



CITRUS
JUST FRUITS & EXOTICS
30 ST. FRANCES ST.
CRAWFORDVILLE FL 32327
OFFICE: 850-926-5644 FAX: 850-926-9885
JUSTFRUITS@HOTMAIL.COM
WWW.JUSTFRUITSANDEXOTICS.COM

INTRODUCTION

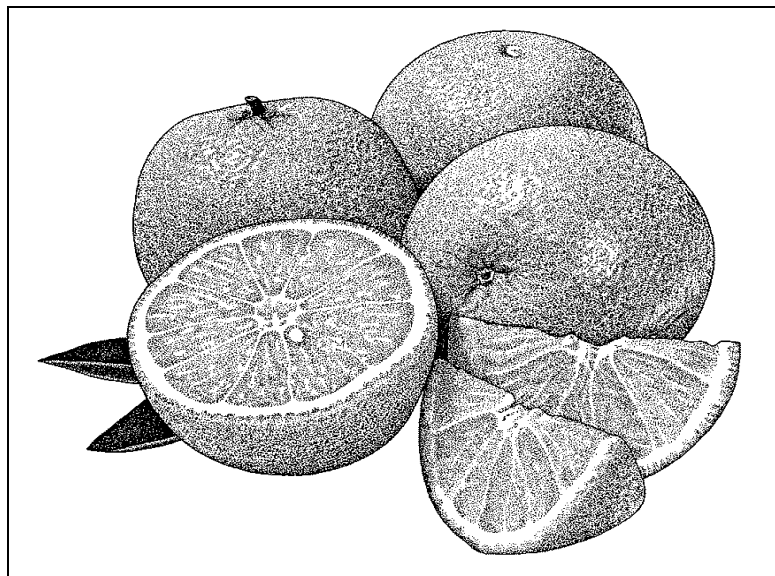
Citrus fruits are among the most delicious and easy to grow fruits available! Containers allow folks in temperate climates or apartments to grow citrus. In Zones 8 and 9, citrus can be planted in the ground with a little help from their friends. In Zone 10, you are home free. Trust us - there is nothing as good as fresh homegrown oranges, grapefruit, lemons and limes! With a few simple steps, anyone can grow their own citrus.

CONSIDERATIONS IN CHOOSING CITRUS VARIETIES

Citrus varieties differ in the type and quality of fruit, cold hardiness and adult tree size. Our varieties fall into three groups: Easy-to-grow, Moderately Cold-hardy, and Container citrus. Our Easy-to-grow varieties include those plants tolerating freezes of 20° F or less. In this group are kumquats, satsumas, tangerines, sour oranges and some varieties of limes and lemons. Our Moderately cold-hardy fruit include sweet oranges and grapefruit; these varieties have freeze tolerances of between 20-26°F. Container citrus cannot tolerate frosts and freezes and must be inside during freezing weather. Key limes and blood oranges fall into the Container citrus group.

For successful outdoor plantings in Zones 8 and 9, we cannot overemphasize the importance of choosing a plant grafted onto the correct rootstock. We highly recommend using citrus grafted onto Trifoliate Orange rootstocks. These

varieties help keep plants dormant during cold spells when new foliage may be damaged by cold temperatures. Check the rootstock on your citrus to learn how to grow it successfully.



A list of varieties we recommend and their characteristics is at the end of this handout. Please see "Just the Facts: Container Citrus" for details on successfully growing Container citrus.

USES IN THE LANDSCAPE

There is something special about citrus. Beautiful, evergreen plants with lush bright green foliage and heavenly fragrant blooms. Tuck them around your windows so you can enjoy their sweet fragrance in the house. The Kumquats, Lemons, Limequats and Chinotto Orange grow densely and can be sheared into any shape or form. Use them for hedges or foundation plantings around the house or line pathways with them. Espalier them against a sunny wall. Oranges and grapefruit will grow larger so are best trained into small round trees. They make excellent specimen trees.

