

Four Winds Growers

“Family Grown for Growing Families”

In the late 1940’s, Floyd Dillon’s dream was to grow Dwarf Citrus trees which would produce full size fruit. Gardeners would love the small form, evergreen foliage, sweet fragrance, attractive flowers and flavorful fruit.

Researchers at UC Riverside told him about dwarf rootstocks that were compatible with fruiting varieties. Floyd then used spliced twig grafts, a unique method for citrus grafting. His vision of growing dwarf citrus for gardeners became a reality.

Four Winds Growers is a family tradition, now in its fourth generation as a family owned and operated nursery. We are proud to offer you the highest quality dwarf citrus, grown with experience and care.



Four Year Old
Dwarf Eureka Lemon

Common Questions

Q – How often should I water?

A – Here are some general guidelines:

1. **In the ground**, water deeply once a week.
2. **Outdoor containers**, once or twice a week.
3. **Indoors**, $\frac{1}{4}$ – $\frac{1}{2}$ gallon every 5–7 days.

Vary watering as conditions change!

Q – Why do bloom or fruit drop off?

A – Some fruit drop is normal. If fruit or bloom drop is excessive, correct watering is often the solution. Extremely hot, dry, windy weather will trigger fruit drop. Be sure trees are well watered in those situations.

Q – Why do leaves drop off, twigs die back?

A – This can be caused by lack of light or too much water.

Q – My tree grows at a rapid rate, has for years, but doesn’t fruit – why?

A– Possibly a rootstock sucker has taken over, or there is insufficient light.

Q – Why is the foliage yellow?

A– Two possibilities are: lack of fertilizer, or overwatering to the point the root tips are rotting and are not taking up nutrients.

Q – When will fruit ripen?

A– Once the trees are about 3 years old, they are mature enough to handle fruit production without impacting branch and foliage growth.

Time from bloom to edible fruit varies:

- Lemons, limes – 6 to 9 months
- Winter oranges, other citrus – 12 months
- Summer oranges, grapefruit – 18 months

Essential Elements of Success For Indoor Growing

Citrus originated from temperate and tropical climates in Asia. These conditions are easily duplicated outdoors in warm weather, or in greenhouses or solariums. Homes can provide a suitable environment when the following parameters are met:

Light

Citrus like 8-12 hours of sunlight a day. Full spectrum growlights are an economical supplement in limited light situations. More costly options (metal halide or high pressure sodium) are used if there is no natural light.

Temperature

Citrus grow best between 55° and 85° F. Indoor temperatures averaging 65°F are conducive to growth if light is adequate.

Soil

A better choice than dense “potting soil” is a light, well draining “garden grade” soil mix. Try to choose one without wetting agents or fertilizer. Use a container with adequate drainage holes. Place container on pebbles in a saucer to allow for air and water flow.

Water

Water as needed to **keep soil moist, not wet**. See Common Questions on watering as a guide. Use a moisture tester to assure proper watering.

Humidity

In winter months, heated rooms may need additional humidity. Trays of pebbles and water, placed between the tree and the light source, or a humidifier will help the leaves stay lush.

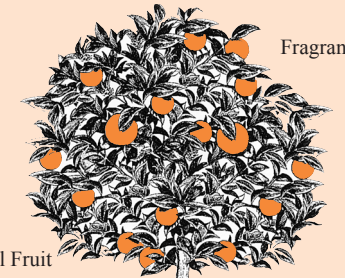
How To Grow Dwarf Citrus



“Growing and Shipping Since 1950”

Evergreen Foliage-Four Season Beauty

Fragrant Blooms



Flavorful Fruit

Grown on Four Winds
Dwarfing
Rootstock

Look For The Graft Union
Remove All Growth
Below Graft

“With care and commitment, we grow the finest citrus trees so people experience abundance and happiness”

www.fourwindsgrowers.com

Selecting Planting Containers

Clay pots and wooden containers are classic, but heavy choices. Many other lightweight containers are available. Make sure there are plenty of drainage holes. Placing black pots inside decorative pots mitigates excessive heat and creates a nice effect on a patio.

Planting in Containers

Use a light, well draining soil mix. Plant 2–3 year old trees immediately into a 10–16 inch pot with good drainage. The one year old trees can be planted in a 6–9 inch pot within a week or two. Upper roots should be just beneath the top of the soil level. Firm the soil around the rootball and water. Loosely tie tree to a stake. Repotting with fresh soil mix every 1–3 years will provide fresh nutrients to the roots.

