

# Passion Fruit

*Passiflora edulis*



Common names	Markisa (Indonesia), lilikoi (Hawaii), sweet cup (Jamaica), maracuja (Brazil), granadilla (South Africa).
Origin	The purple passion fruit is native at southern Brazil through Paraguay to northern Argentina. The yellow fruit's origin is uncertain, it may have originated in the Amazon region of Brazil. Passion fruit belongs to Passifloraceae family.
Description	Passion fruits are egg-shaped or round-shaped, with a structure somewhat like a watermelon. There is an inedible outer rind, that can be yellow or purple, and the edible inside, which consists of a juicy, jam-like mixture of pulp and seeds.
Growth Habitat	The purple passion fruit is subtropical. It grows and produces well between altitudes of 650-1,300m. The yellow passion fruit is tropical or near-tropical. In Western Samoa, it is grown from near sea-level up to an elevation of 600 m.
Foliage	The passion fruit is a vigorous, climbing vine that clings by tendrils to almost any support. It can grow 5-7m per year once established and must have strong support. It is

	generally short-lived, 5 to 7 years.
Flowers	Flowers of the purple passion fruit are about 4.5 cm, the yellow passion fruit is about 6 cm in diameter. Both are dull white with very deep blue centers. Flowers of the giant granadilla are quite different; they droop like old-fashioned lampshades and their petals are deep maroon on the inner surface. Flowers will self-pollinate.
Fruits	The round, egg-shaped fruits usually ripen from flowering in 80 days. There are 350 varieties of passion fruit but there are mainly two types - Golden Passion Fruit, can grow up to the size of an orange. It has a bright, yellow, outer rind. The more well-known, the Purple Passion Fruit, is now mainly grown in Australia. Though it's much smaller, it has, arguably, a richer flavor and aroma.
Soil	Passion fruit vines are grown on many soil types but light to heavy sandy loams, of medium texture are most suitable, and pH should be from 6.5 to 7.5. If the soil is too acid, lime must be applied. Good drainage is essential to minimize the incidence of collar rot.
Pruning	After harvest, as a general rule, remove all weak growth and cut back vigorous growth by at least one third. In very hot climates allow a thick canopy of foliage to grow around the fruit to prevent sunburn.
Fertilization	Fertilizer (10-5-20 NPK) should be applied at the rate of 1.36 kg per plant 4 times a year. Passion fruit vines should always be watched for deficiencies, particularly in potassium and calcium, and of less importance, magnesium.
Propagation	Seeds planted soon after removal from the fruit will germinate in 10 to 20 days. The fresher the seed the better.

Harvest	The fruit will quickly turn from green to deep purple (or yellow) when ripe and then fall to the ground within a few days. They can either be picked when they change color or gathered from the ground each day. The fruit is sweetest when slightly shriveled. Both the fruit and the juice freeze well.
Nutritional Properties	Fresh passion fruit is high in beta carotene, potassium, and dietary fibre. Passion fruit juice is a good source of vitamins A, C and other antioxidants. Good for people who have high blood pressure and helps with insomnia. Some research is showing that purple passion fruit peel may help with controlling asthma symptoms. The fruit contains Lycopene in the mature and immature pericarp.
Health Benefits	<ul style="list-style-type: none"> <li>▪ The juice of passion fruit reduces cancer cell growth. Though research is underway on this issue, the phytochemicals in the fruit juice are considered to inhibit cancer cell growth.</li> <li>▪ The phenolic acids and flavonoids present in the fruit are supposed to possess heart-protecting function.</li> <li>▪ The phenolic profile of the fruit is known for its anti-microbial activity.</li> <li>▪ Passion fruit is a good source of antioxidants, both water soluble and fat soluble ones.</li> <li>▪ Passion fruit is considered good for products which require pasteurization.</li> <li>▪ The fruit is quite high in carbohydrates and simple sugars, which improves athletic performance.</li> <li>▪ It contains plant sterols, which help in lowering the levels of cholesterol.</li> <li>▪ Passion fruit is a reservoir of Vitamin C, Vitamin A and Potassium.</li> <li>▪ The seeds of the fruit are very vital sources of fiber.</li> <li>▪ It is supposed to possess somniferous properties, which when taken before going to bed, help the person to relax and have a restful sleep.</li> <li>▪ It is very good for attaining optimum health and to</li> </ul>

	reduce weight.
Commercial Uses	<p>The leaf of passion fruit is used as a vegetable in the hills of North Eastern India. Boiled extract of fresh tender leaves is prescribed as a remedy for diabetes, hypertension, diarrhoea, dysentery, gastritis, abdominal flatulence and as a liver tonic. The rinds of passion fruit have very low pectin content (2.4 %). The rind residue contains about 5-6 % protein and could be used as a filler in poultry and stock feed. The seeds yield 23 % oil which is similar to sunflower and soybean oil and accordingly has edible as well as industrial uses. There is currently a revival of interest in the pharmaceutical industry, especially in Europe, in the use of glycoside, passiflorine, especially from <i>P.incarnata</i> as a sedative or tranquilizer. Italian chemists extracted passiflorine from the air-dried leaves. Juice of Passion fruit is prescribed as a digestive stimulant and treatment for gastric cancer.</p>
Food Suggestion	<p><b>Mango Passion fruit Jelly</b></p> <p><u>Ingredients:</u></p> <ul style="list-style-type: none"> <li>• 250ml water</li> <li>• 100g castor sugar</li> <li>• 10g jelly powder</li> <li>• 100ml evaporated milk</li> <li>• 1 tsp custard powder</li> <li>• Pinch of salt</li> <li>• 400g ripe mango puree</li> <li>• 2 passion fruits, use the pulp and keep the juice</li> </ul> <p><u>Method</u></p> <ol style="list-style-type: none"> <li>1. Strain mango puree through a sieve to remove excess pulp.</li> <li>2. Combine sugar, water and jelly powder in a small saucepan.</li> <li>3. Stir and cook over medium-low heat to a simmering boil.</li> <li>4. Mix custard powder with evaporated milk and salt. Stir</li> </ol>

to dissolve and pour into the agar-agar mixture.

5. Add mango puree and continue to simmer for 1-2 minutes, stirring continuously, then mix in the passion fruit juice.
6. Spoon a little passion fruit pulp into individual jelly moulds. 6. Pour jelly mixture over, then leave aside to cool and set.
7. Refrigerate or chill for at least 3-4 hours before serving.