

Earthworms dig biodynamic soil

The following is an extract from an email from the Vineyard Manager at Bonterra Vineyards in California. They have both organic and biodynamic vineyards and were doing some experiments to ascertain the different qualities of the two systems. In summary, analytically there was no difference between the organic and biodynamic soils, but, when given a choice, **the earthworms much preferred the biodynamic soil**. The intriguing thing here is that we don't know why. This mirrors what we think about biodynamic wines - we know that it works but we don't exactly know why!

By Dave Koball, Vineyard Manager, Bonterra Vineyards, California

“Within the Biodynamic vs. Organic experiment, all of the farming is exactly the same, the only difference is the application of the Biodynamic preparations. There are three blocks, each of 2 acres farmed organically, and 3 blocks each of 2 acres farmed Biodynamically. When the soils were studied in the laboratory, there were no discernable differences as far as carbon dioxide respiration, nutrient content, organic matter content, etc. Different viticultural measurements were also taken, cluster counts, cluster and berry weights, shoot length, weight of fruit to weight of shoot ratios, analyses on the must, etc. There were really no statistically significant differences between the two treatments, except that the organic block appeared over cropped (based on fruit to shoot weight ratios), and the Biodynamic blocks were balanced.

Another study that was done was worm counts. Basically, the graduate student of John Reganold's (prof. in charge of the study), did a survey of worm counts within the soils of the Biodynamic blocks and organic blocks. She found no differences between the two treatments. She then took some Biodynamic soil from the vineyard, put it on one side of a long rectangular box, she put soil from the organic treatment on the other side. The worms were then released in the middle of the box and left on their own for the night. The next day, the student checked the soils to see where the worms had gone. 100% of the worms were in the Biodynamic soil. My big take-home lesson here is that even though our laboratory analyses showed few significant differences, the worms had a definite preference for the soils. Why? We just don't know, but it did happen. This tells me that even though a difference is not detectable by our current abilities, that does not mean that there are no differences.”



June 2007