

Features of Biodynamic Agriculture

Pawar Rushikesh and Gurav Mahesh

M.Sc. (Agri.) Agronomy, Department of Agronomy, College of Agriculture, Dhule,
Mahatma Phule Krishi Vidyapeeth, Rahuri (MS)

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Introduction:

Biodynamic agriculture is a form of alternative agriculture very similar to organic farming, but it includes various esoteric concepts drawn from the ideas of Rudolf Steiner. Initially developed in 1924, it was the first of the organic agriculture movements. It treats soil fertility, plant growth, and livestock care as ecologically interrelated tasks, emphasizing spiritual and mystical and perspectives.

Biodynamics has much in common with other organic approaches – it emphasizes the use of manures and composts and excludes the use of synthetic (artificial) fertilizers, pesticides and herbicides on soil and plants. Methods unique to the biodynamic approach include its treatment of animals, crops, and soil as a single system, an emphasis from its beginnings on local production and distribution systems, its use of traditional and development of new local breeds and varieties. Some methods use an astrological sowing and planting calendar. Biodynamic agriculture uses various herbal and mineral additives for compost additives and field sprays; these are prepared using methods that are more related to sympathetic magic than agronomy, such as burying ground quartz stuffed into the horn of a cow, which are said to harvest "cosmic forces in the soil".

What is Biodynamic Farming?

Biodynamic agriculture is an advanced organic farming system that is gaining increased attention for its emphasis on food quality and soil health. It is a method of farming that aims to treat the farm as a living system that interacts with the environment, to build healthy living soil, and to produce food that nourishes, vitalises and helps to develop humanity. Biodynamics can be understood as a combination of "biological dynamic"

agriculture practices. “Biological” practices include a series of well-known organic farming techniques that improve soil health, while “dynamic” practices are intended to influence biological as well as metaphysical aspects of the farm (such as increasing vital life force) or to adapt the farm to natural rhythms (such as planting seeds during certain lunar phases).

History of Biodynamic Farming

Biodynamic agriculture was developed out of eight lectures on agriculture given in 1924 by Rudolf Steiner (1861–1925), an Austrian scientist and philosopher, to a group of farmers near Breslau (which was then in the eastern part of Germany and is now Wroclaw in Poland). These lectures, as well as four supplemental lessons, are published in a book titled “Spiritual Foundations for the Renewal of Agriculture”, originally published in English as an Agricultural Course (1). The Agriculture Course lectures were taught by Steiner in response to observations from farmers that soils were becoming depleted following the introduction of chemical fertilizers at the turn of the century. In addition to degraded soil conditions, farmers noticed deterioration in the health and quality of crops and livestock. Thus, biodynamic agriculture was the first ecological farming system to develop as a grassroots alternative to chemical agriculture.

Features of Biodynamic Agriculture

- It is a holistic understanding of agricultural farming that treats soil fertility, plant growth and livestock care as ecologically interrelated tasks.
- It emphasizes the use of composts and inputs made from various herbal, mineral and manure raw materials excluding the use of artificial chemicals.
- Emphasizes integration of farm animals, use of astronomical sowing and planting calendar.
- Maintaining sustainability by producing living soil and healthy plants as a result of coordinated work of earthly and cosmic energies.

1. Soil:

- To produce healthy, vital plants, one must concentrate mainly on the structure and the life of the soil: the nutrients, the trace elements, the microorganisms, the worms and other animals present in the soil.

- But primarily, the soil is a living system of connections and relationships. If the soil is balanced in its life forces, the plants growing in it will be stronger, healthier, and higher in quality.
- No chemicals necessary.

2. Organic matter:

- To create this balanced, living soil, what is required is a skillful use of organic matter. This is done by building compost heaps and using Biodynamic compost preparations.

3. Humus:

- This mysterious, magical substance supports life and is the carrier of all that the plants need to grow.
- It holds the fertility of the soil stably and retains water.
- Humus is completely digested crude organic matter: rich, dark, and moist with a fresh odour. This is the base for building up the soil and fostering its formation should be the priority when converting to Biodynamic farming.

