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Sonoma Biodynamic® Compost

In response to requests from the agricultural community, **Sonoma Compost** has developed Biodynamic Compost products.

Biodynamic agriculture was developed to address depletion of soils following the introduction of chemical fertilizers at the turn of the century. Biodynamic principles conceive of the farm as a self-contained organism with an integrated system of crops and livestock emphasizing food quality and soil health.



CERTIFIED
BIODYNAMIC®

OMRI®
L i s t e d

Sonoma Compost Biodynamic Composts were developed with the assistance of experts from the Josephine Porter Institute of Applied Biodynamics and the Biodynamic

Association of Northern California using the Demeter® Association's Commercial Composting Standard as a guideline. The Demeter certification program for foods grown using biodynamic practices, established in 1928, was the first ecological label for organically produced foods.

Sonoma Compost produces two Biodynamic Composts: **Sonoma Biodynamic Compost** (for established vines, trees and native plants) and **Biodynamic Hi-Test Compost** (for hi-nitrogen loving crops such as vegetables and cover crops).

Our Biodynamic Composts are created using the same process used to produce our other trusted composts. These specialty products are lab tested and listed by the Organic Materials Review Institute (OMRI) for use in organic production and are Demeter Certified for use in Biodynamic vineyards, farms, market, and home gardens.

Sonoma Compost staff are available to work with growers to identify the appropriate product for your application.

For additional information on the principles of biodynamic farming, see the following online resources:

Demeter-USA

<http://www.demeter-usa.org/>

The Biodynamic Farming and Gardening Association (BDA)

<http://www.biodynamics.com>

Biodynamic Association of Northern California (BDANC)

<http://www.bdanc.org/>

Josephine Porter Institute for Applied BioDynamics, Inc.

<http://www.jpibiodynamics.org/>

National Sustainable Agriculture Information Service

Biodynamic Farming & Compost Preparation

<http://www.attra.org/attra-pub/biodynamic.html>



The Process

- ◆ The Pfeiffer Biodynamic (BD) compost starter is activated using a dynamizer, a stirring machine designed to stir and activate large quantities of Biodynamic preparations. (Photos 1 and 2)
- ◆ The activated Pfeiffer BD compost starter is applied to the compost feedstock during the initial grinding stage. (Photo 4)
- ◆ Windrows are formed and are carefully monitored, maintaining a 50%-60% moisture content. Material is brought up to or above 131°F (55°C) for at least 15 days to allow involved biology to stabilize the ingredients into a living and hygienic fertility amendment. (Photo 5)
- ◆ The compost is screened and then formed into windrows again
- ◆ The Biodynamic Compost Preparations; BD #502-507 are added to the compost windrows either by insertion or spray, as appropriate for the individual preparation. (Photo 6)
- ◆ The inoculated Biodynamic compost windrows are cured for a minimum of 6 months.

Generally, for larger orders, the customer will take delivery of the compost after screening and the BD Compost Preparations will be inserted at the customer's site and cured on-site for 6 months. Sonoma Compost can provide services to monitor and maintain optimum curing conditions. Limited quantities of BD compost are cured onsite at Sonoma Compost.

Biodynamic compost feedstock is initially treated with Pfeiffer BD compost starter and the following BD compost preparations are added to the stabilized compost:

- No. 502 Yarrow blossoms (*Achillea millefolium*)
- No. 503 Chamomile blossoms (*Chamomilla officinalis*)
- No. 504 Stinging nettle (whole plant in full bloom) (*Urtica dioica*)
- No. 505 Oak bark (*Quercus robur*)
- No. 506 Dandelion flowers (*Taraxacum officinale*)
- No. 507 Valerian flowers (*Valeriana officinalis*)

The Biodynamic preparations are intended to help moderate and regulate biological processes as well as enhance and strengthen the life (etheric) forces on the farm. The preparations are used in homeopathic quantities, meaning they produce an effect in extremely diluted amounts. As an example, just 1/16th ounce—a level teaspoon—of each compost preparation is added to seven- to ten-ton piles of compost. See <http://attra.ncat.org/attra-pub/biodynamic.html#bio>



Compost Application for Vineyards

To stimulate cover crops, high nitrogen compost is added to a **new vineyard** at the following rates in the first three years and then as needed after that:

- ♦ In the first year, high nitrogen Biodynamic Hi-Test Compost is applied in fall at a rate of 5-10 tons per acre to the top 4" to 6" of soil to stimulate cover crops.
- ♦ Vines are planted with high nitrogen compost applied at a rate of 2 to 3 tons per acre. Compost is added to 18" to 24" deep planting holes to prevent J-rooting of vines.

