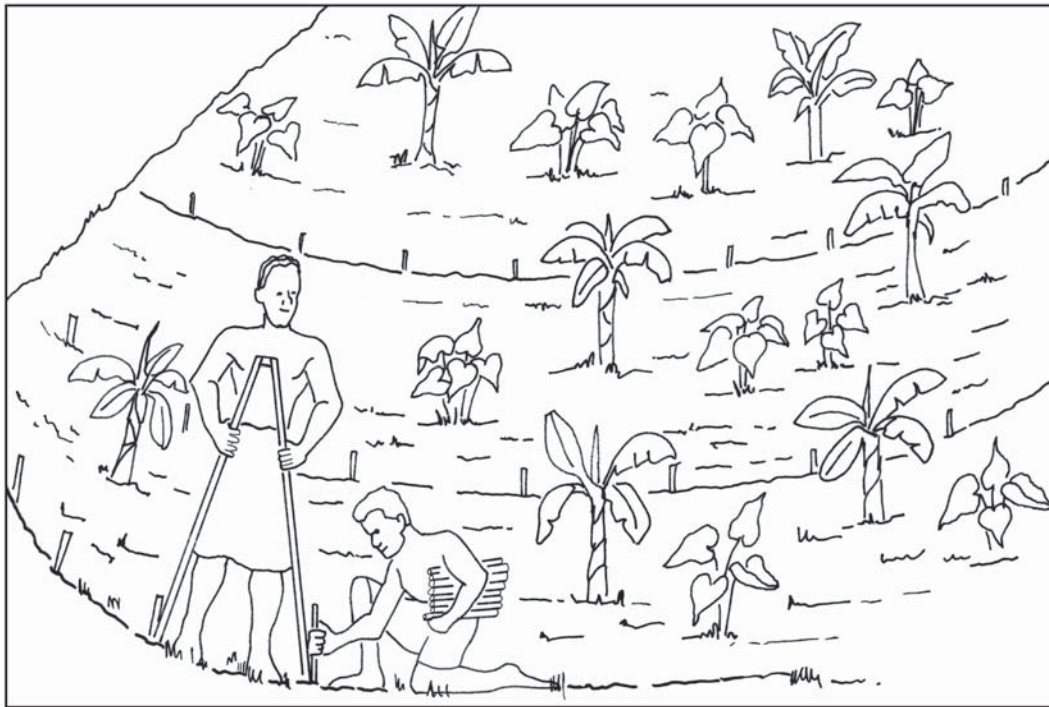


# Contour Farming for Orchards in the Pacific

USDA NRCS Practice (331)



*In contour farming, tree crops are planted across the slope to conserve water and protect soil. This is done with simple instruments such as a level or a homemade A-frame.*

## What is contour farming for orchards?

A traditional Pacific Island practice that is very beneficial for growing tree crops on hillsides is to plant the tree rows across the slope instead of up and down the slope. A common name for this practice is **contour farming**. It is a very old and effective conservation practice used by farmers from around the world.

## Why plant orchards on the contour?

Pacific Island farmers can benefit from planting their tree crops across the slope on their farm. Using this practice can:

- keep valuable topsoil in place on sloping fields.
- slow water down and let it soak into the soil.
- improve irrigation systems and conserve water.
- reduce labor and make harvesting easier.
- improve the appearance of the farm.

To learn more about protecting your sloping farm land from water damage, read ***Protecting Soil on Pacific Island Farms***.

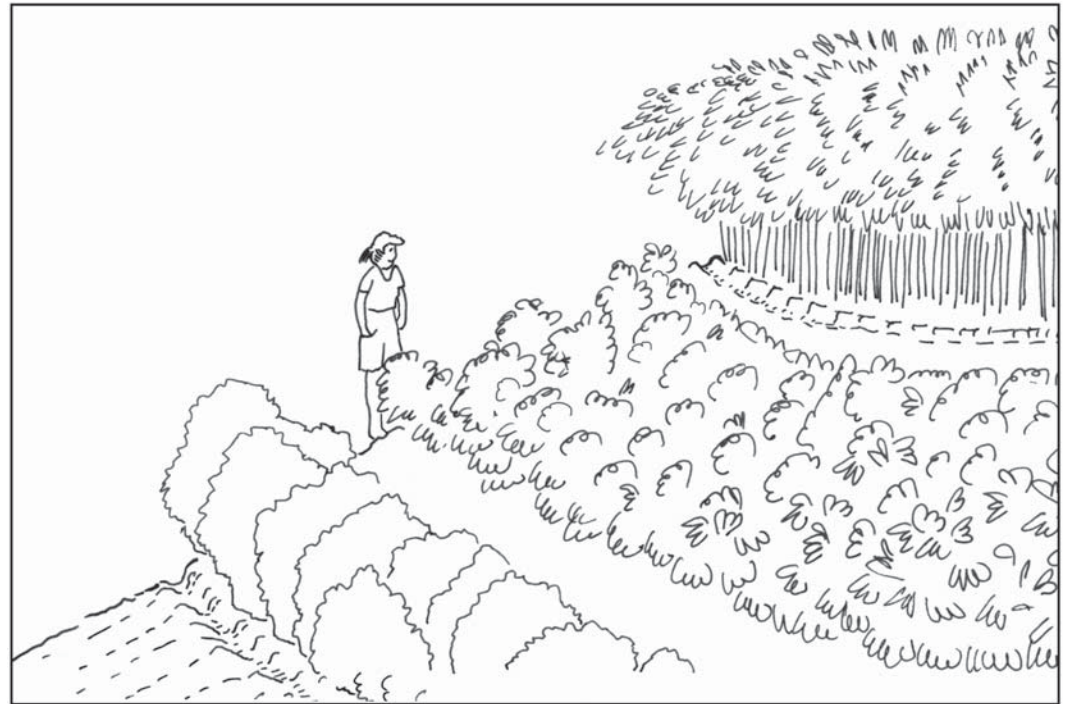
## Where is contour farming used?

