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FETZER CEÀGO VINEGARDEN IN LAKE COUNTY

An Agro-Eco-Tourism
Project Sharing
Biodynamic Farming
with the Public



*New Roots in
Lake County*

Ceàgo Vinegarden

Story and photos by **Ted Rieger** > senior feature editor

Jim Fetzer scoops up a handful of humus-rich soil near the shore of Clear Lake and smells the aromatic mixture of decomposed tules, algae, and organic matter, another affirmation of his decision to build his Ceàgo del Lago project in Lake County to showcase biodynamic farming and viticulture. Connection to the earth and the seasonal cycles for growing wine and food is a theme Fetzer family members have embraced since Fetzer Vineyards moved into organic viticulture in the 1980s. Since the sale of the Fetzer label to Brown-Forman Corporation in 1992, several second-generation Fetzers have taken the theme a step further in their individual farming projects. Jim and brother Bobby were the first to explore and adopt biodynamic farming. Bobby began converting the original Fetzer Home Ranch vineyards in Redwood Valley, and Jim developed the

McNab Ranch in Mendocino County as the original Ceàgo Vinegarden with biodynamic vineyards.

“Ceàgo” is taken from a Pomo Indian word meaning “grass seed valley,” the types of locations where people farm and live in Mendocino and Lake counties. Jim Fetzer purchased and developed the McNab Ranch in the 1990s, creating 140 acres of vineyards

that were certified biodynamic in 1997, and produced the Ceàgo Vinegarden label vintages for 1999 and 2000. In 2000, Brown-Forman made Fetzer a hard-to-refuse offer to purchase McNab Ranch as a showcase location to produce its organic label Bonterra Vineyards. Fetzer had his eye on the Clear Lake property for some time, and the McNab sale provided the capital, and the incentive, to complete the deal and make the move from his longtime home of Mendocino County to Lake County.

CEÀGO DEL LAGO CONCEPT AND DEVELOPMENT

Fetzer purchased the 220-acre Clear Lake property in 2001 for \$3 million. Known as the “Barnes Yard,” it was farmed for 80 years primarily as a walnut orchard. Some older buildings and farm sheds remained on the property, which includes 3/4



*Jim Fetzer looks over his
Ceàgo del Lago facility
at Clear Lake from his
office balcony.*

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At a Glance

- ▶ Jim Fetzer developed Ceàgo del Lago, a 220-acre biodynamic farm and vineyard on the shore of Clear Lake in Lake County, CA as an agro-eco-tourism project to share the site's biodynamic farming concepts and its products with the public.
- ▶ Biodynamic farming emphasizes soil fertility and plant health through the use of nine biodynamic preparations, composting, crop rotation and crop diversity, integrating plant life with animal life, and scheduling farm operations with a biodynamic calendar to maximize plant growth through seasonal rhythms and universal life forces. The use of synthetic chemicals, fertilizers, pesticides, or herbicides is not allowed.
- ▶ Ceàgo Vinegarden's vineyards are certified biodynamic with Demeter Association, Inc., and the wines are certified organic by California Certified Organic Farmers.
- ▶ The four main grape varieties grown at Ceàgo are cabernet sauvignon, syrah, sauvignon blanc, and chardonnay, with significant clonal diversity in each variety. The farm also produces olives for olive oil, walnuts, lavender, and a variety of seasonal fruits and vegetables, and raises sheep and chickens.
- ▶ Ceàgo Vinegarden label wines, and second label Tule Bay wines, are distributed in 22 states with more sales on-premise than off-premise. Direct sales programs are being increased through the tasting room, a wine club, and on-line sales through the winery website. Ceàgo also produces and sells pinot noir under the Masut label for Bobby Fetzer.



mile of lakefront located between the towns of Lucerne and Nice. While the land possessed inherent natural, agricultural, and scenic attributes, Fetzer also saw the practical benefits of the location. One was water rights to pump lake water for irrigation. Another was visitor access and visibility, as the property straddles Highway 20, a well-traveled route connecting the Central Valley with the Mendocino Coast that passes the northeast shore of Clear Lake. The ranch was poised for upgrading, as were resort communities on this side of Clear Lake, with areas now being redeveloped for a new era of tourism and vacation homes. In addition, the regulatory environment in Lake County has been favorable for developing a project of this scale, as compared with other North Coast winery areas.

The site provided Fetzer an open canvas to develop a biodynamic vineyard as he had done at McNab, but it also provided the ability to take it a step further. As Fetzer explains, "We

started from scratch, with the idea we wanted to build a biodynamic farm that we could share with the public. What it all ferments down to, is a concept in agro-eco-tourism. People can come by car, by bike, by boat, or even by float plane, and we hope this will become one of the most fun places to visit in California wine country." Ceàgo del Lago has also turned into a family project and business for a new generation of Fetzers, involving Jim's children.

