



National Agricultural Research Institute

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BANIS COMPOST



NARI TOKTOK
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Construction of Banis stockade for compost Production

What is compost?

Compost is piled organic matter that is partially broken down by micro-organisms and can be added to soil to improve its chemical and physical properties. Compost is thus an organic source of soil nutrients that can assist in healthy growth of plants.

Four different compost stockades can be constructed for use.

- Banis stockade or compost heap – used for small scale production of compost.
- Wire stockade or compost heap – good for urban area, especially for backyard gardens.
- Plastic stockade or compost heap is also for peri – urban gardens where plastic sheet can be easily obtained.
- Walkabout stockade or compost heap – used in large scale production of compost.

THE INSTITUTE

The National Agricultural Research Institute (NARI) was established by an Act of National Parliament of Papua New Guinea in July 1996 as a publicly funded, statutory research organisation, to conduct applied and development oriented research on food crops, alternative food and cash crops, livestock and resource management issues. Besides applied and adaptive research, NARI is responsible for providing authoritative technical, analytical and diagnostic services and up-to-date information to the entire agriculture sector in PNG. The major targets are the smallholder semi-commercial farmers in the country.

The mission of NARI is to contribute, through applied research and technical services, to the development of the agriculture sector and realization of the national goals by identifying, adapting and transferring agricultural technologies and information, so as to:

- Enhance the productivity, efficiency and sustainability of the smallholder agriculture, and
- Improve farmer income, food security and welfare of Papua New Guineans and the Nation.

This toktok was written by Rosa Kambuou and Janet Paofa. Layout by Roselyn Winston, NARI Dry Lowlands Programme in October 2004

- Wrap the compost with banana leaves (same way you wrap “mumu”)



- The compost will be ready in one (1-2) to two months.

Note

Ensure that the compost heap is properly protected against direct exposure to sunlight and rainfall. Compost must be covered after the materials are thoroughly mixed so that sufficient heat (at least 70°C) is produced to facilitate the decaying process and prevent infestation by maggots.

This booklet will discuss the steps followed in constructing a simple Banis Stockade compost.

How is banis or stockade compost different from the other compost heaps?

Banis or stockade compost is a fenced-in compost heap that can be used by backyard gardeners or small farmers.

Three main important points for construction of Banis stockade.

- A good Banis stockade should have a minimum size of 1.0 m by diameter. The shelter that houses the Banis stockade should be at least 2m high in the front and 1.5 m high at the back.
- A compost heap must be protected against direct exposure to sun and rain.
- It should be easy to get compost in and out of the stockade .

Items required to Construct a Banis stockade (Compost Heap)

- Four (4) pieces of flattened bendable bamboo of about 3m long to construct the rims.
- Twenty (20) sticks about 1m long with sharpened base. Four (4) forked posts two about 2.5m and the other two about 2.0m. These posts are the four corner posts for the shelter that houses the Banis stockade. All four posts have to be sharpened at the base.
- Three (3) to four (4) short (0.5m) sticks (depending on thickness of sticks) for opening
- Eight (8) sticks for the roof construction of about 2.0m in length.
- Sufficient kunai grass and bamboo or sticks for the roof (2.0m long).
- Ropes or strings (from dried banana petiole or other bush ropes).
- About 20 -30 banana leaves.

Compost mix

- Mix 2 parts (eg.spade) of black soil, 1 part (eg. spade) of chicken manure and 2 parts (spade) of chopped kitchen peel and other chopped up plant material.
- Sprinkle water to the mixture and thoroughly mix it until it damp.



Mixture of soil, chicken manure and green leaves

- With spade scoop the mixed materials into the banis stockade.
- Sprinkle water again if the mix is dry.



Filled up banis stockade

Items required for making compost

- 1 bag of chicken manure
- peels and kitchen waste or any soft grass chopped, dried grass and leaves, vegetable residues etc.
- 1 bag of black soil



Chopped green leaves and grass



Soil and chicken manure

Steps involved in constructing Banis stockade.

Draw a circle of 1.0m radius



Drawing a circle



Completed circle

- Hammer the 20 sticks 30cm apart into the ground along the circle marked. Leave an opening of about 0.5m width.



- Tie the flattened bamboo to the sticks to form an inner and outer rim round the top middle and base of the banis except the 0.5m opening.



Tying flattened bamboo



Completed inner and outer rim

- Insert the removeable shorter (50cm) sticks in the opening.



- Construct the roof so that the high side (2.5m forked sticks) is above the opening. This makes it easy to move the compost in and out of the banis.

- Place thick layer of banana leaves inside the banis, covering all holes.



- The stockade is now ready to receive the compost

