

Lemon (*Citrus x limon*)

Common Names: Lemon

Order: Sapindales

Family: Rutaceae

Genus: *Citrus*

Species: *x limon*

Growth Habit: small-medium tree

Height: 2-4m

Width: 1-4m

Description: a dense, rounded canopy with glossy evergreen leaves that are oil-filled and ovate in shape with entire edges. The branches are usually armoured with sharp thorns.

There is some slight variation between varieties:

Eureka: trees are almost free of thorns and only grow to around 4m tall.

Lisbon & Meyer lemons: 'Lisbon' is a thorny tree 2-4m tall. The 'Meyer' is smaller, growing to 2m tall.

Flowers: white, four- or five-petalled flowers with blush-pink undersides appear as either singles or in clusters, on new wood or semi-mature growth. They have a sweet, citrus perfume. In humid subtropical and temperate areas with mild winters, lemon trees can flower and produce fruit throughout the year, with a heavy flowering in spring followed by periodic lighter flowers through summer and autumn.



Fruit: the aromatic, oil-filled skin of the oval fruit are yellow in colour, often with a protuberance at the apex. The pith is a lighter, creamy yellow colour and has a spongy texture. The juicy, acidic, light yellow flesh within has 8-10 segments, each containing 1-2 seeds. Fruit take approximately 8 months to mature, with the main crop maturing in winter. The crops will get progressively bigger each year, with one or two appearing in the first year, increasing year on year until the tree is mature (approx. 10years).

Eureka: produces fruit almost year-round. Fruit has relatively few seeds

Lisbon & Meyer lemons: 'Lisbon' have more seeds and they fruit for fewer months than 'Eureka'. 'Meyer's' grated skin (zest) is also of inferior quality to other lemons but it fruits for most of the year.

Location Preferences: tropical and sub-tropical climatic zones with fertile, free-draining soil that has a pH of 5.5-6.5. Can tolerate a semi-shaded position but full sun will produce more flowers and fruit. Avoid areas that experience frost. Lemons are happiest at 25-30C. Lemons tend to be less sensitive than oranges to high temperatures and will continue to fruit in hot regions if water and nutrients are adequate. However fruit may become sunburnt in high temperature-low humidity areas if the fruit is carried on the outside of the tree. Lemons are sensitive to wind, with cold and strong winds reducing yields and scarring fruit, so a sheltered area is preferred.

Eureka: the best citrus for most areas of Australia, it does not tolerate vicious cold snaps.

Lisbon & Meyer lemons: are better for cooler climate zones. 'Lisbon' used to be the 'Eureka' alternative for Melbourne but these days 'Eureka' is preferred. 'Meyer' is the most cold-tolerant of all lemons.

Irrigation: do not generally require additional watering in a sub-tropical/tropical climate, but additional irrigation is beneficial during long, dry periods, particularly if the tree is young or has fruit forming. They do not tolerate waterlogging.

Maintenance: it is not necessary to regularly prune lemons 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. Heavy prunes, to maintain overall shape and height may only be needed every 2-3 years. Commercially-grown lemons are typically cut back after 12 years or replaced. Lemons are hungry feeders. Use a special 'citrus food', manure or good home-made compost at least twice a year (typically spring and autumn). Citrus are shallow rooted so spread any fertilisers over the top of a layer of mulch to avoid burning the roots. Citrus 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 (lemons are very sensitive to herbicides so spraying weeds is not advisable). 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 particularly in spring. Unless infestation is great most damage done is only superficial. In regions with high rainfall and humidity, fungal diseases such as melanose and lemon scab may be problems. Keeping the tree healthy and well pruned will avoid most problems. Avoid wholesale pest sprays as this will also kill pollinators.

Other notes: Lemon trees should be spaced 25 ft (7.6 m) apart each way. If crowded or "hedged", production declines.

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