

COMPOST HELPS BANANAS GROW

By R. Michael Bourke, Principal Horticulturist, Highlands
Agricultural Experiment Station, Aiyura, E.H.P.

INTRODUCTION

Sometimes banana crops grow very poorly. One of the reasons for this could be that there is not enough organic matter in the soil. Organic matter comes from plant and animal remains such as trees, leaves, weeds or grass.

Bananas are a crop that needs a fertile soil with plenty of organic matter in it to grow really well. Sometimes we have noticed poor growth in bananas on heavy clay soils in the Sepik Provinces and in the highlands.

ONE WAY TO IMPROVE YIELDS

A small experiment at Aiyura has shown that banana yields can be greatly increased by using a little organic matter. The organic matter is placed in the hole before the banana sucker is planted. Here is how you do it:

1. Choose the site for the banana plant. Bananas prefer a moist soil that is not too wet or waterlogged.
2. Dig a hole 35 cm x 35 cm wide at the top and 50 cm deep. (For a tall person, 35 cm is the distance from your elbow to your wrist, and 50 cm is the distance

from your elbow to your fingertips).

3. Place about 4 kg of organic matter in the planting hole. This could be weeds, grass clippings, coffee pulp, or rotten cocoa pods. A little animal manure should be mixed with the vegetable matter, if available. (Four kilograms of weeds or grass will take up about 15 cm at the bottom of the planting hole when it is packed down.)
4. Cover the organic matter with a small amount of soil.
5. Place the banana sucker in the hole. (Remember to use sword suckers. These are ones with narrow leaves.)
6. Fill in the rest of the hole with topsoil and pack down the soil.

If you plant your bananas this way, the new plant will use the plant food from the rotting weeds or other organic matter. The plants will grow better and give a greater yield. Perhaps the deeper hole also helps the bananas to grow better. Whatever is the exact reason, we have found that placing organic matter - in other words, compost - in banana planting holes can make a very big difference to the way bananas grow.



When planting a banana sucker, first dig a hole about 35 cm by 35 cm wide at the top and 50 cm deep.



Place about 4 kg of weeds, grass clippings, coffee pulp or rotten cocoa pods in the bottom of the planting hole. Cover this with a little soil.



Place the banana sucker in the hole and fill in the hole with topsoil.

Banana plants are shallow feeders. This means that the roots get their nutrients from near the soil surface. As each stem bears fruit and is replaced by a new sucker, the root system of the clump grows closer to the soil surface. So it is a good idea to pile weeds and other garden waste at the base of the banana plants. This gives food to the plants and also helps to stop the plants from falling over.

A SMALL EXPERIMENT

Will this method improve banana yields in your area? It may not work everywhere, for example, when gardens follow a forest fallow on fertile soils. We think this technique will be most useful on heavier clay soils. It should also be very useful in situations where the soil fertility has been reduced; for example, in institutional gardens.

You can do a simple experiment in your area to try out this technique. Plant 12 banana suckers. Plant every second banana using the method of placing compost in the planting hole that is described in the article. Then six bananas will have compost and six will be planted in the usual way. You can watch how the bananas grow. If the ones that had compost grew better, you would know that this technique is a good one for your area.

FURTHER READING

Heenan, D.P. (1976). Methods for commercial banana growing. *Harvest 3* (2): 42-47.



This banana was planted, along with some other bananas, three years ago in a heavy soil at Aiyura. The soil was not very fertile. The plants have not grown much in three years and have produced no fruit.



These bananas were also planted nearby at the same time, at Aiyura. Weeds and grass clippings were placed in the planting hole. The plants grew well and several bunches have been produced from the original banana planted and its suckers.