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Biodynamic Farming

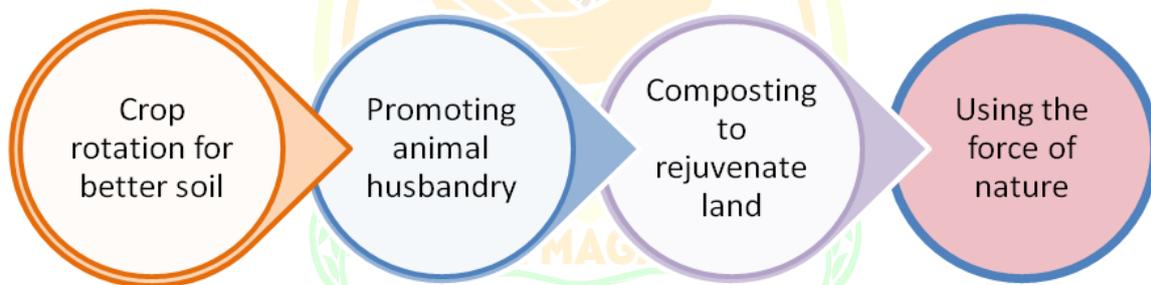
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The advanced organic farming technology known as biodynamics is founded on the notion that farms are individual, cohesive organisms that emphasise the interdependence and holistic growth of the soil, plants, and animals as a closed, self-sustaining system. The natural revitalisation of soil, the buildup of all essential elements that plants consume, and the equilibrium of soil microorganisms are all made possible by biodynamic agriculture. Biodynamic farming, to put it briefly, is about healthy plant growth, starting with good soil and finishing with healthy vegetation and appropriate harvesting. In early 20th-century Europe, biodynamic agriculture (BDA) emerged as the first organised approach to organic farming as a counter to the growth of high-input industrial agriculture. The potential of agriculture has changed as a result of resource limitations, environmental issues, and worries about food security and safety. Consequently, biodynamic farming has gained scientific attention in the past two decades as a different approach to attaining long-term sustainability. The concept of biodynamic farming was developed within the framework of anthroposophy.

Principles



Biodynamics takes a comprehensive approach to pests and diseases. It seeks to create the best possible conditions for the health of the soil, plants, and animals as well as to provide balanced nutrition and a strong immune system. Pest and diseases have few places to survive because of the habitat created by robust diversity of plants and animals. When sickness is present, it frequently causes an imbalance in the farm organism. Biodynamic farmers learn how to minimise imbalances and modify management procedures to restore the farm organism to higher health when an outbreak develops.

Material and methodology

Biodynamically grown plants maintain much of their inherent nutrients, colour, and flavour. The buildup of solar energy through the use of entirely natural biodynamic preparations for leaf spraying and soil treatment is one of the most significant features of biodynamic technology. A balanced set of nutrients relevant to their type, as well as more sunlight and energy, are absorbed by fruits and vegetables cultivated biodynamically. This makes biodynamic plants healthier during growth and naturally increases their resistance to

undesirable bacteria and plant diseases. Customers will benefit from longer freshness and shelf life of biodynamic fruits and vegetables as well as more flavourful biodynamic meals.

Table 1. Biodynamic preparations along with the main ingredients and agricultural applications:

Preparation	Main ingredient	Application
BD-500	Cow manure Field spray	Field spray
BD-501	Silica	Field spray
BD-502	Yarrow flowers (<i>Achillea millefolium</i> L.)	Compost additive
BD-503	Chamomile flowers (<i>Matricaria recutita</i> L.)	Compost additive
BD-504	Stinging nettle shoots (<i>Urtica dioica</i> L.)	Compost additive
BD-505	Oak bark (<i>Quercus robur</i> L.)	Compost additive
BD-506	Dandelion flowers (<i>Taraxacum officinale</i>)	Compost additive
BD-507	Valerian extract (<i>Valeriana officinalis</i> L.)	Compost additive
BD-508	Horsetail (<i>Equisetum arvense</i> L.)	Field spray

(Reeve et al. 2011)