Key Ceàgo employees who helped build the project and develop the farm were director of viticulture and winemaking Javier Meza, Jim's daughter Katrina Fetzer, who is sales and marketing director, and son Barney Fetzer, who helped with construction and also works in the vineyards and tasting room. Jim's other daughter, Andraya Fetzer, joined Ceàgo this year to work in administrative operations. Meza is a native of Chile with education in enology, winery management, and finance administration. He

worked as a cellar master for Carmen Vineyards in Chile. He came to the U.S. in 1997 to work at Fetzer Vineyards, then joined Ceàgo Vinegarden at the McNab Ranch in 1999, where he began learning and managing biodynamic viticulture and made Ceàgo's first wines. Ceàgo has 15 employees working on the ranch.

Fetzer put together the initial design drawings for the buildings, influenced by travels in Spain and Italy, then hired architect Richard Ruff, based in Ukiah, who he had worked with on other projects. The Hacienda-style complex combines several cultures and styles but the architectural theme is Spanish/Mediterranean with influences of Early California and Mexico. Stylistic features include red tile roofs, heavy wooden timbers and beams, ornamental wrought iron gates and fixtures, ceramic floor tiles, balconies, courtyards, fountains, and heavy wooden doors. Decorated ceramic tiles on staircases and in restrooms feature Pomo Indian basket designs. An onsite engineer helped oversee construction and work with permitting issues, and contractors were hired for specific tasks, but the Fetzers and Ceàgo employees also performed as much of the work as possible. To date, about \$10 million has been spent on development of the property, and the buildings total about 22,000 sq. ft.

Wood from the old barns and sheds on the farm was reused where possible for doors and other wooden features. The Canary Island date palm trees are even "recycled," collected by a nurseryman who specializes in removing trees from residential properties that have grown too large, or are no longer wanted. Another dominant landscape plant is Italian cypress, commonly used in Mediterranean landscapes and said to "fend off evil spirits." These tall bushy evergreens provide bird habitat for finches, bluebirds, and other species.

A modern day building component is "Perform Wall," a product made with a mixture of cement and about 85% by volume polystyrene ("styrofoam"), that provides structural strength while also being lighter weight to erect than traditional concrete walls. The building walls were erected in blocks measuring 14 inches thick x 15 inches high x 10 feet long, that could be cut onsite



Exposed walls in the covered event area show the Perform Wall building panel blocks made of recycled polystyrene and cement, providing up to R-26 insulation value.

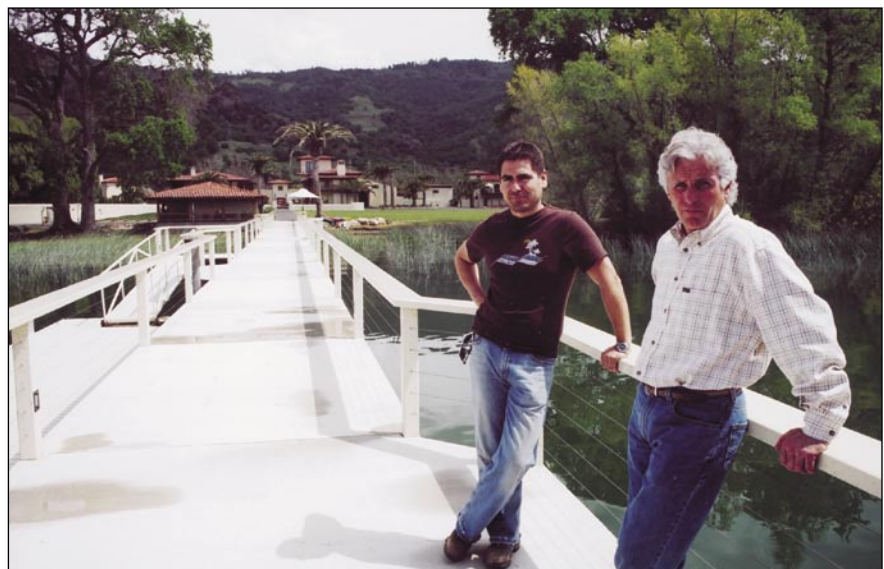
using an electric chainsaw. The Perform Wall is supported and reinforced with rebar and cement. The material provides R-26 insulation and excellent soundproofing between rooms. The exterior is covered with a 1/2 inch layer of cement plaster and painted with an elastomeric paint that stretches for good sealing and to prevent cracking. Fetzer selected a color that matches the dried wild oat grasses that grow on the hillsides above the property so the buildings blend with the environment. Rooms throughout the complex are heated with in-floor radiant heating, in which coils of PVC tubing are embedded in the concrete slabs below the floor tiles. Hot water is circulated through the tubes to provided energy efficient heating, without the drafts and dust associated with traditional forced air HVAC systems. Offices are upstairs, along with a conference room with a plasma screen for Power Point presentations. "We've tried to blend Old World style with New World technology," Fetzer says.

