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Organic Farming-Ecofriendly Agriculture

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Abstract

Agriculture became a high investing and low yielding due to uncontrolled use of synthetic chemicals which are becoming harmful to the ecosystem. To protect our ecosystem organic farming is well practiced without using harmful chemicals, they are replaced by bio-fertilizers, bio-pesticides etc. this also maintains the soil fertility, use of chemical fertilizers kills the useful soil organisms but the organic farming can support the life of soil organisms and gives high yielding.

Keywords: Organic farming; Ecosystem; Fertilizers; Fertility

Introduction

Organic farming is a form of agriculture that depends on various techniques such as vermicomposting, crop rotation, green manure, Animal Husbandry, Bio fertilizers and biological pest control. Organic farming is the form of doing crop/plant cultivation by using organic manures which are ecofriendly manures that supports the life of soil and other useful organisms in the soil. Organic farming is an adapted practice in developing countries, where farmers use animals for tilling the land and manures prepared by dung and other waste material of animals. Organic farming supports the crop yield and quality of production [1]. Most of the developed countries use synthetic chemicals to protect from insects, pests and other plant diseases. The use of synthetic chemicals may give high yield for some time and protects the plants but the continuous use of chemical in farming, useful organisms in soil become inactive and the insects or pests and other diseases gain resistance to the chemicals and later the chemicals may not show its effect on the pests, insects and other harmful organisms to the crops. Organic farming system in some developing countries like India is not new and is being followed from ancient days. Bio fertilizers are prepared with beneficial microbes which release nutrients to soil and support the crop growth and product yield without any environmental pollution [2].

The population of world is increasing time to time and there would be requirement of the food production to feed the world but to meet the requirement in a sustainable manner. Every country need to practice organic farming and should avoid the use of synthetic chemicals, but the 'Green Revolution' had brought a vast change in food production and now it requires organic form of 'Green Revolution' by meeting the food requirement and to protect the soil life and the Ecosystem [3]. Fertility of the soil is decreasing with use of synthetic chemical and the harmful organisms are gaining resistances towards synthetic chemicals and these chemicals are harmful to the animals and the ecosystem. Many countries import and export different food products like fruits, crops, seeds etc. from these some of the food products are banned to import due to high chemical content which would harm the health by consuming it [4].

The aim of the organic farming is to produce chemical free food and to maintain the fertility of the soil for long time [5]. This also provides employment to the agriculture labors in various forms like non-chemical weeding, composting and strip farming etc.

Methods of Organic Farming

Organic farming involves various techniques which are ecofriendly and by practicing it the fertility of soil is conserved for long time [6]. There various methods in organic farming some of them are Crop rotation, use of green manures, biological pest control and composting, these also provide employment to agriculture labors.

Employment to agriculture labors

In present day machinery are replacing man power and making them unemployed but with organic farming it provides employment because many techniques are used, from preparation of manure to cop harvesting [7].

Crop rotation

It is a technique of growing different crops in same area according to the seasons and it is practiced to avoid agriculture pests, and to maintain soil fertility [8].

Green manures

Green manures are the plant leaves and waste material of plant which cover the soil and stuffed in to soil and become as nutrient to the soil and increase the soil fertility [9].

Vermicomposting

It is a process of composting using different worms like white worms, earth worms and red wrigglers for preparation of compost with mix of kitchen waste and other vegetable waste [10]. This is rich in nutrients and used as fertilizers in the agriculture fields.

Biological pest control

Living organisms are used to protect plants from peats without synthetic chemicals [11].

Advantages of Organic Farming

Organic farming is an important form of doing agriculture which has many benefits to ecosystem such as:

Nutrition

Organic food is rich in nutrients and it is free from harmful chemicals, it also increases the nutrients in the soil so the grown crop is healthier to consume [12].

Free from chemicals

In organic farming chemicals are not used to control pests and other harmful plant diseases, which causes cancer and other diseases to the consumers. But organic farming is free of toxic chemicals [13].

Quality food

The organic food is having quality with nutrients and it tastes better than the food grown by using synthetic chemicals and quality of food is determined by its taste. Brix analysis is used to measure the quality of vegetables and fruits [14].

Long Time Store

Organic food has the capability of longer time storage due to its metabolic and structural integrity in their cellular structure than the other crops grown by using synthetic chemicals [15].

Low input cost

Expenditure on agriculture is low with organic farming because it need animals to till the land, manures which are easily available and they can prepare their own, and the bio fertilizers are prepared with low cost [16-20].

Limitations

Apart from advantages organic farming is demerits they are:

- Organic farming is a time taking process in getting the result, which makes the farmers to neglect this kind of farming.
- It requires more labor force and should have regular observation compared to conventional farming.
- Organic farming is a skill based work and farmers should be trained time to time according to the seasons and the condition of the crops [21-29].
- Low productivity is the major problem in organic farming compared to conventional farming, but in conventional form of agriculture the fertility of soil is decreasing time to time with excess use of chemicals.

However it has some disadvantages it is a useful form of doing agriculture, which benefits the ecosystem and the consumers [30-35]. The soil gains the nutrients and maintains the soil fertility for longer time and useful for agriculture.

Future Prospects

In present world most of the consuming food contains harmful chemicals which are causing various diseases unknowingly or neglected knowingly this can be reduced by organic farming [36-47]. The agricultural lands are becoming useless to do agriculture if this continues the coming generations will face a serious problem of food production and they unable to produce quality food. It requires proper practice of organic farming skills with patience.

Conclusion

Most of the farmers are doing conventional form of agriculture to get the high yield and quick result, but with conventional agriculture the fertility of the soil is decreasing gradually and if this kind of practice continues the land become useless for agriculture [48-58]. So, to avoid such a serious problem practice of organic farming helps the soil to maintain the fertility and can get good quality of food products which are also healthier. However it has some minor disadvantages organic farming is useful and ecofriendly form agriculture [59].

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