4. Cow manure:

- Cow dung is special because of the lengthy digestion process of the cow which adds many beneficial bacteria to the substance.
- It is used in building the compost heaps as a starter and for its nitrogen content and in preparing the Biodynamic preparations.

5. Cosmic forces and planetary influences:

- Recognizing and working with the influences of heavenly bodies on plant growth by using the preparations and following the sowing calendar.
- Lunar and astrological cycles play a key role in the timing of biodynamic practices, such as the making of BD preparations and when to plant and cultivate.
- Recognition of celestial influences on plant growth is part of the biodynamic awareness that subtle energy forces affect biological systems.

6. Biodynamic preparations:

- These simple, natural, homoeopathic preparations are used to enhance the effects of the planets and silica and lime on the soil and the plants, and also to enhance the breaking-down process and potential life forces in the compost heaps.

- Dr Steiner gave two preparations to be sprayed directly on the soil or the plants (numbered 500 and 501), and six preparations to be used when making compost (numbered 502 to 507).

7. Crop rotation:

- Crop rotation, proper soil cultivation and other organic farming methods: intelligent planning to let the soil rest after heavy-feeding crops (such as potatoes, tomatoes, cabbage), by sowing green manures (legumes, clover) and covering the soil (grass, clover) so that it may build up its humus content and nitrogen levels.

8. Peppering:

- To deal with an unbalanced insect problem, animal pests or weed problem, one may collect the insects, weed seeds, or dead animal skins, burn them at the appropriate time according to planetary positions.
- The ash can be potentized in water as homoeopathic medicine, and spray on the land. This is an effective biodynamic alternative to using chemical sprays.

9. The farm organism:

- The more self-sufficient a farm can be, the healthier it will be.
- The aim is to have a wide variety of plants and animals and to bring something from outside (such as manure, bio-pesticides) only if there is an imbalance that must be rectified, as medicine.
- Important aspects of the farm include the water source and balance, prevention of soil erosion by planting trees and hedges which also help in wind protection and providing animal habitat, being aware of insect life and balance which could include looking after honey bees.

10. Substance and energy:

- Life is more than just chemicals; it depends on the interaction of matter and energies.
- For example, plants need light and warmth as well as earth and water to grow.
- The interaction of substance and energy forms a balanced system. We live not only from a substance, but also from energy, and so we need to eat food that will provide the energy. Only plants that have grown in a balanced soil can give us energy (through trace minerals, enzymes, growth hormones) as well as substance.

11. Liquid manures and herbal teas:

- Herbal teas usually consist of one fermented plant extract, while liquid manures are made by fermenting a mixture of herb plants in combination with fish or seaweed extracts.
- The purpose of herbal teas and liquid manures are manifold; here again, they perform dual roles by supporting biological as well as dynamic processes on the farm; i.e., source of soluble plant nutrients; stimulation of plant growth; disease-suppression; carrier of cosmic and earthly forces.
- To reflect their multi-purpose use, they are sometimes referred to as immune building plant extracts, plant tonics, biotic substances, and bio-stimulants.

Advantages of Biodynamic Agriculture:

- Biodynamic preparations rapidly benefit soil physical, chemical and microbial biomass which makes the soil a living system.
- Biodynamic agriculture ensures high soil fertility, which produces the best and quality food for humans.
- Besides the higher earthworm abundance, enzymatic activities and microbial population in the soil, higher yield is also obtained with a combination of biodynamic and organic farming practices.
- Thus, biodynamic agriculture altered the degenerative effect of intensive farming practices, build and sustain soil productivity as well as plant, animal and human health.

Conclusion:

- Biodynamic farming is neither easily learned nor it can't be learnt from a textbook. It can be learned by sensing and experiencing it.
- Biodynamic farming is more than a body of information.
- Biodynamic farming needs spiritual caretake and direct experience of rhythms of the season, along with spiritual, astronomical and seasonal knowledge.
- It helps in rejuvenating the soil and ensure the sustainability of crop production and quality.
- It is a scientifically sound approach to the sustainable management of plant systems.

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