# **Planting and Care Guide for Citrus**

Quincy Nursery,

John Desrosiers

850-228-6099

## Soil and Fertilizer

Plant the tree in native soil. Do not add "good soil", compost, potting soil, peat, etc... to the hole. Plant at the same height as the soil in the pot or a little higher because the soil will settle. Your soil should be well drained but moist at all times. You can check the drainage by digging a one foot deep hole and filling it with water. The water should drain out in a few hours. If it does not, then plant your trees on a raised bed/sand mound about a foot high. This is necessary on tight clay like pipe clay. Mulch the slopes of the bed but keep mulch away from the trunk, Raised beds are the best choice for low lying areas. A bed two or three feet above the high water level should work with Trifoliate Orange or Sour Orange rootstocks for a while, but commercial practice is to bed the trees at least six feet above the high water table mark. Trifoliate rootstock and drip irrigation are the best choice, this far north, even when planting on deep sand. In practice though, most growers have been disappointed with the growth rate of trifoliate on deep sand. This is mostly because they refuse to irrigate. Swingle grows faster for them and is preferred, but is more freeze susceptible. They also do not have a frost protection system. The small trees on trifoliate are still alive though. Nitrogen is usually the only nutrient lacking in Florida soil. Generally, young trees are given more nitrogen to get them to grow quickly to a mature bearing size. You give them less nitrogen once they reach bearing size because too much nitrogen causes the fruit to drop and inhibits flowering. Slow release fertilizer applied in March should be sufficient. If you use quick release or continuous release fertilizer, do not apply any in the late summer or fall. Keep manure and compost away from the trunk. It is best to keep and apply mulch, compost, manure, and other organic fertilizers to soil surface around the tree but not directly to the base of the trunk. The roots will find it.

## **Pruning and Training**

Citrus doesn't need pruning or training like apples or peaches, in the sense that it does not increase yields or fruit quality. Training can help spread out a tree with narrow branch angles creating a strong framework along the trunk. Pruning can help thin out a dense variety making it easy to spray and help let light into the center. Letting light into the center makes the whole tree productive, but can decrease cold tolerance slightly. Crossed branches should be cut out. I prefer to keep the trees small and prune the tops so I can reach the fruit. It is a good idea to maintain 1.5-2 feet of unbranched trunk at the base for two reasons. The first is that the bottom 6-12 inches of the trunk is rootstock, another type of usually sour citrus that serves as the trees root system. Any shoots from the rootstock will produce sour fruit and, if allowed to grow, will take over the tree. The second reason is frost protection.

#### **Frost Protection**

Young trees should be protected from frost until they reach about six feet high and wide. You should be prepared to protect the base of the trunk in case we get record lows. This unbranched base can be wrapped with a blanket, banked with soil, or banked with mulch to protect it from freezing. A soil bank confers 15 degrees of protection. The bank should be removed after the freeze. I rake leaves up into a small pile around the base of the trunk well above the graft. When I pull it back, the leaf pile mulches the trees. Young trees can be kept warmer with Christmas lights or covers. A tomato cage and an old blanket or a cardboard box works too for normal freezes. Grove owners should invest in an irrigation system and read the University of Florida's article about using sprinklers to protect crops from freezes. A sub-canopy misting system is used in the Jackson county orchard. It is designed to protect the trunk and main branches only. This limits the period of lost production to one season following a killing freeze and retains the permanent productive branch structure at an economical cost.

### **Pests and Diseases**

Citrus pests and diseases can be controlled with soap and/or oil sprays. A mixture of 3 tablespoons of vegetable oil and 1-3 tablespoons of dish soap per gallon of water works well. If it is above eighty degrees, use half or third strength and/or wash the trees with water before the sun hits them. Spray in the evening and wash in the morning. Soap and oil can burn the leaves if the concentration is too high or the weather too hot, especially young tender leaves. Mature hardened leaves are much tougher. Copper sprays will control those rare fungal problems. Spray the bottom and top of the leaves. Soap and oil, horticultural oil, insecticidal soap, bt, spinosad, neem, and others are acceptable insecticides. A phosphite like Agrifos, copper hydroxide, copper sulfate, wettable sulfur, or a biologic like Actinovate and copper at a low rate are effective organic/biorational fungicides and bactericides. I recommend applying a fungicide once a month and then applying an insecticide once a month, two weeks apart. I spray insecticide on the first and fungicide on the fifteenth of each month.