PLANTING AND CULTURE

SITE SELECTION

We can't control the climate, but we can select planting sites that maximize the chances of success and minimize the need for freeze protection. In general, cold winds come from the north and west. **Never plant citrus in the North wind!** Cold air drains down slopes, so the tops and sides of hills are warmer than low spots. Overhanging trees help trap heat, as do ponds or other water bodies. Citrus on the south or east of buildings will be protected from north winds and will receive heat radiated from the house. As you plan your plantings, try to locate potential sites offering some cold protection combined with maximum sunlight and good drainage. Where do you like to be when the cold winds blow? Put your citrus in that spot.

Well-drained sandy loam soils are preferred, but citrus will grow on many soil types if good drainage is provided. Citrus will grow more vigorously and produce more fruit in full sun. By full sun we mean at least 6 hours of sun in the afternoon. You can also grow citrus under pine trees as long as you have shifting light all day long.

SOIL PREPARATION AND PLANTING

Citrus on trifoliolate orange rootstock require a somewhat acid soil (pH 5.5-6.0). If you are in doubt about the pH of your soil, take a soil sample to the Cooperative Extension Agent in your county for a soil test. Adjust soil acidity as necessary. Citrus on its own root (no graft) like a more alkaline soil (6.0-6.5). Depending on the tree you have follow one of these two planting instructions.

| | |
|--------------------|--|
| Grafted Citrus | Dig a planting hole approximately three times the width of the pot and at the same depth as the root ball. Enrich the planting hole with peat moss or composted pine bark mixed with soil dug from the hole (50:50 mix). Do NOT add mushroom compost or manure to the planting hole OR use it as mulch. Manure can make citrus on trifoliolate rootstock very sick and could even kill the tree. |
| Non-grafted Citrus | Dig a planting hole approximately three times the width of the pot and at the same depth as the root ball. Enrich the planting hole with manure or mushroom compost mixed with soil dug from the hole (50:50 mix). |

Gently remove the plant from the pot and place in the planting hole. To avoid burying too deep, make sure plant is positioned with the top most roots at the soil line. Fill the planting hole with the mix of soil and organic matter; gently tamp it in. Water thoroughly to settle the roots and eliminate air pockets.

Do NOT put fertilizer in the planting hole. Only apply fertilizer if it is the correct time of year (see Fertilization section below).

If desired, construct a water basin around the base of the tree approximately 36 inches in diameter. Keep the area under the canopy of the tree clear of grass and weeds to minimize competition for water and nutrients. Mulch this area with 2-3 inches of mulch, leaving an area about 2 feet from the trunk mulch free or at most only $\frac{1}{2}$ inch thick. Citrus like their roots on top and slightly exposed. Citrus that grow into trees such as satsumas and grapefruit should be spaced 15 feet apart while bushy citrus plants such as kumquats may be spaced as closely as 10 feet.

FERTILIZATION

Citrus trees are heavy feeders. Our grafted citrus is on acid loving rootstock so you must use a fertilizer for Acid Loving plants. Non-grafted citrus need an alkaline type of fertilizer. Below are some fertilizer choices depending on the type of citrus you have.

| Citrus Type | Fertilizer | How much each time |
|------------------------------|---|--|
| Grafted Citrus | 10-8-8 (with minerals) For Acid Lovers (Azaleas & Camellias) | 1 cup for each year of tree's life (i.e. 1 cup for 1 year old, 2 cups for 2 year old, etc) - Max out at 9 cups for Mature trees. |
| Grafted Citrus (Organic) | Espoma Holly Tone For Acid Lovers (Azaleas & Camellias) | 6 cups for 1 year old 10 cups for 2 year old (4-6ft) 18 cups for 7-9ft tree 24 cups for trees over 9ft |
| Non-grafted Citrus | 10-10-10 (with minerals) | 1 cup for each year of tree's life - Max out at 9 cups for Mature trees. |
| Non-grafted Citrus (Organic) | Espoma Citrus Tone | 6 cups for 1 year old 10 cups for 2 year old (4-6ft) 18 cups for 7-9ft tree 24 cups for trees over 9ft |

Spread the fertilizer evenly under the entire canopy of the plant avoiding a 6-inch area around the trunk. Water or rake in. If using Espoma fertilizer and you have sandy soil, be sure to also put a $\frac{1}{2}$ inch layer of rotted pine bark or rotted leaves on top of fertilizer.

