

Growing Patio Citrus Organically

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Why Grow Citrus?

- Because it's delicious, nutritious and better tasting than store bought.
- There are more varieties available than what you find in stores
- They are a beautiful evergreen, fruiting tree with heavenly fragrant flowers.

Varieties:

There are 8 species, and possibly 1000 varieties of which several 100 will grow here in the Houston area.

- When purchasing citrus trees you should check the tag for TDA certificate #. This is to show certification that it was grown in Texas and is virus free.

The following are listed by flavor:

- **Sweet:** Pummelos (pomelos), grapefruits, oranges, tangerines, kumquats- These are used for juice or eating
- **Sour:** Lemons, limes, calamondins. – These sour types are used for flavoring, and cooking such as making marmalade.

Listed by Degrees in Cold Resistance

- **(Least amount), Tropical Citrus;** Lemons, limes, citron, kaffir lime
- **(Some what), Semi-tropical or Mainstream Citrus;** Which includes most non-tropical citrus (tangerines, oranges, grapefruit) and many other lesser known citrus.
- **(22 degrees), depending on duration of temperature; Warm Temperate Citrus:** This includes kumquats (*Fortunella species*), hybrids of trifoliate orange (Poncirus trifoliate) or the Chinese “Mountain lemon” or Yuzu (*Citrus ichangensis*).

Rootstock:

- **Flying Dragon;** is a sport from the Trifoliate Orange rootstock. In the ground a citrus bud grafted onto flying Dragon can grow to 10' feet but will stay much smaller if planted as a containerized plant.
- **Trifoliate Orange;** has a 3 lobed leaf and grows wild in parts of Texas. These rootstocks are the most commonly used in our area. Both of these rootstocks are slow growing and only "slip" and take to T-bud grafting a few times a year. Both of these varieties are tolerant to clay "gumbo" type soil, and can take colder temperatures.
- **Other Rootstocks;** are "**Rubidoux**" which is much more vigorous, and just as cold hardy. "**Swingle**" and "**Carrizo**" citrange are vigorous but are not as cold hardy.

Citrus can be grown from seed;

Citrus can be grown from seed, but it will usually take between 5 to 10 years before it will fruit. Because of our clay soils some do not do well on their own rootstock..

Containers:

There are many types of containers to grow trees in, but I have found non-glazed or non-painted clay pots to work well. The clay pots allows for transpiration. Wooden pots or whisky barrels are fine but do rot out eventually. Depending on the size of the tree will depend on the size of the pot. A 4 to 5 ' foot tree will grow in a 15 or 20 gallon pot. Every 3 or 4 years trees out grow their pots. Leaf shed, browning or twig dieback will develop. Check the roots of the tree. If the roots begin to circle prune them back 2 or 3''and repot with new soil in the same pot, if you want the tree to get larger put in a larger pot. Be sure to select a pot with good drainage, plenty of holes so water can not pool around the roots. This would surely kill a tree. Place feet or bricks under the pot so as not to sit directly on concrete. Heavy-duty coasters placed on the bottom of the container are helpful when the tree needs to be moved.

Soil:

Nature's way "Rose Soil Mix" is an excellent soil for citrus. Add to the soil 1 – part "Expanded Shale" to 5 parts rose soil. Nature's Way has available for container gardening "Citrus Mix" a 40 lb. bag especially for citrus. The pH of the soil should be slightly acidic 5.8 to a 6.8. The Expanded Shale is heated natural clay material that absorbs moisture and releases it when needed. Add Minerals Plus which has Greensand (Iron) and Granite sand (potash), and Soft Phosphate. These minerals are important for the trees health. When transplanting to a larger container or to the landscape, add Rhizanova to the hole and to the soil used for backfill. Rhizanova is an Endo and Ectomycorrhizal inoculant which helps to establish healthy root systems. This 3 oz. package is available at Wabash Antiques & Feed.

Watering:

Container plants will require more frequent waterings, especially when the weather becomes hot and dry or windy. **Caution must be taken not to over water.** I recommend purchasing a “**moisture meter**” for the purpose measuring moisture at the root zone rather than the top 2” of soil. The soil should be allowed to dry out a little between waterings. When watering, allow water to flow from the bottom of the pot.

Fertilizer:

Fertilize with cottonseed meal or MicroLife a well balanced all purpose organic fertilizer. in February and May, 2 ounces for 10 gallon size pot. Work into the top 1” layer of soil. Foliar spray with Super Seaweed to strengthen the immune system of the tree. Once or twice a month. Foliar spraying on regular intervals will help keep pests at bay.

Light:

Citrus likes plenty of sunshine, 8 to 10 hours. Containerized trees can take less hours of sun. Morning sun and shade from the west. The south side of the house is best for sunlight. Trees that don't receive enough sunlight will grow leggy and fruit production will be light.

Pests:

Whitefly and Citrus leaf Minor, are found to be the usual pest. Be sure your soil in the pot is healthy soil and is organic. Pests will surely come to a stressed plant.

Whitefly: Use organic pesticides or beneficial insects to help with control. Keep trees away from host plants like Gardenias. A Garlic and Pepper spray with Safer soap added will do the job. Look for the handout for the recipe.

Leaf-Minor:

Once the insect enters between the layers of the leaf, there isn't any thing you can do. On the other hand this will not kill the tree but will make it look unsightly. The Leaf Minor fly effects the new growth. This fly is so small it is hard to see it flying around. Spray late in evening with Neem or Cedar Gard every 7 to 10 days when there is a flush of new growth, this will help keep this pest away.

Nutritional Deficiencies:

Because of being containerized, trees will show some deficiencies from time to time. The best way to alleviate this problem is to add a small amount of minerals to the potting soil. Mineral Plus contains a wide range of minerals that helps alleviate deficiencies.

Freeze Protection:

Some citrus like Mexican Limes and others are not cold hardy and must be protected in temperatures 32 degrees and lower. It is a good idea to have north wall protection. If your tree is on casters you can roll it onto a covered porch. Foliar spray with Super Seaweed this will help protect the cell walls in the plant. If tree can not be moved, use foam pipe porters around trunk of tree. Build a frame around the tree with pvc pipe or wood, cover frame with a cloth sheet or heavy row cover sheeting. Never let plastic sheeting touch the tree, for it will cause a freeze burn.

For Certified Budwood

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