



United States Department of Agriculture
Natural Resources Conservation Service

Benefits of Conservation Planning Landowner Profile



“NRCS taught me a lot. They introduced me to cover crops, and that’s worth a million dollars.”

— Philip LaRocca

LaRocca Vineyards

Management Goals

- Restore productive topsoil;
- Minimize soil erosion;
- Eliminate gullies;
- Increase soil organic matter;
- Improve crop production;
- Provide adequate stock water;
- Provide adequate forage;
- Provide habitat for wildlife;
- Control forest encroachment;
- Improve pest control;
- Improve nutrient management.

Conservation Practices

- Cover crops;
- Composting and mulching;
- Fencing;
- Watering facility and pipeline;
- Pest management;
- Nutrient management;
- Field borders;
- Upland wildlife habitat management;
- Range planting;
- Prescribed grazing;
- Access road.

Cover Crops and Composting Key to Vineyard Restoration Success

When Phil LaRocca first took over what is now LaRocca Vineyards in the highlands of Butte County, it was “pretty much just bare dirt.”

The previous owner had farmed a large vineyard here, and the location was well suited for producing excellent wine grapes. But constant disking for weeds throughout the growing season and other unsuccessful cultivation methods had mostly ruined the land, and he had given up.

Severe erosion on the steep hillsides had washed away the topsoil. Wide gullies and deep ditches had formed throughout the vineyard, and the surrounding forest was encroaching into the unpruned and neglected vines.

The desolated soil was rock-hard, devoid of crucial organic matter. LaRocca says that you could actually watch the water— as it was raining — bounce off the soil. “The gullies formed by erosion were so bad in some spots that you couldn’t drive a tractor over them,” LaRocca said.

The land at that time, nearly 25 years ago, looked nothing like it does today. But when LaRocca looked out at that deteriorated landscape — the crusty brown earth, the gullies, the dead and dying vines — he had a vision. He saw what he knew the land could be— what he would make it— fertile and green.

LaRocca is an organic farmer. His family, who came from Sicily, had always farmed that way. They didn’t call it organic in years past, but that’s what it was. LaRocca’s grandparents and uncles grew fruit and vegetables using traditional methods that relied on farming skill and prevention rather than synthetic chemical products.

LaRocca said that when he started he was the only one in the county operating an organic commercial vineyard. As he searched for help in his restoration project, it seemed that nobody knew quite how to deal with him and organic farming.



Phillip LaRocca, owner and founder of LaRocca Vineyards and producer of award-winning wines.



LaRocca was able to save many of the mature vines that were already there.

LaRocca first “teamed up” with the Natural Resources Conservation Service (NRCS) in the mid 1980’s. “At that time there wasn’t an NRCS office in Butte County,” LaRocca said. “So I worked with Wendell Gilgert, the NRCS district conservationist in Glenn County, and Fred Thomas, an agricultural consultant in Butte County. Luckily they both had some understanding of organic farming.”

LaRocca said that he initially signed up for cost-share assistance through the old Agricultural Conservation Program (ACP). “ACP funding was very limited,” he said. “But the information that NRCS had available was vast. And if they didn’t have it, they would direct you to it.”

Gilgert and Thomas helped LaRocca to assess his resource issues and to work out a long range restoration plan. “Wendell introduced me to Fred,” LaRocca said. “Fred came out here, and the first thing he said was to take the disk and throw it off a cliff! Together we were able to work out a whole program of composting and cover crops to restore the quality of the soil,” he said.

NRCS helped LaRocca with planning, technical assistance and cost-share assistance through the Environmental Quality Incentives Program (EQIP) to restore the land to what it is today: a fertile and productive vineyard capable of producing a variety of premium organic wines in a sustainable way.



When clearing brush, LaRocca chips the debris rather than burning. He says it costs more, but “it’s the right thing to do.” He also leaves buffers and pockets of brush and some trees as islands of habitat for birds and other wildlife.

“Practices that Phil has implemented include cover crops, lots of composting and mulching to rebuild the soil, an access road, fencing, and management for upland wildlife habitat,” said NRCS Soil Conservationist Gabriel Garbarino, who works closely with LaRocca.

“I started by pulling out brush from the encroaching forest, LaRocca said.

“We chopped it up and threw it into the gullies and ditches, composting until we built up the soil. I also composted tons and tons of ruined alfalfa that I got from a neighbor. For more than a year we filled the ditches with rotted alfalfa.”

“In the early days, we were putting on lots of lime,” LaRocca continued. “We had to adjust the soil because the calcium-magnesium ratio was totally out of balance. We were putting on 5 to 6 tons of compost and 5 to 6 tons of lime per acre, and manure, just pouring on whatever I could get my hands on.”

With EQIP assistance, LaRocca established permanent cover crops throughout his 110-acre vineyard. “Through years of experimentation Phil has come up with a carefully tailored mixture of grasses and legumes called the LaRocca Mix,” said Garbarino. “That mixture benefits the soil and vineyard in many ways: holding the soil in place, building organic matter, increasing nitrogen, improving tilth and water percolation, suppressing weeds, and even providing pest control,” he said.

LaRocca likes to share what he’s learned about the benefits of cover crops, especially with students at Butte College where he teaches courses on viticulture, vineyard management, and organic farming methods.

“I have rose clover and crimson clover and two subterranean clovers,” said LaRocca. “I use common vetch, Blando brome, and Zorro fescue. And I also added sour clover to the mix, which is very expensive and very hard to source. I throw it in the mix because the roots are what they use to make a popular rodenticide. I use it as a gopher preventive, and have seen good results. It’s an extra expense, but I think it’s worth it.”

“I use vetch because it grows so well here,” LaRocca said. “Many vineyards don’t like to use vetch because it crawls into the vines. You’ve got to use common vetch because it’s the lowest growing. The organic matter that you can get off of the vetch is incredible.”

“In the first two years you need to put on a lot of fertilizer,” LaRocca said. “In a good organic system, you should be able to taper off on your fertility. And I got to that point.”

“For years we were putting in compost... lots of it... 5 to 6 tons to the acre,” said LaRocca. “Now we’ve built up so much organic matter that I don’t even shred my prunings. I always leave them on the ground. And if you come back here in May, you will not find a pruning. This ground just eats up the prunings.”

“The health and vitality of Phil’s vineyard is a great example of what can be accomplished through conservation planning and an innovative approach,” Garbarino said. “The years of work that have gone into repairing the soil and the mineral and water cycles are now paying dividends with a vibrant agro-ecological system.”

“NRCS taught me a lot,” said LaRocca. “They introduced me to cover crops, and that’s worth a million dollars. The cost-sharing also really helps.”



Gabe Garbarino points out piles of rich compost that LaRocca makes on-site from green waste, and manure mixed with pumice, the leftover residue from wine making.