

## Organic Farming: Methods and Modern Concept

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### Introduction:

Agriculture plays an important role in the economy of India because there are more than 66% people depending on agriculture and their livelihood exists just because of agriculture. We can say it is the backbone of India. In the post independence period, the most important challenge in India has been to produce enough food for the growing population. Hence, high-yielding varieties are being used with infusion of irrigation water, fertilizers, or pesticides.

Today, to meet the vast need and demand of food and fiber. There is extensive use of chemicals in the agricultural field by farmers to increase the production, chemical fertilizer, pesticides, insecticide are in great demand because of their instant result on the production and to meet the need of people for food also. Chemical fertilizers play an important role to meet nutrient requirement of the crop but their continuous use on lands will have deleterious effects on physical, chemical and biological properties of soil, which in turn reflects on yield (Aher *et al.*, 2015)

To overcome the problem of hunger, green revolution has come in 1966. In green revolution scientist suggested to use the chemical for better productivity but the suggestion of using chemical on crops is the need of that time because in 1960's , the situation was different from today every people was in hungry and there was a food crises also. But today unfortunately formers are using these chemicals for only production, not for better livelihood. So there is a huge need of adopting natural forming because the environment is degrading day by day and it become a cause of global warming, to reduce the anti-environmental impact, there is only one solution i.e. organic farming. Sustainable Agriculture is more a philosophy or way of life. Sustainable agriculture is able to feed the world without destructive the environment or fear provoking human health. It is a way of growing food in an ecologically and ethically responsible approach and it results in higher returns over time, with less need for high-priced and environmentally harmful inputs such as chemical



fertilizers, pesticides and weedicides. Hence, Organic farming is a very native concept to India and it brings agricultural sustainability

Organic farming is sustainable way of producing crops by the use of natural resources available in surrounding like compost, farmyard manure, vermicompost, bio fertilizer, bio pesticides etc. To maintain ecological balance without any impact on productivity is the outcome of organic farming.

The concept of organic farming is developing very fast and if we talk about present status of organic farming, there are more than 160 countries in the whole world who are practicing organic farming for food production on commercial basis because organic farming is the integrated system of farming that promote environmental sustainability, social and economical benefits also for food and fiber.

Currently more than 160 countries are there who are practicing natural farming/ permaculture for sustainable development and reduction in chemical inputs. India ranked 11<sup>th</sup> in terms of export of organic product. India has legacy of 30% in total organic product produce in the world. M.P. has covered largest area under organic certification. In M.P. there are some region who is engaged in organic practices are Mandla, Dindori, Balaghat, Chhindwara, Betul, Katni, Umaria, Anuppur, Damoh.

Total production of organic products in India in the year 2020-21 is 3496800.34MT And total volume of export during 2020-21 was 888179.68MT. The organic food export realization was around INR 707849.52/- (1040.95 million USD). The major exporting countries are USA, European Union, Canada, Great Britain, Korea Republic, Israel, Switzerland, Vietnam and Australia.

#### **Objectives of Organic Farming:**

1. To overcome the drawback of green revolution.
2. To improve soil fertility.
3. To reduce environmental pollution happening by chemicals.
4. To reduce the cost of cultivation in field.
5. To resolve the health hazard caused by using chemicals.
6. To control the population of pest and reduction diseases.

### Components under Organic Farming:

1. **Green Manuring:** Cultivation of plant and crops in the field and uproot them in the soil to make decomposed material to invert them in the field comes under green manuring. It increases soil fertility, soil structure. Crops used in green manuring are sunhemp, dhaincha, berseem, moong etc.



2. **Mulch:** Mulch is basically a material or crop residue to cover the plant to reduce evaporation losses and makes condition more favorable for crops and the process of doing mulch in the field is called mulching. Tender green leaves, twigs and plants, polythenes can be used in mulching



3. **Bio pesticides:** In this method, micro organism is used to control the pest population.
4. **Vermicompost:** Earthworms is regarded as "farmer's friend" and excreta of earthworms has nutrient content(3.0N,1.0P,1.5K) to help in maintaining soil health and this excreta is called vermicompost and the process of making vermicompost is called vermicoposting.



Unit of Vermicoposting

5. **Weed Management:** Management of weeds by cultural, biological and mechanical methods like churning, tillage comes under weed management.
6. **Biofertilizer:** These are the strain of micro organism which have detrimental effect on pest without harming the environment and also reduces the dependency on chemical inputs.
7. **Crop management:** Changes in cropping system is also comes under organic farming, crop rotation is the best practice to enhance the fertility without deteriorating soil condition and pest adaptability also reduces.
8. **Farm yard manure:** Farmyard manure refers to the decomposed mixture of dung and urine of farm animals along with litter and left over material from roughages or fodder fed to the cattle and has nutrient content 0.5N,0.25P,0.5K.

#### Advantages of natural farming:

1. Improves soil structure and makes favorable condition for crops.
2. Environmental safety.
3. Low cost of inputs or reduce expenses of input.
4. Plants become more resistant to disease.
5. By Organic manuring, Quality of crops also improves.

#### Disadvantages of Natural Farming:

1. Organic farming requires more time to adapt.
2. More cost of labours
3. One requires full knowledge and skills for doing organic farming.
4. Organically farm produce more cost compare with chemical one.

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