



Fundamentals of Biodynamic Farming

by Michael and Arika Menzies

The benefits of biodynamic farming can be seen in the quality of food, the health of the land and livestock, and relief from ecological demise increasingly generated by many modern farming techniques. This article describes the origins of biodynamic agriculture, explains what it is, and describes its most common practices and philosophies employed by biodynamic and co-op farmers today.

Biodynamic farming traces its roots back to the early 20th century and the work of influential Austrian philosopher and social thinker, Dr. Rudolf Steiner, who spent his life studying biological life and growth on earth. In the 1920s a group of German farmers concerned about soil degradation sought Steiner's advice. After numerous lectures and conversations held in Germany in 1924, the fundamental principles of biodynamic farming emerged. Since then, biodynamic farming has continued to be practiced around the world.

Biodynamic farming views soil and the farm itself as living organisms; and as such considers the maintenance and advancement of soil life as a basic necessity. If the soil is to be preserved for future generations, it must live as a healthy and mostly self-contained system.

Maintenance of soil life is vital in order to protect it from erosion as well as improve and enhance humus quality and content. The notion is that good soil produces high quality crops, and high quality crops produce better feed for livestock and better food for people.

Soil improvement is obtained by proper *humus* development (the broken down organic matter in soil). This is achieved by

- applying properly fermented manure and compost
- rotating crops properly, growing cover crops and green manure, diversifying crops (referred to as "polyculture" rather than monoculture), and planting complimentary crops together (referred to as "companion planting")
- cultivating the soil properly; namely, knowing the optimum time and depth for cultivation such that the soil structure is preserved
- proper soil protection to prevent erosion (e.g., from wind, runoff)

On a biodynamic farm, manure and compost are the most valuable





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fertilizers. They contain organic matter on which the soil bacteria and organisms can feed and revitalize the soil. Careful storage of manure in heaps covered with soil, as taught by the biodynamic method, avoids nitrogen and nutrient losses to a great degree.

Because raw organic matter has not yet reached the state of proper humus, a number of fermentation processes must first take place in the manure heap. Certain biodynamic *preparations* are inserted into the manure heaps in order to speed and direct fermentation and preserve the value of the organic material being “rotted.” Organic materials are piled up in alternate layers, and the pile is treated with biodynamic preparations.

Preparations set biodynamic farming apart from other methods of agriculture. They are based on age-old peasant techniques and seem strange in our modern time. However, the concepts are similar to methods used in many other forms of farming. The preparations react like yeast in dough, speeding and directing fermentation to a desired end.

Not all farms using biodynamic methods employ preparations exactly in the same prescribed way. However, the goal of using the preparations is the same, to improve the health of the farm to a point where it can “take care of itself.”

There are nine traditional biodynamic preparations, although some farmers use more. Numbers 500 and 501 are field-applied preparations intended to improve and stimulate humus formation. Number 500 is horn-manure, admittedly one of the more curious and often criticized preparations by newcomers to biodynamic farming. Number 501 is powdered quartz.

Numbers 502 through 507 are applied to the manure and compost piles in small quantities. Their sole purpose is to direct fermentation of all kind of organic matter toward humus. These preparations are yarrow, chamomile, stinging nettle, oak bark, dandelion, and valerian. The final preparation, 508, is horsetail, used to prevent fungal disorders. All of these preparations act similarly to homeopathic remedies used in medicine.

Proper crop rotation preserves the fertility of the soil. General rules include the following:

- soil-exhausting crops (e.g., corn, potatoes, cabbage) should alternate with soil-building crops (e.g., peas, beans, clover)





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- deep-rooting crops should alternate with shallow-rooting ones
- crops that require manure should alternate with those that can do without

For the farmer wishing to follow biodynamic methods, biodynamic agriculture represents a way of living, working, and relating to nature and farming based on common-sense practices toward how the farm is treated and the work is approached. The farmer should understand the geology, soils, climate, plant, and animal life of the farm, as well as the economy of the bioregion. The farmer should also strive for self-sufficiency and diversity in energy, fertilizers, plants, and animals, and should structure activities based on working with nature's rhythms. For more information, visit The Biodynamic Farming and Gardening Association (www.biodynamics.com).