Sonoma Biodynamic Compost is applied annually to **established vineyards** at a rate of 2 to 3 tons per acre. Up to 10 tons per acre is applied for restoring and rebuilding established vineyards.

Agricultural Field Application

Depending on soil type and condition, the standard application rate is between 2 to 5 tons per acre. Heavy clays soils, or soils with little organic matter benefit from a heavier application of compost.

Compost for Home Gardens

Application rates will vary according to soil type, condition and the plants you will be growing. Generally, sandy soils with little organic matter, or heavy clay soils that don't drain well, benefit from a heavier application of compost. Typically, two to three inches of compost amended into the top six to twelve inches of soil will be appropriate in sandy or heavy clay soils. One inch of compost in a good quality loam soil will usually be adequate.

Images of the Biodynamic Compost Process



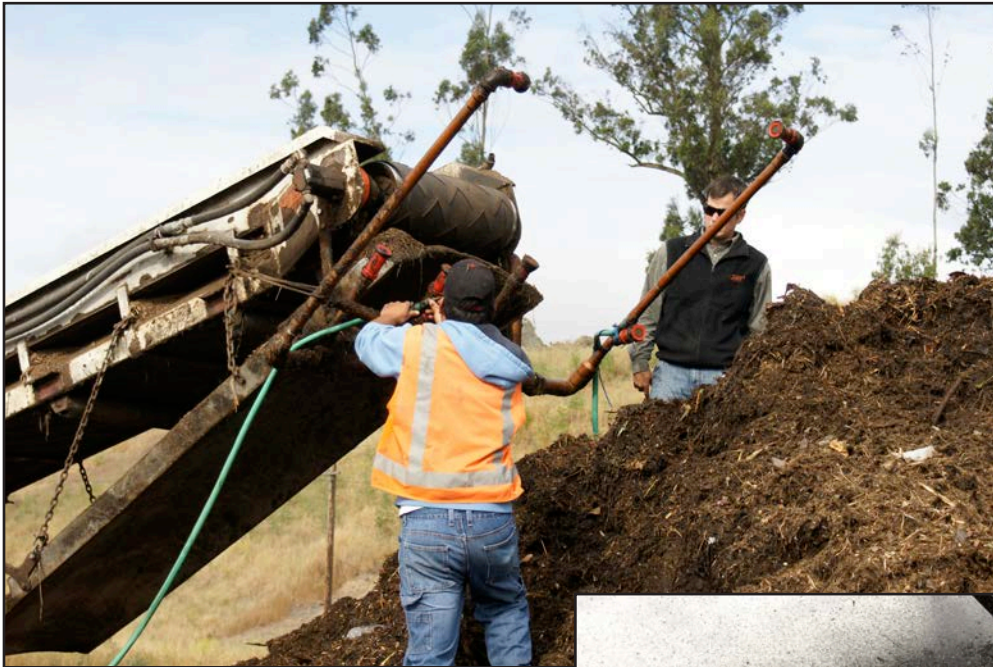
(1) Pfeiffer BD compost starter is added to water and activated by stirring with a dynamizer (stirring machine) from Europe. The dynamizer is designed to stir large quantities of the Biodynamic preparations.



(2) The dynamizer is adjusted carefully to stir the preparations correctly.



(3) A water truck is filled with activated compost starter.



(4) The activated Pfeiffer BD Compost Starter is applied to the compost feedstock during the grinding stage.



(5) Windrows are formed and are carefully monitored and kept between 50%-60% moisture content, and brought up to or above 131°F (55°C) for at least 15 days to allow involved biology to stabilize the ingredients into a living and hygienic fertility amendment.



(6) The Biodynamic Compost Preparations; BD #502-507 are added to the compost windrows either by insertion or spray, as appropriate for the individual preparation. The inoculated Biodynamic compost windrows are cured for a minimum of 6 months.



(7) Biodynamic Compost applied to vineyards.



8) Biodynamic compost is appropriate for home and crop application