- On sloping orchards

If you grow trees (for wood, fuel, fruit, nuts, cultural or medicinal uses) on slopes, you should be aware of water movement. Be extra careful to protect your orchard soils from water damage. Plan for heavy rain before the rains actually fall. Long, smooth, even slopes speed up runoff water. Fast moving water has a lot of power to cut deep into the land. It can wash soil off your field and damage or even destroy your trees. Use conservation practices to shorten slope lengths, make them more irregular, and slow down rainwater.

### Start with planting on the contour

As a farmer, your first step for slowing down rainwater is to determine your field's contour lines. Then plant your orchard across the slope (or "on the contour"). This allows you to do all the land preparation, planting, and harvesting across the slope. Farming across the slope helps to shorten slope lengths, slowing down runoff water so it can soak into the soil.



*Combine contour farming with hedgerows to keep valuable topsoil in place on sloping fields and to produce a variety of different crops.*



*Combine contour farming with hillside ditches to slow water down and let it soak into the soil.*

It is important to take time to lay out contour lines to guide you in the field. This is done with simple instruments such as a level or a homemade A-frame. Your local office of the USDA NRCS or the Cooperative Extension Service can help show you how to lay out contour lines.

#### **Add on other practices**

For more slope protection, combine contour orchard farming with other practices. You can plant conservation covers, vegetative barriers, and alley cropping hedgerows in strips or rows across the slope. Use mulching and residue management to keep the soil under the trees covered. Place slash or plant residue (such as banana stalks and tree trimmings) in strips across the slope to help trap and retain water.

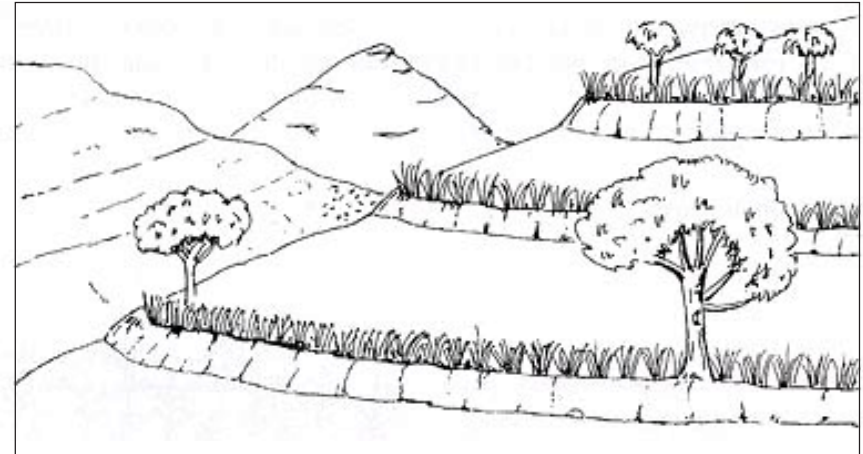
With some basic earth shaping, you can install hillside ditches across the slope. This will shorten the slope length and divert water to a stable area on the farm.

With each additional practice, the farm is better protected from water damage.

For the best results, combine **contour farming** with other conservation practices:

- **Hillside Ditch** (423): digging a small ditch across the slope to divert rainwater
- **Vegetative Barriers** (601): growing small strips of stiff plants across the slope
- **Residue Management** (329): leaving slash in the field for soil protection
- **Mulching** (484): bringing in material to cover and protect the soil
- **Conservation Cover** (327): growing permanent plant cover to protect topsoil and smother weeds
- **Alley Cropping** (311) and **Hedgerow Planting** (422): growing hedges of shrubs and trees across the slope

Additional information is available from your local USDA Service Center or at [www.pb.nrcs.usda.gov](http://www.pb.nrcs.usda.gov) and [www.hi.nrcs.usda.gov](http://www.hi.nrcs.usda.gov).



*For the best results, combine contour farming with vegetative barriers and other conservation practices.*