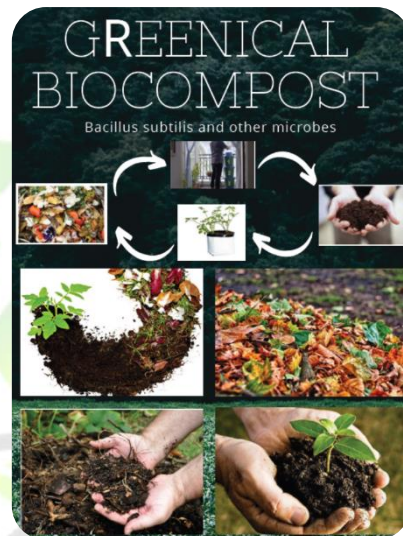


“GREENICAL Decomposer” is a very effective consortium of Bacteria, Fungus and Actinomycetes species which have been isolated by our research team from various Bio-Diversities. Several farmers across the India have been using our “GREENICAL Decomposer” and have greatly benefited from the saving resulting through it uses. Our “GREENICAL Decomposer” contains carefully isolated selected potent strains of Bacteria, Fungus and Actinomycetes which are highly effective and efficient for rapid Decomposition process.

### WhyE “GREENICAL Decomposer” is needed and Important in Agriculture?

Natural Decomposition process normally takes 150 to 200 days to decompose complex organic matters into simple organic matters, which cannot affordable by farmers, in this regards our company has find out a scientific solution to minimize the days up to 45 to 60 days by using our “GREENICAL Decomposer cum deodorizer”.



### Introduction of “GREENICAL Decomposer cum Deodorizer”.

Composting is a natural process of rotting or decomposition of organic matter such as crop- stubbles and residues, Animal wastes, food garbage, some municipal wastes and suitable industrial wastes with help of different types of specific microorganisms. After the completion of decomposition process final simple organic matters provide all types of plant nutrients in natural forms, and also improves the Soil fertility, its results in sustainable agriculture production.

### Aerobic Decomposing Process

Aerobic composting takes place in the presence of ample oxygen. In this process aerobic microorganism break down organic matters and produce carbon Dioxide, Ammonia, water, heat and humus the relatively table organic end product. The heat generated during decomposition accelerates the breakdown of proteins, fats and complex carbohydrates in to simple organic matter. During this process it also inhibits plant pathogens and destroys weed seeds and eggs, larva and pupa of harmful insects present in the Soil.

### Factors affecting aerobic Decomposting

1. **Aeration:** - Aerobic composting requires large amounts of oxygen, particularly at the initial stage. Where the supply of oxygen is not sufficient the growth of aerobic micro- organisms is limited, resulting in slower decomposition. Moreover, aeration removes excessive heat, water vapor and other gases trapped in the pile. Therefore, good aeration in indispensable for efficient composting.
2. **Moisture:** - Moisture is necessary to support the metabolic activity of the micro-organisms during composting process. During the entire composting process ideal moisture level should be maintain at 50%-60%. If the moisture percentage will be increase or decrease from ideal moisture level of 50-60% it will directly affect negatively on composting process.

### Nutrients: -

Microorganisms require carbon, Nitrogen and salts as a primary nutrient. C:N ratio of raw materials which is to be decomposed is more important, the ideal C : N ratio of raw material should between 25:1 and 30:1. When the C : N ratio higher than 40:1 its slow down the composting process. When the C : N ration is less than 20:1 leads to loss of Nitrogen to the atmosphere and create odor problem. The ideal C : N ratio of final decomposed product should be between 10:1 and 15:1 .

### **Temperature: -**

Temperature is also equally important factor during the entire composting process. In the initial stage of composting the temperature will be 20· - 45· C. and at the optimum stage of composting, the temperature rise up to 55· to 65· C. at this temperature the plant pathogenic organisms, weed seeds and eggs, larva and pupa of harmful insects will be destroyed.

### **Lignin: -**

High lignin percentage present in the raw materials to be decompose, which resist the microbial degradation.

### **pH Value: -**

The optimum PH level of the material should be less than 8, in case of higher PH it resulted into loss of ammonia by gaseous form.

### **Basic Guide line for using “GREENICAL Decomposer cum Deodorizer”.**

#### **# “GREENICAL Bio Decomposer can be used to decompose”**

- Any plant wastes such as a dry leaf, stems, roots etc. generated after harvesting of crops.
- Farm yard manure such as a cow dung, vermicompost, pressmud, poultry manure etc.
- Various oil cakes like castor and Neem.
- City or municipal waste.
- Food garbage.
- The waste to be decomposed should be shredded in to pieces not more than 2 inch in size.
- The waste should be spread on the ground in heap form after uniformly mixed.
- The entire heap should be turned properly at periodically interval.
- For quick and effective results try to maintain all affecting factors like Aeration, moisture, Nutrients, Temperature, Lignin, and PH at optimum level.

#### **# The completion of composting should be judged by following ways.**

- Fall in temperature.
- Absence of any foul smell.
- Brown humus like color.

#### **# Recommended Dose of GREENICAL Bio Decomposer cum Deodorizer.**

#### **1 Litre Per 1 - 1.5 Ton.**

