

- After 10-14 days, sieve the compost to separate the coarse materials and juvenile vermin that had hatched during storage.
- Pack the harvested compost in plastic bags at 50 kg then place in sacks.
- Seal the sacks to totally eradicate surviving vermin. Store the product in a dry cool place.

## VERMICOMPOST ANALYSIS

Total Nitrogen (N) %	1.65
Total Phosphorous (P) %	0.31
Total Potassium (K <sub>2</sub> O) %	1.10
Total Calcium (CaO) %	3.65
Total Magnesium (MgO) %	0.76
Sodium (Na) %	0.03
Zinc (Zn) %	375
Copper (Cu) %	490
Manganese (Mn) %	1.088
Iron (Fe) %	19.485
Organic Carbon %	13.07

## SOURCES OF TECHNOLOGY:

- Philippine Rice Research Institute (PHILRICE)
- Philippine Council for Aquatic and Marine Research and Development (PCAMRD)
- Department of Agriculture Bureau of Plant Industry Los Baños
- National Crop Research and Development Center

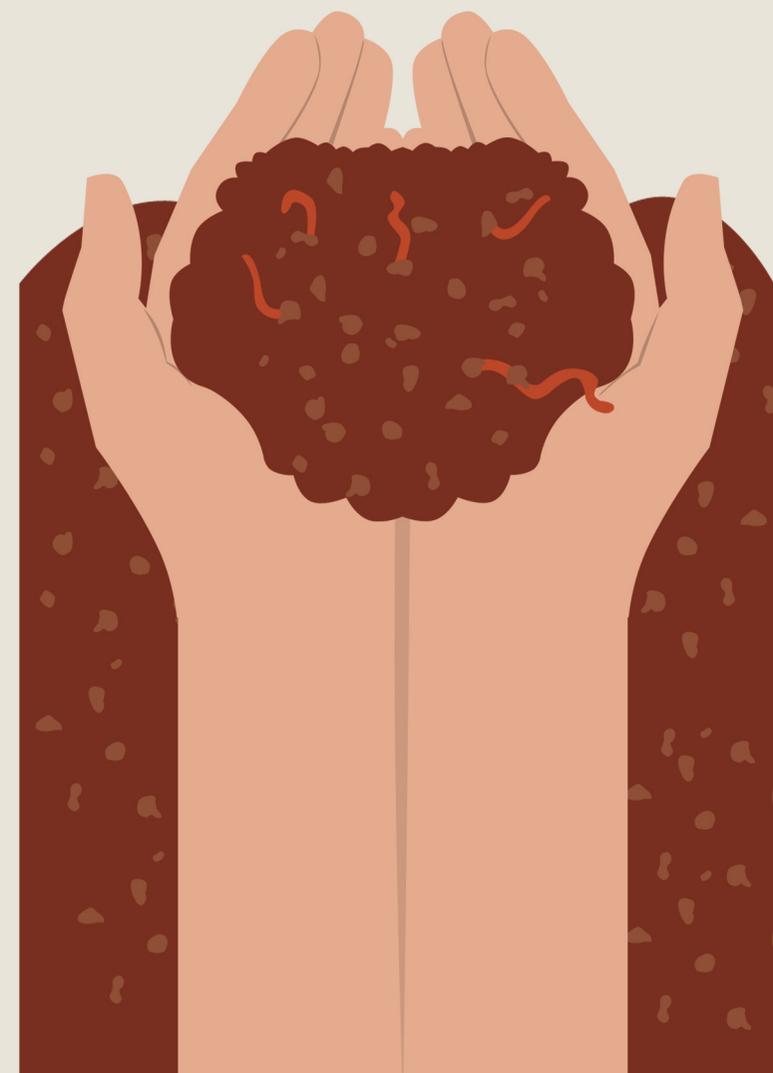


# VERMICOMPOSTING



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# VERMICOMPOSTING

Conversion and utilization of farm wastes into other farm by-products like animal feeds and organic fertilizer are keys for a successful organic farming. A friendly environmental technology like vermiculture and vermin-composting is recommended.

Vermicomposting is the production of quality organic fertilizer with the aid of earthworms, particularly the African Night Crawlers (*Eudrilus euginae*).

## ADVANTAGES OF VERMICOMPOSTING

- Efficient disposal and utilization of farm and household wastes.
- It can be easily established even at the backyard using small space and indigenous containers.
- It is a sustainable type composting. No need to re-establish composting beds and purchasing of vermin every establishment because worms multiply.
- It is environmentally friendly. There is a minimized odor or decomposing manure and plant residues.
- Faster to produce compared to traditional composting method.
- Less labor required because spraying and turning are not necessary.
- It produces good quality compost product.
- Worms can also be fed to poultry and fishes as source of protein.

## STEPS IN VERMICOMPOSTING

### 1. SELECT SUITABLE SITES

- Choose a well drained area, not easily flooded and preferably shaded.
- It must be accessible to source of water supply and source of compost materials.

### 2. PREPARE THE COMPOST MATERIALS

- Gather farm, garden and kitchen and animal wastes available in the area such as rice straw, animal manures, vegetable trimmings and fruit peelings.
- Pulverize animal manures.
- Chop freshly cut grasses or rice straw at 1-2.5 cm. For good quality compost, incorporate leguminous leaves like kakawate at 25% of the total volume of substrate.

### 3. PREPARE THE VERMIBEDS

- Construct vermibeds measuring 1-1.5 meters wide at any convenient length and a height of 40 cm (2 layers of hollow blocks).
- Provide shade to protect the vermibeds from rain and direct sunlight.
- Place the composting materials into



the beds following a 1:1 ratio or 75:25 compost material to manure ratio.

- Put the compost material alternately with the manure and with the compost material on top.
- Saturate the materials with water while mixing thoroughly.
- Cover the bed with plastic sheets. The substrate starts to decompose (anaerobic process) about 1-2 weeks.

### 4. STOCK THE VERMIN OR WORMS

- Put the vermi or worms on the bed when the substrate starts to decompose at the rate of 1kg vermin (approximately 1,000 pcs.) for every one square meter (1 m<sup>2</sup>) bed which contains about 100-200kg of compost materials.
- Introduce the vermin on different locations of the bed by slightly burying them into the substrate.

### 5. MAINTAIN THE MOISTURE OF THE VERMIN BEDS

- Maintain approximately 60% moisture of the substrate by sprinkling of water.
- Protect the worms from predators.

### 6. HARVEST THE VERMICOMPOST

- Compost is ready for harvest within 4-6 weeks. Separate the vermin or worms from the compost using a screen or by handpicking.
- Pack the compost in sacks and store for 10-14 days in a dry and shady place.