

## Passiflora species

The optimum temperature at which to germinate *Passiflora* is 29.5°C, 12 hours on and 12 hours at ambient temperature. The most common cause of passionfruit not germinating is attempting germination at too low a temperature.

Grow in full to part sun in light, evenly moist soil, mulch well.

Grow on fences or trellises or allow it to scramble over shrubs and trees. Mostly pest free but sometimes devastated by caterpillars. A fast, rampant grower with beautiful flowers and edible fruit that attracts butterflies.

If seed is to be kept for some time before sowing it should be stored dry in say a zip-lock plastic bag or brown paper bag in the refrigerator at just above freezing. Seed stored this way can retain its viability for several years. Seed stored at room temperature will lose its viability within a few years.

Something to remember – *Passiflora* seed germination can be ragged and slow when being grown in climates cooler than its natural environment and stored seed can take time to rehydrate and germinate. The watchword with *Passiflora* is patience and never discarding seed. We have in the past jettisoned seed we thought was not going to germinate. Nowadays if we get frustrated the seed goes into a compost heap in a precise place for later identification and it invariably germinates, often after a change of season or recent rain.

There is an ongoing debate about pre-treatment of *Passiflora* seed. There seem to be as many suggestions as there are *Passiflora* growers. The key is to get the seed to rehydrate, that is, absorb water through the outer layer of the seed and then to provide an appropriate temperature to promote germination. Very fresh seed extracted from fruit and that has not dried to any significant extent should germinate without the need of any pre-treatment although we always soak the seed for at least a few hours in the liquid extracted from the fruit.

Seed that has dried and been stored is best pre-treated as the seed case hardens with time and resists water absorption. To promote absorption, it is best to scarify seed, that is, thin the seed wall. This can be done in a variety of ways but the most reliable is to lightly abrade the seed with light sandpaper between finger and thumb. Some dedicated *Passiflora* lovers go to the extent of thinning until the white testa or flesh in the seed center is barely exposed using sandpaper or a very fine jewelers drill.

Germination of the Australian native *Passiflora* species (*P. aurantia*, *P. cinnabarina*, *P. herbertiana*) is fire/smoke related. Wild growing plants are most frequently seen the year or two after an area has been burnt. At other times plants may be found in an area, but nothing like the proliferation after fire. To simulate this in cultivation seed can be smoke treated. This can be done using one of the commercial smoke preparations

such as smoke papers or Regen 2000 products or you can replicate this by smoke treating your seed yourself. One way is to place the seed in an open weave material and hang over a smoky fire away from the most intense heat fire an hour or two. Another is to take an earthenware, fireproof container, fill it with your desired medium, top off with several inches of dried leaf matter. Set the leaves on fire, allow to burn down, remove any large pieces of unburnt matter and scuff the surface of the media to distribute any ash. Then sow your seed as normal.

Some other methods of pre-treatment scarification suggested include soaking seed for 24 to 48 hours using a 90/10 concentration of water and hydrochloric acid, or a mixture laundry bleach and water (half a teaspoon to 1 pint of water), a mixture of 50/50 lemon juice and water for 24 hours, soaking in a mixture of weak black tea (soak for 24 hours, replace the tea mixture and soak for a further 24 hours, then for 4 hours in a strong black tea solution) and placing the seed in a ziplock bag with a banana skin for 2 to 3 days.

Propagate in any good potting or seed raising mix. Seed should be covered to the depth of the seeds width.

Keep the growing medium moist but not wet.

Prick individual seedlings out into individual tubes as soon as they are large enough to handle. Grow on in their tubes until at least 25cm or as desired.

Plant out in their permanent position after the danger of frost has passed. As a vine the plant of course requires a frame, wall, trellis or something to grow upon. Site in full sun. Space plants about 1m apart.

Protect young seedlings from slugs and snails.