

OLIVE TREE

Olive Tree (*Olea europaea*) from Aracaria, Biodynamic Farm, Mullumbimby.



Vincent Van Gogh - The Olive Trees

Family: Oleaceae (oh-lee-AY-see-ee) - **Genus:** Olea (OH-lee-uh) - (olea = Latin for olive.) - **Species:** europaea (yoo-ROH-pay-uh) (. from Europe) - **Category:** Trees - **Height:** over 40 ft. (12 m) **Spacing:** 12-15 ft. (3.6-4.7 m) - **Hardiness:** From light frost to sub-tropical. Olive like warm winters and dry, long summers. Trees will not survive temperatures below -5 Celsius. Olives are shallow-rooted, so windy areas are problematic. This can become a problem when the tree has matured and carries heavy fruit. If exposed to high winds, the trees are extremely vulnerable. - **Sun Exposure:** Full Sun **Bloom Color:** White/Near White - **Bloom Time:** Mid Summer - **Foliage:** Evergreen - **Other details:** Drought-tolerant; suitable for xeriscaping (Low-maintenance landscaping that conserves water and protects the environment by using mulch, soil analysis, native plant selection, and efficient irrigation.) **Soil:** Olive trees are amazingly tolerant of a wide range of soil conditions. They need well drained soil and will not tolerate wet feet. Heavy clay soil is not suitable. Olives tree do well on hillsides that can't easily be slashed or otherwise planted out. - **Varieties:** There are over 900 varieties of olive trees. It is important to make a good decision as to which variety to plant as olive trees do not graft well. Planting a mixture of varieties on the same field is a method of producing interesting olive oil. Crushing and pressing the different varieties, each at a different stage of ripeness, together makes for a far better oil. The best way of choosing varieties is to sample olive oils that are grown in the area and work backwards from there. - **Planting Density:** It is possible to plant between 100 and 200 trees per acre, depending on intensity of mechanical farming. If trees are planted 20 feet apart and rows are 20 apart, 100 trees per acre are required. An economic oil production starts at 5 acres. - **Irrigation:** Drip irrigation will improve growth and yield. Important to water near the dripline of each tree. NOT at the trunk as it will develop crown rot and die. - **Fertilizing:** Nitrogen is the main need and should be applied around the dripline in late winter. Foliar sprays should not be necessary. - **Pruning:** The trees will require pruning as they mature, both for structural reasons (to ensure a strong tree) and for bearing reasons (to keep light flowing to the bearing branches on both sides of the tree). Since olives bear on last year's growth, pruning involves a delicate balance between this year's crop (and income) and next. - **Pests:** Olive Fly (*Bactrocera (Dacus) Oleae*) and olive knot - not currently found in New Zealand and Australian olives. Also: verticillium wilt, Peacock Spot (*Cycloconium oleaginum* or *Spilocaea oleaginea*), - **Budget:** Approximate cost of planting 100 trees, labor, soil preparation, irrigation etc AU\$5,000. 100 trees (average \$8.00) \$800. Maintenance cost per year \$2,000. Cost estimate over a four year period: \$14,000. - **Harvest:** A small crop will appear after 4 years and growing over the next 6, topping at 3 - tons of fruit per acre. Hand harvesting requires about 15 experienced workers that can harvest about 2 tons a day.

