ORGANIC FARMING: AN INTRODUCTION

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Agricultural production systems have gradually evolved and developed over a period of time from the age of hunting, gathering, shifting cultivation, settled agriculture, intensive production to today's organic farming. History of agriculture is a long journey of innovation, trials and tribulations of humans to produce food for themselves and their livestock. Before 19th century, food used to be produced using manures and horses and oxen were the major sources of farm power since chemical fertilizers, pesticides, and tractors or farm machines were not invented till then. India's own achievements in agricultural production after the Green Revolution in the mid-1960s, has been exemplary and mainly due to increased use of the components of modern agriculture, namely high-yielding varieties, fertilizer, pesticides and farm machinery.

THE GENESIS

There is multiplicity in the definition of organic farming as also in the ways people perceive it. For most of the people, the agriculture practiced by the ancient people was organic farming since it was close to nature, thus, 'natural farming'. The roots of organic farming can be traced to Europe back to the late early 20th century. The formation of the International Federation of Organic Agriculture Movements (IFOAM) in 1972, gave an international framework for the discussion and codification of internationally recognized principles of organic farming. The IFOAM is now world leader as far as the developments in the area of organic farming are concerned. Organic agriculture is now being practiced in 160 countries and 37.2 million hectares of agricultural land are managed organically by 1.8 million farmers. It is on the rise in term of land, number of farms and farmers as also the production of certified organic agricultural products around the world.

ORGANIC FARMING: THE DEFINITION

Organic farming has a very strict definition: it denotes farming systems that adhere to the standards of organic farming. Organic agriculture has been defined and explained in many ways but all converge to state that it is a system that relies more on ecosystem management rather than dependent on external agricultural inputs. It is a system that begins to consider potential environmental and social impacts by eliminating the use of synthetic inputs, such as synthetic fertilizers and pesticides, veterinary dugs, genetically modified seeds and breeds, preservatives, additives and irradiation. These are replaced with site-specific management practices that maintain and increase long-term soil fertility and prevent pest and diseases (FAO, 2005).

FAO/WHO Codex Alimentarius Commission defines organic farming as "a holistic production management system which promotes and enhances agroecosystem health, including biodiversity, biological cycles and soil biological activity. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems".

AIMS OF ORGANIC FARMING

Organic production and processing are based on a number of principles and ideas (IFOAM, 2006). All are equally important; thus, this list does not seek to establish any priority of importance. These principles include:

- To produce sufficient quantities of high-quality food, fiber and other products.
- To work compatibly with natural cycles and living systems through the soil, plants and animals in the entire production systems.
- To recognize the wider social and ecological impact of and within the organic production and processing system.
- To maintain and increase long-term fertility and biological activity of soils using locally adapted cultural, biological and mechanical methods as opposed to reliance on inputs.
- To maintain and encourage agricultural and natural biodiversity on the farm and surrounds through the use of sustainable production systems and the protection of plant and wildlife habitats.
- To maintain and conserve genetic diversity through attention to on-farm management of genetic resources.
- To promote the responsible use and conservation of water and all life therein.
- To use, as far as possible, renewable resources in production and processing systems and avoid pollution and waste.
- To foster local and regional production and distribution.
- To create a harmonious balance between crop production and animal husbandry.
- Organic farming severely restricts the use of artificial chemical fertilizers and pesticides.
- Instead, organic farmers rely on developing a healthy, fertile soil and growing a mixture of crops.
- Animals are reared without the routine use of drugs, antibiotics and dewormers common in intensive livestock farming.

POSITIVE EFFECTS OF ORGANIC FARMING

- It helps in maintaining environmental health by reducing the level of pollution.
- It reduces human and animal health hazards by reducing the level of dangerous chemical residue in the product.
- It helps in keeping agricultural production at a sustainable level.
- It reduces the cost of agricultural production and also improves the soil health.
- It not only saves energy for both animal and machine, but also reduces risk of crop failure.

According to IFOAM, organic agriculture contributes to food security by a combination of many features, most notably by:

- Increasing yields in low-potential areas and market marginalized areas.
- Conserving bio-diversity and nature resources on the farm and in the surrounding environment.
- Increasing income and reducing production costs.
- Producing safe and diversified food.
- Creating sustainable food supply chains.
- Being environmentally, socially and economically sustainable in the long term.

PRINCIPLES OF ORGANIC AGRICULTURE

The Principles of Organic Agriculture were established by the International Federation of Organic Agriculture Movements (IFOAM) in September, 2005. The aim of the principles is both, to inspire the organic movement and to describe the purpose of organic agriculture to the wider world. These principles of organic agriculture explain the concept, role and ways the organic agriculture can sustain the life in this planet in a sustainable manner. These are considered to be the roots from which organic agriculture grows and develops.

1. The Principle of Health: Organic agriculture should sustain and enhance the health of soil, plant, animal and human as one and indivisible. The principle of health 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. 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.

2. The 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.

3. The 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,

Health

Care

Principles of Organic Farming

Ecology

Fairness

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. This principle insists that animals should be provided with the conditions and opportunities of life that accord with their physiology, natural behavior and well-being.

4. The 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.

CONCLUSION:

Developing countries like India have a certain comparative advantage in organic agriculture, as they possess relatively abundant labour and use relatively fewer agrochemicals in production. In developing countries, organic agricultural systems achieve equal or even higher yields, as compared to the current conventional practices, which translate into a potentially important option for food security and sustainable livelihoods for the rural poor in times of climate change. Certified organic products cater for higher income options for farmers and, therefore, can serve as promoters for climate friendly farming practices worldwide. Organic agriculture has achieved the distinction of being most innovative form of agriculture; those who adopt it are not the laggards but the innovators leading to its rapid diffusion across globe.