The facility includes shop and equipment storage buildings for farm operations. An indoor/outdoor entertaining area has a bar, fireplace, and reception area inside, and a covered dining area adjacent to a courtyard outside. Eventually a full prep and demonstration kitchen will be developed in building space near the garden courtyard, and some barrel

storage will be on-site. The tasting room opened for business in the fall of 2004. Sean Leland is tasting room manager and director of hospitality, bringing 10 years of restaurant and hotel management experience to the job.

The lakeshore remains mostly natural, with tules, willows, oaks, and other riparian habitat, although brush was cleared from some areas for lake views and access. A 340-foot pier, the longest on Clear Lake, provides docking space for

boat access to the property and tasting room. The pier was built with the installation of a 250 HP submersible pump and a 15 HP submersible pump at the end of the pier to extract lake water for the property, that is piped to a filtration/pumphouse on the shore. The pump house equipment was installed by North Coast Irrigation with Flow-Gard sand filters, and motors capable of pumping 5,500



Javier Meza, director of winemaking and viticulture (L), and owner Jim Fetzer on the 340 foot pier on Clear Lake used for pumping lake water for irrigation while also enabling boat access to the Ceàgo property.

WINERY PROFILE

gal./minute to serve the vineyard's irrigation system. A smaller pump serves the drip irrigation systems for the gardens, and the estate landscaping.

Much of the original walnut orchard was removed for development, but many trees were left near the parking area to continue to produce walnuts. Five acres of olive trees are planted with eight acres eventually planned, that include a mix of Italian and Spanish varieties for olive oil production. Lavender was planted to produce lavender oil and for other herbal uses. The first olive and lavender harvests will be this year. Planted this year was an herb garden; a fruit orchard with peaches, plums, figs, apples, and pears; and a seasonal vegetable garden that will include popcorn to serve in the tasting room with olive oil. The garden will also grow melons, squash, pumpkins, and cut flowers for decoration.

Ceàgo del Lago continues as a work in progress. Fetzer says the short-term goals were to complete the buildings, get the farm and vineyards in production, and open the tasting room for sales and the grounds for tours and education. Fetzer's longer-term vision is to create a "biodynamic resort spa," with small "casitas" for guest lodging near the lake, a destination where visitors can eat and use

“BD is the science of life forces, and it takes these forces into account to bring balance to the farm and healing to the earth.”

—Jim Fetzer

what is grown on the farm, enjoy the lake recreation, and have meeting and dining rooms for educational or group events. Winemaking will remain at the Fetzer family’s original Home Ranch for the foreseeable future (30 miles away in Redwood Valley), however, a site at Ceàgo on the north side of the highway is reserved for possible development of a winery in the future.

BIODYNAMIC FARMING AND VINEYARD MANAGEMENT

Biodynamic (BD) farming methods are based on the teachings of Austrian scientist/philosopher Rudolph Steiner and date to 1924. Fetzer notes that BD predates organic farming by 20 years. In BD farming, each farm is its own entity, and there is an emphasis on plant diversity, crop rotation, composting and soil fertility, integrating livestock and animal life on the farm, and life forces. Crop fertility and composting utilize nine specific BD preparations (see sidebar), and certain practices, such as planting, and preparation of compost, are timed with seasonal events or cosmic rhythms. “BD is the science of life forces, and it takes these forces into account to bring balance to the farm and healing to the earth,” Fetzer says. Fetzer and Meza have worked extensively with BD consultant Alan York, who helped develop practices at the McNab Ranch, and soil scientist Dr. John Reaganold of Washington State University, who has done studies comparing BD production farms and soils with conventional farms.

Fetzer tends to downplay what some may consider “cultish” or “supernatural” aspects of BD practices, and focuses on its practical applications. Meza was also skeptical about BD practices when he first started managing the vineyards. Fetzer says, “When we do these things we are being proactive, and they are

relatively easy to do.” Explaining the timing of practices with life forces, he said even back in the 1970s, his father used to say that if you have a choice of racking wine during the dark phase of the moon, versus during the full moon, rack during the dark phase, when gravitational force is pulling down and more conducive for settling. BD practices involve a different way of thinking and perception than modern humans are used to. When it gets dark and cold, a person can go indoors to get warm and turn on a light to see. A plant or vine dealing with the outdoor environment in the same location 365 days/year does not have that option, so it must constantly live with and respond to the natural forces of light, temperature, gravity, seasonal changes, etc. As Fetzer explains, “We’re trying to re-learn the forces of life, we’ve been disconnected from them for too long.”

