

# Department of Zoology

## Best Practice

### Vermicompost

1) **Aim** – To prepare Vermicompost organic manure from biodegradable waste.

2) **Goal** –

- To manage biological laboratories waste.
- To manage paper waste produced.
- To recycle biological waste in scientific way along with the biomass of the college campus viz, leaves, grasses, vegetable waste from home economics department.
- To prepare useful organic manure from biological waste and to be used in college Garden.

3) **The context** -

Biomass and biological waste is a question before the administration .After a marathon discussion department of Zoology has taken an initiative to run Vermicomposting project. The concept of green and clean campus is implemented here. Recycled organic manure from the all types of biodegradable waste is to be produced and is to be used then for college garden is decided .All the technical know how was the responsibility of the Zoology department.

4) **Practice:**

We have used all the waste while constructing the Vermicomposting project. The old cement tank was filled with the garbage was cleaned .Then it is used as Vermiculture bed by some renovation. A shade is constructed from old metal pipes. Roofing was done by using bamboo plates and frames. A mesh is fitted around it to protect earthworms from their enemies. A temperature is maintained.

The species *Eisenia foetida* is used for culture. The chosen species is a commercial species. It is fast growing and rapidly reproducing. It is disease resistant species.

The organic biodegradable waste is mixed with cow-dung in the ratio of 1:8 Beds of it are prepared. Showered with water. Temperature is lowered. On these beds the earthworm species *E.foetida* is spread. The species is highly voracious. It eats biodegradable waste and cow-dung. It is estimated that about 5000 worm can produced 01 Ton of organic manure within a month.

In our project 50-60 Kg organic manure is produced in each cycle. It has minimum C:N ratio. A cycle of 45 days including preparation period is maintained. Yearly 6-7 cycles are expected.

Due precaution is to be taken while Vermicomposting and culturing earthworm species.

- i) Keep sufficient organic materials in the culture medium.
- ii) Maintain level of moisture by sprinkling water regularly.
- iii) All Vermicompost operations are to be done under the shade. Avoid direct sunlight and heat.
- iv) Protect earthworms from their enemies like Lizard, Frogs, Snakes, and Birds etc.

**5. Evidence of Success**

- The problem of biodegradable waste from the college has been solved.
- The biofertilizer produced is used for the plants in the garden.

**6. Problems Encountered**

While implementing this project the Department faced the following problems.

- Protection of Vermiculture from ants and birds.
- Scarcity of appropriate seed a availability.
- The seed is very costly.

**7. Resources Required**

The Department needs the following things for better results

- Financial assistance.
- Automatic water sprinkling method.

**8. Contact Details**

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Vermicompost Production