

# Citrus: Rootstock

## About Citrus and reproduction

Citrus plants grown from vegetative material are identical to the tree from which the plant material was taken and give fruit in two to three years. By contrast, citrus trees grown from seed are not always identical to the parent tree and often produce limited and inferior quality fruit.

## Seed for rootstock

While citrus seed is not so suitable for producing trees, the seeds are good for growing rootstock. The plants of the desired cultivar can then be budded onto this rootstock. For commercial production, rootstock should come from selected cultivars that have been identified, or developed (See Table). Although these citrus may not have edible fruit, they give excellent rootstock.

Rootstock	Remarks
Sour orange	Easy to bud and force-Cold tolerant-Very susceptible to scab
Rough lemon	Seed germinate well. Seedlings have low vigor. Susceptible to scab, <i>Alternaria citri</i> and leaf spot. Seedlings tend to branch close to the ground
Volkamer lemon	Similar to rough lemon except more vigorous. Relatively unaffected by <i>Alternaria</i> .
Rangpur lime	Seed germinate readily. Seedlings are vigorous, easy to handle, susceptible to <i>Alternaria</i> .
Alemow	Seedlings moderately vigorous, lean readily leading to excessive sprout development
Sweet orange	Seedlings are vigorous, leaf diseases are rare
Cleopatra mandarin	Seedlings vigorous in hot climates but slow growing in cool areas
Trifoliate orange	Seeds might require chilling for best germination. Seedlings have low to moderate vigor. Seedlings respond to prolonged day length but go dormant in the fall.
Carrizo and Troyer citrange	Can transmit psorosis. Seedlings sensitive to preemergence herbicides
Swingle citrumelo	Excellent germination. Seedlings become dormant in fall. and are sensitive to preemergence herbicides.

Recommended rootstocks vary with many factors including the type and cultivar of citrus grown, soil conditions and climate. Your county extension agent can help you select a rootstock to suit your needs.

## Producing your own citrus seed

1. Extract seed from mature fruit
2. Rinse seed thoroughly in water
3. Plant seed as soon as possible.

If extracted seeds are not planted immediately after rinsing, then

1. **Dry the seed:** Spread seed evenly on absorbent paper and place away from direct sunlight.
2. **Treat:** When the seed surface moisture has dried, place seeds in polyethylene bags with moist peat moss and a fungicide such as Thiram,
3. **Storage:** Store seed at 0-45° F.



Rinse and store seed correctly.

## Planting your citrus seed

1. **Seed preparation:** Remove the seed coat or soak seed in aerated water for about eight hours just prior to planting (to speed up germination and seedling emergence).
2. **Planting seeds:** Plant seeds 1/4 to 1/2 inch deep in pots or flats containing (preferably sterile) potting media. Ensure sunlight, warm soil and adequate moisture for rapid germination and seedling emergence. Under ideal conditions, emergence will likely occur during a 2 week period beginning 7 to 10 days after planting.
3. **Training young plants** Train plants to a single stem with no branches within 6 to 8 inches of the soil.