

KAKE FRUIT COUNCIL

OF AUSTRALIA

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SAPODILLA (CHICO)

FACT SHEET NO. 4

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BOTANICAL NAME: Manilkara zapota.

FAMILY: Sapotaceae

ORIGIN: Central Americas - Mexico to Venezuela

TREE DESCRIPTION

The tree is an attractive upright slow growing evergreen. The crown is dense, rounded, but sometimes pyramidal or open and somewhat irregular in shape.

HEIGHT — 12 to 30 metres from seed, and 6 to 15 metres for grafted cultivars.

FRUIT DESCRIPTION AND FLAVOUR

The russet brown fruit may be subglobose, ovoid or ellipsoid in shape, 50 to 100 mm. in diameter, and up to 130 mm long. Fruits vary from 100 to 460 grams, with edible portion 80 to 90% of total fruit mass. The yellowish brown flesh is soft and melting and varies in texture from smooth to granular, with a very sweet aromatic flavour. The skin is thin when ripe. There are up to 12 shiny black seeds (approx. 15 mm. in length) in each fruit.

FLOWERING

Flowers are small (8 to 12 mm. diameter), white, perfect, and borne in clusters in the leaf axils near the ends of the branchlets. Flowering occurs principally in summer but can extend from spring to autumn. Full petal opening occurs at night, accompanied by a strong scent.

POLLINATION

The flowers are perfect and attract adequate pollinating insects in North Queensland. However, many seedling trees have partial or complete pollen sterility and set very few fruit. Pollinator trees, e.g. the variety Pineras in the Philippines, are sometimes added to orchards to increase crop numbers.

FRUIT DEVELOPMENT

First flower set usually occurs in December, but more profusely in January and February. Fruit develop slowly but evenly over a period of 7 to 9 months.

FIELD PLANTING

Spacing is recommended at 6 to 8 metres between trees in rows 9 to 12 metres apart. The trees are reasonably wind resistant, but staking and tying newly planted trees will prevent movement and root damage.

PRUNING

Usually not necessary except to thin out the internal foliage and remove dead branches. Erect undershoots should be removed entirely.

YIELD

Grafted trees in their third year may produce up to 4 kg. of fruit while mature trees may yield up to 3,000 fruit in one year (20 to 30 tonnes per Ha.). Precocity and mature-tree yields vary enormously between varieties.

PROPAGATION

Several different methods are currently in use with reasonably good results (50 to 100% success rate). Popular methods include top-wedge and side veneer grafts; cuttings under mist; approach grafts; and air layers which may take 6 to 9 months to develop sufficient roots

The best grafting season appears to be mid spring to mid autumn, but excluding the hot wet months.

HARVESTING

Commences in spring and extends through to late summer but peaks in October/November in North Queensland. Maturity is difficult to determine but shows as a slight colour change to a lighter yellowish brown. Alternatively, wait till the first fruit fall. At this stage harvest only the largest fruit which will soften in 7 to 10 days.

POST HARVEST TREATMENT

Remove the stalk and wash the fruit in water to remove any exuding latex. To provide uniform and predictable ripening, ethylene induction is feasible for commercial operations.

TRANSPORTABILITY AND PACKAGING

The fruit should be very firm when harvested and packed but become soft and easily bruised when ripe. Marketing in cellpack trays (as for Kiwifruit) is recommended.