

>> fastfacts: banana circles

>> **Banana circles can be used in tropical and sub-tropical areas to utilise waste water, run-off or overflow from rainwater tanks, and even urine waste from dry composting toilets.**

It is possible to use other plants in a similar system, but bananas are an excellent choice as they are very heavy feeders and also need a lot of water to be productive. The fruit from banana palms is highly nutritious and so in developing countries, banana circles are a great way to turn waste into a valuable food source for the whole family.

At Kesho Leo, banana circles are used as a part of our compost toilet and grey water systems.

step 1

Select an area to use for your banana circle and mark out a circle two metres in diameter. You can mark another bigger circle around this one, as a guide for your mounded garden bed.



step 2

Using your two metre circle, dig out a basin-shaped hole to a depth of 50 centimetres to one metre. Put the soil from the hole around the edge to create a mounded garden bed. At this point, you can make an opening at ground level for rainwater run-off to enter the banana circle.





step 3

Line the hole with paper, cardboard, or a few layers of banana leaves to slow down the infiltration of water later. This will make sure that water and nutrients hang around long enough to be taken up by bananas, papayas and other plants that surround the basin.



step 4

Fill the basin with organic mulch materials, making a large compost pile. This can be mounded quite high initially, as it will sink as the materials break down and turn into compost.

step 5

Plant banana palms around the rim of the basin in the mounded bed. We use four banana suckers around a two metre banana circle. These can initially be interplanted with papayas and a range of other food-bearing plants – experimentation is always fun! Sweet potatoes make an excellent fast-growing ground cover, which stabilises the soil and provides a living mulch. Pumpkins and gourds will do well too, as long as they are high on the mound and not likely to get wet feet. Planting out thickly is the idea, to maximise food production and to make sure all excess nutrients are being taken up.

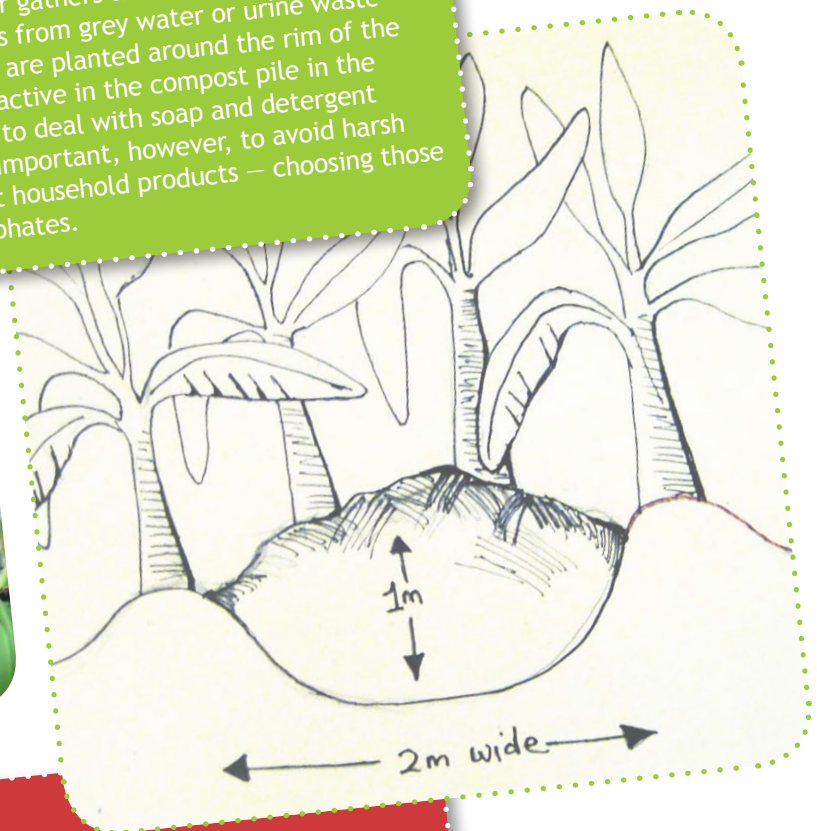


step 6

Heavily mulch your newly planted garden – all soil should be covered to minimise evaporation and to make sure new plants settle in well with minimum transplant shock. Make sure you water everything in, giving the bananas especially a big soak. Continue regular watering until your banana circle starts receiving waste water, run-off or urine waste from your composting toilet.

how banana circles work

Waste water, urine or excess water is sent via a pipe or drain to the 'basin' around which the bananas are planted. Because the hole is lined with either paper/cardboard or banana leaves, the water gathers and is absorbed into the sides of the basin, irrigating plants. Nutrients from grey water or urine waste are taken up both by the heavy feeders that are planted around the rim of the banana circle, and also by micro-organisms active in the compost pile in the middle. Using a banana circle, it is possible to deal with soap and detergent residues, and oils found in grey water. It is important, however, to avoid harsh chemicals and to make smart choices about household products – choosing those that have very low levels of salts and phosphates.



handy hints!

- > Bananas are very easy to dig up and transplant, even suckers up to five or six feet high will transplant well if given lots of water and TLC in the first month or so after re-planting. Don't worry if you don't get a huge root ball either – they are tough little buggers, and will quickly adapt to their new site.
- > Did you know that banana palms are actually a grass? Also, each plant only gives fruit once, so after you have cut the bunch of bananas down you can remove the whole plant at ground level. By this time, there should be new suckers coming up – only allow a couple of these to grow, as too many will make your bananas overcrowded and they won't fruit well.
- > Banana circles can also be used as an outdoor shower/wash area, with the addition of a platform to stand on in the middle of the circle and a simple privacy screen. Fast-growing plants can be incorporated into the design to provide a living privacy screen...heaven!