Meza uses a BD calendar, *Stella Natura*, published annually by The

Bio-Dynamic Farming and Gardening Association, Inc. in Junction City, OR, to schedule certain vineyard operations. The calendar is created based on astronomical events involving the movement of constellations and phases of the moon, and designates each day, or hours of the day, as either “Root,” “Flower,” “Leaf,” or “Fruit.” For example, new vineyards were planted on “Root” days during the dark of the moon, when life forces were most conducive for plants to take root in the ground. Although weather and labor availability can interfere with scheduling, pruning and tilling are the two operations that Meza feels are most important to schedule by the BD calendar. The calendar also indicates what days are best for sowing seeds for cover crops, and times when direct work with plants should be avoided.

Explaining his view, Meza says, “One of the main points of BD is choosing the right locations for planting, and farming as a whole unit. Even organic farming today allows the use of insecticidal soaps, oils, and organic sprays that may harm some beneficials along with target pests. If you’re using chemicals (either organic or conventional) you’re treating the symptom rather than addressing the source of the problem. With BD, the goal is to maintain healthy soils and plants in a whole farm approach to prevent problems.”



Up to two acres of lavender (shown here recently planted) will be grown on the estate to produce lavender oil.



Sheep are used at the Ceàgo estate for weed control, adding manure to soils, and providing meat for food and wine events.

As part of “bringing the animal and plant kingdoms together,” as Fetzer says, the ranch has a small herd of sheep, mostly Rambouillets, that graze to help control weeds and cover crops, and their manure is used as compost. The lamb meat is consumed at the ranch and used for special event dinners. A flock of chickens, Rhode Island Reds, also serves an integrated purpose by controlling cutworms and other vineyard pests, while also providing manure for compost. They produce eggs that are eaten by ranch staff and sold in the tasting room, and the egg whites are used for fining wine. An “egg mobile,” a small hen house on a trailer, is moved to different locations in the vineyard for the chickens to feed on cutworms, while providing shelter and egg laying space for them at night. Native species are also encouraged to play a role on the farm. Bluebird nest boxes are placed on fence posts in the vineyard, to encourage the birds to feed on harmful insects. A bat house was built near the lake for a resident colony that controls mosquitoes at night, but they currently seem to prefer roosting under the eaves of Ceàgo’s buildings.

This “egg mobile” provides shelter and egg laying space for chickens and can be moved throughout the vineyard to feed on cutworms and vineyard pests.

The vineyards, and the general estate, have sandy, loamy, gravelly, and well-drained soils that are deposits from a former higher lake level of Clear Lake. The upper part of the vineyard has more clay soil. The property is relatively flat, gently sloping upward from the lake level elevation of about 1,330 feet. As other examples of blending Old World methods with New World technology, the entire ranch is on a Geographic Information System (GIS), with vines, irrigation, orchards, buildings, etc. all graphically plotted in a computer database. Three Adcon weather stations are located on the estate to monitor and record weather data by location for temperature, precipitation, leaf wetness, and wind



speed and direction. ASV Posi-trac machines are used for vineyard operations to reduce soil compaction.

Deep tillage was used to develop the vineyard. The goal is for the vines to develop deep root systems, in part, so irrigation is not needed so often. Another goal is to balance canopy growth with root growth. Much of the vineyard management is a matter of making observations and minding the details. “Almost 90% of what we do is being in the vineyard and doing hand work,” Fetzer says. The vineyard rows are planted in a north/south direction on a VSP trellis system with spur pruning. Extensive shoot positioning is done during the growing season. Leaf pulling is done on the side of the row that receives morning sun, while maintaining a thicker canopy on the side with afternoon sun. In keeping with the BD integrated farm concept, strips of tulle reeds taken near the lakeshore are used for vine tying rather than buying outside material. Meza said sulfur dust can be used for powdery mildew in BD viticulture, but says, “We avoid using sulfur dust if we can, and in general look at what is causing a problem, instead of just spraying.”

Ceàgo’s estate vineyards total 60 acres and focus on four main varieties: cabernet sauvignon (14 acres), syrah (6 acres), sauvignon blanc (13 acres), and chardonnay (10 acres). Vine material is from Sunridge Nursery, which provides a good selection of certified ENTAV clonal materials from



A Clemens Radius vine cultivator is used to remove weeds under vines while leaving between-row cover crops intact.

530 on 101-14 rootstock with 8' x 9' spacing. Small amounts of other white varieties include semillon (clone 173), muscat clones 1 and 453, and gewurtztraminer. Chardonnay was planted in 2005 in estate blocks on the south side of Highway 20 with clones 76, 95, 96, 131, 548, and 809.