The natural nutritional characteristics of biodynamic wheat, rye, barley, or oats are enhanced by similar cultivation procedures that benefit biodynamic grains. The ability of a soil to support particular land uses or ecological boundaries is known as soil quality. Plant growth, crop yield, and quality are all directly impacted by soil quality. Research has indicated that compared to conventional farming methods, biodynamic farming systems typically have higher net returns per hectare, lower crop yields, and better soil quality. The natural nutritional characteristics of biodynamic wheat, rye, barley, or oats are enhanced by similar cultivation procedures that benefit biodynamic grains. The ability of a soil to support particular land uses or ecological boundaries is known as soil quality. Plant growth, crop yield, and quality are all directly impacted by soil quality. Research has indicated that compared to conventional farming methods, biodynamic farming systems typically have higher net returns per hectare, lower crop yields, and better soil quality.

Techniques of producing different Biodynamic preparations:

- The BD 500 preparation, also known as cow horn manure, is made from fermented cow dung in a cow horn that is buried in soil for six months during the winter season and is used as a foliar and soil spray to promote plant growth and the formation of humus.
- Horn-silica is a BD 501 preparation made from powdered quartz packed inside a cow horn and buried in the soil for six months during the summer season, and is applied as a field spray to hasten plant growth at a concentration of 3 g per hectare soil.
- The preliminary work BD 502 is made by inserting moistened yarrow blossoms (*Achillea millefolium*) into the red deer's urinary bladder (*Cervus elaphus*). The bladder is hung in the sun during the summer, then buried in the earth during the winter, and finally retrieved during the spring.
- BD 503 is prepared by stuffing moistened chamomile blossoms (*Matricaria recutita*) into the small intestine of cow and is buried in humus-rich soil in the autumn and withdrawn during the spring season.
- BD 504 is made by burying stinging nettle (*Urtica dioica*) plants in soil for a year and covering them with a peat moss mantle. The preparation aids in the humification of compost.
- BD 505 is made by scraping the outer rind of oak bark (*Quercus robur*) into the skull cavity of a domesticated animal and burying it in a muddy area where rain water percolates.
- BD 506 is made by stuffing dried dandelion (*Taraxacum officinale*) flowers into the peritoneum of a cow, then burying it in the soil during the winter and withdrawing it in the spring.

- The preliminary work BD 507 is made by extracting and diluting the juice of valerian flowers (*Valeriana officinalis*) with rain water.
- BD 508 is a foliar spray made from the silica-rich horsetail plant (*Equisetum arvense*) that is used to suppress fungal diseases in plants.

Conclusion

Several experiments and trials conducted around the world demonstrate the superiority of biodynamic agriculture over traditional farming systems. The use of biodynamic preparations is better for the soil's long-term fertility status. In the twenty-first century, when agriculture suffers from a lack of available soil nutrients, it is time to consider alternatives. Presently in the 21st century, when agriculture is suffering from depletion of available soil nutrients it is high time to opt for the sustainable management techniques. Till now the use of biodynamic preparations in modern day agriculture is not that much popular. If proper knowledge about the usage, benefits and advantages of this sustainable agricultural approach are spread around the farming community, it can certainly gain more acceptance in future.

I believe that biodynamic farming's productivity and efficiency have the potential to significantly improve policy decisions and our understanding of biodynamic farming as a system with agronomic, economic, and environmental aspects. The majority of agricultural productivity evaluations, however, focus on production efficiency. However, in a changing environment, production resilience is disregarded.

References

1. Reeve, J. R., Carpenter-Boggs, L., & Sehmsdorf, H. 2011. Sustainable agriculture: A case study of a small Lopez Island farm. *Agricultural systems*, 104(7), 572-579.
2. Muhie, S.H., 2023. Concepts, Principles, and Application of Biodynamic Farming: a Review. *Circular Economy and Sustainability*. 3:291–304
3. Migliorini, P., Santoni, M., Ferretti, L., Vazzana, C., & Pacin, C. 2022. A review of scientific research on biodynamic agriculture.
4. Uzunova, R. B., Atanasov, D., 2019. Biodynamic Agriculture- Old traditions and modern practices, Vol. 17, 530-536.