

Citrus x microcarpa

Common Names: Calamansi/Kalamansi ([kelemen'ɪʔ]), Calamondin/Kalamunding, Philippine lime, calamonding, calamondin orange, calamandarin, golden lime, Panama orange, musk orange, bitter-sweets and acid orange.

Order: Sapindales

Family: Rutaceae

Genus: *Citrus*

Species: *x microcarpa*

Growth Habit: shrub or small tree

Height: 3-6m

Width: 4-7m

Description: a dense, sprawling canopy with widespreading, usually weeping branches and glossy evergreen leaves that are oil-filled and ovate in shape with entire edges. The tree is heavily thorned, with the thorns being hard and 0.5-2in long.

Flowers: creamy white, five-petaled flowers appear as either singles or in clusters, on new wood or semi-mature growth. They have a sweet, citrus perfume.

Fruit: the rough skin of the rounded, 4-6cm fruit starts dark green in colour, changing to yellow, then orange, then red-orange as it ripens. Inside, the flesh is translucent orange, has 4-12 seeds, and is juicy with an acidic lime-citrus flavour. It is harsher in flavour than Tahitian limes.

Location Preferences: warmer areas of Australia and Asia-Pacific. A full sun position with fertile, free-draining soil. Calamansi do not tolerate waterlogging so plant on mounds if the soil is heavy and slow to drain.

Irrigation: water regularly when young and as fruit is forming.

Maintenance: it is not necessary to regularly prune calamansi to produce fruit. However, pruning them to 2-3m will aid access during harvesting. Conduct regular maintenance prunes to remove dead or diseased wood, crossing branches, congested growth (improving air flow within the tree will decrease the likelihood of fungal diseases and improve access if pest spray is required) and citrus gall wasp galls. Like all citrus, Calamansi prefer a good supply of trace elements. Test and maintain a slightly acidic soil to ensure access to iron, magnesium and zinc. Signs of deficiency include yellowing of the leaves (leaf veins remain green) and slowed growth. Regular foliar feeds with seaweed emulsion and fertilising trees in spring and autumn with compost and/or worm castings can assist in prevention.

Maintain a thick (30cm) mulch layer around the tree at all times. Be sure to leave a gap around the trunk of at least 30cm, to avoid collar rot, and continue to mulch out to 60cm beyond the branches, to encourage roots to spread out as well as down and reduce competition with grasses and weeds. Pea straw, lucerne hay or sugar cane mulch are good choices.

Pests and Diseases: scale (and the associated ants and sooty mould), leaf miners and gall wasp are the main pests. Sap-sucking bronze-orange stink bugs may also be a problem. Unless infestation is great most damage done is only superficial. Keeping the tree healthy and increasing its access to silica, selenium (eg via *Casuarina* 'tea') and other cell-strengthening strategies can help deter further attack. Avoid wholesale pest sprays as this will also kill pollinators.

References:

<https://rocketsgarden.com/what-is-calamansi-tree-characteristics/>

<https://en.wikipedia.org/wiki/Calamansi>