Cover crops include crimson clover, mustard, vetch, oats, fava beans, and Dakon radish. They serve to keep out star thistle and other weeds, provide

habitat for beneficial insects, and add nitrogen/green manure for the soil. Cover crop management can vary from year to year based on weather and soil nutritional needs. This year, every other row was cultivated in the spring and remaining rows were mowed as needed. Under-vine cover crops and weeds are removed using a Clemens Radius vine cultivator that tills under the vine while leaving between-row cover crops intact.

Overhead sprinkler irrigation was installed for several reasons. One was to provide enough water for the young vines to develop deep root systems. Another reason was to irrigate cover crops. The sprinklers are also available for frost protection in the spring

and to provide overhead cooling during hot summer afternoons as grapes ripen, in order to maintain acid levels. In general, irrigation for vines will be used minimally in most years once the vines reach maturity.

Meza predicts that annual yields from the estate vineyards will average about 3.5 to 4 tons/acre for most varieties at maturity. He harvests based on observed and organoleptic ripeness in the vineyard, although Brix levels at harvest for past vintages from other sources have been around 23 degrees for sauvignon blanc and 24 for chardonnay. Reds are allowed to go into the higher 20s until desired ripeness is achieved.

WINES AND WINEMAKING

The wine and the grape sourcing has been in transition since Ceàgo moved from McNab Ranch to Clear Lake. The last vintage made from McNab fruit was 2000. Chardonnay is being bought from Jeriko Vineyard in Mendocino County, a BD vineyard owned by Jim's brother, Dan Fetzer. Cabernet sauvignon, merlot, and sauvignon blanc are being sourced from the Redwood Valley Home Ranch vineyard, which has been BD certified since 1996. Once the Ceàgo del Lago vineyards are in full production, nearly all the wines will be estate-produced with Lake County grapes, with an ultimate production goal of 15,000 cases/year of estate wines.

The Ceàgo Vinegarden's winemaking facility on Bel Arbres Road in Redwood Valley is in one of the original Fetzer Vineyards winery buildings that has been remodeled for Ceàgo's processing needs. Although specific processing operations will be adapted as needed as Ceàgo estate fruit comes online and production increases, the general wine processing is as follows.

Ceàgo hand-harvests all grapes into half-ton bins delivered to the winery. Red grapes are dumped into a Delta destemmer/crusher for destemming. The destemmed grapes are transferred by bin and dumped into 1,500 gallon open top fermenters. The fermentation room has 17 of these tanks, sized for 5-ton grape batches, fabricated by Santa Rosa Stainless Steel. A refrigeration system installed by Refrigeration Technology Inc. is a dual system that

France. The first Lake County Ceàgo estate vineyards were planted in 2002 with two blocks of cabernet sauvignon using clones 2, 4, 6, 15, 191, 337, and 341. All are on 3309 rootstock with the exception of clone 191 that is on 101-14 rootstock. The cabernet clones are planted in separate rows with 8' x 6' spacing and are harvested and processed separately by clone, with the first harvest in 2004. Syrah was planted in 2003 with clones 174, 383, 470, 525, and 877, and shiraz clones 3, 6, and 7. Other red varieties include cabernet franc clones 214 and 327, petite verdot clone 400, malbec clones 4 and 9, and malbec cot—clone 595.

In 2003, sauvignon blanc was planted with clones 1, 7, 317, 376 and

“We don't experience problems making pinot noir, unlike its reputation as a difficult grape among some winemakers, and we don't have problems with stuck fermentations in general.”

—Javier Meza



Overhead sprinklers at Ceàgo estate vineyards serve multiple purposes, including cover crop irrigation, frost protection, and overhead cooling on hot summer days.

can cool and heat with refrigerant circulated through the tank jackets. The reds are cold soaked for five days at 40 degrees F. and fermentation starts with a combination of indigenous yeasts and inoculation with cultured yeasts. An automatic punch down device is used in combination with pumpover. One reason for using open top fermenters is to allow some alcohol to evaporate during fermentation, particularly with grapes harvested with higher sugar.

After primary fermentation, wine is removed from the skins as soon as possible and racked straight to barrel to begin ML in an adjacent first-year barrel room, with all barrels at ground level in a low ceilinged cellar that is temperature controlled. Red pomace is emptied from the fermentation tanks into a 5-ton Marzola basket press, with free run racked into barrel. Press-run wine is usually racked back to an open top fermenter then covered with a floating lid for storage. The press run is evaluated, and better lots are put into barrel for aging. Meza is a firm believer in using press-run wine in the blend, saying, "Pressed wine gives some depth and body and helps with aging." Each original 5-ton tank fills 10 to 12 barrels, and the wine proceeds through ML fermentation.

