

What to do after the freeze for tropical-subtropical fruit crops in Florida home landscape

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Common freeze damage plant symptoms

- Leaves
 - leaf wilting, water soaking, browning, death
 - dead leaves persistently hanging on stems
 - leaf drop
- Flowers and fruit
 - water soaking, browning, shriveling, and drop

Note: Leaf drop may be a good sign after a freeze as it indicates the stem tissue was alive. If leaves are dead and hanging on, there is some stem damage.

Other common freeze damage plant symptoms

- Wood
 - twig, limb, and trunk discoloration
 - water soaking, browning and death of wood
- Trunk area and major limbs
 - bark splitting
 - sap exudation
 - death

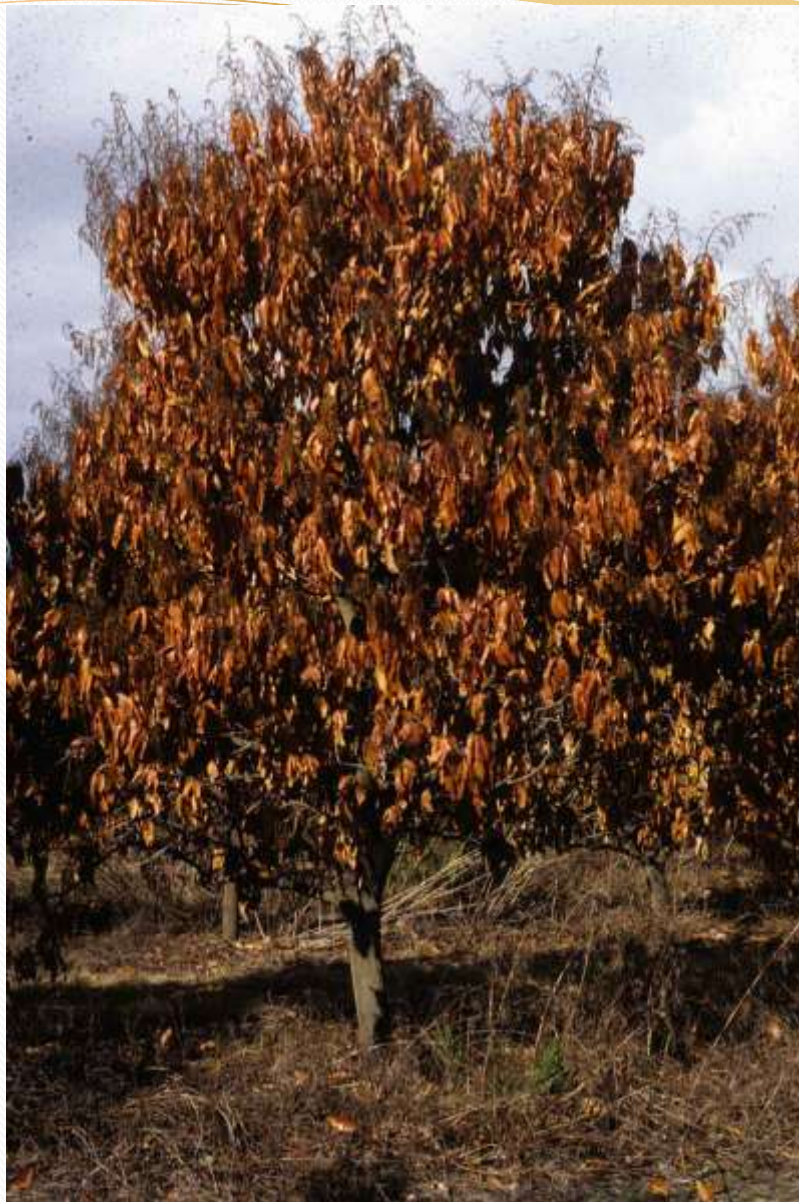
Freeze damage on the lower part of the tree; leaf drop in upper canopy and leaf desiccation of lower leaves. The upper part of The canopy was not damaged and is flowering.



Avocado leaf damage –
water soaking, desiccation



Carambola leaf drop and desiccation and fruit damage



Mango freeze
damage – leaf
browning
(desiccation and
death)



Mamey sapote leaf cold damage



Banana freeze damage

Post freeze care of banana and papaya

Banana

- Wait to see if the leaves are die (turn brown) or become dull green (chilling injury).
- If the pseudostem (stalk) dies or declines remove it.
- The plant will send out new pseudostems from the underground rhizome during the spring/summer.

Papaya

- Mild to moderate damage includes leaf desiccation (browning) and leaf drop. The plant may recover during the late spring/summer.
- Severe damage includes death of the main stem and/or trunk. Best to remove the plant and replant during spring/summer.

Post freeze tree care for woody trees with no visible twig or limb damage

- Do not prune immediately after the freeze!
 - you cannot tell what is dead at this time and you may prune live wood
 - there may be another freeze and even dead leaves will provide some barrier to heat loss
- if you do prune immediately after the freeze you may not remove all the dead wood and you'll have to prune again later
- wait 2-6 months before pruning - it takes awhile to see the damage
- prune to live wood

Post freeze tree care - watering

- Trees with little leaf damage should be watered normally during dry periods.
- Trees with moderate leaf damage (i.e., have lost some leaves) have less leaf area and therefore watering frequencies should be reduced.
- Trees with little to no leaves should not be watered until signs of new shoot and leaf growth appears. Watering leafless trees may lead to root rot problems.

Post freeze tree care - fertilization

- Trees with little leaf and wood damage should be fertilized at normal rates and frequencies.
- Trees with moderate leaf loss should be fertilized frequently at reduced rates when new growth begins.
- Trees with complete leaf loss should be fertilized frequently at slightly higher rates when new growth begins.
- Trees with severe leaf loss plus wood damage should be fertilized at a reduced rate in proportion to the percent of canopy lost.

Note: If we have an early season freeze it may be best to wait until warmer weather to fertilize.

Further information

- Local County UF Cooperative Extension Service Offices at <http://solutionsforyourlife.ifas.ufl.edu/map/>
- Publications at <http://edis.ifas.ufl.edu>
- Publications at <http://trec.ifas.ufl.edu/fruitscapes>