



Papaya Farming Guide



Papaya also known as “*Carica papaya*” is a tropical fruit having commercial importance because of its high nutritive and medicinal value. Papaya cultivation had its origin in South Mexico and Costa Rica.

Papaya is a popular fruit famous for its high nutritive and medicinal values. It comes early in bearing than any other fruit crop, produces fruits in less than a year and the production of fruits is quite high per unit area. Papaya is cultivated more or less on a commercial scale in the foothills and plain valleys of all states of the north eastern region. As per statistics available 3,670 hectares yield 47,280 tonnes of papaya annually. It is the fourth important crop of this region. Among the hill states, Mizoram has the largest area under this crop, followed by Tripura and Manipur. While in production Manipur contributes the maximum, followed by Tripura and Mizoram. Papaya is a native crop of Mexico, and was introduced in India in the 16th century. Now it has become popular all over India and is the fifth most commercially important fruit of the country. Total annual world production is estimated at 6 million tonnes of fruits. India leads the world in papaya production with an annual output of about 3 million tonnes. Other leading producers are Brazil, Mexico, Nigeria, Indonesia, China, Peru, Thailand and Philippines.

Climatic Condition for Papaya Farming

Papaya is basically a tropical plant. However, it also grows well in sub-tropical parts. Those foot hills which enjoy a mild winter are ideal for papaya cultivation. Low temperature and frost limit its cultivation in higher altitudes. Excessively cold nights cause the fruits to mature slowly and to be of poor quality in winter season. It can be grown from the sea



level to an altitude of 1000 metres, but above an altitude of 600 metres, size and quality of fruits gradually decreases. As it grows in sub-tropical and tropical climates, it can be cultivated in a temperature range of 25-35°C. In this region it can be grown successfully as a rainfed crop in areas with 1500-2000 mm of evenly distributed annual rainfall, though yield may be poor when compared to an irrigated crop, because winter drought restricts development of the plants and

the fruits. High humidity affects the sweetness of the fruits. Fruits tend to lose their sweetness in low temperature also. A warm and dry climate is needed during ripening season. It cannot withstand strong winds being a tender and shallow-rooted plant.

Suitable Soil for Papaya Farming

Papaya can be farmed in many types of soils, except sandy and sticky or heavy clay soils. Papaya roots are very sensitive to water logging or standing water. Even forty-eight-hour submergence can be fatal for the plant. In heavy soils, water accumulates during high rainfall, and diseases like foot-root and root-rot occur, which may cause the plantation to be wiped out in a short time. Hence a slightly sloppy land is preferred to a perfectly levelled one. Hilly soil of this region is best suited, being well drained in organic matter.

Propagation in Papaya Farming

Papaya is invariably propagated by seed. For propagation, seeds are collected from ripe, large sized, healthy fruits, essentially from female plants free from pests and diseases. Sometimes, the seeds fail to germinate because seed viability is completely lost in about 45 days. The removal of a mucilaginous covering (sarcotesta) from the seed is helpful in more rapid and uniform germination than those seeds with their sarcotesta intact. Removal of sarcotesta is easily done by fermenting the seed in a bucket of water for two to three days. The sarcotesta breaks easily when the fermented seeds are mixed with wood ash and are rubbed gently in a piece of gunny cloth. The seeds are washed to remove exogenous material by putting them in another pot or vessel containing water. The viable seeds sink in water, while the nonviable ones, sarcotestas and other debris float and can be skimmed off. The seeds can be sown immediately, or they can be stored after drying in shade in airtight containers. The seeds, however, should never be dried in sun, as this leads to a total loss of their viability.

PLANTING IN PAPAYA FARMING

Papaya is commercially propagated by seed and tissue culture plants. The seed rate is 250-300 g./ha. The seedlings can be raised in nursery beds 3m. long, 1m. wide and 10 cm. high as well as in pots or polythene bags. The seeds after being treated with 0.1% Monosan (phenyl mercuric acetate), ceresan etc. are sown 1 cm. deep in rows 10 cm. apart and covered with fine compost or leaf mould. Light irrigation is provided during the morning hours. The nursery beds are covered with polythene sheets or dry paddy straw to protect the seedlings. About 15-20 cm. tall seedlings are chosen for planting in about two months.



The seedlings are planted in pits of 60x60x60 cm. size. In the summer months the pits are dug about a fortnight before planting. The pits are filled with top soil along with 20 kg. of farmyard manure., 1 kg. neem cake and 1 kg. bone meal. Tall and vigorous varieties are planted at greater spacing while medium and dwarf ones at closer spacing.

In papaya farming, the importance of nitrogen, phosphorous and potassium for good growth and yield in papaya has been realized. A fertilizer dose of 400g nitrogen, 250g phosphorous and 400g of potassium per plant per year should be applied in six split applications under irrigated conditions, although in rainfed conditions, it can be given in two split doses; the first in the beginning of monsoon and second in the later part. If rainfall is well distributed from March to November, then it can be given in three split doses. Each plant should also be given 20-25 kg of farm yard manure once every year. At the time of fertilization, a sufficient amount of moisture is essential in the soil. The fertilizers should be well mixed in irrigation rings or basins by light digging or hoeing. Application of fertilizers should be stopped 6 months before harvesting the crop.

Vocabulary:

Papaya Farming Guide

Foothills: laderas

Mild: suave

Withstand: resistir

Wiped out: erradicado

Sloppy: descuidado

Pits: fosas/pozos

Yield: producir

Logging: talar

Hilly: montañoso/accidentado

Seedlings: plántulas

Manure: estiércol