



**OLEA
EUROPAEA
(OLIVE)**

TAXONOMY

Kingdom: plantae

Order: lamiales

Family: Oleaceae

Genus: Olea

Species: *O. Europaea*



MORPHOLOGY

- **Root System:** great root system allows tree to grow in dry climates could grow from 15cm to 6 meters depending on the climate and type of soil
- **Trunk:** younger trees have smooth gray/green bark. Older trees have irregular surfaces and can reach one meter in diameter .
- **Foliage:** two leaves grows at every node, one opposite to the other. The upper surface is a deep green and the lower surface is a grayish color
- **Blossoms:** olives blossom in groups from 8-25



CLIMATE

Olea europea needs the perfect climate to grow, hot in the summer, a slight chill in the winter, and plenty of sun.

The Mediterranean area is perfect for growing olives (biggest producers)
Areas like California, Arizona, Texas are good for growing olives in the U.S

Temperatures under 15 F will kill young olive trees



SOILS

- Olive trees can survive in nutrient poor soils. Olive trees grow well in soils that contain a lot of calcium carbonate. The calcium carbonate rich soil comes from lime stone rocks from deeper levels in the ground, they grow in almost any light soil, sometimes in clay in rare occasions



PROPAGATION

- A common method of propagation is using cutting from a mature tree. Twelve to fourteen inch long, one inch wide cuttings from the two year old wood of a mature tree are treated with a rooting hormone, planted in a light rooting medium and kept moist. Trees grown from such cuttings can be further grafted with wood from another cultivar.
- Cutting grown trees bear fruit in about four years.



CULTIVARS

- **Ascolano**
- Very large, Skin color very light even when ripe, pit very small. must be handled carefully. Contains very little bitterness and requires only moderate lye treatment. Excellent for pickles
- **Barouni**
- Large fruit. Trees spreading and easy to harvest. Can tolerate high temperatures. The variety usually shipped to the East Coast for making home-cured olives. Originally from Tunisia.
- **Gordal**
- Medium to large, ripening early. A popular pickling olive and principal cultivar in Spain, producer of most of the world's table olives.
- **Manzanillo**
- Large, rounded-oval fruit. Skin is purple, changing to deep blue-black when mature. Doesn't bruise easily. Excellent for oil and pickles



CULTIVARS

- **Mission**
- Medium-sized, oval fruit. Skin deep purple changing to jet-black when ripe. Ripens late. Good for pickling and oil, specially ripe pickles. Most widely used for cold-pressed olive oil in California. More cold resistant than other cultivars.
- **Picholine**
- Small, elongated fruit. Skin light green, changing to wine red, then red-black when ripe. Cured olives have a delicate, subtle, lightly salty, nut-like flavor. Usually salt-brine cured. Popular in gourmet and specialty markets.
- **Rubra**
- Medium-small, ovate fruit. Skin jet-black when ripe. Best suited for oil, but is also used for pickling. Tree large, precocious, often producing fruit the second year. Very hardy and reliable even in dry situations. Originated in France.
- **Sevillano**
- Very large fruit, bluish-black when ripe. The largest California commercial variety. Ripens early. Low oil content, only useful in pickling. also the leading canning cultivar. Require deep, rich, well drained soil. Will not stand much cold.



IRRIGATION

- Irrigation is needed in areas like California, Texas, Arizona. with its dry summers. Because of its small leaves, with their protective cuticle and slow **transpiration**, the olive tree survives long dry periods.



HARVESTING

- Harvesting for Oil
 - Step 1
 - Harvest as soon as the fruit reaches maximum size. Larger olives will have more oil, but oil yield drops as the olives ripen. Oil from green fruit has a longer shelf life, but it may be bitter and require several months to mellow the flavor.
 - Step 2
 - Gather tarps and rakes for each person to use in harvesting. Place tarps under the trees and rake through the branches to dislodge the olives. Gather the olives from the tarps. Tree shakers and mechanical rakes can also be used when harvesting olives for oil.
 - Step 3
 - Pick olives later for a more mellow oil with a light yellow color. Oil from olives harvested later has a shorter shelf life.
 - Step 4
 - Harvest all of the olives when the majority of the olives have reached the desired stage of ripeness. Pick each tree clean and remove any olives from the ground. Olives left on the ground will rot and promote disease



HARVESTING

- Step 1
- Harvest olives from late August through November, depending on your location and desired ripeness.

- Step 2
- Determine the flavor profile you desire. Olives can be picked at any point from green to completely ripe; the flavor will vary at each point. The earlier you harvest olives, the more bitter they will taste. Olives become more mild in flavor as they mature.

- Step 3
- Choose a time to harvest when you can devote all of your time and attention to the harvest. Reserve equipment for milling or curing your olives immediately after harvest, as flavor degrades with time.

- Step 4
- Line up friends and relatives to help with the harvest. The harvest needs to be accomplished quickly and completely, especially if you are processing your olives for oil. Harvesting olives requires many hands.

- Step 5
- Monitor the weather. Wet, rainy weather will spoil the olives before they can be processed



COUNTRIES OF PRODUCTION

Rank	Country/Region	Production	Yield(q/Ha)
○	World	18,241,809	18.383
○	1 Spain	6,204,700	24.818
○	2 Italy	3,600,500	31.065
○	3 Greece	2,444,230	31.4
○	4 Turkey	1,290,654	17.740
○	5 Syria 885,942		13.936
○	6 Morocco	770,000	14.000
○	7 Tunisia	750,000	3.260
○	8 Egypt	500,000	45.454
○	9 Algeria	475,182	16.474
○	10 Portugal	362,600	9.524
○	11 Lebanon	76,200	6.5
○	12 Jordan	189,000	N/A
○	13 Libya	180,000	N/A
○	14 Argentina	160,000	30.769



FOOD

- The olive tree has been cultivated for olive oil, fine wood, olive leaf, and the olive fruit.



PEST

- The olive tree has numerous pest such as fungi, bacteria, and various bugs. For example, the olive fly is the biggest insect pest for the olive tree. Rabbits also eat the tree bark.



MEDICINAL USES

- Can be used to cure hypertension, as a febrifuge to reduce fever, as a laxative, to cure hemorrhoids, and as an anti-cholesterol.
- Can also be used for dermatological reasons, such as, treating wounds and other skin diseases. For example, vaginismus (vaginal dryness) and rosacea.





Bye

