



ORGANIC FARMING – AN OVERVIEW

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Introduction

As the world grapples with the effects of climate change, soil degradation, and food safety concerns, organic farming has emerged as a sustainable alternative to conventional agriculture. Rooted in traditional knowledge and enhanced by modern scientific understanding, organic farming avoids synthetic chemicals and emphasizes natural processes to grow healthy, safe, and environmentally friendly food. Across the globe and particularly in India, organic farming is gaining traction as a farming system that benefits both people and the planet.

Organic Farming

Organic farming is a method of agriculture that involves growing and nurturing crops without the use of synthetic fertilizers, pesticides, genetically modified organisms (GMOs), and artificial growth regulators. Instead, it relies on natural inputs such as compost, green manure, crop rotation, and biological pest control. The core aim of organic farming is to build healthy soil, protect biodiversity, ensure animal welfare, and produce chemical-free food.

History and Evolution

The roots of organic farming lie in Ancient Indian practices, where farmers relied on cow dung, compost, and crop diversity. The modern organic movement began in the early 1900s in Europe and was formalized by Sir Albert Howard, who worked in India and emphasized composting and soil health. Over time, the movement grew, and today, organic farming is recognized as a regulated system with certification standards globally.

Principles of Organic Farming

According to IFOAM (International Federation of Organic Agriculture Movements), organic farming is based on four key principles:

1. **Health** – Sustain the health of soil, plants, animals, and humans as one.
2. **Ecology** – Work with natural ecosystems and cycles.
3. **Fairness** – Ensure fairness to farmers, workers, consumers, and the environment.
4. **Care** – Manage agriculture responsibly to protect the health of current and future generations.

Key Practices in Organic Farming

- **Use of organic manures** like farmyard manure, compost, green manure, and vermicompost.
- **Crop rotation and intercropping** to maintain soil fertility and reduce pest outbreaks.
- **Biological pest control** using neem extracts, predators, and biopesticides.
- **Use of biofertilizers** like Rhizobium, Azospirillum, and phosphate-solubilizing bacteria.
- **Organic certification** to ensure traceability and build consumer trust.

Status of Organic Farming in India

India ranks among the top countries in organic agriculture:

- **Sikkim** became the first 100% organic state in the world.
- Other states like Uttarakhand, Meghalaya, and Kerala are promoting organic clusters.
- As of recent reports, India has over **4.4 million hectares** under organic certification.
- Schemes like **Paramparagat Krishi Vikas Yojana (PKVY)** and **Mission Organic Value Chain Development for North East Region (MOVCDNER)** are supporting the organic movement.

Government Support and Schemes

Scheme	Key Features
PKVY – Paramparagat Krishi Vikas Yojana	Cluster-based organic farming; training & certification support
MOVCDNER – Mission Organic Value Chain for North East	Focuses on organic farming in 8 NE states
RKVY, MIDH, NMSA	Provide subsidies and infrastructure for organic input production
Jaivik Kheti Portal	Online platform to connect organic farmers with buyers

Role of Research and Education

ICAR, State Agricultural Universities (SAUs), and KVKs are actively conducting research on:

- Yield comparison between organic and conventional systems
- Organic pest management
- Soil health under organic systems

Organic farming is now included in many university curricula and training modules.

Digital Tools and Technology in Organic Farming

Mobile apps and websites help in:

- Weather forecasting
- Input guidance
- Market prices and buyer connections

Examples: Kisan Suvidha, Agmark net, Jaivik Kheti Portal

GPS, IoT, and remote sensing are being explored for organic crop monitoring and traceability

Organic Farming in Urban and Peri-Urban Areas

- Rooftop gardens, kitchen gardens, and terrace farming are gaining momentum in cities.
- Organic waste from homes is used to make compost, reducing household waste and producing food locally.
- NGOs and municipalities are promoting urban organic gardening for food security and green spaces.

Global Trade and Export Potential of Organic Products

- India exports organic products like turmeric, ginger, tea, basmati rice, and oilseeds to the US, EU, Canada, and UAE.
- Export certification follows **NPOP** standards and is supervised by **APEDA**.
- Organic exports from India were valued at **Rs. 7,000+ crore** in recent years, with increasing demand.

Challenges in Adoption

- Lack of awareness and technical training
- Short-term yield drops during conversion period
- Higher labour requirement
- Limited marketing and infrastructure
- Fragmented certification system

Advantages and Disadvantages of Organic Farming

Aspect	Advantages	Disadvantages
Soil Health	Improves soil structure, organic matter, and microbial activity	Building up soil fertility takes time
Human Health	Produces chemical-free, nutritious, and safe food	Organic produce may spoil faster due to lack of preservatives
Environment	Reduces pollution, protects biodiversity, and lowers carbon footprint	Limited pest and disease control options without synthetic chemicals
Market Value	Fetches premium prices in domestic and export markets	High certification and marketing costs
Resource Use	Conserves water and reduces dependence on external chemical inputs	Labor-intensive and time-consuming practices
Sustainability	Supports long-term ecological balance	Initial yield may be lower, especially during conversion period
Animal Welfare	Encourages ethical livestock rearing practices	Organic feed and medication options are limited and expensive
Consumer Trust	Builds trust through certified, traceable food systems	Misuse of the “organic” label without certification can mislead consumers
Resilience	Increases farm resilience to climate shocks with diverse and natural systems	Requires strong technical knowledge and constant monitoring
Policy Support	Supported by various government schemes and subsidies	Schemes are sometimes fragmented and not easily accessible to all farmers

Conclusion

Organic farming stands as a sustainable alternative to conventional agriculture, offering numerous benefits for farmers, consumers, and the environment. By embracing natural inputs, soil-friendly practices, and biodiversity, organic farming helps restore ecological balance while ensuring the production of safe and healthy food. Though it comes with challenges like yield fluctuations, certification hurdles, and labour demands, its long-term advantages in terms of soil fertility, environmental health, and market opportunities make it a viable path for future agriculture. With proper awareness, policy support, farmer training, and consumer participation, organic farming can evolve from a

niche practice to a mainstream movement, contributing to a greener and healthier planet for generations to come.