

Growing fruit in containers

Many adverts can be seen in magazines and papers today selling fruit trees ‘suitable for patios’ in pots. These tend to be the most dwarfing rootstocks like M27 for apple. It is generally agreed however that these are not a good choice for long term potting as these root systems are already restricted by their level of dwarfism and keeping them in pots restricts their growth further, giving a ‘double dwarfing’ effect.

Also, generally speaking, the more dwarfing the rootstock, the more prone the tree is to stress, in particular water stress, which obviously has implications for containerised trees. M26 or even MM106 rootstocks are more suitable as they are more stress resilient and some of the restriction caused by being potted is offset by the vigour and resilience of the root system.

Size of container



Generally speaking, if you want to plant a tree in a container for a long time, choose or build the biggest container you can get away with! A pot at least 60cm deep and 60cm diameter is recommended, with a container 1m x 1m being ideal. Making containers from long lasting, good quality wood is a good option and these should be lined with plastic to slow down any deterioration. Old 25l drums from the catering and construction industry make excellent containers, as do old brewing barrels, although these can be expensive.

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To keep the vigour of larger trees down, the roots can be pruned every other year with 30% of the compost being replaced. These trees may also need to be pruned a bit harder than those on smaller rootstocks, but will give a better crop if fed and watered correctly. As with all container growing, it is vital to ensure there is sufficient drainage. Raising the pot off the ground by resting on slats or legs of some sort will aid drainage with gravity.

Growing medium

John Innes No.3 seems to be the compost of choice for trees in pots due to its loam content which helps with nutrient and water retention. This should be mixed in with home-made compost, well-rotted manure or garden soil. The addition of shredded cardboard and used teabags will further aid water retention.

Mulch

Mulching is key to successful fruit growing in containers. A good mulch will help to retain water and therefore reduce the need to water as frequently, prevent weeds from taking root and competing with the plant, regulate temperature of the soil and roots through a shading effect and help to feed the soil food web and roots.

Wood chip from deciduous trees makes great, long-lasting mulch that breaks down into rich humus and feeds beneficial fungal microorganisms which in turn feed the tree. Other options include municipal compost (this is usually composted at a high temperature so that undesirable plant seeds are destroyed) and homemade compost – but be prepared to weed. Leaf mould is also a useful addition to mulch and will help with soil structure.



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Feeding and watering

Fruiting trees should be fed fortnightly during their fruiting period with a liquid feed. Tomato feeds work well, as does comfrey tea. Both contain potassium which is important for fruit development and will result in tougher trees with thicker cell walls that are more resistant to disease and frost. Seaweed feeds are also a useful source of potassium. Organic chicken pellets can be used for fertiliser and are a good source of nitrogen, needed by all plants for leaf growth, with plums needing more than other fruit trees.

Water is the single most limiting factor for growth and evaporation is an issue for potted plants. During the potting season trees must be watered frequently and not allowed to dry out. Inconsistent water availability during fruiting can lead to premature fruit drop and poor fruit quality.

Mycorrhizas

Mycorrhizal fungi bind to or penetrate into plant roots to form a symbiotic relationship; in return for the sugars produced by photosynthesis, they extend through the soil and seek out nutrients and water from outside of the reach of the roots alone. Their strands, or hyphae, are much finer than the finest of root hairs and can therefore enter the tiniest of soil pores. Nutrients are then transported back to the host plant where they can be utilised. Around 90% of terrestrial plants depend upon this relationship.

The fungi provides numerous other benefits too; they sheath the root and can protect it from root damaging nematodes, they can secrete beneficial antibiotics, and they help to form good soil structure which can hold more water and protect against drought. These associations occur naturally, but may take longer in potted



cultures. For this reason, and all of the reasons above, it is worthwhile first inoculating fruit tree roots with mycorrhizal spores prior to planting. These can be bought commercially, the most common being RHS 'Rootgrow', which contains various strains of the fungi and can be sprinkled onto the root ball when planting.

Positioning

Most fruiting trees benefit from direct sunlight, however, if using a smaller container, it should be positioned so that the container itself is not exposed to sunlight all day. Shading or partial shading in this way will help to prevent evaporation and keep the roots cooler. This shouldn't be such an issue for very large containers. Place the container behind other pots (with shorter plants in), raised beds or low walls for example. Warmer climate species like apricots, nectarines and peaches will benefit from being positioned close to microclimates provided by whitewashed walls – and may need to be taken indoors over the winter, so in this case smaller may be better! Sheltered spots will benefit from less incidence of blossom being damaged or blown off earlier in the season. Windy spots can also be problematic in that once in full leaf, the tree can act as a sail resulting in the tree and pot being blown over.

If there is the possibility of strong winds, ensure the container is secure.

Containers positioned right up to vertical surfaces like walls that suffer from less exposure to rainfall – this should be considered. More delicate species may need to be brought indoors during the winter months, whereas hardy species like plants and apples actually require a certain number of 'chill hours' during the winter in order to produce fruit bud. Some species and varieties require less sunlight than others. As a general rule of thumb, cooking fruit requires less sunlight (and is less sweet as a result) so is suitable for shadier locations, one benefit being that less watering may be required. Morello is a variety of cherry which is frequently recommended for shadier spots, as is the Czar plum. Medlars may also fruit well in shadier locations.

Varieties for containers

It is recommended to choose slow growing, less vigorous varieties for container growing. The Orange Pippin website (www.orangepippin.com) suggests the following varieties of apple (and other fruit):

- Adam's Pearmain
- Egremont Russet
- Herefordshire Russet
- Limelight, Red Windsor
- Sunset, Greensleeves
- Garden Lady (peach)
- Nectarella (nectarine)

