

## Project Coordinator

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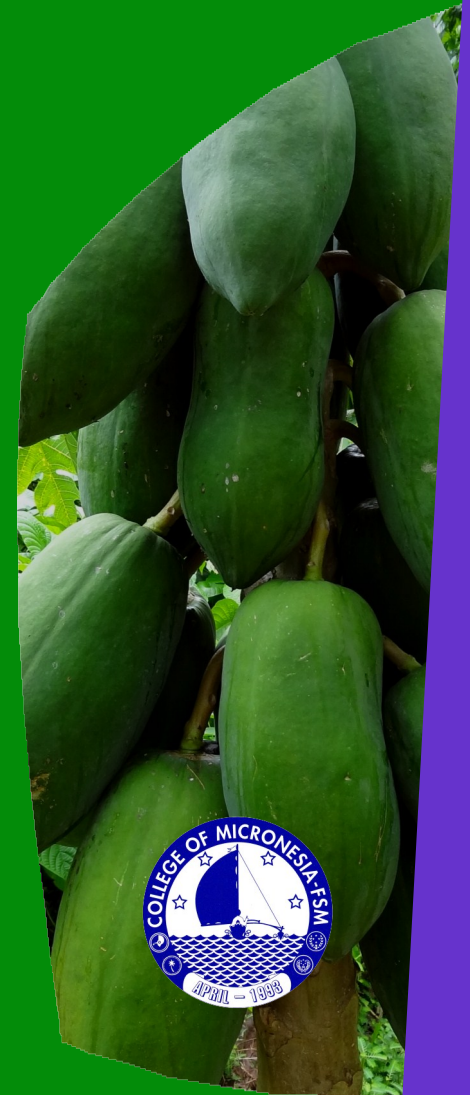
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## PAPAYA CULTIVATION GUIDE



# Papaya Cultivation: Useful Facts

## Climatic Conditions

Papaya is a tropical plant. Optimum temperature for papaya cultivation is 25-30°C and minimum 16°C.

## Soil Characteristics

The well-drained or sandy loam soil with adequate organic matter is most important for the papaya cultivation. In high rainfall area, if drainage is poor and roots are continuously drenched for 24 to 48 hours, it may cause the death of the plants. Sticky and calcareous soils are not good as rain water may accumulate in the soil even only for a few hours. In this case, higher raised bed and drainage ditch are recommended. Deep, well drained sandy loam soil is ideal for cultivation of papaya. The suitable pH value is between 6 and 6.5. The growing field should be irrigable and kept at suitable soil moisture which is necessary for the growth of papaya plants, although dry climate at the time of ripening is good for the fruit quality. Continuous cropping in the same field may result to poor growth and cause disease problem of papaya trees. Papaya does not like strong, cool, hot, dry or salty wind.

## Field Preparation

A spacing of 1.8 x 1.8 meter is normally followed. However higher density cultivation with spacing of 1.5 x 1.5 meter enhances the returns to the farmer and is recommended. A 40-60 cm raised bed is required if the soil is not well drained.

## Preparation of the Seedlings

The seed must be from reliable source and sown as soon as possible. When the seedling is 10-15 cm tall, it should be transplanted, but 30-40 cm tall seedling is also all right if it is grown in a larger container.

## Planting

The seedlings are planted in pits of 60 x 60 x 60 cm size. The pits are dug about a fortnight before planting. The pits are filled with top soil along with 10 kg of finished compost. Tall and vigorous varieties are planted at greater spacing while medium and dwarf ones at closer spacing. Seedlings should be fully watered one day before trans-

planting. Transplanting in the late afternoon is recommended to minimize transplanting shock. Take care not to plant too deep, otherwise collar-rot disease may affect the buried part of the stem. Water immediately after planting.

## Irrigation

Normally, irrigation is required every 15 days or 10 days in hot season, but practice varies according to soil, climatic conditions, and irrigation methods. Ring method, furrow or drip irrigation can be done. However, be sure to prevent the water from coming in contact with the stem.

## Fertilizer Application

In a tropical climate it is better to apply small quantities of fertilizer often, rather than to add a large quantity in one treatment.



This makes the fertilizer more profitable and prevents too rapid growth. Considering the poor, nutrient deficient nature of the island soils. The plant needs continuous fertilization, as fruiting is continuous upon maturity. Recommended rate of fertilizers for papaya is apart from the basal dose of compost applied in the pits, 600-750 gm for one crop season of 16-16-16 are recommended for getting higher yield.

## Weed Control

Deep hoeing is recommended during the first year to check weed growth. Weeding should be done on regular basis especially around the plants.

## Plant Maintenance

Remove the side shoots of the stem as soon as possible. Cut the old, dry, or diseased leaves and petioles. Thin the fruits, which are poorly pollinated, malformed or pest-infected.

## Insect-Pests and Diseases

The most common insect pests observed are aphids (*Aphis gossypii*) and red spider mite (*Tetranychus cinnabarinus*). The main diseases reported are ring spot, damping off and stem rot.

## Harvesting

Fruits are harvested when they are of full size, light green in color with tinge of yellow at apical end. On ripening, fruits of certain varieties turn yellow while some of them remain green. When the latex ceases to be milky and become watery, the fruits are suitable for harvesting. The economic life of papaya plant is only 3 to 4 years.

## Storage

Fruits are highly perishable in nature. They can be stored for a period of 1-3 weeks at a temperature of 10-13°C and 85-90% relative humidity.

(Reference: National Horticulture Board, India)

