

Biodynamic Farming Benefits



Wesley harvesting Thompson seedless grapes grafted onto a vine in the chardonnay block.



Ramon spraying lavender with a backpack sprayer. The author uses a four track set-up with sprayer on the grapes.

Grape Growers Make Switch, Reap Rewards

by PATRICIA DAMERY

My husband and I operate a Demeter certified Biodynamic organic ranch in the Napa Valley, farming not only chardonnay grapes, but also aromatics and persimmons.

We started using biodynamic practices in 1999 after a near failure of a grape crop. At the time, we had a vineyard at an elevation of 1,600 feet in the Mayacamas range on the western edge of the Napa Valley. It was late September and the vines were closing down, the leaves turning golden as the days grew shorter and cooler. There seemed to be no way that these vines could help the grapes reach the sugar levels needed

to make good wine. When our winemaker informed us that he would not be purchasing the grapes because he didn't believe they could ripen, we panicked. This was a financial loss that we could not afford.

A friend referred us to a consultant who had successfully helped someone else in our predicament. Over the next two weeks, he used a series of biodynamic preparations to ripen our crop. Although some of these practices seemed unusual, they worked. The leaves on the vines greened up, the raisining grapes plumped without irrigation and the Brix went from 19 to 24.5 within the two-week period. We harvested one of our best vintages ever.

After this rather miraculous beginning, we hired this man to help us over the next year to rehabilitate another ailing vineyard closer to the valley floor. Napa Valley grapevines were replanted in the 1990s due to mass infestation of phylloxera, and many of us received rootstock contaminated with "the black ooze." This was an opportunistic infection: with the correct soils and nutrition, the vines could outgrow it. Over the next year, our consultant not only helped us learn the how and why of the biodynamic preparations, but also the proper making and use of compost to build the soil. He suggested that we dig a large shovelful of biodynamic compost into the earth around each vine for three consecutive years.

Now we broadcast about half a ton of compost per acre at least every couple of years on the vines. Weak vines and the persimmons get a yearly dressing of compost just before the winter rains. The aromatics are mulched with chipped leaves from our property mixed with goat bedding and treated with biodynamic compost preparations. And of course, everything receives a yearly regimen of the biodynamic preparations (sprays) which help the plants use nutrients within the soil.

Within two years of biodynamic treatment, our vines looked healthy and vibrant. Our grape production

doubled, coming up to where it should be for our soils and location at 3.5-4 tons per acre. We now practically dry-farm the grapes. In the last three years of severe drought in California, we have irrigated the vines at most twice a growing season. And earthworms have returned to the soil.

WHAT IS BIODYNAMIC FARMING?

Biodynamic farming began in 1924 when Rudolf Steiner delivered a series of eight lectures to a group of Austrian farmers. Even then farmers were noticing a decrease in the vitality and keeping power of their seeds due to the use of chemical fertilizers. Biodynamics is the original organic agriculture and works to restore fertility to depleted soils. It works to restore a healthy balance by focusing on fertility and helping plants utilize the nutrients in the soils and atmosphere.

Biodynamic farming is not a one-size-fits-all kind of farming. We are mandated to treat our farm as an individuality within the whole ecosystem of which it is a part. When we first applied for certification, we were sent a Google map of our farm, first outlining the boundaries of our ranch, then of an aerial view of the ranch on the lower edge of the Mayacamas Range, then higher still of the state of California and West Coast, and finally, of the globe. We are to consider the individual needs of the ecosystem on our ranch in context of the larger natural system.

RETURNING ANIMALS TO FARMING

As certified biodynamic farmers, we are required to return animals to our farming practices. For us this has meant goats. Our ranch is mostly wooded with steep and fragile hillsides. Cattle were run on these hillsides over the last 100 years, but their large hooves caused erosion and trampled the soil under the oaks. Goats' hooves and browsing patterns replicate the native undulates such as deer and tule elk. Anecdotal studies suggest they help restore native vegetation. Although we have yet to produce the right amount of food on our ranch to feed the goats, who in turn supply the right amount of manure for compost and soil nutrition, we use the guiding star of self-sufficiency to inform our larger farm decisions.

