No Farms No Food

American Farmland Trust
SAVING THE LAND THAT SUSTAINS US

RED H FARM

Stewardship Profiles in California Agriculture
Environmental Leadership with Soil Health, Water Efficiency, GHG Mitigation and Biodiversity

Red H Farm proprietor Caiti Hachmyer grew up in Sonoma County. After graduating from UC Berkeley, Caiti held various nonprofit positions in sustainable food systems advocacy. The Great Recession and the corresponding lack of employment opportunities in the Bay Area drove her to abroad to work on a farm, where she learned a useful new skill set. When she returned to the United States in 2009, she founded Red H Farm. The farm consists of two parcels totaling 1.3 acres. One parcel is on her family's land in Sebastopol, and the other is located at the Permaculture Skills Center where Caiti teaches. Red H farm also serves as the farm school demonstration site.

Using biointensive methods, Caiti grows tomatoes, celery, cucumbers, specialty peppers, winter and summer squash, lettuce, brassicas and sunflowers. Red H Farm sells its produce through a community supported agriculture (CSA) program as well as at the Sebastopol Farmers' Market and to several restaurants.

ACHIEVEMENTS

- Reduced water usage by 80,000 gallons
- Increased soil organic matter content
- Increased crop yields
- Eliminated soil erosion

PROBLEM

Caiti's family land sits low on the landscape, which as a result is swampy in the winter and wet until late spring, which prevents Caiti from using a tractor until June. The soil is a sandy loam, but two inches down, there is clay layer that compounds the problem. Last year the property's 70 year old well collapsed, making irrigation impossible. Flea beetles, aphids and sowbugs were causing extensive damage to Caiti's crops. Another issue of concern for Caiti is that agriculture is a significant contributor of greenhouse gases; she wants to be part of the solution and mitigate climate change.

"Transitioning to no-till can be an expensive process, but in the end it results in environmental benefits, increases productivity, and saves money"
-Caiti Hachmyer

SOLUTION IMPLEMENTATION AND MANAGEMENT

Two years ago, Caiti began to reduce tillage, ultimately embracing no-till farming, which fosters carbon sequestration. By implementing complementary practices such as applying compost and wood chip mulch, she has been able to conserve soil moisture and enrich the soil with slow-release nutrients. Keeping the land covered, either with plants or mulch, both stores carbon in the soil and protects the soil from erosion during weather events. She has worked to build soil organic matter and nutrient content by top dressing the fields with approximately 1-3 inches of compost and mulch amendments between crops. She also applies oystershell, rock dust and, occasionally, organic fertilizer on heavy feeding crops.

Careful crop selection has been especially important to Caiti's success, considering her field conditions. She found that in the winter celery grows well in the lowest part of her field, and dry-farmed crops like tomatoes and winter squash grow well later in the year.

Typically Caiti begins irrigating in June or July, and in non-drought years as late as August. Another way Caiti deals with the dearth of irrigation is by planting only healthy plants with established root systems and planting them deep to facilitate plant water uptake. She believes that ecologically-based soil management fosters healthy plants that are more resistant to pests, and that planting harvestable and primarily native perennials (currants, elderberries, blueberries) in hedgerows enhances biodiversity and encourages beneficial insectary development.

CHALLENGES/OBSTACLES OVERCOME

Weed pressure has been much higher this year, a problem compounded by the wet ground. Caiti has found that the best strategy for controlling weeds is to cover them with woven reusable plastic to solarize them and then prep the ground for planting. She has found this practice to be a useful complement to applying mulch and compost layers that are thick enough to suppress weeds, but thin enough to encourage plants to root deeply.

Caiti has found that no-till methods not only make sense in terms of decreasing fossil fuel emissions, but reducing the farm's reliance on tractors increased spring production capacity because she can always have plants in the ground.

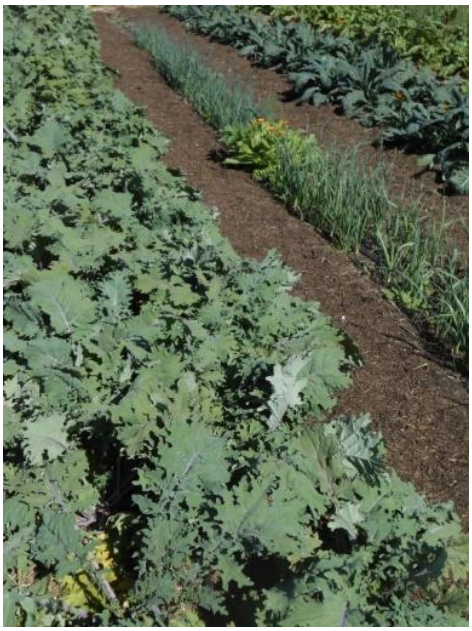
STEWARDSHIP PRACTICES

- Soil Health
- Water Efficiency
- GHG Mitigation
- Biodiversity

PROJECT PARTNERS

- Ecological Farming Association
- Ecological Farmers and Ranchers Alliance (EFRA)
- North Coast Farmers Guild
- Permaculture Skills Center
- Sonoma Resource Conservation District

Because the land is flat, the ground is covered with either growing plants, plant residue, or woven plastic, and the soil is healthy, nutrient runoff has not been an issue.



Caiti was able to counteract the aphid problem that destroyed most of last year's greens by increasing the diversity of her crops. And, rather than using insecticides to manage the flea beetles that were decimating all of the brassicas, Caiti placed floating row covers as a barrier to protect the plants from insect damage. Intercropping also aided Caiti's pest management efforts. She began appyling Sluggo Plus™, which is certified for organic production, to control sowbugs. Caiti has adopted these techniques over the years after learning about them by studying agroecology, doing apprenticeships, and developing relationships with other growers.

MEASURING SUCCESS

Although Caiti's main farm site becomes saturated in the winter, transitioning to no-till farming has eliminated erosion, improved weed control, reduced carbon offgassing, increased organic matter content, and improved the soil's water holding capacity and crop yields. Caiti estimates she has reduced her water usage by 80,000 gallons by not irrigating her 0.75 acres between July and October, and that she saved $20,000 by forgoing a new well. Now that the previously sandy soil holds moisture, flooding is reduced. Finally, as a result of installing beneficial and pollinator-friendly vegetative habitat, Caiti has seen an increase in gopher snakes, birds, lizards and other species that complement her IPM strategy.

For more information about the stewardship practices discussed in this profile, please contact the farmer directly. You can reach Caiti Hachmyer by phone at (707) 235-2596 or by email to caitihach@gmail.com .

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