Indoor/Outdoor Trees

Trees can be kept on patios and decks in warm weather. Move inside for winter to avoid freezing. Place the tree in partial shade for a week to transition from full sun to indoors. Reduce watering.

Planting Outdoors In The Ground

In Zones 9 and above, citrus can be grown in the ground. A sunny, frost and wind-free, southern exposure is best. Warm microclimates are created by reflected heat from walkways or houses. If temperatures drop into the high 20's, Christmas lights and/or frost blankets can give some protection from freezing.

Avoid planting in lawns that get frequent shallow watering. If planting in the ground, combine planting mix and soil from the hole. Plant the rootball high for future settling. Create a water basin at the dripline and expand it as the tree grows.

Watering

Citrus don't like "wet feet." Light soil that drains well will maintain adequate moisture without being soggy. Watering frequency varies with location, tree size and climate.

In containers, a "moisture meter" is a useful, inexpensive tool to read moisture below the soil surface. Water when meter reads 1/2 way between wet and dry.

In garden soil, check drainage by digging a hole 24" deep and filling it with water. The next day, refill the hole. Drainage is ok if water drops 2" in two hours. If drainage is poor, plant in a raised bed or container.

- **A wilted tree means too little water.**
- **A tree with yellow leaves or folded leaves can indicate too much water.**

Fertilizing

Since citrus trees are heavy nitrogen feeders, make sure there is more nitrogen (**N**) than phosphorus (**P**) or potassium (**K**). Use at least a 2–1–1 ratio. Miracid® Soil Acidifier is a water soluble product that works well and is a 3–1–1 ratio.

Also important are trace minerals like iron, zinc and manganese so make sure those are included as well. Many all-purpose products will work. We prefer slow release fertilizers in the granular form rather than fertilizer stakes. Follow rates on the package carefully as fertilizers come in different strengths and release rates. Foliar applications of trace minerals in the form of kelp or other soluble fertilizers are effective on leaves when half their mature size. Yellowing leaves indicate lack of fertilizer or poor drainage.

Suckering

Know where the graft is on your tree (see sketch on front of brochure). It can usually be seen as a diagonal scar between 4 and 8 inches from the soil. Remove all shoot growth below the graft. These *suckers* take vitality from the top of the tree (the fruiting wood). Especially on young trees, they are very vigorous. **Remove suckers as soon as observed.**

Thorns

Thorns are removed from rootstocks when they are grafted. Juvenile fruiting wood will sometimes have thorns, it is a young plant's way of defending against grazing animals. As the tree matures, they will not appear as often. Prune off thorns if desired.

Pruning

Citrus may be pruned to any desired shape. Pruning is fine any time of year, except in the winter for trees outdoors. It is best to pinch off blooms the first year to let the tree develop prior to beginning fruit production. Pinching back tips of new growth encourages branching.

Citrus will look fuller with occasional pruning to shape leggy branches. Very leggy branches indicate the need for more light.

Some trees may develop erratic juvenile growth above the graft. If so, prune for shape and balance. Any growth above the graft can eventually bear fruit.

Pollination

Citrus are self-pollinating, even indoors. Some people enjoy pollinating their trees. This is done by using a small soft brush or cotton swab to transfer pollen among the flowers.

Insects

Not all insects are bad!

Lady beetles, lacewings, and preying mantids are some of the beneficial insects you may see around citrus trees outdoors. Tiny parasitic wasps lay their eggs in pest insects.

Pest Control

Keep your tree free of ants. They will *farm* scales or aphids, moving them from place to place, milking their sweet secretions, and protecting them from beneficial insects. Ant bait stations/stakes may be helpful.

If you find harmful pests like scales, aphids or mites, we suggest organic soaps or oils, which are available in your local nursery or garden centers or online.

- Orange TKO, made from D-Limonene, is a multi-purpose cleaner which can be used as a plant wash.
- Safer® *Yard & Garden Insect Killer* is a potassium salt (insecticidal soap) which weakens the insect's protective outer shell.
- Avoid Systemic Insecticides on citrus since the toxin travels through the plant tissues and can get in the fruit.

With any treatment you use, spray the underside of the leaves as well. Follow the manufacturer's recommendations. Do not use stronger solutions. Repeat as needed to contact insects newly emerging from eggs.

Check out ipm.ucdavis.edu for photos and more information on garden pests.