The oak regime varies somewhat by

variety, grape source, and vintage, but almost 100% French oak is used from a variety of coopers that include Tonnellerie Damy, Francois Freres, Tonnellerie Vicard, Tonnellerie Taransaud, Tonnellerie Saury, Seguin Moreau, and Demptos, along with some recent trials of Hungarian oak from Tonnellerie Lafitte. For Ceàgo label red wines, generally 30% of each variety goes into new oak, 20% in one-year oak, and the remainder in two- or three-year oak. Barrels are sealed with a silicone bung that creates an air lock and reduces the frequency required for topping. The longer aged reds go into a second-year barrel room stacked on two-barrel racks. Total barrel aging time for most Ceàgo reds is 14 to 18 months.

Javier Meza, director of winemaking and viticulture (L), and Jim Fetzer with the 5-ton Marzola basket press used for pressing out Ceàgo's red wines.



Evaluating clonal diversity with separate processing is done each vintage with cabernet sauvignon in particular, in order to maximize characteristics for blending, or for bottling an individual clone, as has been done with cabernet clone 337. The reds are generally racked for bottling without filtration, but egg whites may be used for clarification along with cold stabilization before bottling.

"Masut," the name of a Pomo Indian Village, and a word that means "dark rich earth," is another label produced and sold by Ceàgo for Bobby Fetzer from his Masut BD vineyards in Redwood Valley. Pinot noir from Dijon clones 113 and 115 are bottled as Masut with up to 2,000 cases produced annually. Meza said he plays a lot with oak for the Masut pinot noir, as it can pick up oak character quite easily. For recent vintages he has used just 30 percent new oak at the beginning, then transferred to older barrels after three months. Although Mendocino County is not well known for pinot noir, Meza believes the Masut vineyard is an excellent location that produces small but high-quality yields of 1 to 2 tons/acre. "We don't experience problems making pinot noir, unlike its reputation as a difficult grape among

Biodynamic Preparations at Ceàgo del Lago

The use of nine biodynamic (BD) preparations is one of the requirements of biodynamic farming. Three are mixed with water and used as field sprays. The remaining preparations are mixed into the farm's compost pile, then later applied in the field. These preparations can be produced on the farm, or they can be purchased from a supplier.

A "biodynamic tower" at Ceàgo stores the BD preparations in a cool, dark cellar at the base of the tower. At the upper level is a 90 gallon stainless steel motorized stirring tank used to mix the preparations with water, with the final solution gravity fed to ground level and placed in a spray rig to take to the vineyard. One of the primary BD preparations is horn manure, in which cow manure is packed into a hollow female cow horn and buried two feet underground during the autumn equinox. The horn is dug up six months later during the spring equinox, and the horn contains a rich decomposed humus. At Ceàgo, 70 horns are buried in a well-drained area of the garden each autumn equinox to provide enough BD 500 mixture to spray the entire vineyard at a rate of about one horn for two acres. The horn manure is mixed in the stirring tank with 98 degree F. water, stirred until a vortex is created, for a duration of one hour. This stirring action is believed to encourage microbiological growth. Horn silica preparation BD 501, is made by placing ground quartz in cow horns that are buried during the spring equinox, then dug up six months later during the autumn equinox. The silica is mixed with water and stirred in the tank. Just 1/8 teaspoon per acre of silica is used to spray in the vineyard, usually at sunrise or early in the morning, as a foliar spray, with several applications during the growing season.

Ceàgo obtains cow horns and BD preparations 502 through 508



Biodynamic tower at the Ceàgo estate houses a cellar at the base to store biodynamic preparations and stirring tank in upper level to mix preparations and gravity feed the solutions to containers for spraying in the vineyard.

from the Josephine Porter Institute (JPI) for Applied Biodynamics in Woolvine, VA, a non-profit organization that makes BD preparations and conducts agricultural research and education. The following lists the materials, functions, and effects of each preparation as described by JPI:

BD# 500—Horn manure, mixed with water and sprayed on the soil.

Function—Reproduction and growth.

Effects—Promotes root activity, stimulates soil micro-life and increases beneficial bacteria growth. Regulates lime and nitrogen content. Helps in release of trace elements. Stimulates germination of seeds.

BD# 501—Horn silica, mixed with water and sprayed as a foliar application.

Function—Foodstuffs.

Effects—Enhances light metabolism of plant by stimulating photosynthesis and formation of chlorophyll. Influences color, aroma, flavor, and keeping qualities of crops.

BD# 502—Yarrow, inserted in compost pile.

Function—Reproduction and growth.

Effects—Permits plants to attract trace elements in extremely dilute quantities for best nutrition.

