

# *Its A GELSEF presentation !*

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# VERMI COMPOSTING

Vermi-composting is the process of turning organic debris into worm castings which are very important for improving soil fertility. Castings have high levels of nitrogen, phosphorus, potassium, calcium and magnesium. They also improve moisture holding capacity of soils.



# Vermi-composting process

Prepare a vermi-bed (Plastic sheet container of 12'x4'x2' or brick tank with cement base).

Keep vermi-bed under a shade/ build temporary shed over the bed.

Make a 5'' layer of saw dust/husk/corn cobs/ sugarcane trash etc. at the bottom.( Something that can retain moisture).

Put a thin layer of fine sand followed by thin layer of garden soil. (3'')

Fill upto half level of the bed with material like vegetative material obtained from Pooja place. One can also mix dry leaves/ grass etc.

Put semi-decomposed dry cow dung's / dry biogas slurry's layer.

Again make a layer of vegetative material and mix some semi-composed cow-dung. Allow 20 days for pre-digestion. (About 300 Kg of vegetative material can be accommodated in one vermi-bed)

Mix 3 Kgs of earthworm at the top layer of pre-digested material. The earthworm goes from top to bottom layer. (1 Kg has about 1000 worms)(African earthworms/Red worms/Composting worm)



# Vermi-composting Process

Measure the temperature of the material in the bed every 3-4 days. Ensure that the temperature is less than 45 degree centigrade.

Irrigate/ sprinkle water from time to time. (keep moisture of 60%).

The total transformation into vermi-compost may take about 45 days. The vermi-compost would look like tea granules, free flowing and almost odourless and is spread on the surface. Collect it periodically upto the depth where you notice the presence of earthworms.

Collect the granular material by hand, sieve the material and keep in shade so that it contains moisture level of about 40%. Package at the time of selling. Partially composted material be put back in the bed.

The vermi-compost can be stored for an year without loss of its quality if the moisture level is maintained at 40% level.

The vermi-compost culture from this bed can be used to inoculate other beds too with such or similar vegetative material.

Output is about 100 Kgs per bed.