

# Organic Farming: An Approach Towards Sustainable Agriculture

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## Abstract

In the context of rising environmental concerns and awareness regarding the detrimental effects of traditional agriculture, organic farming has emerged as a promising alternative towards achieving sustainability in agriculture. Organic farming relies on crop rotations, animal manures, crop residues, off-farm organic waste, mineral-grade rock additives and on biological nutrient mobilisation to govern optimum plant protection. Organic agriculture is a viable farming strategy that supports the health of soils, humans & ecosystems. It mainly focusses on natural processes, biodiversity and cycles that are well adapted to specific local conditions. The core principles of health, ecology, fairness and care are the roots from which organic agriculture grows and develops. Organic farming encourages sustainable and ecofriendly management, conservation and restoration activities. Organic farming offers a viable path towards sustainable agriculture

## Introduction

Resources are limited, but human needs and desires are limitless. Widespread degradation of the environment which includes soil, air & water pollution, poverty, unemployment and concerns about a good quality of life, were the main drivers for taking an interest in future generations' equitable access to these finite natural resources. Thus, in the context of rising environmental concerns and awareness regarding the detrimental effects of traditional agriculture, organic farming has emerged as a promising alternative towards achieving sustainability in agriculture.

The United States Department of Agriculture (USDA) defines the organic farming as "a system which avoids and largely excludes the use of artificial inputs" (e.g., fertilisers, pesticides, hormones, feed additives). Organic farming relies on crop rotations, animal manures, crop residues, off-farm organic waste, mineral-grade rock additives and on biological nutrient mobilisation to govern optimum plant protection. Organic agriculture is a viable farming strategy that supports the health of soils, humans &

ecosystems. It mainly focusses on natural processes, biodiversity and cycles that are well adapted to specific local conditions rather than using such inputs that have detrimental effects on the health of environment. Organic agriculture combines innovation, science & tradition to improve the conditions of shared environment. It also promotes the fair interactions and a better quality of life among all those involved.

The total area under organic certification process (registered under National Programme for Organic Production) in India is 7.3 million hectares (2023-2024). Among all the states, Madhya Pradesh has the largest area under organic certification followed by Maharashtra, Rajasthan, Gujarat, Odisha, Sikkim.

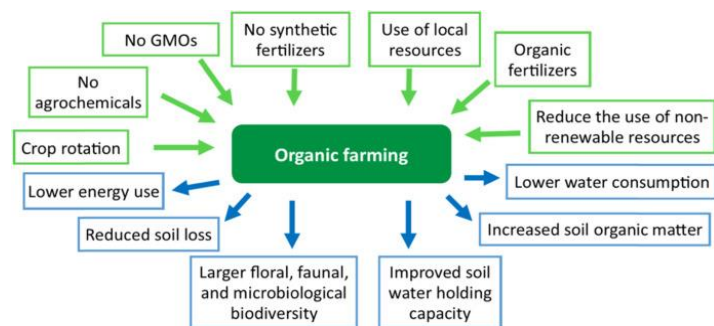
## Principles of Organic Farming

Organic farming is based on several key principles that differentiates it from traditional methods. The core principles of health, ecology, fairness and care are the roots from which organic agriculture grows and develops.

1. **PRINCIPLE OF HEALTH:** Organic farming should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.
2. **PRINCIPLE OF ECOLOGY:** Organic farming should be based on living ecological systems and cycles, work with them, emulate them and help to sustain them.
3. **PRINCIPLE OF FAIRNESS:** Organic farming should build on relationships that ensure fairness with regard to the common environment and life opportunities.
4. **PRINCIPLE OF CARE:** Organic farming should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.

## Benefits of Organic Farming

**Economic & Social Aspects of Organic Farming:** Beyond ecological benefits, organic farming has economic and social implications as well:



- ❖ **MARKET DEMAND:** Organic products are becoming more and more popular nowadays among consumers, driven by concerns about health and sustainability. This trend has the potential to increase the earnings & profit for farmers while generating new market opportunities for them.
- ❖ **RURAL DEVELOPMENT:** Organic farming may help rural economies to grow by generating employment opportunities and encouraging local businesses as well.
- ❖ **KNOWLEDGE AND INNOVATION:** Organic farming promotes the creation and dissemination of innovative methods and technologies. Farmers and researchers collaborate to develop solutions that increase soil productivity while conserving environmental integrity.

### Challenges & Future Directions

Despite its benefits, organic farming faces challenges as well:

- ❖ **CERTIFICATION COSTS:** The process of acquiring organic certification can be costly

and time demanding, especially for small producers.

- ❖ **YIELD VARIABILITY:** Organic farms may have lower yields than conventional farms, which can affect profitability and food security.
- ❖ **MARKET ACCESS:** Access to organic market places may be limited in some areas, making it difficult for farmers to reach consumers.

To address such challenges, continuing research efforts, policy support, and education & awareness are required. Making investments in organic farming research can assist create innovative strategies to boost yields and lowering cost of production. Government policies that support organic agriculture by providing subsidies or incentives can be quite significant.

### Conclusion

Organic farming offers a viable path towards sustainable agriculture. Organic farming improves the ability to cope up with the detrimental effects of climate change by boosting resilience within the agroecosystem. It develops efficient and ecofriendly farming system that are resilient to fluctuations in temperature and droughts while preventing soil erosion. Organic farming encourages sustainable and ecofriendly management, conservation and restoration activities. As the world grapples with climate change and environmental degradation, organic farming emerges as a critical respondent in building a more sustainable and resilient food system.

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