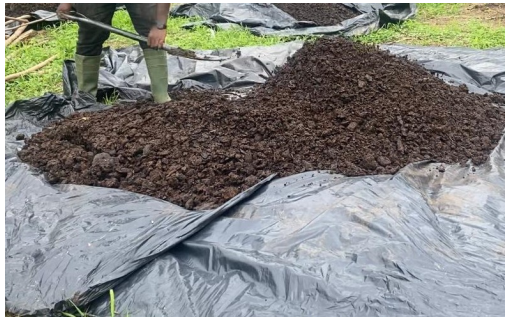
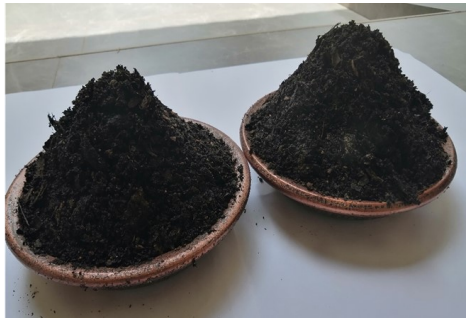
Turning and monitoring the compost heap

- The composting should take between eight to twelve weeks.
- The first turning should be done after five days.
- The temperature in the heap will be high for the few days or weeks and will begin to drop as time goes by until the compost is ready.



Turning of compost after 4 weeks

- Turn weekly from 5-10 days until maturity. The frequency of turning can be reduced as temperature reduces.
- The bamboo stick reduces the need for frequent turning (turn every 2-3 days without this)
- Allow the compost to cure for about two weeks before use.



Ready to use compost after 2-4 weeks curing

Cocoa pod husk compost preparation guide created by Department of Horticulture, Kwame Nkrumah University of Science and Technology (KNUST), Ghana in collaboration with University of Reading, UK

by

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COMPOSTING GUIDE

COCOA POD HUSK COMPOST

Introduction:

Composting speeds up the decomposition of organic materials. The decomposition is carried out by microorganisms which are active when there is oxygen in the environment (aerobic conditions). The microorganisms are everywhere but will become active when conditions are favourable. Such conditions are:

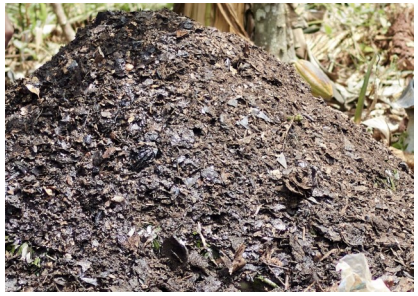
- Organic material in a heap (e.g. cocoa pod husks)
- Source of nitrogen
- Moisture
- Oxygen

Materials needed:

- Macerated cocoa pod husk,
- Nitrogen source: Poultry manure OR gliricidia trimmings OR moringa leaves & stem OR wild sunflower leaves & stem
- High density polyethylene sheet (black)
- Shovel
- 12 liter Bucket
- Cutlas & chopping board
- Hand gloves & long boot
- Watering can
- 2.5m hollow side-sliced Bamboo sticks (optional)

Collecting and preparing the materials

- The cocoa pod husk should be broken into smaller pieces. It will be best if one can mill them. In the absence of milling they could be trampled upon with the wellington boots worn.
- Crushed cocoa pod husk has good physical properties to enhance the decomposition process.
- The cocoa pod husk should be free from foreign materials such as diseased infected pods, plastics, metals, and stones.
- The cocoa pod husk should be broken into smaller pieces. It will be best if one can mill them. In the absence of milling they could be trampled upon with the wellington boots worn.



Crushed cocoa pod husk

- Identify a nitrogen source. This can be shredded/chopped gliricidia or moringa or wild sunflower or poultry manure

Caution!

Mind your hands when chopping trimmings

Chopping leguminous plant trimmings

Setting up the compost heap

- Clear an area of 3 meter square for a heap of about 1.5m^3 The surface of the area should be firmed and levelled.
- Using a 12 liter bucket, measure out cocoa pod husk and shredded/chopped gliricidia or moringa or wild sunflower or poultry manure in a ratio 4:1.

Photo showing a layer of chopped trimmings. For every 4 parts of cocoa pod husk a layer of N source is added on.

- Sprinkle a reasonable amount of water and turn to make a heap. The water should be introduced on each layer before another layer is added to make it moist but not soggy.

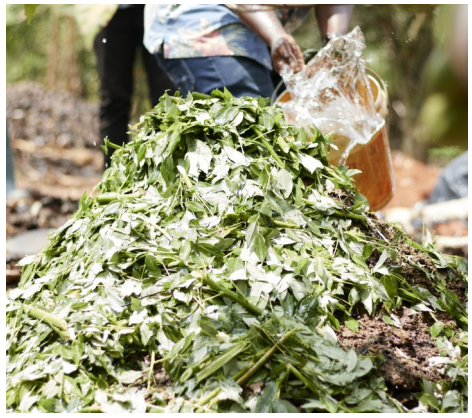


Photo showing the sprinkling of water after each layer

- Note: After each layer dip a stick to check the depth of reach of moisture in the heap. A damp end of the stick should indicate that the heap is moist.
- Mix the husks and the nitrogen source together and use a black polyethylene sheet to cover the heap.
- From the open top of the heap, insert three 2.5m hollow side-sliced bamboo sticks into the heap to reach the base. These reduce the need for frequent turning
- Finally cover the top portion of the heap with a strip of black polythene sheet.
- Secure the edges well with any appropriate heavy items that can not be blown away

Hollow bamboo

Photo showing black polythene wrapped around the compost heap and another strip covering the top part of the heap.