Meyer Lemon

*Citrus x meyeri*

The primary use of lemon fruits is as a flavoring agent, as their very high acidity is too much for most palates.

CLIMATE

Lemons are among the most cold sensitive of all citrus. Meyer Lemons are recommended to grow in zones 9-11.

SOIL AND SITE SELECTION

The various lemons are well-adapted to virtually any soil in which they are likely to be planted—if the soil has good internal drainage. Growth on heavy clay soils is likely to be reduced and problematic, as it will on soils having high caliche.

Because of cold sensitivity, lemon trees should be limited to the south or southeast side of the house and as near to it as the mature tree size will permit. While overhanging shade trees will provide some cold protection, lemons require full sunlight for optimum growth and production.

VARIETIES AND TYPES

True Lemons. True lemon apparently originated in India but little is known of its spread into the Mediterranean Basin. It was brought to the Americas by Columbus. There are two primary types of lemons: 'Eureka', which originated in California and is probably the major variety there, forms an open, spreading tree, with relatively few branches and twigs which are virtually thornless, and 'Lisbon', which originated in Australia and is characterized by a rather dense tree having numerous upright, thorny branches. Production on 'Eureka' occurs mostly in spring and summer, while that of 'Lisbon' is mostly in the summer and fall. 'Lisbon' fruit are seedier than 'Eureka' fruit and are primarily borne inside the canopy as opposed to the terminal bearing habit of 'Eureka'.

A number of other varieties exist, most of which are selections from either 'Eureka' or 'Lisbon'. For the most part, there is very little difference among the fruit of the different varieties. 'Bearss' and 'Avon' both originated in Florida and are similar to 'Lisbon'. 'Harvey' originated in Florida and is similar to 'Eureka', as is 'Villafranca' which came from Sicily. 'Perrine' is actually a hybrid of lemon and lime.

Ponderosa Lemon. 'Ponderosa' is not a true lemon although its fruit are much like citrons and lemons. It originated as a chance seedling during the 1880's. 'Ponderosa' trees are rather small and somewhat thorny; its fruit are very large and seedy, with yellow, thick, bumpy-textured peel. 'Ponderosa' is more cold sensitive than true lemons.

Meyer Lemon. 'Meyer' lemon was introduced from China in 1908. While not a true lemon, its fruit are used as a lemon substitute despite being much less acid than true lemons. Its fruit, which are moderately seedy, resemble a large orange in shape, peel color and pulp color. The tree is spreading and relatively small, nearly thornless and more cold tolerant than true lemons.

Unfortunately, 'Meyer' lemon is the "Typhoid Mary" of citrus, having been the source of citrus tristeza virus diseases which have the potential to destroy other citrus trees.
Other Lemons. 'Dorshapo' is a true lemon from Brazil that closely resembles 'Eureka' in fruit and tree characteristics. It is grown to some extent in the Mediterranean Basin and Latin America, but apparently not in the U.S. It is a sweet lemon of very low acidity.

Rough Lemon is similar to true lemons, although its fruit are larger, seedier and very bumpy and its juice is less acid than true lemons. Its primary use has been as a rootstock for other citrus.

PROPAGATION

Either T-budding or inverted T-budding is the preferred means of propagation. While cuttings and air layers will work, trees grown on their own roots are not as well-adapted to various soils. Seed can be used, but seedlings are slow to bear. Too, some of the seedlings may not come true-to-type.

PLANTING AND ESTABLISHMENT

For the most part, lemon trees will be purchased from a nursery rather than grown at home. Generally, the trees will be container-grown in a soilless medium—which makes the trees rather difficult to establish without special care. At planting, use a gentle stream of water from the garden hose to wash an inch or so of the medium from all around the root ball, thereby exposing the peripheral roots. Thus, the outer roots are placed in contact with the soil of the planting site and growth commences almost immediately.

Under no circumstances should soil around the proposed planting site be removed to form a shallow basin for watering— to do so almost guarantees that the young lemon tree will contract foot rot and die before its fifth year. The soil in the planting site should be at least as high as the surrounding yard, if not higher. In addition, the tree should be set at the same depth or slightly higher than it was in the nursery container to assure that the budunion will remain well above the soil.

Mixing topsoil, compost, peat or other materials with the backfill soil is neither necessary nor desirable in good soils. Set the tree in the hole, backfill about halfway, then water sufficiently to settle the backfill around the lower roots. Finish backfilling the hole and then cover the root ball with about in inch of soil to seal the growing medium from direct contact with the air and thereby prevent rapid drying of the root ball.

To facilitate watering, bring soil from the garden or elsewhere to construct a watering ring atop the ground around the newly planted tree. The ring should be about two feet across and several inches high and thick. To water, just fill the water ring immediately after planting. After the water soaks in, it may be necessary to add a little soil to any holes formed as the soil settled around the roots.

