

An Analysis on the Methodologies for Organic Farming

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ABSTRACT: Organic farming :“Organic farming or agriculture is a production system that sustains the health soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions. Organic agriculture combines with tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life”

KEYWORDS: Agriculture and Quality

I.INTRODUCTION

Agriculture is the cultivation of land and breeding of animals and plants to provide foods, medicinal plants and other products to sustain and enhance life. Agriculture was the key development in the rise of sedentary human civilization (**OR**)The science or practice of farming, including cultivation of the soil for the growing of crops and the rearing of animals to provide food, wool, and other products.



Organic farming is a method of crop and livestock production that involves much more than choosing not to use pesticides, fertilizers, genetically modified organisms, antibiotics and growth hormones.

Organic production is a holistic system designed to optimize the productivity and fitness of diverse communities within the agro-ecosystem, including soil organisms, plants, livestock and people. The principal goal of organic production is to develop enterprises that are sustainable and harmonious with the environment.

II.RELATED WORKS

VOWS OF ORGANIC FARMING

- Protecting the long term fertility of soils by maintaining organic matter levels, encouraging soil biological activity, and careful mechanical intervention and fulfilling nitrogen self-sufficiency.
- Providing crop nutrients indirectly using relatively insoluble nutrient sources which are made available to the plant by the action of soil micro-organisms and biological nitrogen fixation, as well as effective recycling of organic materials including crop residues and livestock manures
- Weed, disease and pest control relying primarily on crop rotations, natural predators, diversity, organic manuring, resistant varieties and limited (preferably minimal) thermal, biological and chemical intervention
- The extensive management of livestock, paying full regard to their evolutionary adaptations, behavioural needs and animal welfare issues with respect to nutrition, housing, health, breeding and rearing
- Careful attention to the impact of the farming system on the wider environment and the conservation of wildlife and natural habitats.



METHODS OF ORGANIC FARMING

Organic farming is done to release nutrients to the crops for increased sustainable production in an eco-friendly pollution-free environment. It aims to produce crop with a high nutritional value. There are various methods by which organic farming is practiced are as follows:

1. Crop Diversity:

The new practice has come into picture which is called Poly-culture in which a variety of crops can be cultivated simultaneously just to meet the increasing demand of crops. Unlike the ancient practice which was - Monoculture- in which only one type of crop was cultivated in a particular location.

2. Soil Management:

After the cultivation of crops, the soil loses its nutrients and its quality depletes. Organic agriculture initiates the use of natural ways to increase the health of soil. It focuses on the use of bacteria that is present in animal waste which helps in making the soil nutrients more productive to enhance the soil.

3. Weed Management:

Weed, is the unwanted plant that grows in agricultural fields. Organic agriculture pressurizes on lowering the weed rather than removing it completely.

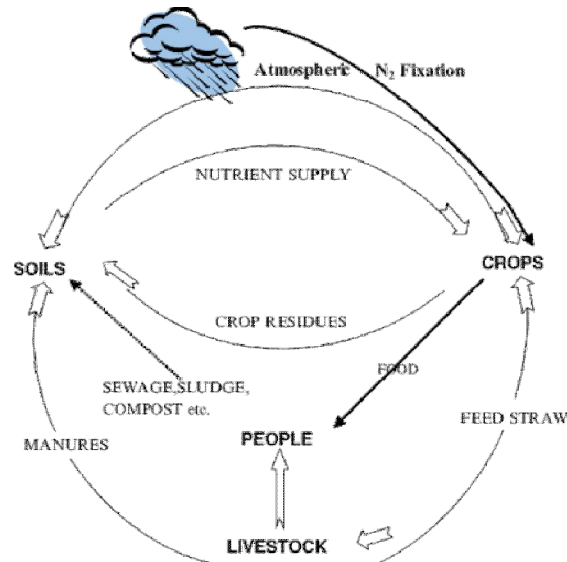
4. Controlling other organisms:

There are both useful and harmful organisms in the agricultural farm which affect the field. The growth of such organisms needs to be controlled to protect the soil and the crops. This can be done by the use of herbicides and pesticides that are natural. Also, proper sanitization of the entire farm should be maintained to control other organisms.

