

By Arthur Makara

One method of growing bananas is using tissue cultured plantlets. The tissue culture seedlings are bought when they are ready for planting. So, a farmer needs to prepare his garden before purchasing the plantlets.

Tissue culture is the science of multiplying clean disease-free planting materials of different crops to get many identical copies of the same variety without changing the taste and any other physical attribute of the plant.

After the field is prepared, dig the holes (1.5-2ft x 1.5-2ft x 1.5-2ft). The deep hole helps reduce formation of high mat (this is a group of banana plants from the same mother) and risk of the plants toppling (falling) in the event of wind. Rows should be straight and if on a hillside, planting should be along contours to minimise soil erosion. As you dig the hole, separate the soil removed as top soil (black) and the subsoil (red).

Planting should never be done in a field that already has bananas. This is to avoid the spread of pests and diseases. Planting should, therefore, be done in a clean field preferably a virgin one. Planting involves splitting the polythene paper pot while holding the soil carefully.

Then, by hand or using a tool, such as a panga, make a smaller hole in the manure/soil mixture and place the seedling. Compact the soil to make the plant hold firm in the soil. Water the plant with about a litre of water and if possible, mulch around the plant with grass inside the big

How to grow bananas



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hole (mulching could be done before the plants are brought when you preparing the holes after putting manure/soil mixture).

Depending on its size, the seedling will most likely remain deep in the hole. The remaining big hole will serve to collect any rain water and other soil nutrients brought by runoff to feed this plant. If the season is dry, check on your plants regularly and water them, if necessary.

If you are planting the plantlets on, say, one acre, the recommended number of plants is 450. For a higher

plant population and for commercial purposes, one can plant 640 plants per acre. If you plant 450 plants per acre, the distance between holes is three metres by three metres. If you choose to plant 640 plants per acre, the plant spacing is two-and-a-half (2.5) metres by two-and-a-half (2.5) metres.

Using fertilisers

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Soil nutrients

It is important to note that bananas require a lot of soil nutrients (they are heavy feeders), especially nitrogen and potash. So, fertilisers need to be added to realise maximum bunch weight and maintain the plantation for a longer time. Farm yard manure organic fertilisers is recommended for bananas.

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Organic fertilisers

These are obtained in form of crop residues or manure or other forms of mulch. It is thus advisable that crop residues, such as leaves, midribs and banana peelings should always be returned to the farm to compensate for the loss of nutrients taken out in form of harvest and leaching when it rains. Some farmers make organic fertilisers by collecting weeds, grasses, leafy materials and heaping them together.

Cover them with soil such that they can decompose and form organic manure. Others who keep livestock, collect animal manure. But do not apply the manure when it is still fresh as in the process of decomposing, it

may "burn" the plants. Rather, heap it for about a month before you can use it in the plantation. To apply organic manure, do not put it on the banana mat, but rather in the gaps between the banana mats.

Inorganic fertilisers

Inorganic fertilisers are bought from agro-input suppliers or shops. Locate genuine suppliers and contact an agricultural extension officer for advice. Bananas respond well to nitrogen and potash. Phosphorous is vital, but required in smaller quantities. Early application of fertilisers is vital as it will affect the later stages of development. If you do not have organic manure during planting, apply inorganic fertilisers at planting or at initiation of ratoons (emergence of daughter plants). Some phosphate fertilisers should be applied at planting, and thereafter twice yearly, while nitrogen should be applied at quarterly intervals.

Phosphorous and NPK should be applied once a month during the wet season. The fertiliser may be applied in the planting hole or at two to three feet in form of a ring around the banana mat. Broadcasting of the fertiliser may also be done in older plantations. Requirements may vary from farm to farm and year to year. Thus, before applying inorganic fertilisers, seek advice from soil scientists and determine which fertilisers to add. After nine months, the bananas will start yielding.

The writer is a banana researcher