



Fact Sheet

Olives

Olea europaea subspecies europaea

Although there are many different species of *Olea*, *O.e.* subsp. *Europaea* is the only one cultivated for the olive fruit and oil. An ancient tree, there are indications that the Olive was first cultivated in Syria approximately 6000 years ago.

The Olive tree also figures prominently in Egyptian, Roman and Greek history. The ancient Egyptians imported Olive oil from Syria and Crete. Oil was a major export for Greece and olives were very important in their culture and economy. The Romans were the most significant in spreading Olive cultivation through Europe and North Africa. They invented the 'screw press' and so the method of oil production that has hardly changed in 2000 years.

Olive oil was a significant export commodity and also featured in scriptural and classical writings as a symbol of purity, and the tree often represented peace and happiness. Olive oil was burnt in sacred lamps of temples and olive groves were considered sacred ground in Greece where only virgins and chaste men were allowed to cultivate them. Since the story of Noah's Ark in the Bible, the Olive branch has been considered a symbol of peace and reconciliation.

Belonging to the same family (*Oleaceae*) as lilac, Jasmine and Osmanthus the Olive is an evergreen tree with a slow to moderate growth rate, reaching between 7–11m depending on the variety. Even if not grown for the fruit, the Olive is a beautiful tree making a picturesque garden specimen. The bark and trunk becomes gnarled and rough as the tree ages and the leaves are a grey-green with the underside a silvery colour. They flower in late spring producing masses of creamy-white flowers in clusters. Only one out of every 20 flowers will become an Olive. They are self fertile but cropping can be improved by planting another variety. Olive trees are extremely long lived and even if the main trunk dies new shoots sprout around the base and eventually form a new tree. A tree can live for as long as 600 years.

Olive trees are mostly found in arid terrain and they can survive in very poor soils and tolerate long periods of drought. Intolerant of damp conditions, Olives can also be sensitive to extreme cold and frosts. Preferring long hot summers, growing grafted varieties improves hardiness. Although tolerant of poor conditions better crops are achieved with more care planted in a well drained, fertile soil and given ample water when fruit is forming. Many growers recommend a few handfuls of metal dust around the base of the trees every year to promote healthy growth and good cropping.



Olive trees should be pruned in early autumn, to thin out the crown of the tree in order to expose the fruit bearing branches to the sun and the air. The vigorous and sterile suckers that grow from the base of the tree should also be removed. The height of the tree should be kept at a manageable height for harvesting of the fruit.

All olives are green at first and then as they ripen they turn different hues of black. Some olives are picked when green and others are better left until they are fully ripe. As the olives ripen, acids and sugars turn into oil. Green olives have very little oil content, a firm flesh and a sharp tangy flavour. Black olives are full of oil, have a soft flesh and a mellow flavour. Some olive varieties are more suited to being preserved as a table olive, while others are better for oil production.

When being processed for oil, olives are crushed to a paste and then the oil is separated by a process of centrifugation. Olive oil is graded according to its quality and purity.

First Cold Pressed Virgin Olive Oil: a totally pure product resulting from one pressing that has had no heat or chemicals added.

Virgin oils are then graded according to their acidity:-



Extra Virgin Olive Oil - Oil of perfect taste and odour with an acidity less than 1%.

Fine Virgin Olive Oil - Oil of perfect taste and odour with max. acidity of no more than 1.5%.

Semi-Fine Olive Oil - (ordinary Virgin Olive Oil) - Oil of good taste and odour with a maximum acidity of 3%.

Refined olive oil is Virgin oil that has excessive acidity and or colour or flavour that is not fit for consumption and that has been refined through processes of neutralisation, bleaching and deodorisation. Pure Olive Oil is a blend of refined and virgin oils. A label on the container showing the IOOC (International Olive Oil Council) emblem guarantees purity and quality of the oil to the consumer.

Fresh olives if being grown for eating need to be treated with water, brine or pure salt in order to remove bitter glucosides that make them inedible. If the olives are harvested when green they should be immersed in cold water for 10 days and the water changed every day. These olives should then be kept immersed in a brine solution (1/2kg salt to 4 1/2kg of olives) for 3 to 4 weeks.

If harvested when black and fully ripe the olives can be dry salted. This simply involves mixing equal quantities of salt and olives and placing them in a container that allows the juices to flow out for 4 weeks.

If such a container is not available it is a good idea to wash the olives and container once a week and renew the salt. It is also recommended to prick the olives with a fork before salting them.

For both green and black olives, rock salt or sea salt is used. The olives should also be kept in a cool dark place with good ventilation. Once the olives have been treated they can be preserved in brine, vinegar or olive oil.

Main varieties include:

Mission

Medium sized oval fruit. Skin deep purple changing to jet black when ripe. Flesh is very bitter but firm, freestone. Ripens rather late. Good for pickling and oil especially ripe pickles. Most widely used for cold-pressed olive oil in California. Tree is vigorous, heavy bearing. More cold resistant than other cultivars.

Manzanillo

Fruit is medium (4-8gms) and has a medium to high oil content. Considered to be the best dual purpose olive cultivars in the world it is easily processed due to it's firm flesh and easiness to pit. Trials in SA have shown the Manzanillo to be the heaviest cropper. Oil from Manzanillo's is produced throughout the world and it is the best known Spanish table olive. Picked when green, it is often sold stuffed with pimento, almonds, onion or garlic. The odd Sevillano will help increase yields in a Manzanillo orchard. The tree is generally low and spreading and reaches about 7m in height.

Kalamata

Fruit is small to medium (3-5.5gms) and has a medium to high oil content. The main olive grown in Greece, it is named after the region of Kalamata. Considered world wide as an excellent table olive it is the most popular and one of the most expensive cultivars sold in Australia. It is rarely processed for oil (although the product is excellent) since it gets such high prices on the fresh fruit market. Generally considered not quite as hardy as other commercial cultivars.

All these varieties perform best if not subjected to extended periods of cold with frosts falling below -5°C . The main problems of 'olive knot' and 'olive fly' are not present in Australia, as yet.

