



Organic Farming: Upcoming Future of Agriculture

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INTRODUCTION

Organic farming represents an ecologically mindful approach to agriculture, distinct for its exclusion of synthetic pesticides, genetically modified organisms, and artificial fertilizers. Instead, it emphasizes natural techniques such as crop rotation, composting, and biological pest control to maintain soil fertility and ecological balance. It supports the conservation of water resources, decreases soil erosion, and lessens pollution. This system prioritizes the well-being of ecosystems, ensuring a harmonious relationship between agriculture and the environment. Organic farming delivers produce free from synthetic residues, meeting the rising consumer demand for healthy, non-GMO, and environmentally sustainable food options, thereby fostering a more sustainable and regenerative food production system.

Principle of Organic Farming

1. Principle of health

Organic Agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.

This principle points out that the health of individuals and communities cannot be separated from the health of ecosystems - healthy soils produce healthy crops that foster the health of animals and people. Health is the wholeness and integrity of living systems. It is not simply the absence of illness, but the maintenance of physical, mental, social and ecological well-being. Immunity, resilience and regeneration are key characteristics of health. The role of organic agriculture, whether in farming, processing, distribution, or consumption, is to sustain and enhance the health of ecosystems and organisms from the smallest in the soil to human beings. In particular, organic agriculture is intended to produce high quality, nutritious food that contributes to preventive health care and well-being. In view of this it should avoid the use of fertilizers, pesticides, animal drugs and food additives that may have adverse health effects.

Principle of ecology

Organic Agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.

This principle roots organic agriculture within living ecological systems. It states that production is to be based on ecological processes, and recycling. Nourishment and well-being are achieved through the ecology of the specific production environment. For example, in the case of crops this is the living soil; for animals it is the farm ecosystem; for fish and marine organisms, the aquatic environment.

Principle of fairness

Organic Agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities.

Fairness is characterized by equity, respect, justice and stewardship of the shared world, both among people and in their relations to other living beings.

This principle emphasizes that those involved in organic agriculture should conduct human relationships in a manner that ensures fairness at all levels and to all parties - farmers, workers, processors, distributors, traders and consumers. Organic agriculture should provide everyone involved with a good quality of life, and contribute to food sovereignty and reduction of poverty. It aims to produce a sufficient supply of good quality food and other products.

Principle of care

Organic Agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.

Organic agriculture is a living and dynamic system that responds to internal and external demands and conditions. Practitioners of organic agriculture can enhance efficiency and increase productivity, but this should not be at the risk of jeopardizing health and well-

being. Consequently, new technologies need to be assessed and existing methods reviewed. Given the incomplete understanding of ecosystems and agriculture, care must be taken.

Status of Organic Farming in India

India has made substantial strides in promoting organic farming. With around 2.9 million hectares of certified organic farmland, the country stands as one of the largest organic producers globally. The government launched various initiatives like Paramparagat Krishi Vikas Yojana and the National Programme for Organic Production to encourage farmers to adopt organic practices. Several states have taken proactive measures by providing subsidies and training to farmers, contributing to the growth of organic agriculture. However, challenges like certification costs, lack of infrastructure, and market access persist. Despite this, the trend towards organic farming in India continues to gain momentum, reflecting a growing awareness of sustainable agricultural practices.

Advantages of Organic Farming

Organic farming offers numerous advantages:

Environmental Benefits: It promotes biodiversity, reduces soil and water pollution by avoiding synthetic chemicals, and encourages sustainable farming practices.

Healthier Produce: Organic farming avoids the use of synthetic pesticides and fertilizers, resulting in produce with fewer chemical residues, potentially healthier for consumers.

Soil Fertility: Emphasizing natural fertilizers and crop rotation, organic farming enhances soil fertility and structure, promoting long-term sustainability.

Animal Welfare: Livestock in organic farms are raised in more humane conditions, with access to outdoor spaces, promoting their well-being.

Supports Local Economies: Often practiced on smaller scales, organic farming can support local economies, providing opportunities for local farmers and businesses.

Climate Change Mitigation: Organic methods often involve carbon sequestration in soils, contributing to mitigating climate change by reducing greenhouse gas emissions.

Improved Water Quality: By avoiding synthetic chemicals, organic farming helps maintain better water quality by reducing the risk of chemical runoff into water sources.

Resilience to Climate Change: Organic farming methods are often more resilient to extreme weather conditions, potentially providing greater stability in changing climates.

Enhanced Taste and Nutrition: Some consumers believe organic produce tastes better and may contain higher nutrient levels due to the soil's improved health.

Preservation of Ecosystems: Organic farming practices often involve preserving natural habitats, helping to conserve biodiversity and ecosystems.

Organic Farming Market in India

As of my last knowledge update in January 2022, the organic farming market in India has been steadily growing. India has a rich tradition of agriculture, and the organic

farming sector has gained momentum due to increasing awareness of health and environmental concerns. The market for organic products in India, including both food and non-food items, has been on the rise.

Export Market: India has a significant share in the global organic market. The country exports organic products to various countries, including the United States and European nations.

Diverse Organic Products: India produces a wide range of organic products including fruits, vegetables, pulses, spices, tea, coffee, cotton, and more.

CONCLUSION

Organic agriculture seeks to optimize the primary efficiency of agro-ecosystems, in compliance with local environment conditions and social needs of a region. Over-stressing any single natural or human production aspect of any sub-system might lead to deterioration of the balanced efficiency of the whole system. Optimizing the synergy of soil-crop-animal and man interactions is therefore the foremost challenge.