

OLIVES



- Cursed and maligned for its messy fruit and the pollen it produces, the olive tree seems to be finding a niche in Arizona.
- Spanish missionaries first introduced fruit trees and most likely, the olive tree, in the 17th century as olives were important to Spanish culture. Missionaries would load packs on their mules with cuttings and seeds, planting them as they traveled to new places. Many of the trees were established in what became Arizona.
- Arizona's desert climate encourages rapid growth and olive trees grown for oil require less water than those grown for canning, so there's a natural bond with the desert environment. The olive tree requires a mild stress to produce quality oil. And, Arizona doesn't have the natural pests, such as the olive fly, that invade groves in Europe and California. Also absent are some olive pathogens and olive knots, which are growths that sprout where a tree has been pruned. Still, even though the olive tree is a desert tree, growing and perfecting olive oil production has taken several years. Arizona grown olives are produced primarily for their high quality oil.
- Olive oil production takes many olives. One ton of olives can produce 10 to 30 gallons of oil, depending on the variety. The olive-pressing only takes place from mid-October through mid-December, during the harvest season
- The olive is native to the Mediterranean region, tropical and central Asia and various parts of Africa. The olive has a history almost as long as that of Western civilization, its development being one of civilized man's first accomplishments.
- At a site in Spain, carbon-dating has shown olive seed found there to be eight thousand years old. *O. europaea* may have been cultivated independently in two places, Crete and Syria. Archeological evidence suggests that olives were being grown in Crete as long ago as 2,500 B.C. From Crete and Syria olives spread to Greece, Rome and other parts of the Mediterranean area. Olives are also grown commercially in California, Australia, Arizona and South Africa.
- The olive requires a long, hot growing season to properly ripen the fruit, no late spring frosts to kill the blossoms and sufficient winter chill to insure fruit set. Virtually all U.S. commercial olive production is concentrated in California's Central Valley, with a small pocket of olive acreage outside Phoenix. The tree may be grown as an ornamental where winter temperatures do not drop below 12° F. Green fruit is damaged at about 28°, but ripe fruit will withstand somewhat lower temperatures.
- An olive tree can survive and fruit well even with considerable neglect. Olives can also be grown in a large container, and has even appeared in shows as a bonsai.
- Olives are not edible, green or ripe, and must be treated with lye and/or cured in brine or dry salt before being edible. They contain about 20% oil.
- Olives must be processed to remove the bitter glucoside oleuropein, before they are edible, so they are usually first treated with lye and then pickled.
- Greek olives are not treated with lye. They are strong tasting because they are just packed in dry salt, or pickled in brine for 6 to 12 months (where they undergo a process of lactic fer-

mentation), and finally packed in fresh brine. Spanish green olives are picked before they are ripe, treated with lye, then placed in a brine and allowed to ferment.

- Olives have been a staple in the Mediterranean for at least 5,000 years. Olive trees may live to be 1500 years old, the average life span is about 500 years.
- Over 90% of world olive production is used to make oil, and almost 98% of the acreage is in the Mediterranean region.
- There are 500 million olive trees in Europe, and 50 million in California. California produces less than 5% of the world crop, but it produces more than 70% of the ripe olives consumed in the US.
- Ten medium size black olives have 50 calories and 4 grams of fat.
- Unopened cans and jars should be stored in a cool, dry place up to one year. Once opened, canned olives should be removed from the can to a glass container and covered in the canning brine. Refrigerate and use within two weeks. Bulk olives in oil should be stored in the refrigerator, where they will last for up to two months. Discard any that become soft.
- Olives must be cured before eating. Fresh olives from the tree are unbearably bitter and inedible.
- The olive (*Olea europaea*) dates back to 17th century B.C where it first appeared in print in Egyptian records and was mentioned numerous times in the Bible. The word comes from the Latin *olivea* which first appeared in English around 1200 a.d.
- Since the olive is native to the Mediterranean area, it's no surprise to learn the largest producers in the world are Italy and Spain, where olives are a diet mainstay.
- Olive oil is highly-prized not only for its health benefits, but also for its wonderful flavor. The best oil is a blend of oil from a mixture of red-ripe (not green and not fully ripe) olives and a smaller proportion of oil from green olives of a different variety. Cold-pressing, a chemical-free process using only pressure produces a higher quality of olive oil which is naturally lower in acidity. When purchasing olive oil, it's important to check labels for the percentage of acidity, grade of oil, volume, and country of origin. The level of acidity is a key factor in choosing fine olive oil, along with color, flavor, and aroma.
- Olive oil is produced within these different categories:

Extra virgin olive oil: cold-pressed result of the first pressing of the olives, with only 1% acid; considered the finest and fruitiest, and thus the most expensive; ranges from a crystalline champagne color to greenish-golden to bright green; generally, the deeper the color, the more intense the olive flavor.

Virgin olive oil: also a first-press oil, with a slightly higher acidity level of between 1-3%

Fino olive oil: (meaning *fine* in Italian) is a blend of extra virgin and virgin olive oils

Light olive oil: This version contains the same amount of beneficial monounsaturated fats as regular olive oil, but due to the refining process, it is lighter in color and has essentially no flavor. This makes it a good choice for baking and other purposes where the

heavy flavor might not be desirable. This process also gives it a higher smoking point, making it a prime candidate for high-heat cooking.

- Research has shown the incidence of heart disease is dramatically lower in Mediterranean countries where olive oil is a dietary staple than areas where consumption of olive oil is less voracious. Science has now determined that olive oil, as a monounsaturated fat, increases HDL or *good* blood cholesterol. However, it is still important to remember that olive oil is still a fat and should be consumed in limited quantities, in proper ratio to your balanced diet.
- The only difference between green olives and black olives is ripeness. Unripe olives are green and fully ripe olives are black. Olives are cured or pickled before consumption, using various methods including oil-cured, water-cured, brine-cured, dry-cured, and lye-cured. Green olives must be soaked in a lye solution before brining, whereas ripe black olives can proceed straight to brining.
- The longer the olive is permitted to ferment in its own brine, the less bitter and more intricate its flavor will become. Green olives are usually pitted, and often stuffed with various fillings, including pimientos, almonds, anchovies, jalapénos, onions or capers. Black olives contain more oil than green. Unopened cans of olives can be stored at room temperature up to two years. Opened cans of olives should be refrigerated in their own liquid in a non-metal container and will last up to several weeks after opening.

Kurt Nolte is an area agriculture agent with the Yuma County Cooperative Extension. He can be reached at 928-726-3904.