

BREATHING IN LIFE FORCES WITH BIODYNAMICS

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The Biodynamic Farming and Gardening Association says: "Biodynamics is a type of organic farming that incorporates an understanding of 'dynamic forces' in nature not yet fully understood by science. By working creatively with these subtle energies, farmers and gardeners are able to significantly enhance the health of their farms and the quality and flavor of food." Biodynamics is used globally, and has won wide recognition for "rescuing" the livelihoods of farmers in India, where so many have faced devastation from the unfortunate prescribed use of GMO (genetically modified organism) seeds. A talented garden designer, Maggie Lee of Santa Fe shared with me that part of her secret in creating sustainable and prolific flowering meadows and xeric perennial gardens is in the magic of her biodynamic compost laced with the "forces" of nature and loving preparation. Maggie's 50-yard heaps of biodynamic compost generate the humus she uses for building living soil from the top down.

Rudolf Steiner popularized biodynamic concepts in his Agricultural Lectures in Europe in the 1920's and little has changed in the way of biodynamic wis-



This mature garden has been maintained with biodynamic compost for several years by Maggie Lee.

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dom. Steiner said: "agriculture must be based on enlivening the soil: vitality must be retained within the realm of the living...it should never leave the realm of growth." As Maggie explained, the point Steiner emphasized is to regard garden and landscape as living organisms born of living, energized soil, and to treat our landscape as a living friend. "Integral to biodynamic practices is building a soil/plant partnership that is self-regulating, i.e. plant growth in direct proportion to vitality in the soil " (Terra Simpatico-Biodynamic Compost, by Maggie Lee, Biodynamic Journal, Spring, 2010). Fertility is delivered via nutrient-rich humus from compost and from green manure/ cover crops, with minimal input of imported fertilizers.

The beginning process for making biodynamic compost with adequate air, water, warmth and nutrients, is similar to any organic compost preparation. Carbon-rich layers (dry leaves, straw, woodchips and other brown matter) 3-4 inches deep and nitrogen rich layers (green vegetation, kitchen veggie waste, manure) are alternated in a pile at least 4 feet by 4 feet by 3 feet high. The approximate ratio of carbon

> to nitrogen matter is 3:1. A small amount of old compost can be used as a starter source for microorganisms. The pile must be kept moist like a damp sponge. All the components, including air, are there to feed the bacteria, fungi and other organisms doing the composting work, breaking down the organic matter to the final stage of humus. The metabolism of the decomposers heats the pile in three stages, the maximum being around 130-140 degrees for a few days during the initial stage of breakdown. The temperature subsequently drops to 90-100 degrees, then to 68-80 degrees for the mesophilic stages of processing. During the formation of humus, which is the organic



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matter in living soil, the original components are broken down to various stages on the way to simple molecules, and then some of the simple molecules recombine and make larger organic molecules like humic and fulvic acids that do some of the work of the humus. These molecules, which are found in concentrated levels in humates, maintain the optimum structure of the soil environment for the plants' absorption of nutrients, for maximum water retention, for microorganisms to thrive and to help nutrient exchange among the microorganisms, the roots and the soil.

What distinguishes biodynamic compost from "ordinary" compost is that enlivening natural "forces" or energies are infused into the final product via specially formulated energized "preparations." Seven specific biodynamic preparations are added to a biodynamic pile via holes made using a crowbar or digging bar. Six holes are spaced evenly over the pile, so that the bottom of each hole is about half way to 2/3 down into the pile. Preps designated as 502 to 506 are humus-like solids, and are added to their individual holes (not mixed) and covered with soil or old compost. Prep 507 is liquid and is added to a gallon of lukewarm water and stirred vigorously, alternating in two directions for around 10 seconds each way for a total of 10 minutes. Half is poured into the sixth hole, and the rest sprayed over the entire pile. The preps infuse the pile with their energies and components. It's best to use the preps on raw, fresh manure or on fresh heaps of compost. You can make your own preps, or one reliable source is the Josephine Porter Institute for Applied Biodynamics, P.O. Box 133, Woolwine VA 24185

(276.930.2463), www.jpibiodynamics.org.

Nature's magic is in the biodynamic preps. Specific herbs, including yarrow, chamomile, stinging nettle, valerian, dandelion, and also oak bark, are the foundation for each of the preps. Each herb has a particular relationship to specific nutrient elements in the soil, like nitrogen, calcium, sulfur, potassium and phosphorous. Each prep corresponds to a particular metabolic or growth activity of plants or a particular mineral dynamic in the soil to allow utilization of cosmic forces. Air facilitates "inner mobility" in the pile of the subtle forces of the preps. Water is the "rhythm carrier," holding energetic information that supports the "breath" or life of the compost. The special preparations used in biodynamic growing and compost result in more fully digested components in the final stabilized humus product. The preps promote a balance in the soil necessary for healthy plant growth. A detailed description of the preps is beyond the scope of this article. Further information can be obtained from the Josephine Porter Institute (see above) and from the Biodynamic Farming and Gardening Association, www.biodynamics.com. Maggie Lee may be contacted at Terra Flora Garden Design, www.gardengaia.com, 505.982.6879. 🏶

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