

### The Important Goals of Organic Farming are:

- ✓ A sufficiently high level of productivity
- ✓ Compatibility of cultivation with the natural cycles of the production system as a whole
- ✓ Maintaining and increasing the long-term fertility and biological activity of the soil
- ✓ Maintaining and increasing natural diversity and agro-biodiversity
- ✓ Maximum possible use of renewable resources
- ✓ Creation of a harmonic balance between crops and animal husbandry
- ✓ Creation of conditions in which animals are kept that correspond to their natural behaviour
- ✓ Protection of, and learning from, indigenous knowledge and traditional management systems

### Advantages of Organic Farming

1. **Nutritional, poison-free and tasty food:** The nutritional value of food is largely a function of its vitamin and mineral content. In this regard, organically grown food is dramatically superior in mineral content to that grown by modern conventional methods. A major benefit to consumers of organic food is that it is free of contamination with health harming chemicals such as pesticides, fungicides and herbicides. There are reasonably consistent findings for higher nitrate and lower vitamin C contents in conventional vegetables (Woese et al., 1997). Several studies indicate that 10-60 percent more healthy fatty acids (like CLA's) and omega-3 fatty acids occur in organic dairy (Butler et al., 2008). In crops, vitamin C ranges 5-90 percent more and secondary metabolites 10-50 percent more in organic. Also, less residues of pesticides and antibiotics are present (Huber and van de Vijver, 2009). Heaton, (2002) reported that organic food contains higher minerals and dry matter and 10-50 percent higher phytonutrients. Decreased cell proliferation of cancer cells was observed on extracts of organic strawberries (Olsson et al., 2006). The Parsifal study showed 30 percent less eczema and allergy complaints and less bodyweight among 14 000 children fed with organic and biodynamic food in five EU countries (Alfven et al., 2006). In animals, organic feed leads to increased fertility (Staiger, 1988) and increased immune parameters (Finamore et al., 2004). Other studies indicate that the most systematic differences between organic and conventional crops are the contents of secondary metabolites (Brandt & Mølgaard, 2001).

Organically grown food tastes better than that conventionally grown. The tastiness of fruit and vegetables is directly related to its sugar content, which in turn is a function of the quality of nutrition that the plant itself has enjoyed. This quality of fruit and vegetable can be

empirically measured by subjecting its juice to brix analysis, which is a measure of its specific gravity (density). The brix score is widely used in testing fruit and vegetables for their quality prior to export. Organically grown plants are nourished naturally, rendering the structural and metabolic integrity of their cellular structure superior to those conventionally grown. As a result, organically grown foods can be stored longer and do not show the latter's susceptibility to rapid mold and rotting.

2. **Lower growing cost:** The economics of organic farming is characterized by increasing profits via reduced water use, lower expenditure on fertilizer and energy, and increased retention of topsoil. To add to this the increased demand for organic produce makes organic farming a profitable option for farmers.
3. **Enhances soil nourishment:** Organic farming effectively addresses soil management. Even damaged soil, subject to erosion and salinity, are able to feed on micro-nutrients via crop rotation, inter-cropping techniques and the extensive use of green manure. The absence of chemicals in organic farming does not kill microbes which increase nourishment of the soil. Biodynamic farms had better soil quality: greater in organic matter, content and microbial activity, more earthworms, better soil structure, lower bulk density, easier penetrability, and thicker topsoil (Reganold et al., 1993); agricultural productivity doubled with soil fertility techniques: compost application and introduction of leguminous plants into the crop sequence (Dobbs and Smolik, 1996; Drinkwater et al., 1998; Edwards, 2007).
4. **More energy efficiency:** growing organic rice was four times more energy efficient than the conventional method (Mendoza, 2002). Organic agriculture reduces energy requirements for production systems by 25 to 50 percent compared to conventional chemical-based agriculture (Niggli et al., 2009).
5. **Carbon sequestration:** German organic farms annually sequester 402 kg Carbon/ha, while conventional farms had losses of 202 kg (Clark et al., 1999; Küstermann et al., 2008; Niggli et al., 2009).
6. **Less water pollution:** in conventional farms, 60 percent more nitrate are leached into groundwater over a 5-year period (Drinkwater et al., 1998).
7. **Environment-friendly practices:** The use of green pesticides such as neem, compost tea and spinosad is environment-friendly and non-toxic. These pesticides help in identifying and removing diseased and dying plants in time and subsequently, increasing crop defense systems. Organic farms' biodiversity increases resilience to climate change and weather

unpredictability (Niggli et al., 2008). Organic agriculture reduces erosion caused by wind and water as well as by overgrazing at a rate of 10 million hectare annually (Pimentel et al., 1995).

