Plant Name: Lemon

Scientific Name: Citrus Lemon

Family: Rutaceae

Spacing: 12 x 12, 15 x 15, 18 x 18, 20 x 20 feet (plant to plant and row

to row distance)

Varieties: Phule Sharbati, Balaji, Kagzi lime, Sai sharbati, Vikram,

Pramalini

Properties of lemon: India leads in production of lime and lemon globally. Citrus is the third most important fruit in India after mango and banana. Lemon consists of medicinal and nutritional properties. It's a Rich source of vitamin C' (65 ml per 100gm), and it helps to boost the immune system.

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

Climate: Pomegranate is a sub-tropical fruit required hot and dry climate. It is drought tolerant and stands 38 °C for fruit development, also tolerant of low temperature.

Production: Production starts after 4-5 years of plantation i.e 20-25 Kg/plant from two flowering seasons of one year. 45-55 t/ha/year (after 10 years) at 6m x 6m of planting.

Insect & Pest: Leaf miner, Spider mite, Stem borer, Citrus psylla Disease: Citrus canker, Citrus tristeza, Gummosis, Citrus decline.



Phule Sharbati

Variety: Phule Sharbati

Plantation date: 14/04/2024

Spacing: 10x16 feet (plant to plant and row to row distance)

Plantation Area: 7.8 R

No. of plants: 42

Character of variety: This variety is tolerant to citrus canker and tristeza virus. It's also resistant to some diseases and pests. It has a good shelf life, so ideal for long transport. The fruit shape is round with soft peel (50-55 gm). The yield recorded from Phule Sharbati compared to Sai Sharbati is 11.3% more. Suitable for cultivation in Maharashtra.

Production: Production starts after 4-5 years of plantation i.e 20-25 Kg/plant from two flowering seasons of one year. 52-53 t/ha/year (after 10 years) at 6 x 6 m of planting.



Balaji

Variety: Balaji

Plantation date: 22/11/2023

Spacing: 10x16 feet (plant to plant and row to row distance)

Plantation Area: 2.6 R

No. of plants: 18

Character of variety: This Native India variety with large size fruits having nipples on opposite ends of the fruit, yellow and green in colour. The fruit is sweet and juicy. The variety is resistant to citrus canker and is immune to bark eruption and dry rot. Suitable for Andhra Pradesh and Telangana.

Production: Production starts after 4-5 years of plantation. 55 t/ha/year (after 10 years) at 6 x 6 m of planting.



Kagzi Lime

Variety: Kagzi Lime

Plantation date: 22/11/2023

Spacing: 10x16 feet (plant to plant and row to row distance)

Plantation Area: 2.6 R

No. of plants: 18

Character of variety: Small to medium size fruit with yellowish green skin. Fruits are mainly used for processing purposes. poor shelf life.

Production: Production starts after 4-5 years of plantation. 55 t/ha/year (after 10 years) at 6 x 6 m of planting.



Sai Sharbati

Variety: Sai Sharbati

Plantation date: 28/07/2023

Spacing: 10x16 feet (plant to plant and row to row distance)

Plantation Area: 7.05 R

No. of plants: 48

Character of variety: The fruits of this variety are Smooth with thin rind and uniform medium size (50 gm). This variety is tolerant to citrus canker and tristeza disease. It has a good shelf life. It bears fruits in Mrig and Ambiya Bahar, it has high TSS and citric acid percentage. Juice content 54-55%.

Production: Production starts after 4-5 years of plantation. 47 t/ha/year (after 10 years) at 6x6 m of planting.



Lemon Crop Economics (Plantation spacing 15 x 15 Feet)

Sr. No	Name of work	Details	First year expense	second year expense	Third year expense	Fourth year expense	Fifth year expense	For all subsequent years
1	Testing	Soil and water testing	700	0	0	0	0	0
2	Land preparation	Ploughing and rotavator	4,000	2,000	2,000	2,000	2,000	2,06
3	Digging pit cost	193 plants x 20 Rs.	3,860	0	0	0	0	0
4	Manure	Manure (5000 per trolley)	5,000	0	5,000	10,000	10,000	10,000
5	Chemical fertilizer		2,000	2,000	2,000	3,000	3,000	3,000
6	The cost of seedlings	193 x 10 Rs. per plant	1,930	0	0	0	0	0
7	Labour cost	Men and women	2,000	2,000	2,000	3,000	3,000	3,000
8	Bamboo cost		2,000	0	0	0	0	0
9	Drip irrigation cost		20,000	0	0	0	0	0
10	Spraying cost		1,000	1,000	1,000	2,000	2,000	2,000
11	Other cost		1,000	1,000	1,000	1,000	1,000	1,000
12	Total cost	Rs.	43,490	8,000	13,000	21,000	21,000	21,000
13	3 years management cost up to first income 64,490							
14	Production	Weight of two fruit bloom (Bahar) per year (tons)	0	0	0	5 Ton	7 Ton	Min 9 Ton
15	Rate	Min. Rs. per Kg	0	0	0	25	25	25
16	Total production	Rs.	0	0	0	1,25,000	1,75,000	2,25,000
17	Net profit	Minimum net profit after an average of three years (Total Production - Total Cost)	0	0	0	1,04,000	154,000	2,04,000
18	Intercropping production	Kharif soybean acre production (6 quintals x 4000)	24,000	24,000	24,000	0	0	0
19		Rabi gram acre production (4 quintals x 5000)	20,000	20,000	20,000	0	0	0
20		Intercropping production	44,000	44,000	44,000	0	0	0
21	Intercrop production cost	Kharif Soybean	14,700	14,700	14,700	0	0	0
22		Rabbi Harbara	9,000	9,000	9,000	0	0	0
23		Intercropping cost	23,700	23,700	23,700	0	0	0
24	Intercropping - Cost of production		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	1,04,000	154,000	2,04,000