

## Money minting papaya – papain extraction

Papaya is getting popular among farmers in the northern districts of TamilNadu. It is mainly grown for the papain rather than the fruit. Private institute are entering into contract with the farmers to get the papain.

Mr. Inasi of ulagampatti, Dindigul is cultivating papaya for the past 2 years. He has entered into contract with a Coimbatore based company . They provide him with the seeds and necessary equipments – knife and trays to extract the milk. There are specialist laborers in papain extraction, they come once in a week and extract the milk. The pay is decided by the weight of the milk extracted. The milk is refrigerated in a cold-storage located at natham road. The company pays him and they take the product from the cold storage unit.

### Production of papaya for papain :

Papaya for papain extraction is a special variety. Seedlings should be prepared in raised beds in sunny areas. The seed requirement for 1 acre is 400g seeds. The seedling is ready in 60 days. The land should be prepared well and seedlings should be transplanted at a spacing of 6 \* 6 feet. The seedlings are planted at a depth of ¾ feet. The seedling requirement of 1 acre is 1500. The most difficult part in papaya cultivation is the identification of male and female plants. Female plants should be more to get high yield. But during planting the plants cannot be differentiated. It takes 5 months for identification. In female trees flowers are borne single. Whereas in male plants flowers appear in bunches. After identification, the population should be maintained in the rate of 20 females : 1 male. The extra male plants should be cut back. Based on weed growth, one or two weeding is done in a year. For the first 9 months only irrigation is done. The ground should not be moist as it can cause rotting in the plants. During the 6th month give basal fertilizers, later once in 6 months apply 300g of mixed fertilizers for each plant.

Papaya milk can be extracted from the 9th month to the 18th month. Milk is extracted from unripe and mature fruits in the early morning. It is collected in rexin sheets. The milk becomes like wax in a short time. It is scooped and packed in plastic bags. This is sent to the cold storage unit from where the company procures it. In 2 ½ years, 1 acre gives 1700kg of papain, 100 tones of unripe fruit or 50 tones of ripe fruit.

### Senthil papain and food products:

Mr. .selvaraj, field manager of senthil papain and food products, Coimbatore briefs his firm activities. The firm was started in 1994. It issues co-2 papaya variety as it gives good milk yield. It procures milk from Thondamuthur, Palladam, Annur, Sathyamangalam and Dindigul.

The problem in papaya cultivation for papain is the bacterial growth in the extracted milk. Hence the milk should be transported to the processing units or cold storage units immediately. In Co-2 variety, each bunch has 4-5 fruits. Its duration is 2 ½ years. Each tree will have 10 fruits at a time for milk extraction. Long sticks tied with blades are used for extraction, slight scouring is sufficient for milk extraction. Each fruit can be roured to a maximum of 6 times, after which the fruits should be removed. 1 male and 1 female labour is sufficient to scour the fruits in 1 acre. On an average they scour upto 70 trees in a day.

The finance manager Mr. Karthikeyan proudly says that the milk obtained from Coimbatore and its neighboring areas is of the best quality. The most important factor in papaya production is that the land should be fertile with good irrigation facilities. One more important aspect is that the milk should reach the firm at Coimbatore within 12hrs of harvest. Hence farmers of Dindigul, Madurai, Theni, Karur, Trichy, Erode, Salem, Namakkal and Coimbatore districts can cultivate papaya for papain extraction.

The firm is arranging for financial support, technical guidance and varietal selection. The milk is taken at

the rate of Rs.80 / kg. The fruit is taken back @ Rs.20 /40kg. the fruits are taken by the firms only on need basis but the amount for fruit is given to the farmers. They can ripen and sell it to others. This may be procured by jam manufacturers.

The cost of cultivation is Rs.50, 000 / acre. The net income is Rs.1 lakh/acre. Apart from this the income from sale of fruits is an additional bonus.

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<b>Economics for growing papaya in 1 acre</b>			
<b>S.No</b>	<b>Particulars</b>	<b>Expenditure</b>	<b>Income</b>
1.	Ploughing	800	
2.	pits	2000	
3.	Seed (400 gram)	600	
4.	Labour charge for planting seedlings	1200	
5.	Farm yard manure	2000	
6.	Mixed fertilizers	2400	
7.	Papain Extraction cost (1500 kg * Rs. 20)	30,000	
8.	Transport	2000	
9.	Sale of milk & spent fruit (1500 kg * Rs.100)		1,50,000
10.	Total	48,500	1,50,000
11.	<b>Net profit</b>		<b>1,01,500</b>

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