In North Florida, we **fertilize in late February** as the weather warms and the trees come out of dormancy, and **again in late May and late July**. We withhold fertilizer in fall and winter to slow growth and encourage dormancy during cold weather. **Never fertilize after August** as this will promote new growth late in the year which will be subject to freeze damage

WATER

The first year is a critical time for the establishment of a new citrus tree. Water thoroughly twice a week on light soils and once a week on clay soils. Soak the entire root system deeply - this usually takes 50-60 minutes. Established citrus should receive at least 1 inch of water each week. Water regularly, especially during dry periods. Fruit may drop prematurely if insufficiently irrigated during dry spells.

PRUNING

Prune in June/July to maintain height and to thin out interior for good air circulation. At anytime remove dead, damaged, crossed or diseased limbs, water sprouts and rootstock suckers. Trim back excessive growth to keep an even shaped canopy. Make all cuts flush with the limb or the next largest branch. Do not leave stubs. Never prune in winter as this will stimulate growth.

COLD PROTECTION AND FACTORS INFLUENCING FREEZE DAMAGE

Citrus grown in areas subject to frost may require winter protection. In general, young trees are more susceptible to frost damage than adult trees. Trees that have not fully entered dormancy are more likely to be injured and fully dormant trees. During the first few years, young trees need frost protection, but many varieties can be left unattended once they are 4-5 years old. We recommend all citrus be protected during the first 2 years in the ground **when the temperature falls to 27 degrees and lower.**

At Just Fruits and Exotics, we have developed a simple system to protect our citrus. In fall, as the chance of frosts increases, we place supports or wire around each tree. We have covers ready next to the trees for frosty nights. We use a two-layer system of burlap, sheets or woven ground cloth covered by plastic sheeting. Mulch is removed from inside the wire ring to increase heat absorption during the day and the edges of the covers buried to retain warm air.

After we set up the rings, it only requires a few minutes to cover the plants when cold temperatures are expected. We use office staplers to seal the covers. **Tree MUST be uncovered or vented during the day to prevent overheating.**

Do not despair if your tree is damaged by frost. As long as the plant does not freeze to below the graft, the tree will regrow. Most trees will lose some, or all, of their leaves and/or fruit crop, but chances are they will resprout quickly and set fruit the following year.

INSECT AND DISEASE CONTROL

Citrus have few disease or insect problems.

The major insect pests in North Florida are citrus leaf miners and leaf and bark scales. For leaf miners, use an organic spray containing Spinosad. For scale use a combination of Neem Oil and a summer-weight Dormant Oil in mid summer as both a treatment and a routine preventative for these pests. Read and follow label directions.



| EASY TO GROW VARIETIES | MODERATELY COLD- HARDY VARIETIES | CONTAINER VARIETIES |
|--|---|---|
| <p>Oranges—Ambersweet, Seville, Chinotto</p> <p>Tangerines-- Changshi, Satsuma, Calamondin</p> <p>Lemons—Meyer, Ichang, Yuzu, Tiwanica</p> <p>Limes-- Rangpur, Red Lime, Limequat</p> <p>Kumquats and their hybrids---Meiwa, Nagami and Murumi Kumquat, Nippon Orangequat</p> | <p>Oranges- Early Gold, Hamlin, Parson Brown</p> <p>Navel Oranges- Cara Cara, Gardner</p> <p>Tangerines- Clementine, Fremont, King, Ponkan, Robinson</p> <p>Tangelos- Minneola, Orlando, Ugli</p> <p>Grapefruit-- Duncan, Flame, Marsh, Ruby Red</p> <p>Pummelo-- Hirado Butan Pink, Ora Blanca White</p> | <p>Blood Oranges-- Moro, Sanguinelli, Taracco</p> <p>Lemons—Sanbokan, Eureka, Ponderosa, Sweet Lulana</p> <p>Limes--- Persian, Finger, Kaffir</p> <p>Citron---Buddha's Hand</p> |