

LEC.13 SAPOTA – SOIL, CLIMATE, NUTRIENT AND WATER MANAGEMENT, SPECIFIC PROBLEMS AND CORRECTIVE MEASURES

Sapota: *Manilkhara achras*

Sapotaceae

Sapota is a delicious fruit introduced from tropical America. It is also known as sapodilla or chiku in India. Sapota fruits are recommended to adult patients ailing from tuber culosis and children from primary complex. This offers a high economic returns even under marginal land and low input management.

Climate and soil requirement

Sapota being a tropical fruit crop can be grown from sea level upto 1200 M. It prefers a warm and moist weather and grows in both dry and humid areas. Coastal climate is the best suited. Areas with an annual rainfall of 1250-2500 mm are highly suitable. The optimum temperature is between 11°C and 34°C.

Sapota being a hardy tree can be grown on a wide range of soils. Soil should be well drained without any hard pan. Deep and porous soils are preferred. The most ideal soils are deep alluvium, sandy loams, red laterites and medium black soil. It can tolerate the presence of salts in the soil and irrigation water to certain extent.

Propagation

Grafted plants on *Manilkhara hexandra* (Pala) root stock.

Season of planting-June to December.

Spacing: 8 x 8 m. High density planting 8 x 4 m.

Planting

Pits of 1m³ in dug. Filled with top soil mixed with 10 kg of FYM, 1 kg of neem cake and 100 g of lindane 1.3%.Grafts are planted in the centre of the pit with ball of earth intact. The graft joint must be atleast 15 cm above the ground level. The plants are staked to avoid bending or damage of graft joint.

Irrigation

Irrigated copiously immediately after planting and on the third day and once in 10 days after words till the graft establishes.

Manures and fertilizes (kg/tree)

M & F	1 year old	Annual increase	6 th year onwards
FYM	10	10	50
N	0.200	0.200	1.000
P	0.200	0.200	1.000
K	0.300	0.300	1.500

Manures and fertilizers may be applied in September – October, 45 cm away from the trunk upto the leaf drip and incorporated.

After cultivation

Removal of the root stock sprouts, water shoots criss cross and lower branches.

Intercropping: Legumes and short duration vegetable crops may be raised as intercrop during pre bearing stage.

Plant protection

Leaf webber: Spraying of phosalone – 2ml / lit

Hairy caterpillars : Spraying of endosulfan – 2 ml/lit of water

Budworm : Spray phosalone – 2ml/lit

Diseases

Sooty mould : 1 kg maida or starch is boiled with 5 lit of water, cooled and diluted to 20 lit (5%) and sprayed.

Harvest: Mature fruits are dull brown in colour. When scratched the colour immediately below the skin will of lighter shade if matured while in the immature fruits it is green. The mature fruits are harvested by hand picking.

Fruits at full maturity develop a dull orange or potato colour.

Season: February – June and September – October. The fruits are ripen by keeping the fruits in a air tight chamber with. 5000 ppm Ethrel + 10 g NaOH pellets.

Yield: 20-25 t/ha/year

Brown scaly materials disappear from the fruit surface as the fruit approaches full maturity. As the fruit matures, the milky latex content is reduced.

The dried spine like stigma at the tip of the fruit falls or drops of easily when touched.

Yield start from 3rd year of planting.