

Conversion of Traditional farm to Organic farming

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ARTICLE ID: 016

Organic farming is an integrated approach in which all the components of an ecosystem are inter-related and supports each other to restore, maintain and enhance ecological harmony. When a farmer switches over organic farming from the conventional system of farming particularly known as conservation thus, we have a conservation plan if the entire field is not converted into organic at a time. In this regard, it is necessary to maintain organic and inorganic field separately.

“Organic farming is a cultivation practice in which we work with the nature for the future.”

Traditional farmers fulfil some principles of organic farming already by relying on farm-own resources, growing different crops simultaneously and raising livestock. The following challenges need to be addressed for conversion:

- Avoid burning of crop residues after harvest as this is most common practices in Punjab and Haryana (Parali Burning). Farmers are unknowingly destroys valuable organic material and damages soil organisms and create environmental hazards.
- Establish a well-organized diversification system including a ‘planned’ crop rotation and intercropping systems.
- Establish a system to collect the animal manure for composting.
- Pay special attention to satisfy feed and health requirements of the farm animals.
- Avoid infection of seeds with diseases, gain knowledge on disease cycles and preventive measures.
- Avoid harvest and storage losses.

Getting familiar with organic practices like:-

In organic farming system there is urgent need to get familiar with following crop management practices

❖ **Mulching**

Covering the soil with dead plant material is an easy way to control weeds and protect the soil in annual crops. This practice can be implemented into most existing cropping systems.

❖ **Intercropping**

Growing two annual crops together, commonly leguminous crop like beans or a green manure crop in alternating rows with maize or another cereal crop or vegetable is a common practice in organic farming to diversify production and maximize benefits from the land. In intercropping, special attention must be paid to avoid competition between the crops for light, nutrients and water. This requires knowledge on arrangements, which promote growth of at least one of the crops.

❖ **Composting**

Application of compost to the fields can have a major impact on crop growth and yields. To start compost production, farmers will need enough plant materials and animal manures, if such are available. In case such materials are scarce, farmers would first have to start producing plant materials on the farm by sowing fast growing leguminous plants that build a lot of biomass, and by introducing some livestock on the farm for manure production, if this proves appropriate.

❖ **Green manuring**

The practice of growing a leguminous plant species for biomass production and incorporation into the soil may be new to most farmers. Nevertheless, this practice can greatly contribute to improvement of soil fertility. Green manures can be grown as improved fallows, as seasonal green manures in rotation with other crops, or in strips between crops. Proper green manuring first requires information on appropriate species.

❖ **Organic pest management**

Organic pest management is achieved through ecological approaches that establish a pest/predator balance. While the choice of resistant varieties of crops is paramount, other prevention methods include: choosing sowing times that prevent pest outbreaks; improving soil health to resist soil pathogens; rotating crops; encouraging natural biological agents for control of disease, insects and weeds; using physical barriers for protection from insects, birds and animals; modifying habitat to encourage pollinators and natural enemies; and trapping pests in pheromone attractants.

Appropriate seeds and planting material - Use of healthy seeds and planting materials, and robust and/or improved cultivars can make a big change in crop production. This practice may require some information on selection of seeds and planting materials including availability of improved varieties and seed treatments. Generally, locally-adapted seeds are preferred because of their resilience to local conditions.

❖ **Growing farm-own animal feeds**

To improve available feeds for the livestock, farmers may— grow grasses and leguminous fodder crops around, between other crops or in rotation. As animal feed must be of organic origin, feed sources are best addressed by considering farm grown feed.

❖ **Terraces and soil bunds**

Construction of terraces and soil bunds along the curves of hills is a— key measure for soil conservation. This practice builds the foundation of further improvement to soil fertility on slopes. It is of high relevance, but requires much labor and some specific knowledge for appropriate implementation.

❖ **Mixed Farm**

On mixed farms, crops and farm animals may be integrated, whereby the animal manure is collected and used in the gardens after having kept it for a few weeks to rot. Some soil conservation measures may be implemented, such as mulching in perennial



crops and trenches to reduce erosion. Occasionally herbicides, pesticides and treated seeds may be used to control weeds in fruit and vegetable production. Farmers of such mixed farms are obviously familiar with some of the organic farming practices. Such farmers will find it easy to learn new methods from other farmers or from a trainer and to implement organic practices throughout the farm.

Recommendations for organic conversion:

1. Organic farmers are responsible to protect the organic fields from being sprayed with synthetic pesticides. Even if the neighbor is not farming organically, an organic farmer can grow organic foods and fibers. To avoid pesticide drift from neighboring fields onto the crops, organic farmers should safeguard the organic fields by using any of the following measures:
2. Planting of natural hedges on the boundary to neighboring fields can avoid the risk of pesticide spray drift through wind or run-off water. The wider the border area around the fields, the better.
3. To avoid runoff from upstream fields, organic farmers should divert the water away or talk to the farmers upstream about how to work together to minimize the risk of contamination through water.
4. Implement organic practices to manage the soil and to control weeds instead of using herbicides.
5. Improve recycling of farm own nutrients from animals and crop residues to make best uses of them, for example by mixing them with crop residues for making compost.
6. Improve storage of animal manures to avoid nutrient losses.
7. Use seeds without pesticide-treatments, if available. Make sure to use healthy seeds and organic ways of treating seeds. .