

The Biodynamic Farming: A Holistic Approach to Organic Farming

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Biodynamics is a science of life forces, recognition of the basic principles at work in nature, and an approach to agriculture which takes these principles into account to bring about balance and healing. In a very real way, then, bio-dynamics is an on-going path of knowledge rather than as assemblage of methods and techniques.

Introduction

The term 'biodynamic' has been derived from the two Greek words *viz.*'bios' (life) and 'dynamics' (energy). Hence, the name biodynamics indicates, 'working with the energies which create and maintain life'. The concept of biodynamic is not new. Some seventy years ago, Dr. Rudolf Steiner, an Austrian Philosopher, delivered eight lectures on biodynamics in 1924 at Koberwitz in Germany. He made an intimate study of the natural life- forming and maintaining processes and forces. In biodynamic farming Dr. Rudolf Steiner has given eight recipes as "biodynamic preparation".

Differences between Organic and Biodynamic Farming

Any biodynamic is also organic. A list of differences is given below:

- Biodynamic agriculture uses field preparations
- Biodynamic agriculture uses compost preparations
- Biodynamic produce is certified by Demeter, but can be certified by an organic certifying body as well.
- Biodynamic agriculture uses an astronomical calendar to determine times of planting and harvesting.
- The biodynamic farm as a whole is viewed as an organism.

Rules for Using Biodynamic Agriculture

- Use of biodynamic sprays stimulate and retain soil fertility
- Following crop rotation to combat pest and diseases and to increase the beneficial micro-flora.
- Recycling on farm wastes.
- Following prevention strategies against pest and diseases by strengthening plant and animals in the farm.

Biodynamics Preparations

1. **Preparation 500 (cow dung manure):** It is basically fermented cow dung. It should be sprayed four times in a year. The best times are in autumn (Oct.) and again in the

spring (Feb. and march) for spraying 25g BD-500 is dissolved in 13.5 lit of water in plastic buckets by making vortere in clock and anti-clockwise direction for one hour in the evening.

Steps in preparation

- I. Cow's horns are cleaned properly with water.
- II. Cleaned cow horn are filled with fresh cow dung (especially from lactating and indigenouse one) and buried at 30 cm depth in the soil in root free zone in descending period of moon during March and April.
- III. After six months of incubation, horns should be left for some more periods and again is to be taken out during descending period of moon.



- IV. Properly decomposed compost is to be stored at cool place in eastern pot.

2. **Preparation 501 (horn silica manure):** It is made in ascending period by filling the horn with mealy' silica powder and is buried in spring (March-April) after taking out BD-500. Within six month, the preparation is ready for use. The solution is prepared by dissolving 1g in 13.5 lit of water and stirring for one hour. The BD-501 should be applied on the leaves in the form of 'mist' in the morning at the sunrise and the best constellation is moon in opposite to Saturn.

Steps in preparation

- I. After taking out of cow horn manure (BD-500), cow horns are thoroughly cleaned with water.
 - II. Cow horns are filled with silica powder paste and buried in same pit where cow horns were buried for the preparation of BD-500 during ascending period of moon in March and April.
 - III. After six months of incubation, horns are taken out in October-November, during the ascending period of moon.
 - IV. Light yellowish silica powder is taken out from the horn and stored in light near the house wind in glass jar.
 - V. The horn silica BD-501 catalyses cosmic forces of the outer planets of mars, Jupiter and Saturn and applied in the morning, particularly in summer when forces from within the earth well forth in the atmosphere.
3. **Preparation 502:** Venus (*Achillea millefolium*) + stag bladder. Provides S, K and micronutrients. The ready preparation is used in compost, CPP and liquid manure. During spring or early summer, harvest and naturally dry enough wild white yarrow florets to stuff in a dried inflated deer, stage or moose bladder. Before stuffing, soften the dried bladder with luke warm rain water. Discard the florets used to make the compost. Press the moisture florets together before stuffing them into the bladder. When stuffed to the point of

stretching, set it closed with thread. Hang the stuffed bladder 6 feet above the ground in full sun all summer. In the fall of summer, bury it 6-12 inches deep in fertile soil. A year after first stuffed into the bladder, remove the yarrow and store in an earthen pot.

