

Sustainable Livelihood in Agriculture through Organic Farming (^{*}Shikha Bhukal, Ella Rani and Manisha)

CCS Haryana Agricultural University, Hisar-125004 *Corresponding Author's email: <u>shikhab2011995@gmail.com</u>

The idea of sustainable rural livelihoods has a broad, all-encompassing definition that includes the preservation and assurance of people's and society's means of subsistence as well as contemporary policy considerations and demands for sustainable development. Capability, equality, and sustainability are included in the notion of sustainable rural livelihoods. The term livelihood refers to a means of earning a living by an individual or household that is a combination of the individual or household's assets, including activities and resources and access to these, mediated by institutions and social relations.

Organic farming

Organic farming is one of the fastest growing sectors of world agriculture. Although it represents only 1% of world agricultural area, organic is one of the most recognized food labels and most people in developed countries consume some amount of organic food today. Organic farming, agricultural system that uses ecologically based pest controls and biological fertilizers derived largely from animal and plant wastes and nitrogen-fixing cover crops. Modern organic farming was developed as a response to the environmental harm caused by the use of chemical pesticides and synthetic fertilizers in conventional agriculture, and it has numerous ecological benefits.

Crop management in organic farming

- Soil Health/soil Management
- **Crop Rotation**
- Seeds
- Fertilizers
- Pest/Weed/Disease Management •
- Handling and Storage
- Buffer zones .
- Animals

Sources of organic manure

- By products of farming and allied industries. 1.
- 2. FYM, animal waste, leftovers from crops, sewage, sludge, and industrial waste.

Types of organic manures organic manure

- 1. Farm yard manure (FYM)
- 2. Green manures
- 3. Crop residues
- 4. Compost
- 5. Home compost
- 6. Concentrated organic manures

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Principles of organic farming

The four principles of organic agriculture are as follows:

1. Principle of health

This idea emphasizes the fact that ecosystem health and the health of persons and communities are interdependent; good soils result in healthy crops, which in turn promote the health of both people and animals.

2. Principle of ecology

This idea grounds organic farming on dynamic ecological systems. According to this, industry should be based on recycling and ecological processes. The ecology of the particular manufacturing environment is used to attain nourishment and wellbeing.

3. Principle of fairness

This principle highlights the need of conducting human interactions in organic agriculture in a way that provides justice to all stakeholders, including farmers, employees, processors, distributors, merchants, and consumers.

4. Principle of care

Organic agriculture is a living and dynamic system that responds to internal and external demands and conditions Consequently, new technologies need to be assessed and existing methods reviewed.

Methods of waste recycling

Following are some of the methods that are used today:

• Landfill

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In this process, a layer of soil is added after each layer of garbage. However, once this process is complete, the area is declared unfit for construction of buildings for the next 20 years. Instead, it can only be used as a playground or a park.

• Incineration

Incineration is the process of controlled combustion of garbage to reduce it to incombustible matter such as ash and waste gas. This process reduces the volume of waste by 90 per cent and is considered as one of the most hygienic methods of waste disposal. In some cases, the heat generated is used to produce electricity.

Waste compaction

This process prevents the oxidation of metals and reduces airspace need, thus making transportation and positioning easy.

• Biogas generation

In bio-degradation plants, they are converted to biogas by degradation with the help of bacteria, fungi, or other microbes. Biogas is generated as a result of this process, which is used as fuel, and the residue is used as manure.

• Composting

All organic materials decompose with time. Food scraps, yard waste, etc., make up for one of the major organic wastes we throw every day.

Vermicomposting

Vermicomposting is the process of using worms for the degradation of organic matter into nutrient-rich manure. Worms consume and digest the organic matter, thus enhancing the growth of bacteria and fungi.

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