

FARMER TO FARMER - PRACTICES FOR RESILIENCE SERIES

PIT PLANTING ON AN ATOLL

'Goodness Pits' give plants a firm start in life in the Marshall Islands. They are four feet sized holes filled with organic materials for anchoring plants like bananas, limes, mangoes and papaya.

Organic farmers of Majuro Atoll observe plants grown in a pit bear fruit earlier and are healthier than those that are not. Coral atolls like Majuro typically have sandy soils of low fertility and require persistence for production of even basic crops. The pit is an adaptive technique. It is filled with resources a farmer can easily obtain from around his farm – coconut husks, green and brown leaves. The organic materials in the pit help retain moisture. This matters, as coral atolls usually receive less than 1,000 millimetres of annual rainfall and long dry seasons. The sandy, porous soil drains water fast.

The following steps show the correct way to prepare a pit for the maximum benefit of plants.

Step 1



Gather materials for the pit – coconut husks, brown leaves and green leaves.

Step 2



Dig a pit 4 feet deep x 4 feet wide. When you hit wet sand, stop digging. Sand offers little nutritional value or soil organisms beneficial to plant health. This pit size is big enough to contain all the organic material.

Step 3



Place coconut husks, inside facing up, on the pit bottom. They hold water and any nutrient washed off from the upper layers of the organic material. The roots of the plant will suck the nutrients from the coconut husk.

Step 4



Pour in a layer of soil (dug out to make the pit) to cover the coconut husks. This returns into the pit nutrients, microbes and other soil organisms.

Step 5



Put in some brown, dead leaves from any plants – banana, papaya, taro that have turned brown. They are a source of carbon for good plant growth.

Step 6



Place a light layer (only about two inches thick). Cover again with a layer of soil. Water the pit well.



Step 7



Make a hole in the middle of the pit and plant, allowing the roots to rest on the coconut husks. Cover the plant base and pit with soil and mulch. Water every day for a week.

This info sheet has been produced with the support of the International Fund for Agricultural Development (IFAD) Capacity Building for Resilient Agriculture in the Pacific Project and the Technical Centre for Agricultural and Rural Cooperation (CTA) Youth Leading Learning in Resilient Agriculture Practices project in partnership with the Pacific Organic and Ethical Trade Community (PCETCom) the Pacific Community (SPC) and the Marshall Islands Organic Farming Association (MIOFA).

