CITRUS PROPAGATION

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Citrus Variety Collection
University of California, Riverside

Methods of citrus propagation for the amateur grower

- 1. Seed
- 2. Cuttings
- 3. Grafting
- 4. Budding

Seed

Seed

- Advantages
  - most citrus has seed
  - most citrus is polyembryonic and will come true to type from seed
  - can plant seed any time of year

Seed

- Disadvantages
  - some varieties are seedless
  - some varieties are monoembryonic and seed will be hybrid, not true to type
  - seed sometimes takes months to germinate
  - juvenile trees are very thorny
  - long time to bearing age

Cuttings

Cuttings

- Advantages
  - usually easy to do
  - no extra materials needed
  - can make cuttings most of the year

Cuttings

- Disadvantages
  - uses a lot of scion material
  - many varieties susceptible to soil pathogens
  - no size regulation of resulting tree

Side graft

Grafting

- Advantages
  - can provide size regulation and pest resistance
  - larger piece of scion is easier to handle

Grafting

- Disadvantages
  - uses a lot of scion material
  - requires rootstock, supplies
  - requires higher level of expertise
  - can only be done at certain times of year

Budding

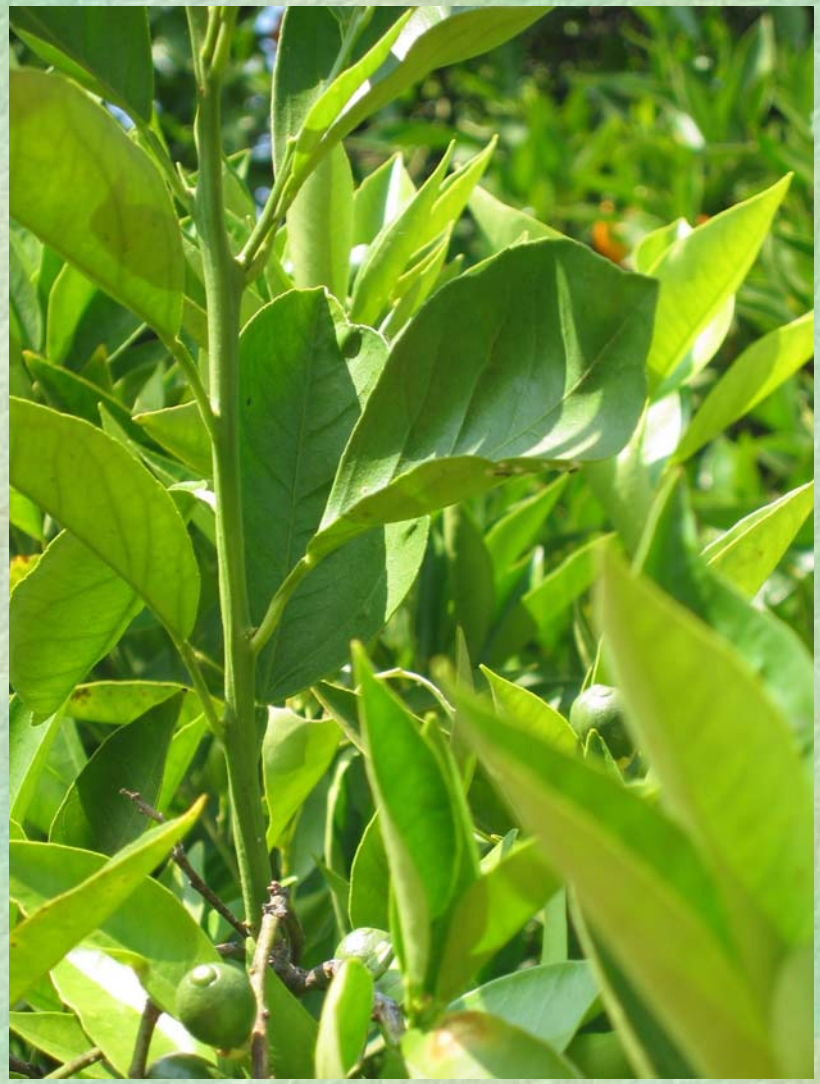
Budding

- Advantages
  - very small amount of scion material needed
  - requires low level of expertise
  - know within 2 weeks if budding is successful
  - can provide size regulation and pest resistance

Budding

- Disadvantages
  - requires rootstock, supplies
  - can only be done at certain times of year