OLIVE TREE VARIETIES AVAILABLE IN AUSTRALIA

VARIETY	GENERAL INFORMATION	CLIMATE	COMMERCIAL	PEST
ARBEQUINA	High oil yield. low vigor tree, small fruit size, high oil yield, good flesh to pit ratio 4.6:1. Oil has a low polyphenol level, shorter shelf life.	Cold resistant, also does well in warmer climate.	Internationally considered good. New in Australia.	
AZAPA	Medium to large fruit, 8gms average, elongated, pointy shape. Fleeshy, thin skin.	Suitable for warmer 'no frost' regions.	New to Australia. Highly rated as table fruit. Easy to pit.	
BARNEA	Israeli variety, widely planted in Argentina and Australia. Vigorous growth. Likes irrigation. Some leaf and root difficulties.	Trialed in various Australian regions.	Good for heavy, early cropping. Medium to high oil content.	
FRANTOIO Pollinator: occasional Pendulina	Also grown in Australia as Paragon, Frantoiano, Correggiola, Correggiolo, Razzo, Gentile (similar DNA). Small size fruit, late season ripening, very high oil content. Regular, heavy crops. Medium to high vigor. Most popular Italian oil variety. Considered self-fertilizing, 8 meters high.	Very adaptable, cold resistant. Mainly grown in the Tuscany region of Italy.	Very good oil at very good quantities, slightly bitter. Good blending oil. Acid balanced, hence long shelf life.	Sensitive to peacock spot (<i>Cycloconium oleaginum</i> or <i>Spilocaea oleaginea</i>).
HARDY'S MAMMOTH	The source of this cultivar is unknown. Plantings in Queensland, NSW, Vic, SA, Tasmania and WA.	Does well in Darling Downs, QLD, Wagga and S. NSW.	Tough tree, large fruit, good for picking. High oil yield.	Slow in establishing itself. Then grows quickly.
KALAMATA	Very good flesh to pit ratio: 8:1. Oil: medium / high. Large, light green, twisted leaves. Grafted trees are more disease resilient.	Very good adaptability in warm & cold areas around the world.	Excellent & expensive table olive. High demand.	Generally not as hardy as other commercial cultivars.
KORONEIKI	Small (1-2grams), early ripening fruit. Very high quality oil. Important Greek oil cultivar.	Likes relatively warm climate.	High, regular yields. Premium prized oil. Hand harvesting.	
LECCINO	Italian, medium vigor and height. Small fruit (2-5g). Oil content: medium/high. Not to confused for Spanish Lechino or Lechin.	Cold weather resistant.	Good quality oil. Also used as table olive.	May have disease problems in warmer climate.
MANZANILLO Pollinator: Sevillano	Also: Manzanilla, de Sevilla, Fina, Carrasquea, Serrana. Medium fruit (4.8g). Low tree spreading to 7m when mature. Firm flesh, easy to pit.	Best crops in mild climates. Does not like frost.	Considered best dual purpose olive cultivar in the world.	Olive knot (not Australia) and verticillium wilt.
PICUAL	Most common olive in Spain. Fruit 2-4g. High oil content. When ripe, fruit is shiny black, flesh is pink.	Cool winters and hot summers.	Good blending oil. New in Australia.	Susceptible to peacock spot olive moth (<i>Prays oleae</i>).
SEVILLANO Pollinator: Manzanillo	Large, oval fruit, 8-12g, flesh to pit ratio: 7.3:1. Thin, speckled skin, light green flesh. Oil content is low. Trees spread to 11 m.	Likes cold. Prefers mild to warm climates.	Great table fruit. Large size brings good price.	Susceptible to olive knot. Responds to natural manures.
VERDALE, S.A.	Susceptible to olive knot. Responds to natural manures. Fruit 7-10g. Special South Australian variety.	Seems to be adaptable.	Internationally considered good. New in Australia.	Widely planted in southern OZ. Good oil.

Pollinators: The majority of olive cultivars are self fertile and therefore do not need cross-pollination by other cultivars. However, a number of sources recommend pollinators to increase the yields of certain cultivars. Most researchers are now recommending that growers plant at least three olive varieties in close proximity in their groves to ensure some cross-pollination. - **Soil pH:** best 7.0 - 8.0. Add lime if soil is too acidic. Olives prefer alkaline soils. - **Crusher Dust** - olives respond to adding blue metal dust to soil.

OTHER VARIETIES TO BE CONSIDERED

Barouni, Correggiola, Koroneiki, Pivholine, UC13A6, Neadillo Blanco, Nab Tamri, Coratina

