

# MANUAL FOR VERMI COMPOSTING

Vermi-composting essentially means the process of culturing and application of epigeic earthworms for decomposition of biodegradable wastes in combination with cowdung slurry. Apart from decomposing, the earthworms are also responsible for enhancing growth of beneficial micro organisms.

## 1. MATERIALS REQUIRED

1.	Cowdung	100Kg	6	Dried Paddy Straw/ Dry Biomass	1 tonne
2	Water	200 L	7	Wooden Post	4 nos.
3	Bamboos	20nos.	8	Wooden planks	10 nos.
4	Clay	100 Kg	9	Bucket (10 L)	1 no.
	Earthworms	2000tylli		Drum with lid (100 L)	1 no.

## 2. PROCESS

1. Collect locally available materials for construction of frame/ box/ tank and lining/ plastering.
2. Collect biomass like fresh livestock wastes, agricultural/ plant residue wastes
3. Dry the agricultural/ plant wastes and chop
4. Mix properly the chopped materials with fresh livestock (1:8 :: livestock waste: organic waste)
5. The height of the mixture wastes should not be more than 50 cms inside the tank
6. Keep the mixture wastes for about 2 Weeks or more for decomposition
7. Introduce the earthworms after the mixture is decomposed and cover with gunny bag or leaves of banana/ bamboo/ areca/ lamet, etc arranged and made in bamboo frame

## 3. AFTER CARE:

1. The unit must be checked many times in a week and sprinkle water as and when required
2. After 8 days, at least every 2 days observe on the decomposition of the mixture before introduction of earthworms
3. After 45 – 50 days, depending on climate condition, the compost is ready for harvesting



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#### 4. PRECAUTION:

1. Make a moat of standing water surrounding the tank to prevent ants, etc and cover with a metal 3 mm mesh which can be also used to separate cocoons from the vermi compost to prevent rats, etc
2. Make a roofing structure with locally available materials so as to protect the unit from rain and direct sunlight. The height of a roofing structure should not obstruct operational activities.

#### 5. HARVESTING :

1. Harvest and take the compost on the ground and make in a conical heap for few hours. The worms form-ball at the base which can be taken out and after counted, introduce in the next feed. This process shall run as a cycle
2. Dry the compost in shade not in direct sunlight and use the 30 mm sieve to separate young ones and cocoons from the compost. The young ones and cocoons are then introduced in the new feed mixture after counting. Keep the product safely in shade in containers like gunny bag, etc so as to maintain the moisture level, etc
3. A tank – size of 6 ftx3ftx4ft with a capacity of about 600 Kg of mixture wastes and with 2000 earthworms may yield about 700 Kg vermi compost in 45 – 50 days



Mixing of cowdung slurry



Chopping of dry biomass



Plastering of the inner walls of the tank



Construction of moat around the tank



Filling of biomass with cowdung slurry



Construction of thatched shade on the composting Units



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