
Conclusion

1. Compost provides a stable organic matter that improves the physical, chemical and biological properties of soil, thereby enhancing soil quality and crop production.
2. Composting of biodegradables was investigated for obnoxious odour, earthy smell, almost black appearance and well humification of composts. It has been observed that bioinoculant (*Trichoderma viride*) in T₂ treatment decomposes early than other treatment and makes superior quality of compost over control.
3. Compost samples after 8, 16, 24 and 32 days were physicochemically analyzed for pH, EC, moisture content, organic carbon and NPK. Five decomposing temperature phases (initial-**psychrophillic**, moderate-**mesophillic**, high-**thermophillic**, cooling down-**stabilization** and maturation-**poikilothermic**) were identified.
4. Maturity of compost was evaluated by C:N and plant bioassay test. The C/N ratio 5 to 6 could be used as essential indicator (compost maturity index) of compost maturity.
5. The physiological effect of compost on both test crop has been observed that in T₂ compost enhanced growth and yield significantly due to higher nutrient status and showed trends T₂>T₃>T₁ over control.

6. Infact, management of agroindustrial waste into compost in sustainable agriculture will reduce the costs on fertilizers for price inflation and waste management would have facilitate reduction in pollution load on aquatic ecosystems and cascading effect on **TIGER ECONOMY** for biodiversity in Indian scenario : Vision 2025.
