

Oak Restoration

Freestone Ranch, Freestone, CA



Meet Jon & Misty Gay and Freestone Ranch

Jon and Misty Gay purchased land in Sonoma County and established Freestone Ranch as a grassfed, grass finished beef ranch in 2004. Since they started Freestone Ranch, Jon and Misty have focused on raising high quality beef cattle, improving habitat for wildlife, and increasing the abundance of native food plants on the ranch. Their goal is to take humans out of the center of the equation and create a space where humans are part of the fabric of place and part of a larger habitat. To learn more about the ranch, visit freestoneranch.com.

Farm at a Glance

COUNTY: Sonoma

FARM SIZE: 380 acres

PRODUCTS: Grassland fed and finished beef

SOILS: Loamy Upland



Goals for the farm

- Produce high quality healthy beef while improving the natural systems of the ranch
- Manage rangeland, cropland, pastureland and forestland to protect soil from erosion and increase production
- Maintain or enhance oak woodland, native grass or other plant communities
- Increase farm resilience to drought, flood and climate change
- Be part of the solution to climate change through carbon farming

Why Oak Restoration?

Planning for tree establishment

In 2015, the Gays partnered with Fibershed to develop a Carbon Farm Plan for the ranch. One of the recommended practices to increase on-farm carbon storage and biodiversity was tree and shrub establishment. Integrating trees into a farm or ranch landscape can provide many benefits including wildlife habitat, storing biomass in the soil, improving or restoring natural diversity, providing shade for livestock, and enhancing aesthetics.

Instead of buying young oaks to plant, the Gays are encouraging natural oak acorn distribution and protecting young saplings when they emerge. This strategy is yielding positive results, with oaks that are already adapted to on-site conditions. Misty shares, "The seed bank is still there, but young oaks need protection from livestock browsing and trampling."



An added bonus of encouraging on-site oak establishment is avoided costs of purchasing nursery stock. As any farmer or rancher knows, every penny counts and using resources you already have is good for the bottom line.

"The seed bank is still there,
but young oaks need
protection from livestock
browsing and trampling."

Wildlife and oaks

A strong connection exists between oaks and wildlife that rely on them for food and shelter. As Pavlik and his co-authors write in *Oaks of California*, "Native oaks and oak communities profoundly affect the variety and abundance of California wildlife... Hundreds of vertebrate species and thousands of invertebrate species are associated with California's oak landscapes... While food is a primary resource produced by oaks, of greater overall significance is the fact that oak communities contain the nooks, crannies, perches, and passages where animals live, breed and rest." (Pavlik et al., 2000, p75).

Jon and Misty noticed the scrub jays diligently moving and burying acorns around the landscape. While the jays took care of "planting", many of the young saplings did not survive without protection from livestock. The Gays are solving this problem by using temporary electric fencing around the young trees in order to give the oaks time and space to establish.

California Oak Resources

- Collecting, storing and planting acorns: <http://phytosphere.com/oakplanting/acorns.htm>
- Indigenous land stewardship: Anderson, K. (2013). *Tending the wild: Native American knowledge and the management of California's natural resources*. University of California Press.
- Restoration gardening: Lowry, J. L. (2007). *The landscaping ideas of jays: A natural history of the backyard restoration garden*. University of California Press.
- Oaks in rangeland settings: <https://oaks.cnr.berkeley.edu/livestock-management-on-rangelands/>
- Oaks of California book (referenced above): Pavlik, B.M., Muick, P.C., Johnson, S.G. & Popper, M. (2000). *Oaks of California*. Cachuma Press.

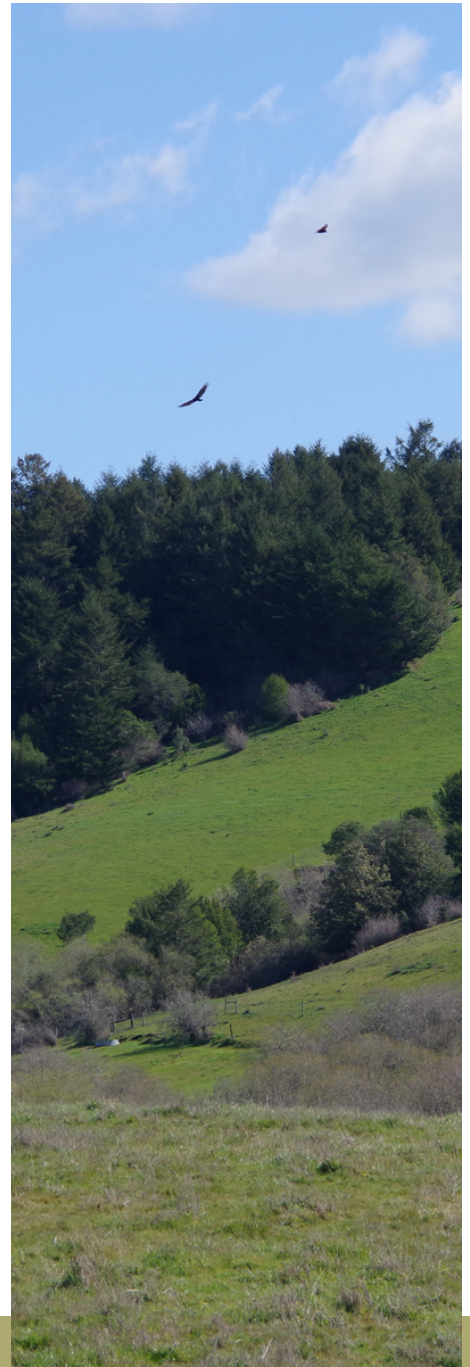
Challenges & Opportunities

There are many resources available for learning about oaks and how to engage in restoration activities. The Gays sought out permaculture classes at Occidental Arts and Ecology Center, and read books such as Judith Larner Lowry's *The Landscaping Ideas of Jays*, and M. Kat Anderson's *Tending the Wild: Native American Knowledge and the Management of California's Natural Resources*.

Jon and Misty's advice to anyone seeking to perform similar restoration activities is to start with smaller experiments, which are more manageable. Small experiments allow one to learn quickly from mistakes and spark ideas that can translate to larger projects.

One challenge is funding conservation activities that lie outside of financial incentive programs like the Natural Resources Conservation Service Environmental Quality Incentives Program (EQIP), or the California Department of Food and Agriculture Healthy Soils Incentive Program (HSP). In their words, "It's always easier to protect something you already have, like an oak sapling, but these conservation activities don't fit into traditional funding programs."

In addition to ranching in a way that is harmonious with nature, the Gays are committed to raising moderately priced beef for the local market. Instead of prioritizing upscale markets, their approach includes creative business modeling in order to maintain accessibility for the local community.



Getting Started

When Jon and Misty started Freestone Ranch, they contacted the following local organizations and agencies to help make a plan for how to steward the land:

- [Fibershed](#)
- [Gold Ridge Resource Conservation District](#)
- [USDA Natural Resources Conservation Service](#)
- [Laguna Foundation](#)
- [Occidental Arts and Ecology Center](#)
- [The Cultural Conservancy](#)

Authors: Emilie Winfield,* North Coast Soil Hub and William Hart, Gold Ridge Resource Conservation District. Thank you to Jon and Misty Gay for sharing their story and to Sophia Tsue and Jenna Kahn for photos. *Please direct any inquiries to emilie@marinrccd.org.