BIODIVERSITY & HEALTH

We are also asked to keep at least 10 percent of our land "wild" to allow habitat for native animals and pollinators. We do not have to worry about this, as 80 percent of our land is forested or oak savanna, but this requirement is particularly important as it supports the natural biodiversity

that is a requirement for the health of any property. This is in stark contrast to the sterile mono-cropping practices promoted in our country over the last 60 years of commercial farming.

Biodynamic farming is rooted in the science of Johann Wolfgang von Goethe. Goethe stated that one of the tenets of a healthy ecosystem is that the more diversity of life on the farm, the more life the farm can support. Since starting, we have diversified, growing not only grapes, but also persimmons and aromatics including lavender, *Helichrysum italicum* and rose geranium, which we estate distill. All of these thrive in our soils and

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Mediterranean, low-water conditions. We propagate native plants from our own land to include along fence lines, including California sage, California fuchsia, Mexican elderberry and coyote bush. Tended, these plants are beautiful and provide habitat and food for native pollinators and other animals. A healthy environment is teeming with bobcats, fox, coyotes, deer, California quail, acorn woodpeckers, buckeye butterflies, hummingbirds, monarchs and swallowtails, and yes, we admit, some of the plants we used to call weeds.



Jesse stirring the biodynamic preparation barrel compost.



Goats weeding lavender.



PHOTO BY KALLEY LEWIS

Goats browsing native toyon trees.

BIODYNAMIC PRACTICES

Several times each year we spray our crops with a series of biodynamic preparations in almost homeopathic concentrations. Each farm or ranch is unique, and each farmer is unique, so the frequency varies, but each year the land needs to be sprayed at least once with each of the three main sprays (Barrel Compost, 500 or horned manure, and 501 or horned quartz) and treated with compost prepared with the six biodynamic compost preparations – oak bark, valerian, dandelion, chamomile, stinging nettle and yarrow. This creates a sensitivity within the plant, the soil and the farmer – a kind of embodied listening. Each of the three main preparations is stirred into 5 gallons of water per acre (3 gallons for the barrel compost) for a full “German” hour, first one way, creating a vortex to the bottom of the barrel, and then reversing, over and over. It is said that in this chaos the water is most receptive to the energies of the preparation, or the divinity of it. In this stirring, the water is also infused

with the energies of the stirrer, which requires a kind of meditative attitude. For myself, I imagine what I wish for the land. I picture vitality in all who live there: the plants, the animals, the people, the soil.

HOW DO YOU GET STARTED?

I have four suggestions for getting started using biodynamic techniques:

1. Learn by doing. Don't be intimidated by the change in paradigm. Order the biodynamic preps from one of the suppliers (www.jpibiodynamics.org or www.earthlegacyagriculture.com or your local biodynamic group) that offer a package including free consultation. Part of the learning curve of biodynamics is developing your own instinctual ear to what your plants and land need. This happens only through experience and for us it is a lifetime project. So just get started!
2. Join a local biodynamic group. Check out the Biodynamic Association website, www.biodynamics.com, for groups in your area. Some of these local groups meet quarterly to share information and make biodynamic preparations. Depending on the scale of your project, it may make sense to get a mentor or consultant. We gained invaluable knowledge from our years' training, although it was expensive. Our consultant taught us to stir the preparations, helped us with the practicalities of applying them, and read Steiner's original lectures with us. (You will need a guide or reading group to read this book!)
3. Read. There are some good books out there. As you start practicing, read the literature. Some are more accessible than others. Good books to start with are *Gardening for Life*, by Maria Thun and *Culture and Horticulture: A Philosophy of Gardening* by Wolf-Dieter Strol.
4. Spend time on your land every day. The old adage: *the best fertilizer is the farmer's feet*, is true. Biodynamic agriculture encourages us to walk our land daily, paying attention to the little twinges we have when we walk through the vines (vibrancy) or encounter pinched



Lavender at dawn.

lavender leaves (thirsty). This is how nature talks! We need a relationship to the earth, and the discipline of biodynamic agriculture offers a model of reciprocity that supports not only the health of our farm and our planet but of our own bodies as well.

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