- 8. Organic farming is a source for productive labour:** Agriculture is the main employer in rural areas and wage labour provides an important source of income for the poor. Thus, by being labour intensive, organic agriculture creates not only employment but improves returns on labour, including also fair wages and non-exploitive working conditions. New sources of livelihoods, especially once market opportunities are exploited, in turn revitalize rural economies and facilitate their integration into national economies.

#### Disadvantages of Organic Farming

- 1. Lower productivity:** An organic farm cannot produce as much yield as a conventional or industrialized farm. A 2008 survey and study conducted by the UN Environmental Program concluded that organic methods of farming result in small yields even in developing areas, compared to conventional farming techniques. Though this point is debatable as the productivity and soil quality of an industrialized farm decreases rapidly over the years.
- 2. Requires skill:** An organic farmer requires greater understanding of his crop and needs to keep a close watch on his crops as there are no quick fixes involved, like pesticides or chemical fertilizers. Sometimes it can be hard to meet all the strenuous requirements and the experience to carry out organic farming.
- 3. Time-consuming:** Significant amounts of time and energy are required to execute the detailed methods and techniques that are required for a farm to be called an organic farm. Failure to comply with any of these requirements could result in loss of certification, which the farmer will not be able to regain in up to three years. And it can be more time-consuming. Organic farming increases soil fertility by way of compost, and organic fertilizers and mulch. Organic fertilizers tend to be slow-release. As with control by botanicals, horticultural oils, and insecticidal soaps, organic fertilizers may need several applications before the desired results are brought about.
- 4. More labour intensive:** It can be more labor-intensive. For organic farming considers biological, cultural and mechanical responses to production challenges. It focuses on plant and soil health through proper aeration, drainage, fertility, structure and watering. So there's more above and below ground grunt work involved.
- 5. Organic farming methods aren't as established and widespread - yet - as conventional production.** So organic control by botanicals such as pyrethrin can be more expensive than

conventional controls by the longer established, more available, and wider ranging artificial, commercial, synthetic chemical pesticides.

6. Organic farming also requires a lot more inputs and more red-tape than conventional farming because certain practices must be met in order for a farm to retain the organic label. If anything slips, then the farm loses organic certification just like that.

### Future prospects

The movement started with developed world is gradually picking up in developing countries. But demand is still concentrated in developed and most affluent countries. Local demand for organic food is growing. India is poised for faster growth with growing domestic market. Success of organic movement in India depends upon the growth of its own domestic markets. India has traditionally been a country of organic agriculture, but the growth of modern scientific, input intensive agriculture has pushed it to wall. But with the increasing awareness about the safety and quality of foods, long term sustainability of the system and accumulating evidences of being equally productive, the organic farming has emerged as an alternative system of farming which not only address the quality and sustainability concerns, but also ensures a debt free, profitable livelihood option.

### Conclusion

Organic farming works in harmony with nature rather than against it. This involves using techniques to achieve good crop yields without harming the natural environment or the people who live and work in it. An organic farmer produces vegetables, fruit, cereal crops, or livestock without the use of chemical fertilizers, pesticides, or herbicides. In another way organic farming is kind of agricultural that provide the consumers, with fresh, tasty and reliable food while regarding natural life cycle systems. In addition to health benefits of organic products for consumers, there are vital environmental benefits for the earth. An organic farming keeps biodiversity and reduce environmental pollutions such air, water and soil. Organic agriculture has grown out of the conscious efforts by inspired people to create the best possible relationship between the earth and men.

### References

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