The watering interval should be every few days for the first couple of weeks, then gradually increase the interval to 7 to 10 days over the next couple of months. The watering ring will gradually melt into the surrounding soil, at which time the young lemon tree can be considered to be established.

All weeds and lawngrass should be completely eliminated inside the watering ring, as the developing lemon tree cannot compete well. A systemic, contact herbicide will work very well, so long as it is not allowed to contact the young tree leaves or green bark.

The best way to protect the young trunk from herbicide damage and, at the same time, to prevent sprouts along the trunk is to crimp an 8-inch by 18-inch piece of heavy duty aluminum foil around the trunk from the ground to the scaffold limbs. Fold the foil lengthwise, bring the long edges past the trunk on both sides, crimp the two edges together and lightly squeeze the foil around the trunk.
**Mulching** is not recommended for citrus because it increases the possibility of the tree contracting foot rot, for which there is no cure. If you insist on mulching, keep the mulch at least a foot away from the trunk.

Fertilizer should be withheld until after growth commences. During the first year, a single cupful of ammonium sulfate (21-0-0) split into three or four applications is adequate. Use 2 cups in the second year and three in the third. Just scatter the fertilizer on the ground around the tree and water thoroughly. Use whatever fertilizer analysis that is in general use in your area for trees and shrubs—simply adjust the rate based upon nitrogen content.

Cold protection measures for lemon trees will be required sooner or later. Soil banks are very effective for young trees; the soil should be put up about Thanksgiving and left in place through February. Exercise care when taking down the soil bank, as the bark underneath will be extremely tender.

Blankets, tarps or similar covers are also very effective and have the advantage of being quickly draped over the young tree. The corners should be stretched outward and tied down. More elaborate protection can be provided by erecting a frame structure of wood or PVC pipe over the plant to facilitate the use of plastic or large tarps during particularly severe cold weather. Supplemental heat can also be provided under the covers; incandescent heat lamps and Coleman lanterns are useful.

**MATURE TREE CARE**

Watering should be slow and thorough; probably every couple of weeks would suffice in any but the very sandy soils. Nutrition should continue at about 1 cup of ammonium sulfate per year of tree age annually in split applications in February, May and September, i.e. a 6-year-old tree should receive about 6 cups of 21-0-0 for the year. Adjust the rate for other fertilizers based upon the relative nitrogen content.

Lawngrass should be kept back about a foot from the canopy of the tree. Other than cold damage, no pruning should be necessary, as the lemon tree will develop its natural shape without pruning. While mulching is not recommended for citrus trees, if you must mulch, keep the mulch at least one foot away from the tree trunk.

**PRODUCTION, MATURITY AND USE**

Given freedom from cold damage and modest care, any of the lemons will produce more fruit than a family could use. Among the true lemons, the 'Eureka' types will produce primarily in spring to summer, while 'Lisbon' types will bear mostly in summer and fall. 'Ponderosa' and 'Meyer' lemons bear mainly in fall to winter. However, all types can have some fruit practically anytime.

At full maturity, the fruit will turn yellow on the tree. However, they may be sufficiently juicy to use before they change color. While true lemons must be cured for a couple of days in order to sustain commercial marketing, curing should not be necessary for those that will be used directly from the tree.

Aside from their obvious use in flavoring beverages or lemonade, the lemons can also be used in pies, cakes, candies and marinades. While the mature fruit will store well on the tree for months, the juice can be frozen in ice cube trays and then stored frozen for later use.

Selected from Home Fruit Production - Lemons

by Julian W. Sauls, Professor & Extension Horticulturist, Texas A&M University

Pest Management Issues

Mites: Citrus rust, Citrus red (purple mites) and Texas citrus.
Scale: Citrus snow, Purple scale, glover scale, red scale, yellow scale, Cottony cushion scale, and Mealybugs. These insects will be prevalent in spring and early summer. Whitefly and Aphids can be found year round.

Caterpillars: Orange dogface is a large brown-and-white caterpillar is the larva of a black-and-yellow, swallowtailed butterfly. These butterfly caterpillars are left alone. Grasshoppers and katydids feed in the summer; hand removal works best.

Diseases:

Melanose, scab, greasy spot, Foot rot, HLB (Citrus greening), Canker are the most common problems. Fungicide treatment must occur on a regular basis. Light pruning, pruning of dead limbs and frequent removal of leaf and limb debris should occur on a regular basis.

More Information:

Lemon Growing in the Florida Home Landscape  [https://edis.ifas.ufl.edu/hs402](https://edis.ifas.ufl.edu/hs402)

by Jonathan H. Crane, tropical fruit crop specialist, Tropical Research and Education Center, Homestead, FL