cropland Management Practices											
Management Practice	Practice Implementation (COMET-Planner)	Scenario Name	Payment Unit	Payment Rate	Acres	Feet	# of years to implement	Total Cost of Practice	Grant Amount Requested	Match Amount	In-Kind Contribution
Cover Crop (CPS 340)	Add Legume Seasonal Cover Crop to Irrigated Cropland	General purpose	Ac	\$123.82			2	\$0.00	\$0.00		
	Add Legume Seasonal Cover Crop to Non-Irrigated Cropland	General purpose	Ac	\$123.82	18		2	\$ 4,457.52	\$ 2,957.52	\$ 1,500.00	
	Add Non-Legume Seasonal Cover Crop to Irrigated Cropland	General purpose	Ac	\$123.82			2	\$0.00	\$0.00		
	Add Non-Legume Seasonal Cover Crop to Non-Irrigated Cropland	General purpose	Ac	\$123.82			2	\$0.00	\$0.00		
1.2 Compost Application Practices (CDFA)											
Management Practice	Practice Implementation (Compost-Planner)	Scenario Name	Payment Unit	Payment Rate	Acres	Application Rate (dry tons/acre)	# of years to implement	Total Cost of Practice	Grant Amount requested	Match Amount	In-Kind Contribution
Compost Application to Annual Crops (CDFA)	Compost(C:N ≤11) application to annual crops		dry ton/acre	\$35.00			2	\$0.00	\$0.00		
	Compost(C:N ≥11) application to annual crops		dry ton/acre	\$35.00	18	5	2	\$ 6,300.00	\$ 4,800.00	\$ 1,500.00	



Example of the old and new payment rates

Angels Farm scenario, 18 acres

Practice	Total practice cost 2018 2 years funded, 3. year is cost share	Funds Requested 2018	<u>NEW FUNDING, 2020</u> All 3 years are funded
Hedgerow	\$20,225	18,225	\$36,700
Cover crops	\$4,457	\$2,957	\$5,761
Compost	\$6,300	\$4,800	\$21,600

Now 3 years funded compared to only the two first years in previous funding cycles.



2020 application

- ▶ Simplified application process
 - ▶ New online tools
- ▶ Higher rates for most practice implementation
- ▶ I still anticipate challenges navigating the NRCS practice standards
- ▶ I had a lot of correspondence with the NRCS in 2018...



Demonstration projects

- ▶ Must partner with a Not-for-profit entity
- ▶ Outreach component
- ▶ Monitoring and reporting
- ▶ More staff time for implementation
 - ▶ There are no specific payment rates for practice implementation
 - ▶ We hired a farmer to implement the practices at our demo plot
 - ▶ The rancher we work with receives a monthly salary from the grant

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Questions?

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Thank you