Passion flowers (Passiflora spp.) are perennial woody vines, mostly from tropical America but with a few species originating in Asia, Australasia and the Polynesian Islands. They climb through the supporting vegetation by means of coiled tendrils. Many of them have showy fragrant flowers and several produce edible fruits.

How did the passion flower get its name?

When the first Christian missionaries landed in South America in the sixteenth century, they found a plant which seemed to be a very good omen for the success of their mission. They called it the passion flower because they thought that it symbolised the death of Christ. The five sepals and five petals of the flower, which are similar in appearance, represent the disciples without Peter and Judas. The double row of coloured filaments, known as the corona, signifies to some the halo around Christ's head and to others the crown of thorns. The five stamens and the three spreading styles with their flattened heads symbolise the wounds and the nails respectively. The tendrils resemble the whips used to scourge Christ and the lobed leaves look similar to the clutching hands of the soldiers.

The scientific name of the giant granadilla, *P. quadrangularis*, is derived from its four-angled winged stem. Unlike the passion fruit which has lobed leaves, it has undivided leaves. Its flowers have white sepals and petals tinged with red. The corona is striped with red, white and purple. The passion fruit (*P. edulis*) has flowers with white petals and sepals and a purple and white corona.

What do passion fruits look like?

More than 55 species of *Passiflora* are grown for their edible fruit but of these only two are cultivated widely: the passion fruit (*P. edulis*) and the giant granadilla (*P. quadrangularis*). Other cultivated species include the banana passion fruit (*P. mollissima*), the water lemon (*P. laurifolia*), the sweet calabash (*P. maliformis*) and the sweet granadilla (*P. ligularis*).

The egg-shaped passion fruits have a tough leathery, sometimes wrinkled, skin, that is usually purple or red although there is a yellow variety available. Filling the central cavity is a yellowish aromatic pulp, surrounding numerous hard black seeds attached to small peg-like outgrowths on the fruit wall. This pulp, which is made up of juicy outgrowths from the seeds (arils), is rich in vitamin A and contains appreciable quantities of vitamins B1 and C. Both the seeds
and the pulp are edible. The fruits are usually eaten raw and are popular in fresh fruit salads. Many of the yellow-skinned passion fruits are grown for juice production.

Generally the purple varieties of passion fruit are grown in subtropical areas whilst the yellow varieties and the giant granadilla need hot moist tropical conditions. In the major producing countries which include Brazil, Kenya, Australia and Hawaii, passion fruit are grown on plantations. Under these conditions each vine will produce around 100 fruits per year. Purple varieties are picked by hand from the vines whereas the yellow-skinned varieties are allowed to fall to the ground before being collected.

The giant granadilla is considerably larger than the passion fruit, weighing up to 5 kg. Just inside the skin of the yellow fruit is a layer of juicy white flesh which is edible but rather insipid in flavour. The central cavity is filled with numerous seeds surrounded by translucent juicy arils. This fruit is also generally eaten raw.

**Growing requirements**

Most passion flowers can only be grown indoors in the UK because they require fairly high temperatures. Since they are generally rather sprawling climbers, they are best grown as conservatory or glasshouse plants. However, when small, some species can be grown successfully as houseplants, blooming whilst still young.

The blue passion flower (P. caerulea), a native of Brazil and Peru, can be grown out of doors in Britain and is reasonably hardy if sheltered by a sunny wall. It has flowers with white or pinkish petals and sepals and a blue corona. Although it will produce fruits in this country in good years, they are not edible having very little fleshy pulp. The plant can be propagated by seed, available from seed merchants, or by cuttings, but requires initial protection. A well drained soil and plenty of water during the growing season are necessary. If the soil is very rich, the number of flowers produced is likely to be reduced. Although individual flowers last only a short time, the flowering season is fairly long. Seeds from the passion fruit can be grown either under glass or in a tub placed outside from May to September. After removing the arils from the seed they should be sown onto a standard potting compost. Germination takes place within 2-3 weeks. The plants require plenty of water and need feeding monthly until they begin to flower. The giant granadilla can be grown in the same way but requires higher temperatures.

**Where are passion flowers grown at Kew?**

Several passion flowers can be seen climbing around the pillars in the hot steamy conditions of the Palm House: among them are the passion fruit and the giant granadilla.

**Additional sources of information**