# \*Solanum betaceum (syn. Cyphomandra betacea)

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Cyphomandra fruits (tamarillos) from Wikipedia



From Kew Bulletin (1887), p. 3.



Sections of Cyphomandra fruits (tamarillos) from Wikipedia



Herbarium specimen (AD) of Solanum betaceum.



Herbarium specimen (AD).



Unusual anthers of *Cyphomandra* in which the filament is extended on to the back of the anthers. From Engler & Prantl's, *Die Naturlichen Pflanzenfamilien IV*, 3b, fig. 12 (1897).



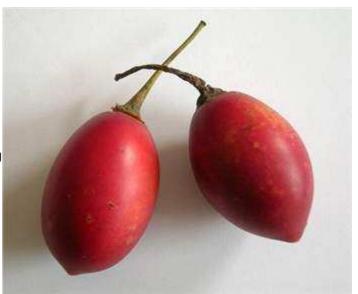
Distribution map generated from Australia's Virtual Herbarium. For a more up to date map visit the AVH site through your local herbarium.

### **Synonymy**

Solanum betaceum Cav. *Icon.* 6: 15, t. 524 (1800) T: Spain, cultivated in Madrid 1798–1799, *Cavanilles s.n.*; lecto: MA308535 *fide* Bohs (1994). An image of the type in MA can be seen on the Solanaceae Source site. *Cyphomandra betacea* (Cav.) Sendtner, *Flora* 28: 172; t. 4, figs 1–6 (1845).

The genus *Cyphomandra* was separated from *Solanum* on the basis of few technical characters such as the thickening of the connective at the back of the anther. This separation from *Solanum* has long been questioned. Recent sequencing of DNA places *Cyphomandra* species clearly with *Solanum*.

A recent monograph on this group of species as *Cyphomandra* may be found in L. Bohs *Cyphomandra* (Solanaceae), *Flora Neotropica*, Monograph 63 New York Bot. Gard. (1994) 1–176 and their transfer to *Solanum* in L. Bohs, *Taxon*, 44 (1995) 583–587.



### **Description**

Small malodorous tree, pubescent with simple glandular hairs.

Leaves ovate, cordate at base with the lobes overlapping; lamina of the lower and juvenile ones to 35 cm long, 30 cm wide, others commonly c. 15 cm long, 12 cm wide, entire; petiole 5–15 cm long.

Inflorescence pendulous, cyme-like; pedicels 10–20 mm long. Calyx c. 5 mm long, the lobes broad, rounded. Corolla c. 20 mm diam., pink, fleshy, scented. Filaments c. 2 mm long; anthers 4–5 mm long, the connective broad and thick. Ovary bluntly conical; style 5–6 mm long, stout.

Berry ovoid, 5–7 cm long, dark red, dull. Seeds disc-shaped, 3.5–4 mm diam. with wing 0.25 mm wide, pale reddish-brown.

## Distribution and ecology

Native to South America. Infrequent escape from cultivation in subtropical areas of eastern Qld and north-eastern N.S.W.

Occurs in rainforest.

### Common name

Tree Tomato, Tamarillo.

# Relationships

Solanum betaceum belongs to the Cyphomandra clade of Solanum - see Solanaceae Source.

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#### **Notes**

Cultivated for its edible fruit in many parts of tropical America, Asia, New Zealand, the Pacific region and Australia. Garden-grown in all Australian States with commercial plantings in subtropical areas.

Cultivation discussed by J. McD. Slack, Growing tamarillos (*Cyphomandra betacea*). *Agric. Gaz. New South Wales* 86: 2–4 (1976).

### From the web

An image of *S. betaceum* can be seen on the Eurobodalla Shire site and also on the Bean interactive key site at http://delta-intkey.com/solanum/images/sol\_bet\_klove.jpg

A photograph of this species by Hugh & Nan Nicholson can be seen on the Terania Rainforest Publishing Photo Library site.

A page on *Solanum betacea* as a threat in the Pacific can be found on the Pacific Island Ecosystems at Risk (PIER) at www.hear.org/pier/species/solanum betaceum.htm

An image of the flowers can be seen at http://linus.socs.uts.edu.au/%7Edon/larvae/plants/sola/cyphomandra-betacea.jpg

Another image with background information can be found on the Desert-Tropicals page at www.desert-tropicals.com/Plants/Solanaceae/Cyphomandra\_betacea.html and images with cultivation notes at www.tradewindsfruit.com/tree\_tomato.htm

Further information and links for this species can be found on the Solanaceae Source site.

Information on pollination and fruit set (floral biology) of tamarillo in New Zealand can be found in Lewis & Considine (1999) *New Zealand J. Crop & Hort. Science* 27: 101-112, downloadable as a pdf at <a href="http://www.rsnz.org/publish/nzjchs/1999/13.pdf">http://www.rsnz.org/publish/nzjchs/1999/13.pdf</a>