

California's Healthy Soils Program Is Mainstreaming Climate-Smart Farming

BY TILDE HERRERA

After Napa's Atlas Fire destroyed 75 percent of Hossfeld Vineyards in 2017, the family-owned winery faced the expensive prospect of repairing its soil—the top layer had been stripped of all organic matter—and rebuilding a healthy ecosystem. Thankfully, says winemaker Hayley Hossfeld, the winery received an \$82,000 grant to help pay for hedgerow planting, cover crops, compost application, and mulching—practices that improve soil and its ability to sequester carbon.

Now three years into the grant, which is part of California's groundbreaking Healthy Soils Program (HSP), the drought-tolerant cornflowers and phacelia Hossfeld planted have become popular with insects and wild bumblebees, and her cover crops and hedgerows are thriving. "This program helped me carry out my goal to improve the organic matter in my soil," she says. "I don't think I could have done that without it."

The state initiative was hailed as a "win-win policy" when it was established in 2016 for its potential to reduce greenhouse gas emissions while boosting soil fertility, drought resistance, and crop yields. The Healthy Soils Program (HSP) funds two project types: incentive projects to help farmers and tribal communities implement healthy soil practices, and demonstration projects, where farmers collaborate with universities, nonprofits, or resource conservation districts to showcase healthy soil practices for education and research purposes.

In its first three years, HSP funded more than 640 incentive and demonstration projects worth \$42.1 million. Those figures soared in the 2021–2022 fiscal year, when the program funded 940 incentive and demonstration projects with \$66 million that year alone, the California Department of Food and Agriculture (CDFA) announced in June. CDFA says that since 2017, HSP has awarded more than \$107 million in projects that will reduce greenhouse gas emissions by an estimated 367,717 metric tons of carbon dioxide equivalent.

That's not the only way that HSP has evolved over the past six years:

- Project types: HSP incentive projects now cover more than 25 practices, including whole orchard recycling; silvopasture; nutrient management, which requires farmers to reduce their fertilizer use by 15 percent; and filter strips. The most common projects are compost application, cover crops, and hedgerow planting. Demonstration projects include many of the same practices, along with others that have been less studied such as biochar applications, vermicomposting (worm-assisted composting), and mycorrhizal (fungi) application.
- Funding: HSP received zero funding in the 2017–2018 and 2020–2021 fiscal years before its budget rebounded with \$75 million in 2021–2022 and \$85 million in 2022–2023. But since the latest funding appropriation is considered a short-term budget surplus (and next year is likely to be slim), CDFA can't staff up. However, a tentatively approved block grant program will award larger grants to NGOs, universities, tribes, and other entities to administer HSP regionally.
- **Demand**: The number of farms interested in participating in HSP consistently outpaces the funding. For example, HSP awarded only 70 percent of the incentive applications it received last year. "If we reflect back on that first year or two, "says Brian Shobe, deputy policy director at **California Climate and Agriculture Network**, "we weren't sure if there would be enough demand. And every year, that funding has increased, and now we're over 10 times as much funding and we're seeing growing demand from producers. I think that's a success in itself."

What's more, the program has brought little-known practices into the mainstream, Shobe said. "The idea of healthy soils as a climate solution that can reduce GHG emissions and sequester carbon has been normalized within the legislature."

While HSP was a first for the nation, a slew of **similar programs** have since been approved in states such as New Mexico, Colorado, Maine, Maryland, and New York, which promise to further expand practices that stand to benefit farmers, underground ecosystems, and the climate.