

Papaya

Plant Name: Papaya

Botanical/Scientific Name: *Carica papaya*

Family: *Caricaceae*

Plantation date: 04/08/2023

Spacing: 8 x 7 feet (plant to plant and row to row distance)

Total area of plantation: 26.5 R

No. Of plants: 377

Variety: Taiwan 789/Red lady, 15 no., Red baby, Welcome 46, Ice berry, Green berry, Ruby red.

Specification of Papaya : Papaya is a sweet nutritious fruit, rich source of vitamin A (2020 IU/100gm), vit C (85 mg/100gm), protein, carbohydrates, papaya is known as backyard fruit. India is leading in papaya production. Papaya is a hermaphrodite plant in which male, female and bisexual plants are found.

Character of variety: Taiwan 786 is thick peel variety mostly preferred for long market due to its good keeping quality, High yielding and sweet variety, Susceptible to virus.

Soil: Alluvial medium black, well drained fertile, organic matter rich soil with 6.5–7.0 pH most suitable for papaya cultivation. Strictly Avoid water logged soil.

Climate: Papaya is a Tropical, day neutral and thermosensitive plant. 22–26 °C temperature required for growth. High temp during flowering causes sterility. Sensitive to frost, water stagnation and heavy wind. Suitable annual rainfall ranging from 150–180 cm.

Production: Production starts after 7–8 months of planting, average 40kg/plant.

Pest: Mealy bug, Fruit fly, Thrips, Aphid, Red spider mite, White fly.

Disease: Leaf curl virus, Papaya mosaic virus, Ringspot virus, Root rot, Collar rot, Powdery mildew, Downy mildew.





Papaya Crop Economics



Subject	Crop	Date of planting	Total Area (Acres)	Plantation Distance	Number of Plants	Intercrop	Intercrop Plantation Distance
	Papaya Taiwan 786		1	8 x 6 Feet	908	Watermelon	8x1.25
Subject			Details				Expense details
(A) Capital required at the time of planting			Soil testing				400
			Water testing				300
			Ploughing				2,000
			Rotavator				2,000
			Manure 2 trolleys (Per Trolleys 2x5,000)				10,000
			Bed preparation				1,500
			Basal Dose				8,000
			Drip irrigation				20,000
			Mulching paper				9,000
			Mulching paper laying cost				1,500
			Price per plant(9x908)				8,172
			The cost of planting plants				1,200
Cost A							64,072
(B) Total cost up to harvesting after planting			Fertilizer / Water soluble fertilizer				14,400
			Spraying Cost				8,800
			Labour Cost				5,000
			Harvesting Labour Cost (Per harvest 1,000 x 9)				9,000
			Crop Duration				14 Months
			Harvesting Period				8-14 months
			Total Harvest				8-9
Cost B							37,200
Total Maincrop Cost			Cost A + Cost B				101,272
(C) Intercropping cost (Watermelon)			Seeds				10,500
			Planting Cost				2,000
			Fertilizer Cost				10,000
			Spraying Cost				10,000
			Harvesting Cost				3,000
			Labour Cost				2,000
			Intercrop Duration				3 Months
Total intercrop cost (Cost C)							37,500
Total Cost			Cost A + B + C				1,38,772
Main Crop Production (Papaya)			Total plants x Production Per plant x Average rate (908 x 40 kg x 8 rs)				2,90,560
Intercrop Production (Watermelon)			Per Acre - A Grade Tons generated x Average rate per ton (17 x 6000)				1,02,000
Intercrop Production (Watermelon)			Per Acre - B Grade Tons generated x Average rate per ton (5 x 3000)				15,000
Total income per acre			2,90,560 + 1,02,000 + 15,000				4,07,560
Net profit/Net return			Total income - Total cost (Cost A , B, C)				2,68,788
BCR (Benefit Cost Ratio)			Total income ÷ Total cost				1:2.94

Note: The above planting is at a 8 x 6 feet spacing, but changes in spacing, as well as changes in management practices, land, soil-climate, market, etc., may result in higher cost and lower production.