PLANT FACT SHEET

Gnetum gnemon L.

GENUS *Gnetum* **FAMILY** Gnetaceae

COMMON NAMES Tu-lip, Melimjo, Spinach Joint fir

EDIBLE PARTS AND USES

Edible parts: Leaves, Fruit, Flowers, Seeds, Nuts, Vegetable

Young leaf tips are eaten cooked. Young flowers are eaten, cooked.
Young fruit are eaten, cooked. Ripe fruit are eaten raw or cooked.
(Fruit should be crushed before cooking or they can explode.)
Young flowers and fruit need cooking to get rid of irritating substances.
The seeds are dried and flattened and then deep fried in hot oil and salt added.

DESCRIPTION

A shrub or small tree about 10 m high. It can grow to 20 m high. It normally has a cone shaped crown. The bark is greyish brown. The small branches are slender and like a vine. The leaves are produced in pairs opposite each other. They are dark green and shiny, oval and pointed at both ends. The leaves are 7.5-12.5 cm long by 2.5-7.5 cm wide. Trees are either male or female. Male spikes are 3-6 cm long. They consist of 50-80 very small flowers in rings along the stalk. Flowers are produced as cones made up of rings of scales along stalks 3-6 or 12 cm long. There are 5-8 flowers at each node. Fruits are oval and green when young but red when ripe. Fruit are 2-3 cm long and contain one seed.

HABITAT

A tropical plant. It suits the lowland tropics. Trees occur in tropical rainforest from sea level to about 1200 metres altitude. It does best with rainfalls of 3000-5000 mm per year. It is best with an annual temperature of 22-30°C. It needs a temperature above 13°C. These trees grow in Malaysia, Indonesia and islands out to Fiji. They can grow on a range of soils but do best on deep well drained soils. It grows well in acid soils. It can grow in full sun but also tolerate shade. It cannot tolerate salt spray. It suits hardiness zones 10-12.

PRODUCTION

Cultivation

Trees are grown from seed. For using as seed for growing, a fully ripe red fruit is needed. Seeds exhibit a natural dormancy due to a hard impermeable seed coat. Breaking this seed coat can normally hasten germination. This is done by boring a hole into the seed. Propagation can be naturally by seeds distributed by birds, by planting seeds or by cuttings. A spacing of 6 m is suitable although in rows they are often put more closely.
Trees appear to establish in the forest under-storey indicating some shade tolerance. Trees recover readily from

pruning. Coppicing can produce a rapid flush of new leaves. Flushes of new leaves tends to occur seasonally. Trees can be topped to keep them shorter. If plants are grown by air layering they are shorter and more compact.

Harvesting and Seed Production

Trees grow by flushes of young reddish leaves. Flowers are produced throughout the year. Trees grown from seed take 5-8 years to bear fruit. Air layered trees produce fruit in 2-3 years. Leaves are harvested when fully expanded but still soft and succulent. The fruit are harvested when the skin turns red. Trees can produce 20,000 fruit per year or 6-7 kg. Yields of up to 80-100 kg per tree per year have been achieved.

NOTES

In Slovenia presumably in a hot house.
The nut contains, per 100 g edible portion, 30% moisture, 9-11% protein, 1.6-1.8% fat, 47.6-50.4% starch and 277 cal food energy. The young leaves containing, per 100 g, 71% moisture, 104 cal food energy, 7.4% protein, 2% fat, 19.4% total carbohydrates, 11.9% fibre, 44 mg calcium, 15 mg phosphorus, 1680 I.U. vitamin A and 121 mg vitamin C. There are about 28 Gnetum species. Demo

PICTURES



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



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