
Mulching for Moisture, Weed Control and Soil Protection

USDA NRCS Practice (484)



What is mulch?

Mulches are usually plant materials like chopped leaves, small branches, coconut husks, grass clippings and wood chips placed in a thick layer on the soil surface. Other mulching materials common on Pacific Island farms include coconut fronds and husks, old coconut mats, banana leaves, breadfruit leaves, betel nut wastes, forest tree leaves, cardboard and chipped typhoon debris.

Why use mulch?

Pacific Island farmers can benefit from using mulch on their farm. Using this practice can:

- Protect the soil surface and help stop raindrop erosion.
- Feed crops and increasing the crop yield.
- Add organic matter to the soil.
- Protect soil around new plantings.
- Smother weeds.
- Hold moisture in the soil.

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

Where and when is mulching used?

- Between rows in crops
- Under fruit and other trees
- In areas with heavy foot or machine traffic
- In heavily shaded areas where vegetation will not grow well
- On soils that don't allow water to soak into the ground
- Throughout the growing season, and especially when crops are still small and getting started
- Between growing seasons when fields are left unplanted



Example of mulching between crop rows

Compost, a special kind of mulch

Composted waste (like grass, shrub and tree trimmings, leaves, and fruits) release plant nutrients as they decompose. Animal manures can be mixed with them to provide more nutrients. To compost, make a light, fluffy mixture of plant and animal waste and arrange it in piles, rows, or bins. Turn the pile from time to time and allow the mixture to cure for a few weeks. The finished, earthy material can be used on your crops. Your local Cooperative Extension Service can provide more information on composting.



Example of mulching under fruit trees

Common mulch materials for Pacific Island farms

Material	Layer/Depth	Life Span of Material	Notes
Chipper wastes	3 to 4 inches	6 months	Chipped debris (bark/leaves)
Compost	3 to 4 inches	6 to 8 months	Best used as soil conditioner
Lawn clippings, cut grasses or weeds	1 to 2 inches	1 to 3 months	Don't bring weed seed or weeds into your field
Newspaper	3 to 6 sheets	2 to 6 months	Avoid glossy paper, color prints
Woven weed barrier	1 layer	3 to 5 years	Check product label
Plastic film	1 layer	10 to 36 months	Check product label for lifespan
Wood chips	3 to 4 inches	6 to 9 months	Wood chips can take nitrogen from the crops

For current lists of suggested mulching materials suitable for your farm, contact the local office of the Cooperative Extension Service or the local USDA NRCS field office.

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

- **Residue Management (329):** leaving slash in the field for soil protection
- **Heavy Use Area Protection (561):** reinforcing high traffic areas on the farm

Additional information is available from your local USDA Service Center or at <http://www.nrcs.usda.gov/>



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