

The Backyard Orchard –Module 1.8 - Rootstocks & Dwarf Citrus



LSU AgCenter Backyard Orchard Certificate Course

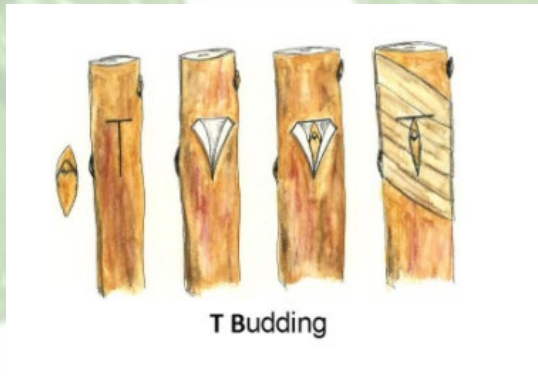
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Grafting

- Almost all citrus is grafted. We mentioned a few earlier that are grown as cuttings – Orange Frost & Arctic Frost.
- Why Grafting?
 - Variety dependability
 - Disease resistance and strong root system
 - Earlier fruiting maturity (15 yrs vs 5 yrs FDG)
- There are multiple grafting techniques that can be used but most commercial trees are T-bud grafted.
- Citrus wounds heal best between 70-85°F



T-bud Grafting



T Budding



Chip Bud Grafting

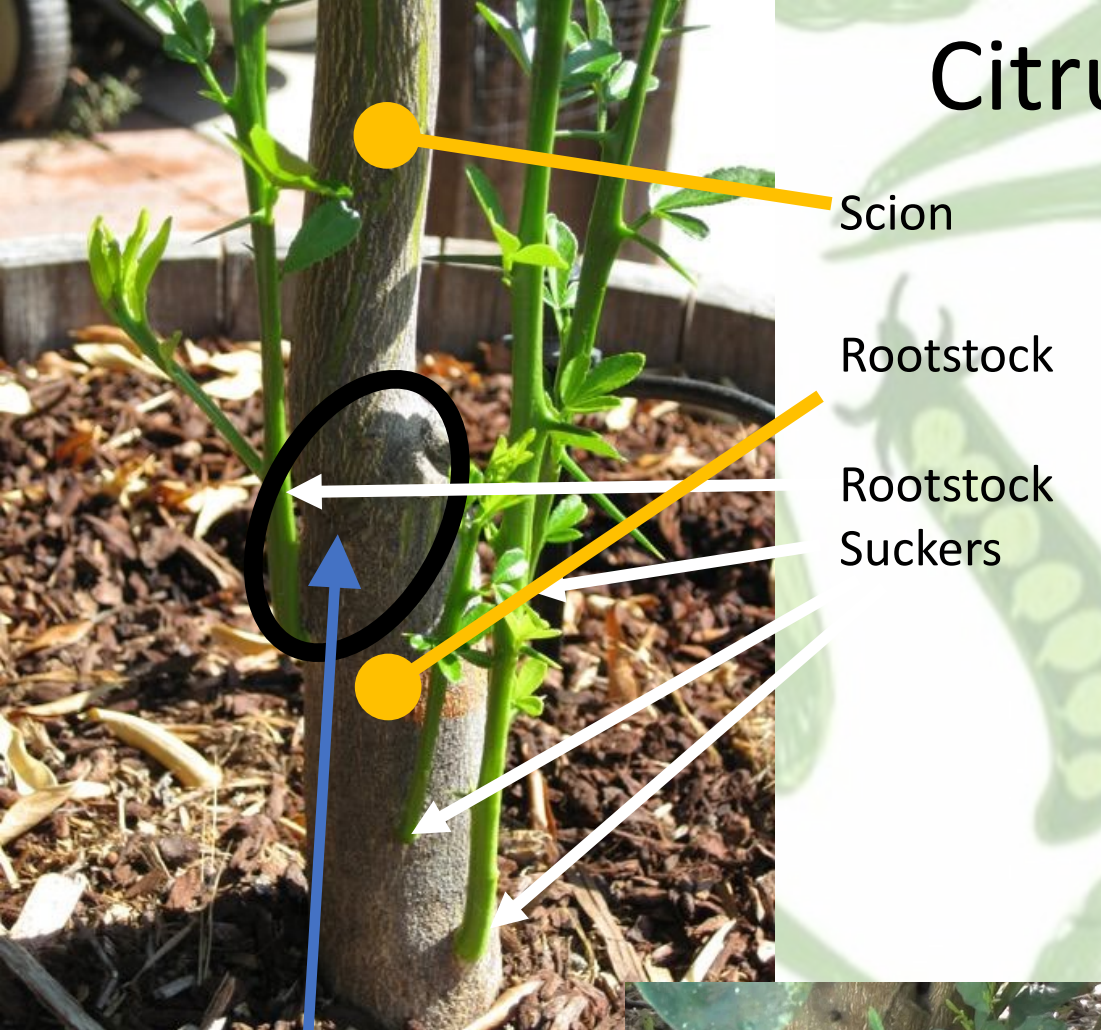


Chip Budding



Patch Bud Grafting

Citrus Rootstock



Graft Union



- Rootstock is the part of the tree that has the lower trunk and roots.
- Rootstock can impart tolerance to different stresses such as unfavorable soil conditions, soilborne pests and diseases, and cold.
- Rootstock can influence the size, fruit quality, and yield of a citrus tree.
- Usually grown from seed but may be from cuttings or tissue culture. This is possible because citrus is polyembryonic and produces nucellar embryos.

Citrus Rootstock



Trifoliate Orange fruit



Trifoliate Orange leaves
and thorns

- Popular Rootstocks
 - Trifoliate Orange - *Citrus trifoliata* (*Poncirus trifoliata*) – can be used for all citrus (1178 or earlier). Hundreds of hybrids have been developed.
 - Swingle – Duncan Grapefruit x Trifoliate – Primarily used for Grapefruit (1940's)
 - Citrange – Sweet Orange x Trifoliate – multiple selections used for all citrus (1930's)
 - Bitters C22 Citrandarin – *Citrus sunki* x Swingle – commonly used for lemons and limes (2009)
- Florida Citrus Rootstock Selection Guide, 4th Edition lists 47 different rootstocks available for use.
- All citrus rootstock have *Citrus trifoliata* in their lineage. Cold hardiness and disease resistance.



Dwarf Citrus

- Remember – dwarf is a relative term. If the plant is smaller than the original, it is a dwarf.
- All dwarf citrus utilize *Citrus trifoliata* 'Flying Dragon' or hybrids of it.
- The dwarfing is due to the rootstock, not the scion.
- Introduced to the US in 1915. Grown for centuries in Japan and China as an ornamental.
- Currently available in the GNO area: Dwarf Owari Satsuma, Dwarf Brown Select Satsuma, Dwarf Washington Navel, Dwarf Meyer Lemon



Growing Dwarf Citrus



Dwarf Meyer Lemon



Dwarf Navel

- Have same environmental requirements as full-size citrus
- Better suited to use as container grown citrus than full-size trees
- Usually grow to 8-10' tall.
- Produce the same size fruit as full-size trees
- Usually have a higher production capacity.



Please post all your questions and results to the message board that was emailed to you.