BD# 503—Chamomile, inserted in compost pile.

Function—Reproduction and growth.

Effects—Stabilizes nitrogen within the compost and increases soil life to help stimulate plant growth.

BD# 504—Nettle, inserted in compost pile.

Function—Foodstuffs.

Effects—Stimulates soil health, providing plants with the individual nutrition components needed. Enlivens the soil.

BD# 505—Oak bark, inserted in compost pile.

Function—Reproduction and growth.

Effects—Provides healing forces (or qualities) to combat harmful plant diseases.

BD# 506—Dandelion, inserted in compost pile.

Function—Foodstuffs.

Effects—Stimulates relation between silica (Si) and potassium (K) so that silica can attract cosmic forces to the soil.

BD# 507—Valerian, mixed with water with 1/2 inserted in compost pile and 1/2 sprayed on compost pile.

Function—Foodstuffs.

Effects—Stimulates compost so that phosphorous (P) components will be properly used by the soil.

BD# 508—Equisetum arvense (horsetail) mixed with water and made into a tea for use as a field spray.

Function—Foodstuffs. ▶



Cool, dark cellar at the base of the biodynamic tower is used to store cow horns and the various biodynamic compost preparations.

Effects—Serves as prevention to counter fungal conditions and diseases.

BD CERTIFICATION

Ceàgo Vinegarden's BD certification organization is Demeter Association Inc. Although there are several certification organizations available in the U.S., Meza believes Demeter has the highest BD standards, and it is recognized in Europe. However, the U.S. Department of Agriculture does not currently recognize BD certification or practices, as such, under the National Organic Program even if they exceed organic program standards. As a result, Ceàgo also certifies its wines as organic through the California Certified Organic Farmers (CCOF). Ceàgo's wine labels bear the CCOF logo and the phrase "Biodynamically Grown Grapes." The entire ranch operation is certified by Demeter, so olives, walnuts, lavender, and garden products also meet BD production standards. A

certified BD farm meets all organic standards, including those of California. Certification for these organizations requires payment of fees, annual inspections, and compiling and submitting data and paperwork on a regular basis. Specific Demeter BD certification guidelines include:

- No use of chemically synthesized fertilizers, pesticides, herbicides, fungicides, or fumigants. No hormones, antibiotics, growth regulators or genetically modified organisms (GMOs).

- The basis of crop fertility is compost, manures, green manuring, and crop rotations, along with regular applications of the BD compost preparations and field sprays.

- Weeds are controlled without synthetic chemicals by livestock grazing, cultivation or mechanical methods.

- Composting should be done on each individual farm using materials produced on the farm as much as possible. Materials, transplants, and animal feed imported from off the farm are limited and must be of good quality.

- Farms are visited and re-evaluated annually. Contracts for use of certification marks are also annual.

- The farm must be free of prohibited inputs for 36 months and under BD management for 12 to 24 months.

some winemakers, and we don't have problems with stuck fermentations in general," Meza says.

White wines are pressed whole cluster in a small Bucher tank press then fermented in small stainless steel tanks ranging in size from 800 gallon to 3,000 gallon. Only 15 to 20 percent of the white wines go into new French oak barrels, for about eight to 10 weeks. For chardonnay, five percent is fermented in oak and later blended back with the tank-fer-

mented wine. Meza said, "This gives the chardonnay depth and some creaminess without overpowering it with oak." The whites do not go through ML, but do go through standard filtration processes and cold stabilization prior to bottling. The 2003 and 2004 vintages of sauvignon blanc were labeled "Kathleen's Vineyard," in honor of Fetzer family matriarch Kathleen Fetzer who still lives on the Redwood Valley property where the grapes are grown.

Meza believes that growing the right grapes in the right locations, good BD viticulture, and the ability to control temperatures during processing are key factors to producing quality wines without problems. He's not a proponent of manipulating or making additions to wines. Most chemical additions, including sulfites, are avoided, although under CCOF organic wine certification, sulfites can be used if final bottling levels are under 100 ppm. For white wines, CO₂ is used at bottling instead of SO₂. Meza has a small lab at the winery to monitor wine chemistry. The use of chlorine or chemicals for cleaning is avoided, with just ozone and hot water used for winery sanitation.

The general goal is ripe fruit flavors and aromas, but well-balanced wines with good structure, and complex silky tannins in red wines. "These wines are more an expression of terroir, the vineyard and the fruit," Meza says. Based on their observations, Meza and Fetzer believe the wines taste differently on different days in relation to the BD calendar. Meza said some restaurant sommeliers have even requested copies of the BD calendar so they can recommend certain wines on days when their flavors and aromas will best be expressed. On root days the wines can be more dense and closed, but may express more floral and fruit aromas on fruit and flower days. Some winemaking operations are done based on the BD calendar. Most notably, racking is done during the dark phase of the moon and scheduled on root days.

