Maintenance of NADEP Compost

Date of observation	Actions to be taken
After 15 days	Pour cowdung slurry on top
After 30 days	Turnover the compost and pour the slurry on top
After 45 days	Pour cowdung slurry on top again
After 60 days	Turnover the compost and pour the slurry on top
After 75 days	Pour cowdung slurry on top
After 90 days	Turnover the compost and pour the slurry on top
After 105 days	Pour cowdung slurry on top again
After 120 days	Ready to use

Aerobic Composting

Aerobic composting is a natural biological process, carried out under controlled aerobic conditions. Aerobic compost is prepared by mixing together compostable materials with cowdung slurry.

Materials Required:

1. Green Matter
2. Dried Leaves/Paddy Straw
3. Fresh Cow dung
4. Water

Procedures

Step 1: Aerobic compost is prepared in three layers. The first layer includes the use of various compost materials which includes dried husk, twigs, stalks, leaves etc.
Step 2: The second layer includes addition of cowdung slurry.
Step3: The third layer involves the use of fresh compostable materials for adequate nitrogen supply.
Step 4: Add cowdung slurry again.
Step 5: Repeat the same layer upto the height of 4 feet.
Step 6: Repeat the cycle for 120 days and the compost is then ready to use.

Maintenance Aerobic Compost

Date of observation	Actions to be taken
After 15 days	Pour cowdung slurry on top
After 30 days	Turnover the compost and pour the slurry on top
After 45 days	Pour cowdung slurry on top again
After 60 days	Turnover the compost and pour the slurry on top
After 75 days	Pour cowdung slurry on top
After 90 days	Turnover the compost and pour the slurry on top
After 105 days	Pour cowdung slurry on top again
After 120 days	Ready to use

Figure 1: Aerobic Composting

Methods of Composting

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VERMICOMPOSTING

Vermicomposting is a method of preparing enriched compost with the use of earthworms. Earthworms consume biomass secreted from the agricultural wastes and decomposition of the agricultural waste is done by microorganisms. It is one of the easiest methods to recycle agricultural wastes and to produce quality compost.

Materials Required:
1. Bamboo
2. Clay
3. Earthworm
4. Water
5. Fresh Cow dung
6. Dried Leaves/Paddy Straw

Steps of Preparation
Step 1: The tank for Vermicompost production used will be dependent on the size of the Tank and the thickness should not exceed 50 cm. For producing 400 kg of compost, about 2000 nos. of earthworms are used. The size of the tank should be 0.60 cu m (1m x 1m x 0.60m).
Step 2: Selection and shredding of agricultural materials.
Step 3: Cowdung and chopped dried agricultural materials are mixed together properly and are kept for decomposition for a period of 2 – 3 weeks. When cooled, earthworms are added to this.
Step 4: For protecting the worms from predators, small drains are to be constructed around the upper ridges of the tank.
Step 5: The tank should be kept moist by sprinkling water daily and should be covered by gunny bags.
Step 6: Worm casts are to harvested every week after the earthworms have excreted them.
Step 7: After a period of 120 days when the decomposition is completed, the compost is dried and ready to use.

Maintenance of Vermicompost

Date of observation	Actions to be taken
After 30 days	Turnover the compost and pour the slurry on top
After 60 days	Turnover the compost and pour the slurry on top
After 90 days	Turnover the compost and pour the slurry on top
After 120 days	Ready to use

Figure 2: Vermicompost

NADEP COMPOSTING

Nadep composting is a natural process by which biomass waste, soil waste and animal waste are biologically degraded and decomposed into organic compost.

Materials Required:
1. Bamboo
2. Fresh Cow dung.
3. Dried Leaves/ Paddy Straw.
4. Water.

Method of Preparation
Step 1: Construction of a simple, inexpensive rectangular tank with enough spaces for proper aeration. The area in which the tank is constructed should be compact. The tank bed should be covered with a layer of cowdung mixed with soil to prevent seepage.
Step 2: Materials for decomposition, namely biodegradable biomass waste cowdung or biogas slurry, fine dry soil mass and water should be kept ready before filling the tank.
Step3: The first layer of the tank is to filled with biomass waste of about 15 cm thickness. Subsequent layers are to be filled with dung slurry and to be followed with soil materials. This sequence of layering is to be repeated till the tank is more than full.
Step 4: One sequence of three layers must be completed in one go.

Figure 3: NADEP Composting

Step 5: In order to maintain the moisture level and also to prevent cracking, top layer is to be plastered with dung and to make up for evaporation losses, water should be regularly sprinkled over top and cracks filled up with dung slurry as and when developed.
Step 6: The filling should be done on installments.
Step 7: It takes 100 – 120 days to complete the decomposition. The manure is then sieved and the NADEP is ready.