

Sweet orange

Plant Name: Sweet orange

Botanical / Scientific Name: Citrus Sinensis

Family: Rutaceae

Spacing: 12x12, 15x15, 16x16, 18x18, 20x20, 10 x 20 feet (plant to plant and row to row distance)

Variety: Nucellar, Katol gold, Phule Mosambi, Jain tissue culture

Properties of Sweet orange: India is the third largest producer of Sweet orange among the world and Maharashtra ranks first in India. It is a yellow green colored, sour and sweet fruit of the citrus family. Citrus fruit grown for its pulp and juices, having many medicinal properties and nutritional values.

Soil: Well drained light loam, medium to black soil having pH 6.5 -7.5 suitable for cultivation. Crop is highly sensitive to calcareous soil, if CaCo₃ more than 5-7% of and EC more than 0.1%, so avoid this type of soil, because presence of calcium carbonate at feeding zone may adversely affect on growth of plants.

Climate: 25 °C is the ideal temperature for the growth and development of sweet orange. Temperature requirements range from 15-35° C. The extreme temperature, dry weather and high sunshine is required for higher and good quality yield.

Production: Plants started blooming after a year of plantation, but commercial production started after 4-5 years of plantation. After 5 years of plantation yield increases up to 25-30 kg per plant.

Pest: Leaf miner, Leaf eating caterpillar, Stem borer, Aphids, fruit sucking moth, lemon butterfly, citrus psylla.

Disease: Gummosis, Decline, Anthracnose



Sweet orange

Nucellar

Variety: Nucellar

Plantation date: 05/07/2023

Spacing: 10x15 feet

Plantation Area: 10 R

No. of plants: 78

Character of Nucellar: Nucellar is the best variety for commercial production. Disease resistant and long-life variety, Maximum spread of tree, big size and high juice percentage variety (200gm), fruits are thin peel sized and sweet in test, fruit content 9-12 seeds per fruit. Fruit has a long shelf life after harvest.

Production: Production starts after 4-5 years of plantation, approximately 25-30 kg/tree.



Sweet orange

Katol gold

Variety: Katol gold

Plantation date: 05/07/2023

Spacing: 10x15 feet

Plantation Area: 4.1 R

No. of plants: 30

Character of Katol gold: High yielding variety, Fruits larger and more attractive than other varieties. Fruit pulp juice is highly suitable for fruit processing.

Production: Production starts from fourth year the average expected yield is 60 kg/plant per year, 15-18 t/acre.



Sweet orange

Jain tissue culture

Variety: Jain tissue culture

Plantation date: 05/07/2023

Spacing: 10x15 feet

Plantation Area: 4.1 R

No. of plants: 30

Character of Katol gold: Professed fruit setting. True to type, free from viral diseases, Bio-fortified variety with less seeds and high juice percentage, suitable for both table as well as processing purpose.

Production: Started blooming after 3 years of plantation, but commercial production started after 4-5 years of plantation. After 5 years of plantation yield increases up to 25-30 kg per plant.



Sweet orange

Phule Mosambi

Variety: Phule Mosambi

Plantation date:

Spacing: 15x10 feet

Plantation Area:

No. of plants:

Character of Phule Mosambi: Phule Mosambi variety developed by MPKV Rahuri (MH) in 2008 by clonal selection from Nucellar. Big to medium size fruit, having good structure and texture (250gm), highly juicy fruit. High yielding variety. Highly tolerant to disease and pests. Suitable for cultivation in Maharashtra.

Production: Started blooming after a year of plantation, but commercial production started after 4–5 years of plantation. After 5 years of plantation yield increases up to 25–30 kg per plant. After 10 years 60–70 kg/plant, 20.12 t/ha/year at 6x6 m of plantation.





Nucellar sweet orange one acre (0.40 R) cost of cultivation and production								
Sr. No	Work	Details	First year expenses	Second year expenses	third year expenses	Forth year expenses	Fifth year expenses	For Next all Years
1	Testing	Soil and water testing	700	0	0	0	0	0
2	land preparation	Ploughing and Rotavator (Including Crop)	4,000	2,000	2,000	2,000	2,000	2,000
3	Digging pit cost	217 plants x 20 Rs.	4,340	0	0	0	0	0
4	Manure	Manure (5000 per trolley)	10,000	10,000	15,000	15,000	20,000	20,000
5	Chemical fertilizer	500 kg	2,000	3,000	4,500	5,000	5,500	6,000
6	The cost of the plant	217 x 40 Rs.	8,680	0	0	0	0	0
7	Labour cost	Male and female	1,500	1,500	2,000	3,000	3,000	3,000
8	Bamboo cost		1,000	0	0	0	0	0
9	Drip irrigation cost		20,000	0	0	0	0	0
10	Spraying cost	Pest and Disease control	1,000	1,000	2,500	3,000	3,500	4,000
11	Other cost		1,000	2,000	2,500	3,000	4,000	4,000
12	Total cost	Rs.	54,220	19,500	28,500	31,000	38,000	39,000
13		3 years management cost up to first income	102,220					
14	Production	weight of the fruit (Ton)	0	0	0	6.5 T(25-30 kg/plant	9 Ton	Min 13 Ton
15	Rate	Min. Rs. per Kg	0	0	0	20	20	20
16	Total Production	Rs.	0	0	0	1,30,000	1,80,000	2,60,000
17	Net Profit	Minimum net profit after an average of three years (Total Production - Total Cost)	0	0	0	99,000	1,42,000	2,21,000
18	Intercropping minimum production	Kharif soybean acre production (6 quitle x 4000) Min	24,000	24,000	24,000	0	0	0
19		Rabi gram acre production (4 quintals x 5000) Min	20,000	20,000	20,000	0	0	0
20		Intercropping production	44,000	44,000	44,000	0	0	0
21	Intercropping production cost	Kharif Soybeans	14,700	14,700	14,700	0	0	0
22		Rabbi Gram	9,000	9,000	9,000	0	0	0
23		Intercropping costs	23,700	23,700	23,700	0	0	0
24	Intercropping production - Production cost		44,000-23,700	44,000-23,700	44,000-23,700	0	0	0
	Intercropping net profit		20,300	20,300	20,300	0	0	0
25	Net profit after three years		0	0	0	99,000	1,42,000	2,21,000
26	Note :The above planting is at a 20 x 10 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							