

Natural farming and Organic farming: Eco-friendly and Sustainable

Vikas Tandon^{*}, Sachin Kumar, Sunny Chaudhary and Naresh Thakur¹ CSK HP Agricultural University, Palampur, India ¹Dr YS Parmar University of Horticulture and Forestry, Nauni (Solan), India ARTICLE ID: 19

Introduction

Agriculture plays an important role in a developing country like India. Apart from fulfilling the food grain requirement of the increasing population, it also plays a critical role to improve the economy of the country. In India, the Green Revolution technology adoption has started in the year 1960, which leads to an increased food grain supply of up to 12 to 13 percent. Indiscriminate uses of chemicals and fertilizers have caused a negative influence on the environment, human health and many more. Conventional Chemical farming is facing either reduced production or increased costs, or both. It is finally making the crop plants vulnerable to parasites and pathogens. In India, the increased cost of cultivation leads to committing suicides by farmers. The practice of continuously same crop like rice, commercial crops like cotton and solanaceous crop posed a serious threat to biodiversity and the scope for invasion of pathogens increased. The other concept, Zero budget natural farming philosophy is working with nature to produce a healthy crop, to keep humans and soil healthy. Everything in Nature is useful and serves a purpose in the food web. Natural farming differs from Organic farming by not using any organic manure like FYM and vermicompost. India has been traditionally practicing organic farming, but modern agriculture practices have pushed it to walls. Organic farming is developing rapidly and nowadays at least 170 countries produce organic food commercially. Organic farming is the system of farming that promotes environmentally, socially and economically sound products of food and fibers. Nowadays, the awareness about the numerous harmful effects of chemicals pesticides and fertilizers on health, soil, environment, etc., is increasing; hence shifting towards natural and organic farming is need of the hour to produce healthy food.

Benefits of ZBNF



- In food crisis, global warming, climate change, destruction of natural resources, migration and suicides of farmers, it is possibly the most successful agrarian movement in the world.
- > It can check further deterioration and effectively revive environmental and soil health.
- It also helps in the sovereignty of traditional land races, encourages soil aeration, bunds and top soil mulching, inter-cropping and less water application which although do not bring a sudden increase in productivity but can uplift farmers' income by developing a self-sustaining system after at least 3 years of the conversion period.
- It can help to promote various intercultural operations, and consequently the involvement of hired manual labours.
- > It's able to reduce energy intensity per unit of gross domestic product.
- It can reduce material footprint per unit capita and per unit value added in agriculture by reducing external inputs and encourage waste recycling instead of dumping or burning.

Benefits of organic farming

- > It maintains the health of the environment by reducing pollution.
- > It helps in improving soil health and increasing agricultural production sustainably.
- > It improves the availability of nutrients and water holding capacity of the soil.
- > Underground water of the land under organic farming is free of toxic chemicals.
- Vermicompost has hormone like substance auxins which increase plant growth and brings down waste bulk density.
- > Agriculture products obtained from organic farming are better in quality.

Conclusion

In ZBNF, the application of supplements like Jeevamruth improves soil fertility by increasing soil microflora and available nutrients. It encourages multi cropping and biodiversity of micro and macro flora. Labour and production costs of the crop are minimized. Hence it can be adopted as an eco-friendly and sustainable approach. Organic farming is the system of farming which promotes soil health, ecology, socially and economically sound produce. In India, high prices for organic products and lack of proper marketing channels within domestic markets are the major drawbacks in organic farming.