

# FERTILITY PITS



also called:	used in:	
<ul style="list-style-type: none"> <li>• banana circle</li> <li>• circular swale</li> </ul>	gardens	✓
	fields	
	grazing land	

This method enables runoff water to be captured and conserved in pits that are filled with organic matter, such as compost or manure. The organic matter increases the fertility of the soil and minimises the loss of water from evaporation.

Plants, particularly those which require a lot of water (such as bananas and paw-paws), are grown in or around the pits, where they benefit from the moist and fertile soil.

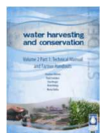


A fertility pit filled with organic material



A fertility pit being prepared

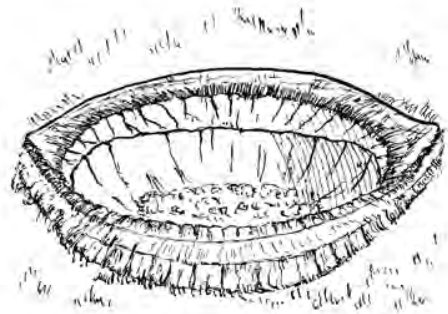
Soil	Slope	Rainfall	Tools & Equipment
Any soil type (the organic material will improve any soil).	Up to 25%.	Any rainfall.	spade* organic materials* (mulch, compost, manure) trees * (e.g. bananas, paw-paws) plants (e.g. sweet potato, beans, ginger, lemon grass, taro, yams, comfrey) *essential



## METHOD



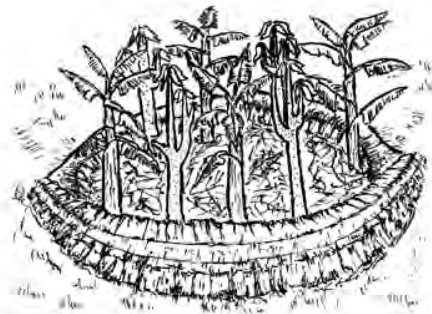
1. Decide where the pit should be. Mark out a circle about two metres across and dig down about 1 metre. The pit should be concave (shaped like a bowl). Put the soil you have dug out around the edge of the pit.



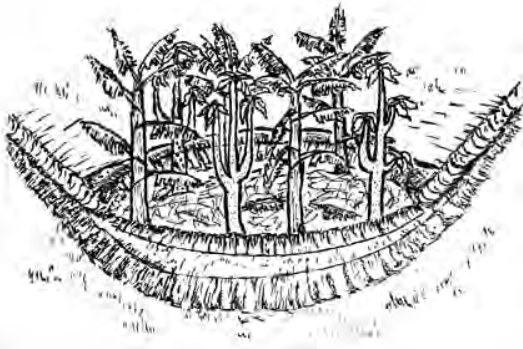
2. Shape the soil around the edge of the pit to form a ridge or mound. If the pit is on a slope you can dig diversion furrows to direct runoff into the pit (see step 5 below).



3. Fill the pit with organic material, placing the most coarse materials at the bottom. You can overfill the pit because the materials will sink over time.



4. Plant trees and plants around the rim of the mound. Space the trees so that they have enough room for growth and place plants between the trees.



5. Use the fertility pit as a compost heap, and construct a diversion furrow to direct any excess runoff into the pit

**Denison, J.A., Smulders, H., Kruger, E., Ndingi, H. & Botha, M.**  
(2011). Water Harvesting and Conservation: Volume 2: Part 1.  
*Water Research Commission Report No. TT 492/11.*

