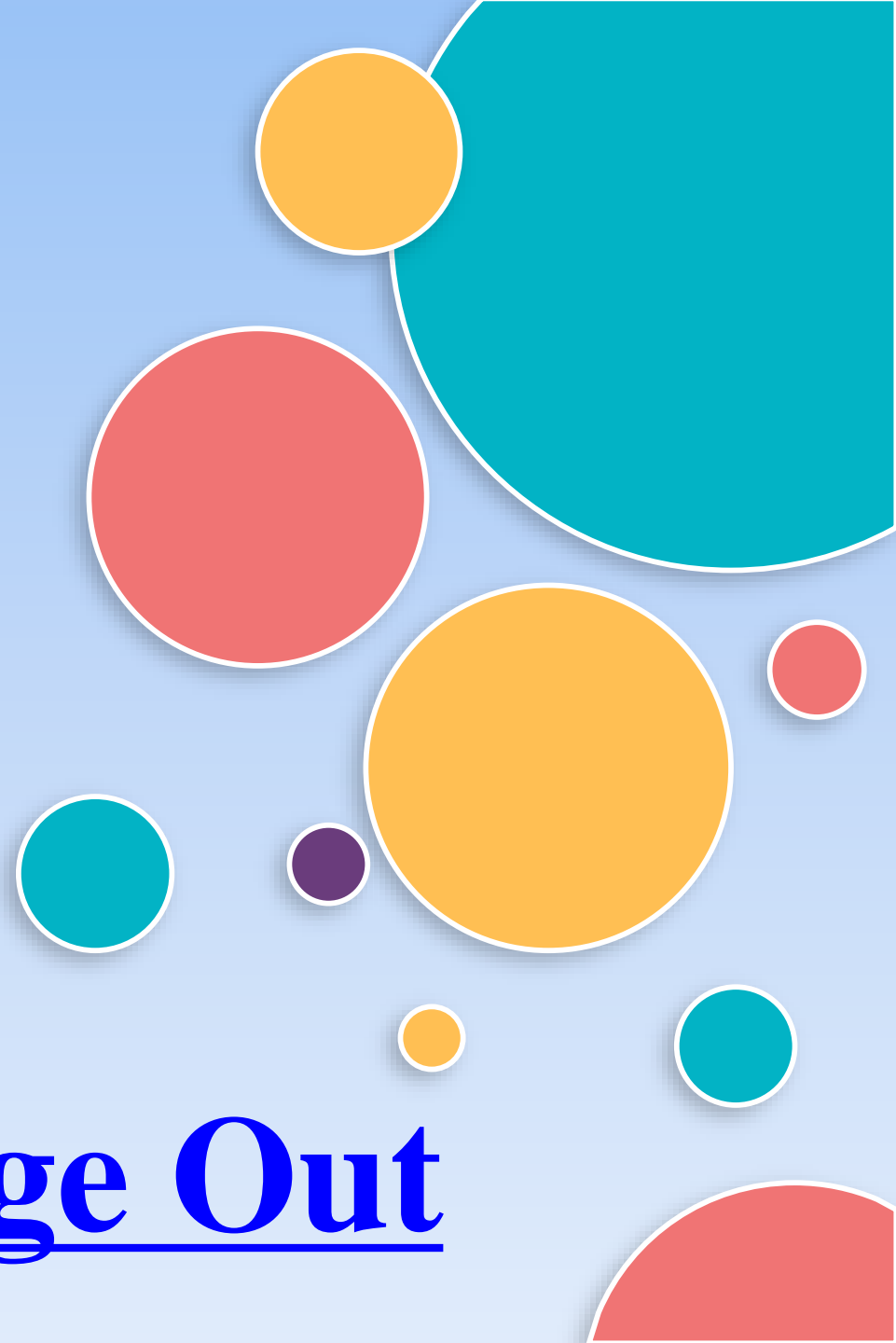


**Module 2/4**

**CLASS VI**

**CHAPTER 16**

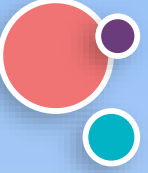
**Garbage In, Garbage Out**



# **VERMICOMPOSTING**

**Compost is an organic matter that has been decomposed and recycled as soil nutrient.**

**Vermicomposting is the process of conversion of biodegradable waste into manure with the help of a special type of earthworms called red worms.**