5. Livestock: Organic farming instigates domestic animals use to increase the sustainability of the farm.

6. Genetic Modification: Genetic modification is kept away from this kind of agricultural set up because organic farming focuses on the use of natural ways and discourages engineered animals and plants.

CYCLE DIAGRAM FOR ORGANIC FARMING



III. PROPOSED WORK

Garlic and chilli spray technique

Take ten to twelve large cloves of garlic, four to six hot chilli peppers and two cups of water and finally 1 tablespoon of liquid castile soap or any bio-degradable liquid dish washing soap. Put the above contents in blender consists of sharp blade and blend until the garlic and chillies are pureed and the colour becomes orange-pink and it is foamy and allowed it to stand for 2 hours or overnight.

Once it settles it will separate and there will be a coral-coloured liquid with sediment in the bottom. Pour the mixture through a strainer lined with fine cloth or through a or even a jelly bag this takes a little time to strain. If you use a wet paper towels it takes long time to strain.

Once strained, pour the concentrate into a jar with a plastic lid made of non-metal and the soap, stir and label. The concentrate is ready to use, or it can be stored in a cool dark place for few months to be used as needed. The main disadvantage is this solution should not be sprayed on plants during hot days because the solution will burn them you can spray even in evening or night time. Do not spray this solution in high concentration, spray it in dilute manner. The advantage is instead of using chemical pesticide we can use this type of pesticide. Some countries using a *Pesticideszhol-mol* is a which is used as a good fertilizer for growth of vegetables which is made up of *cow-dung*, *cow-urine*, *neem-leaves*, *timur*, *garlic*. The main and major source for protecting the soil from chemical pesticides is spreading the *cow-dung* in the soil which helps for the growth of plants, crops healthy and protect our environment. *Compost* is also a organic fertilizer and it includes animal dung or bedding. Animal manure such as chicken manure and cow dung with unpleasant odour are usually injected into the soil and which will improve the soil structure so that the soil holds more nutrients and water and therefore becomes more fertile.

ORGANIC FERTILIZERS TYPES

- Compost fertilizer: It consists of farm wastes, leaves, then the seeds of *Pleurotus* (a mushroom)
- Fertilizer from Coconut hairy shells: It consists of more than 50% of lignin and cellulose and it also mixed with *Pleurotus* to form a fertilizer.
- Vermi-compost fertilizers: It mainly consists of Earthworms, leaves and it should be decomposed in a small pit.

BIO-FERTILIZERS AND ITS IMPORTANCE

It is a substance which contains living microorganisms which, when applied to seeds, plant surfaces, or soil, colonize the interior of the plant and promotes growth by increasing the supply or availability of primary nutrients to

the host plant. Bio-fertilizers add nutrients through the natural processes of nitrogen fixation, solubilising phosphorus. Hence do not contain any chemicals which are harmful to the living soil.



BLUE GREEN ALGAE

Eg: *Azotobacter*, *Clostridium*, *Rhodopseudomonas*, *Anabaena*, *Nostoc*, *Rhizodium*, *Ectomycorrhiza*, *Endomycorrhiza*.

IV.CONCLUSION

Finally I concluded that using of **Chemical pesticides** in agricultural field, in which the chemicals will penetrate into the earth and polluting the ground water, the water which was utilized by the people are also affected by means of chemical pesticides so using of chemical pesticides in agricultural field destroying our environment and also the health of the people. so using of **Natural pesticides** in the agricultural field can protect our soil, ground water, health of people and simply we can say we can protect our environment by using natural organic pesticide. Hence, it helps to us for the sustainability of agriculture in the world.

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