

Edge of a Healthy Rangeland

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the meadows and hills where splotches of yellow tidytips, buttercups and purple lupine can be seen. The hills are scented and alive with bees humming around green leaf manzanita, chamise, and toyon blossoms. The Valley Oak, Coast Live Oak and Madrone tree leaves are developing new hues of green color as the season moves to warmer daytime temperatures.

Over the past few years, Claire began to notice strange grass-like plants that differed from native specimens, especially during their seed development stage. Claire soon learned the plants were barbed goat grass (*Aegilops triuncialis*), which stand out because of stiff, coarse bracts that protrude at a 45 degree angle to the stem. Throughout California, barbed goat grass has become a problematic weed that is difficult to eradicate even with proper management. During a plant inventory of Claire's property, we identified purple star thistle, yellow star thistle and a few patches of medusa head grass. When sheep, goats, cattle and horses were imported to the Americas from Europe, weed seed adhered to their wool, hair and mane. Since that time these annual and perennial plants, along with hundreds more, have become a nuisance to livestock producers and those in cropping systems.

A ranch manager must make crucial decisions each and every year based on factors such as carrying capacity potential, accumulated and timely rainfall, class of animal, soil type, and terrain. Rotational grazing involves timing and careful planning of when to move livestock to select pastures and when to promote rest and recovery of the desired range plants so that over eating does not occur. Overgrazing occurs when the animal is allowed to bite off portions of the plant before full plant recovery occurs. Once the desired rangeland plant is weakened, the unwanted opportunist plants can easily take up what could be a permanent residence. It is most cost-effective to encourage and manage for strong stands of desirable grasses and forbs to obtain healthier livestock.

Claire was encouraged by Morgan Doran, Livestock Farm Advisor for Napa County, to try a weed trial on a small plot of ground using a registered herbicide. Differing amounts of herbicide were applied in predetermined plots through a study conducted by Joe DiTomaso of U.C. Davis, professor of Weed Science. Upon completion, the two-year study was completed, showed the correct dosage of herbicide to target purple and yellow star thistle in a California rangeland setting. Claire was cautioned that spraying is not a one-time cure but is permissible when other conservation practices are applied.

With supporting evidence, Claire was ready to create a five-year ranch plan in conjunction with her ranch lessee with NRCS technical and cost assistance through the Environmental Quality Incentives Program (EQIP) and guidance by Doran. Claire's range improvement costs were off-set at a rate that made it more affordable for her since "spraying, range seeding and electric fencing is not cheap," said Claire. "I am thankful for the assistance since I live on a retirement check, if you know what I mean." Claire will continue to receive periodic field visits from NRCS to view and discuss desirable plant responses to rotational grazing, pasture seeding, livestock herd density, and weed management.

Recently, I spoke with Claire at the ranch. We discussed other facets of ranch management, such as water quality issues and riparian enhancement. Ranchers are required to develop a ranch plan for their property as authorized by the federal government, which handed local control to Regional Water Quality Control Boards (RWQCB) under the state of California. This law was enacted to specifically target water quality. Ranchers have an opportunity to receive free ranch planning with the NRCS to meet this objective by requesting assistance, provided that participants are willing to carry out wise land use plans.

Because of Claire's dedication and strong ranching ethic, Claire's property is becoming very healthy rangeland.



Tidytips are a native wildflower in the Sunflower family.

Napa River Restoration Continues Through Rutherford AVA

Article courtesy of the St. Helena Star

The Rutherford Dust Society's groundbreaking environmental restoration project for the Napa River has created a mountain of soil.

"This must be the most valuable dirt in America," said Gretchen Hayes, project coordinator. "It is truly a mountain of Rutherford Dust, and the greatest wines in America are grown in this coveted red soil!"

The soil has been removed from steeply eroding river banks in order to provide fish habitat and restore the natural flow of the Napa River through the Rutherford American Viticultural Area.

For the past seven years, a river restoration team headed by Davie Pina, John Williams and Andy Beckstoffer of the Rutherford Dust Society has worked with a wide range of stakeholders to develop a long-range sustainability program for the Napa River as it passes through the Rutherford AVA, between Zinfandel Lane and Oakville Cross Road, south of St. Helena.

Since 1972, the river has cut down as much as 15 feet, creating a simplified channel with degraded fish habitat and severely eroding banks. Twenty-three local growers have volunteered to sacrifice nearly 20 acres of vineyards to restore the river to a more natural condition. "Our mission is to work collaboratively with neighbors and agencies to stabilize river banks, reduce the impacts of flooding, protect and enhance fish and wildlife habitat, reduce Pierce's disease pressure on vineyards and provide ongoing education about the river and its watershed," said Beckstoffer.

In 2009, the David Guggenhime Family and Quintessa Estate were the first properties to undergo restoration construction. This past summer, The Ranch Winery, Frog's Leap, Caymus and Carpy-Connolly Ranch provided for the wholesale setback of agricultural berms into valuable vineyard land to widen the riparian corridor, create refuge for young salmon and steelhead, and attenuate flooding. In 2011, Emmolo, Mee, Round Pond, Honig and Sequoia Grove will complete the first half of the project between Zinfandel Lane and the Rutherford Cross Road, and at Sequoia Grove vineyards.

"It takes Rutherford dust to grow great Cabernet."

-André Tchelistcheff

"This is a pioneering effort, to my knowledge the most ambitious river restoration project to date proposed on private property in California," said Hayes. "The Rutherford Reach Restoration Project is enhancing four and a half miles of the Napa River from the perspective of both protecting private property and the river's ecological value."

To date, six landowners have rededicated seven acres of vineyard to the river corridor worth \$2.1 million.

Public funding critical to advancing this initiative has been provided by the California Department of Fish and Game, the Coastal Conservancy, the State Water Board, the American Recovery and Reinvestment Act, and the California Department of Parks and Recreation Salmonid Habitat Conservation Fund. Napa County matches all funds raised on behalf of the project and is overseeing construction.

Landowners along the Rutherford Reach are dedicated to restoring the river for future generations, and have funded a Channel Maintenance District for the purpose of maintaining the restoration for 20 years.



These cut slopes along the river have now had erosion control fabric added and are being revegetated next month.

Pictures courtesy of Gretchen Hayes

