M. S. P. Mandal's Shivchhatrapati College, Aurangabad

# **Report On**



# **Report of Vermicomposting**



Principal Shivchhatrapati College, Aurangabad

## Introduction:

Vermi-culture is the culture of earthworms. It is a beneficial way of improving the fertility of soil and growth of plants. Vermiculture mainly focuses on the breeding of worms so as to increase their population. The earworms break down organic material into nutrient rich castin.

Vermi-compost is natural manure used to promote the growth and development of crops. It is a major component of organic farming. It is better than the artificial fertilizers as artificial fertilizers on excess use decrease fertility of the soil.

The advantages of vermicompost include:

- Supressing plant diseases
- High content of NPK
- Improves nutrient recycling
- Helps in environmental protection
- Helps in soil sustaining

### **Objectives of vermicomposting:**

- To provide nutrients to natural plants gradually
- To improve plant growth
- To increase fertility of soil
- To stop soil erosion
- To follow the green practices at the college campus.



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#### **Practice at the institution:**

- As per the USDA guidelines for compost practices w.e.f. 21 Oct. 2002, vermicompost is defined as organic matter of plant and/or animal origin consisting mainly of finely-divided earthworm castings, produced non-thermophilically with biooxidation and stabilization of the organic material, due to interactions between aerobic microorganism and earthworms, as the materials pass through the earthworm gut.
- Vermicompost is obtained by digesting the organic matter derived from the plant waste by using worms into a material which is beneficial soil for amendment. The earthworms being eaters, consume the biodegradable matter resulting into excreta or vermi-castings. The vermi-casting containing nutrients are rich manure for the plants. Vermicompost, apart from supplying nutrients and growth enhancing hormones to plants, improves the soil structure leading to increase in water and nutrient holding capacities of soil.
- Institute has greenery in the college campus. Biodegradable waste generated from the plant waste including leaves, stem, flowers etc. can be converted into vermicomposting.
- Plant material and other biodedgrable waste is collected into a tank and is made wet at least for two days. To this, plant waste is added, again made wet nearly for two days and wetness of the content is ensured. Earthworms are then introduced into the plant material waste. The earthworms start digestion of the plant material and vermin compost is prepared. The prepared vermicompost is then charged to plants within the college campus.



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