

Organic Farming and the Sustainability of Agriculture Sector

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Introduction

Agriculture farming plays a major role in growing of food and fulfilling the basic need of human beings. There are two major types of farming that is organic farming and conventional farming. Both have their own ways of working and different effects on the environment. But now a days organic farming is more required due to the demand from global world. Organic farming is a natural way of growing food. It avoids harmful chemicals and focuses on healthy soil, clean water, and biodiversity. This method helps to protect the environment and human health. Organic agriculture is a production system that regenerates the health of soils, ecosystems, and people. Organic farmers rely on natural processes, biodiversity, and cycles adapted to local conditions rather than the use of synthetic inputs like chemical fertilizers, pesticides, and herbicides.

Features of Organic Farming

- No chemical fertilizers or pesticides - Uses compost, manure, and natural pest control methods.
- Crop rotation and mixed cropping - Helps maintain soil fertility and prevent pests.
- Animal welfare - Livestock is raised with access to outdoors and without antibiotics or growth hormones.
- Encourages biodiversity - Organic farms are often home to insects, birds, and animals that support the ecosystem.
- Not use of genetically modified seeds - Organic farms avoid genetically modified seeds.

Organic farming is more sustainable in terms of:

- Soil protection
- Water conservation
- Long-term environmental safety
- Wildlife and ecosystem support

However, it has some challenges:

- Lower crop yield
- Higher cost to the farmer and the consumer
- Needs more land to produce the same amount of food

Benefits of Organic Farming

There are various benefits of organic farming:

1. It increases diversity, long term soil fertility, high food quality, reduced pest and diseases and also stable production of crops.
2. It also reduces rural migration and maintain gender equality, gives many chances to entrepreneurs and provides employment with good quality work.

3. Organic farming also affects society by providing better health and education and strengthen the community.
4. It also reduces pollution, dependence on non renewable resources, negligible soil erosion and also provides protection to wild life and increase compatibility of crop production with environment.
5. Organic farming also gives healthy food, nature and environment. It encourages farmers, entrepreneurs or other ordinary people to take initiative for organic farming and also consume organic products.

Comparison of Organic Farming with Conventional Farming

To examine how each type of farming performs in terms of sustainability a comparison table is made of organic farming with conventional farming.

Factor	Organic Farming	Conventional Farming
Crop Yield	Usually lower per acre	productivity per acre higher
Soil Health	Builds soil fertility naturally through compost and crop rotation	Depletes soil nutrients; overuse of chemicals can lead to erosion
Water Conservation	Efficient use of water; avoids chemical runoff into water sources	wastes water through large-scale irrigation; leads to pollution
Chemical Use	Avoids harmful pesticides and fertilizers	Heavy use of synthetic chemicals that harm the environment
Biodiversity	Promotes pollinators, birds, and natural predators	Destroys habitats and reduces wildlife diversity

Conclusion

India is an agriculture based country since ancient times. Demand of organic agricultural methods is growing, especially in areas where the present farming system has degraded resources essential to agricultural production, farmer's health. consumer's health are also mentioned as

reasons for shifting to organic methods. As conventional farming results in various health and environmental hazards and also socio economic problems, awareness of the environmental costs of agriculture such as the declining quality of drinking water and soil, and the impact of agriculture on landscape and wildlife have shifted consumer's interest towards organic agriculture. Organic farming is a long term sustainable approach to agriculture production. The entire agricultural community is trying to find a solution

to overcome the short comings of conventional farming, which can socially, economically, and ecologically benefit mankind. Organic farming is only solution to these problems as it nurture the land and to regenerate the soil by traditional methods of farming which is free from chemicals and pesticides. This is essential for sustainable development and to produce high nutritional quality food. So organic farming is the present need for agriculture system for future survival of mankind.

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