- ◆ **Composting is a great option to reduce environmental impact and prepare a natural and beneficial soil additive.**
- ◆ **vermicompost is an excellent option that allows for an indoor composting operation in less space.**
- ◆ **Vermicompost has many advantages over chemical fertilizers like it contains more nutrition and is affordable.**



# Preparation of Vermicompost

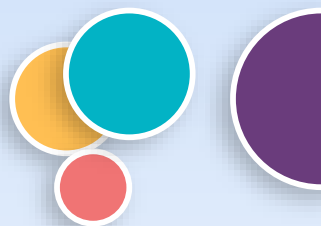
- ◆ Vermicompost made by using earthworms and other biodegradable wastes.
- ◆ Compost is a natural fertilizer that allows an easy flow of water to the growing plants. The earthworms are mainly used in this process as they eat the organic matter and produce castings through their digestive systems.
- ◆ The nutrients profile of vermicomposts are:


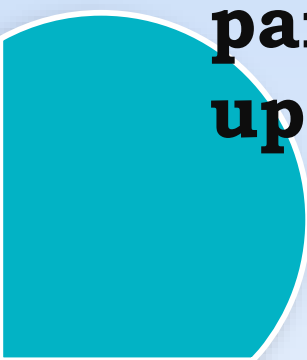
1.6 per cent of Nitrogen.	0.7 per cent of Phosphorus.
0.8 per cent of Potassium.	0.5 per cent of Calcium.
0.2 per cent of Magnesium.	175 ppm of Iron.
96.5 ppm of Manganese.	24.5 ppm of Zinc.

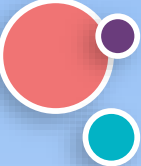



## **Process:**

- ◆ **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.**
- ◆ **Collect the biomass and place it under the sun for about 8-12 days. Now chop it to the required size using the cutter.**
- ◆ **Prepare a cow dung slurry and sprinkle it on the heap for quick decomposition.**
- ◆ **Add a layer (2 – 3 inch) of soil or sand at the bottom of the tank.**



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- ❑ Now prepare fine bedding by adding partially decomposed cow dung, dried leaves and other biodegradable wastes collected from fields and kitchen.**
  - ❑ Do not use wastes that may contain salt, pickles, oil, vinegar, meat and milk preparations as food for your red worms. If you put these things in the pit, disease-causing small organisms start growing in the pit.**
  - ❑ Distribute them evenly on the sand layer.**
  - ❑ 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 ft.**
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- ◆ **After adding all the bio-wastes, release the earthworm species over the mixture and cover the compost mixture with dry straw or gunny bags.**
  - ◆ **Sprinkle water on a regular basis to maintain the moisture content of the compost.**
  - ◆ **Cover the tank with a thatch roof to prevent the entry of ants, lizards, mouse, snakes, etc. and protect the compost from rainwater and direct sunshine.**
  - ◆ **Red worms do not have teeth. They have a structure called 'gizzard', which helps them in grinding their food.**
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- ◆ **Have a frequent check to avoid the compost from overheating. Maintain proper moisture and temperature.**
- ◆ **After the 25 to 30 days, around 5000 to 6000 new worms are introduced and the entire raw material is turned into the vermicompost.**





## **Vermicompost-**

- **Improves the physical structure of the soil.**
- **Increases the fertility and water-resistance of the soil.**
- **Helps in germination, plant growth, and crop yield.**

**Vermicomposting is an eco-friendly process that recycles organic waste into compost and produces valuable nutrients.**

**\*\*\*\*\***

When you save water,  
it saves you back.

When you refuse  
to reuse, it's the  
Earth you abuse.

Save the Earth.  
We have nowhere  
else to go.



**THANK YOU**

