

NARANJILLA: A NEW FRUIT FOR THE HIGHLANDS

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INTRODUCTION

Naranjilla (*Solanum quitoense*) is a fruit that is not widely grown in Papua New Guinea. It is native to South America. The National Academy of Sciences in the U.S.A. (N.A.S.) describes it as 'the golden fruit of the Andes'. N.A.S. believes that naranjilla is a crop with a lot of potential. Naranjilla is a Spanish word. It should be pronounced 'naranheya'.

Naranjilla was introduced to Papua New Guinea in the 1960's via Laloki Quarantine Station and tried out at Aiyura in 1964. It was lost till 1980 when it was found again at Aiyura (see Tarepe and Bourke, 1982). It grows very well at Aiyura on well drained sites, and occasionally elsewhere in the highlands. The following assessment has been done on the crop since 1980.

THE PLANT AND ITS FRUIT

The plant is a shrub that grows up to 1.5 - 2.3 m high and spreads 1.6 - 2.4 m. It branches quite freely like the tree tomato but the stem is hollow. The leaves are hairy and purplish in colour at the edges while the centre is green.

The fruit are produced on the primary and secondary stems.

At Aiyura it does not produce tertiary branches. It can be grown from seed and cuttings.

Most people will grow only a few naranjilla plants so spacing is not so important. If they are grown in a pure stand, we suggest that a spacing of 3 metres square be used.

Naranjilla produces a spherical yellow-orange fruit, densely covered with white hairs. These hairs can be removed easily. The fruit are between 4 and 7 cm in diameter. The fruit pulp is full of seeds, has four segments and is green



Fruit of naranjilla growing on the plant. Notice the fine hairs on the fruit. Fruit can be sold easily to expatriates.

when ripe. The fruit is hardy, i.e. it has a tough skin. Immature fruit are green and have purplish hair.

The crop of naranjilla at Aiyura started bearing at 8 months after planting. The yield was 130 fruits per tree in the first six months of bearing. The average fruit weight was 58 g. The size tended to decrease after 5 months of fruit harvest.

In South America, naranjilla yields from 1000 to 2000 kg/ha, with little care. The naranjilla tree loses vigour after 2 years of fruit production. This is due to the build-up of diseases. It is necessary to then replant in new sites (N.A.S., 1975).

Naranjilla is not popular with the village people in Aiyura area. This may be because it is a new crop. However, it seems to be very popular with expatriates.

Over a period a total of almost 700 fruit were sold at the Summer Institute of Linguistics market at 4 for 10 toea. All fruit were sold. This price is equivalent to about 40 toea per kilogram. However, we believe that the fruit could be sold for higher prices especially in large urban areas.

The fruit is best eaten when it is very ripe. Therefore it is important that only fully ripe fruit are sold.

The fruit can be eaten fresh, as fresh juice and as frozen concentrate. It can also be used to make jam (N.A.S., 1975).

ALTITUDE AND SOILS

In Papua New Guinea, naranjilla fruits at altitudes as low as 900 m above sea level. It does not do well in the lowlands. In South America it is grown between 800 and 2000 m. At Aiyura it does well at 1650 m.



Naranjilla plants growing well at Aiyura. On well drained soils, the plant produces many fruits.

We do not know how high above sea level it will grow. However we would expect that it would grow at higher altitudes than other fruit such as oranges or mandarins.

At Aiyura the crop bears very well on well drained soils. It has grown poorly on heavier soils. It seems to be very important to plant the crop only on well drained soils.

POTENTIAL

The naranjilla grows very well in the highlands, especially on well drained soils. The fruit is very popular with some expatriates.

It could be a good cash crop for village people who sell food in town markets. With time it may become popular with Papua New Guineans. It is a new cash crop with potential for the highlands.

SOURCE OF SEED

Seeds of naranjilla can be obtained on request by writing to:

The Officer-in-Charge
Highlands Agricultural
Experiment Station, Aiyura
P.O. Box 384, Kainantu
E.H.P.

The seeds are supplied free to interested growers.

FURTHER READING

N.A.S. (1975). *Underexploited Tropical Plants with Promising Economic Value*. National Academy of Sciences, Washington.

Tarepe, T. and Bourke, R.M. (1982). Fruit crops in the Papua New Guinea highlands. *Proceedings of the Second Papua New Guinea Food Crops Conference*. R.M. Bourke and V. Kesavan (Eds). Department of Primary Industry, Port Moresby.