Budwood Selection



Selection of budwood

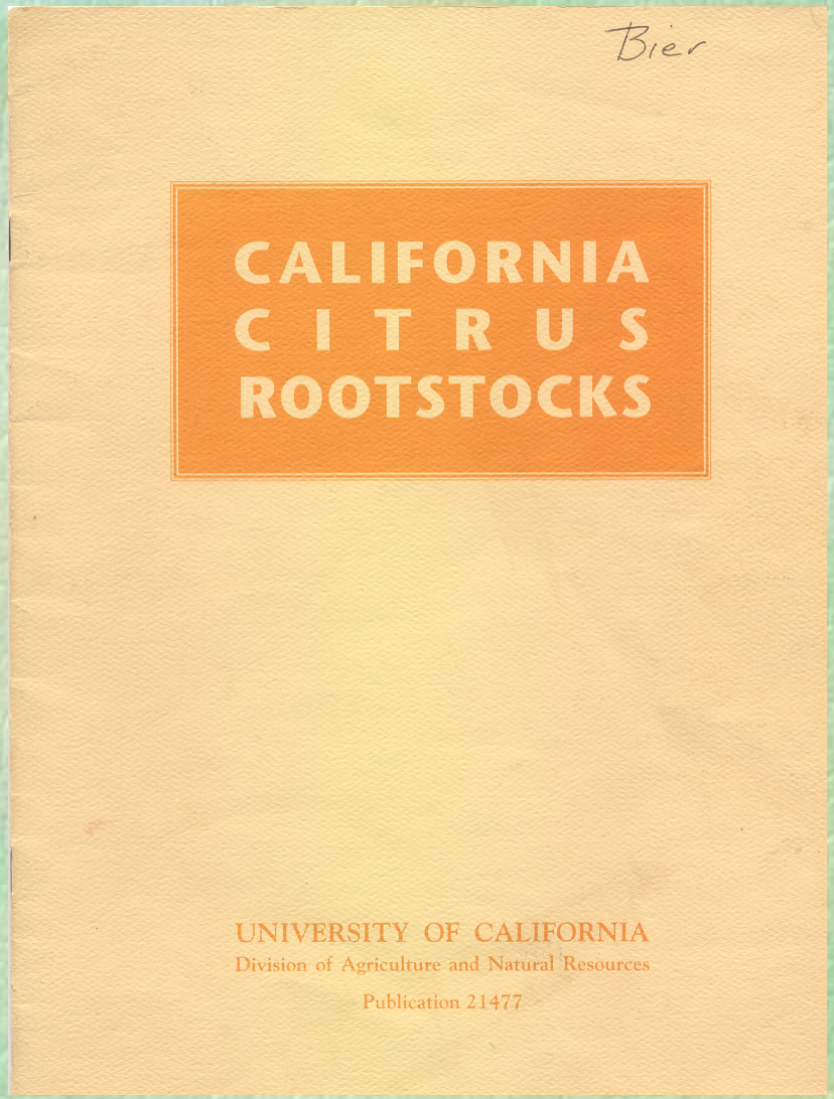
- healthy, fruiting tree
- cut budstick from hardened growth of last flush
- or, cut budstick from next to last flush
- round twigs are easier to handle than angular twigs
- budwood may be refrigerated for weeks to months if sanitized

Rootstocks

Selection of rootstock

- rootstock must be compatible with scion
- consider ultimate size of tree desired
- consider soil conditions, insects, diseases
- pencil-thickness rootstock is best
- bark must be slipping

Rootstock resource



Supplies

Supplies

- clean towel
- razor-sharp knife
- budding tape
- bleach
- plant tags

Sanitation

- sterilize fingers and knife
- 1 part bleach to 9 parts water

Sterilized knife

Making bark pocket

Cut bark to receive bud

- make cut vertically
- make cut horizontally, 1/3 down
- loosen bark along cut with knife

Cutting buds

Cutting buds cont.

Cutting buds cont.

Cut buds

- hold knife almost parallel to the budstick
- cut sliver with bud about1 inch long
- bud should be slightly above the middle of the sliver

Insert the bud

- insert the bottom of the bud at the horizontal cut
- slide bud down into lower part of bark pocket
- lift top of bark pocket to accept top of bud
- be sure bud was inserted right side up

Wrap the bud

- pull tape tightly to ensure good bud-rootstock contact
- bud may be wrapped exposed or covered

Wrapping the bud

Healing

- give tree good care
- if buds turn brown, rebud
- after 4 weeks, buds are healed
- remove tape after 4 weeks

Bud at four weeks

Aftercare

- bend top of rootstock over to reduce apical dominance
- keep tree “suckered”
- when new bud is at least 12 inches long, cut top of rootstock off
- stake new shoot
- plant tree when scion has developed some bark

Defeating apical dominance

Almost finished tree

Finished tree

Topworking

- changing over an existing tree to a different variety
- can be done by grafting or budding
- budding gives a higher success rate

Multiple scions

- can be done
- choose scions with similar growth rate and ultimate size
- usually requires routine pruning

Any Questions?