

# VERMICOMPOST

## VERMICOMPOSTING DEFINITION

*“Vermicomposting is a process in which the earthworms convert the organic waste into manure rich in high nutritional content.”*

### What is Vermicomposting?

Vermicomposting is the scientific method of making compost, by using earthworms. They are commonly found living in soil, feeding on biomass and excreting it in a digested form.

Vermiculture means “worm-farming”. Earthworms feed on the organic waste materials and give out excreta in the form of “vermicasts” that are rich in nitrates and minerals such as phosphorus, magnesium, calcium and potassium. These are used as fertilizers and enhance soil quality.

Vermicomposting comprises two methods:

- **Bed Method:** This is an easy method in which beds of organic matter are prepared.
- **Pit Method:** In this method, the organic matter is collected in cemented pits. However, this method is not prominent as it involves problems of poor aeration and waterlogging.



# Process of Vermicomposting

The entire process of vermicomposting is mentioned below:

## Aim

To prepare vermicompost using earthworms and other biodegradable wastes.

- **Principle** Soil or Sand.

This process is mainly required to add nutrients to the soil. Compost is a natural fertilizer that allows an easy flow of water to the growing plants. The earthworms are mainly used in this process as they eat the organic matter and produce castings through their digestive systems.

The nutrients profile of vermicomposts are:

- 1.6 per cent of Nitrogen
- 0.7 per cent of Phosphorus.
- 0.8 per cent of Potassium.
- 0.5 per cent of Calci



- 0.2 per cent of Magnesium.
- 175 ppm of Iron.
- 96.5 ppm of Manganese.
- 24.5 ppm of Zinc.

**Also Read:** [Garbage in garbage out](#)

### Materials Required

- Water.
  - Cow dung.
  - Thatch Roof.
  - Gunny bags.
  - Earthworms.
  - Weed biomass
  - A large bin (plastic or cemented tank).
- Dry straw and leaves collected from paddy field



**Procedure** ; To prepare compost, either a plastic or a concrete tank can be used. The size of the tank depends upon the availability of raw materials.

1. Collect the biomass and place it under the sun for about 8-12 days. Now chop it to the required size using the cutter.
2. Prepare a cow dung slurry and sprinkle it on the heap for quick decomposition.
3. Add a layer (2 – 3 inch) of soil or sand at the bottom of the tank.
4. Now prepare fine bedding by adding partially decomposed cow dung, dried leaves and other biodegradable wastes collected from fields and kitchen. Distribute them evenly on the sand layer.
5. Continue adding both the chopped bio-waste and partially decomposed cow dung layer-wise into the tank up to a depth of 0.5-1.0



*Thank You!*