4. **Preparation 503:** Mars (*Matricaria reticulata*) + cow intestine-Ca. It is made from the flowers of German chamomile, which helps in process of Ca and N. Collect and dry naturally wild chamomile flowers as early in the year as possible during spring season. The flowers are dried in shade and airy place. Stuff the moistened flowers into the intestine of a recently died cow. Bury this “sausage” through the winter in fertile soil. In the spring take out and store the compost in an earthen pot until it is needed for use.
5. **Preparation 504:** Mercury (*Urtica dioica*) only –iron. Collect the mature stinging needle before flowering and allow the harvest to fade slightly then, just before winter, bury them for a year in soil. The dried nettle is stuffed into a rough unglazed earthen pot and buried in fertile soil in autumn. It is sieved and stored.
6. **Preparation 505:** Moon (*Quercus robur*-oak bark) + skull of cow- calcium. All the flesh and brain material is cleared before use. The stuffed skull needs to be shallowly buried where water flows. The idea is to bury the skull in an environment of slimy rotting mulch, in the spring the result is humus high in micro-organisms and calcium, which enhances the compost pile.
7. **Preparation 506:** Jupiter (*Taraxacum officinale*-dandelion) + mesentery-silica, potassium. It is made from flowers head of dandelion. It is used medicinally for liver diseases.
8. **Preparation 507:** Saturn (*Valeriana officinalis*) blossom extracted into water (Phosphorus). Valerian is commonly found in Kashmir early on spring morning, harvest the florets grind the flowers and dilute the water at 1:4 ratio. It can be done at any time, stir 10 ml into 30 lit of water and sprinkle over the compost.
9. **Preparation 508:** Horse tail (pine needles). Collect and dry the green shoots of horsetail. It contains upto 70% silica. Incorporating 100g of this in five lit of water and slowly boil it. Stir BD 508 from 10 min just before application and sprinkle on soil around plants on full moon day.

Biodynamic Compost

It serves as a way to recycle animal manures and organic wastes, stabilize nitrogen, and build soil humus and enhance soil health. The traditional manner in which the biodynamic compost is made is rather exacting. After the compost windrow is constructed; preparations 502-506 are strategically placed 5-7 feet apart inside the pile, in holes poked about 20 inches deep. Preparation no. 507 or liquid valerian, is applied to the outside layer of the compost windrow by spraying or hand watering.

Steps in preparation

- Place 5 m long thick roof on higher elevation.
- Spread 20 cm thick layer of dry grass on wood in the size of 5 × 2.5m.
- Sprinkle 100-150 lit of water mixed with dung on the grasses.

- Again 20 cm thick layer of green grasses are spread equally on the heap and sprinkle 100-150 lit of water with dung.
- Above process is repeated to the height of 1.5m.
- Incorporate BD set (502-507) in the heap and plaster with mixtures of dung and soil.

Biodynamic Planting Calendar

Activities connected with full moon:

- Sowing of seeds (48 hours before)
- Application of liquid manures
- Fungus control spraying with equisetum 0.5 or sodium silicate 0.58
- Burning of weed seeds for peppering
- Drenching of animals for internal parasites

Activities connected with new moon:

- No sowing of seeds
- Felling of timber

Activities connected with descending period of moon:

- Spraying of BD 500 during autumn (April-May) and spring (September-October)
- Making or spreading of compost in autumn and spring
- Transplanting of seedlings and trees
- Cultivation of land
- Harvesting of 'root crops' for storage on root days
- Pruning of all fruit trees at appropriate season on fruit day
- Pruning of flowering shrubs and roses at appropriate season on flowering day.

Activities connected with ascending period of moon:

- Spraying of BD 501 in spring (October)
- Spraying of BD 501 at an early stages of growth when plant is recognizable, then again prior to ripening
- Sowing in general of all seeds
- Harvest silage or hay on air/light days
- Harvest fruits and vegetables (not roots) on air/light days.

Advantages

It is cost effective. It helps in reducing fertility inputs and produce premium quality products. It increase water holding capacity of soil and improve plant and animal health and yield, reduces weeds and pests. It increases the self life of farm produce and help in nutrient cycles with the farm or garden.

Conclusion

Biodynamics agriculture originally consisted of mystical, and therefore unscientific, alternative approach to agriculture. Many organic practices are scientifically testable and can result in improved soil and plant health parameters. Therefore, by combining this biodynamic farming along with other organic practices help in maintaining the soil health.