After Ceàgo moved to Clear Lake, a second label, Tule Bay, was started to highlight the natural history of Clear Lake and the tule reeds that grow along Ceàgo's lake shore, that were used by the Pomo Indians for baskets and building material. The label has pictured local birdlife, including white pelicans and the western grebe. The wine is meant to be an affordable, everyday BD wine, and is promoted as a "by the glass" wine in restaurants. Chardonnay and merlot have been made under this label to date. Ceàgo label merlot and petite sirah have also been made in the past, but the red focus will shift to estate syrah, in addition to cabernet sauvignon.

WINERY PROFILE

For packaging, pressure-sensitive labels are printed by Paragon Label of Petaluma. Glass is primarily supplied by California Glass Co., with corks from Scott Laboratories, and capsules from Ramondin. With the 2004 sauvignon blanc, a switch was made to Stelvin screw cap closures, and the threaded neck bottles came from Caliber Packaging. All white varieties will eventually be bottled with Stelvin closures. Calaveras Mobile Bottlers is one of the mobile bottling lines used as needed for bottling operations. Etched Images of Napa decorates larger format gift bottles for the tasting room and special events, and Napa Wooden Box Co. supplies display and gift case boxes. A case storage building is located at the winery.

TASTING ROOM AND WINE MARKETING

Explaining the image for the tasting room, Katrina Fetzer said, "We don't display and sell a lot of knick knacks, because we want people to know they are visiting a working farm, and we want to have more the feel of a country store." Toward that end, the tasting room will sell walnuts, olive oil, lavender oil, eggs produced by the chickens, and other farm products grown on-site. The variety of products from the farm offers many opportunities for education and for food and wine pairing samples in every season. For example, in winter, Dakon radishes are taken from the vineyard cover crops and grilled with olive oil to serve to visitors along with wine. The decor in the tasting room, and throughout the Ceàgo complex, tastefully uses cover crop flowers, lavender, olive branches, tulle reeds, and other vegetation in arrangements in vases. Dried corn stalks and hay bales decorate corners and entertaining areas. In short, the products sold, the appetizers served, and the decor all reflect what grows on the estate and the fresh products that are in season.

On the practical level, Katrina said, "We charge a \$5 tasting fee because we want people to realize this is a business, but it is applied toward any wine purchase." While only open



Photo courtesy of Ceàgo Vinegarden.

Barney, Katrina, and Andraya Fetzer in the tasting room at Ceàgo Vinegarden.

since fall 2004, the tasting room has already built a significant number of repeat customers who live locally or visit Clear Lake regularly. The goal is to build direct sales through the tasting room, through a recently started wine club, and through online sales from the Ceàgo website. The wine is distributed in 22 states, with California the biggest market, and distribution tends to be stronger in the on-premise market than off-premise. Ceàgo plans to have wine club events on-site. Katrina has talked with the Culinary Institute of America about coming to Ceàgo to present condensed, one-day classes to tie into local agro-eco-tourism. With the number of wineries and tasting rooms increasing in Lake County, Katrina is working on group marketing and events with other area wineries. A "Lake County Wine Adventure" is planned for a day in July.

Wines prices range from \$12.95/bottle for the Tule Bay Merlot, up to \$32/bottle for Ceàgo Cabernet Sauvignon and Masut Pinot Noir, although older limited releases and reserves go up to \$52/bottle. Fetzer says, "It would be nice to say we can charge more for our wines as a result of BD and organic certifications, but in today's market, we have to be competitive with conventionally produced wines." While BD is actively promoted, and is a big part of the story for visitors at

Ceàgo, it is not overtly displayed on the wine label, with the BD reference and the CCOF organic logo appearing only on the back label. Fetzer explains, "We don't necessarily want our wines in the organic section in retail stores, as we view it as a quality product for all consumer tastes, but once people hear our story, they often want to support our program, because people are concerned about the earth and the environment."

Fetzer is enthused about the changes he's seen in viticultural practices, noting that in the 1980s, not many growers used cover crops, but now they are common in all growing regions. Referring to the California Code of Sustainable Winegrowing Practices being promoted by Wine Institute and other major groups, Fetzer says, "People are now thinking about it and moving in that direction, so it's good for the whole industry." Regarding BD specifically, he sees it becoming not only more accepted and practiced in the near future, but believes that it is considered by many to be a more serious approach to farming, even more than organic, which is practiced with a lot of variances. As Fetzer puts it, "We try to spend as much time having fun here as we do working here." This branch of the Fetzer family has a found a new home in Lake County. 🍷