

Protecting citrus from cold weather



Photo by David W.Marshall, UF-IFAS. Leon county Extension . Satsuma mandarins is a popular cold hardy citrus for our area.

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Homeowners growing citrus in North Florida are concerned about recent cold weather. Because citrus trees are evergreen, they never become completely dormant making them less tolerant of cold temperatures. For that reason, most commercial production has moved south of Leesburg , Florida . However, backyard citrus enthusiasts in this colder area of the state can help protect their citrus.

In North Florida , it is wise to select only the more cold hardy citrus types. Kumquats and Satsuma mandarins are the most cold hardy of the edible citrus forms. In our area, it's important to purchase citrus trees that are grafted onto trifoliate orange rootstock. Trifoliate orange produces inedible fruit but is an excellent rootstock because it will tolerate colder temperatures and will convey its hardiness to the scion variety budded on it.

Proper site selection is critical. Because most of our coldest weather comes from the north and northwest, citrus planted near the south side of the house or behind windbreaks will be better protected from cold winds. The house or windbreaks may provide a microclimate, keeping citrus warmer. Because cold air drains downhill, avoid planting citrus plants in low or bottomland areas. Higher elevations will be somewhat warmer. If you have the option, plant citrus trees on the south or southeast sides of a body of water where it will be warmer.

Do not fertilize after July. A late application of fertilizer can stimulate new growth in the fall that is especially susceptible to damage. During the winter, it is best to keep the soil under and around citrus trees bare of mulch

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and grass. And make sure to thoroughly water early in the day before cold weather strikes. This may seem strange but bare, moist soil absorbs more heat during the day. This stored heat then radiates upward during the night, keeping the citrus a little warmer. Mulch will trap this heat.

Banking (placing a mound of soil around the tree's trunk to protect the graft union and lower trunk) is an important cold protection practice for young citrus trees. Trees should be banked for the first three to five winters. Older trees can better withstand cold. To bank a tree, carefully mound soil free of weed seed and debris as high as reasonable, up into the scaffold limbs or higher whenever possible but at least cover the graft union. Build the bank before cold weather arrives and carefully remove it after the danger of cold weather, which may be late February to mid March. When unbanking, completely remove all the added soil and be extremely careful to not damage the trunk with a shovel, hoe, etc. Materials other than soil used to wrap the trunk may kill the tree due to excessive trunk temperatures during warmer days.

Covering a plant without additional heat is primarily a method of protecting against frost rather than hard freezes. It may be difficult or impossible to cover large citrus trees but when covering young trees, drape the covering to the ground to trap heat under the covering. When covering plants, it's best to use cloth rather than plastic and to remove the covering as soon as the cold has passed, preferably the next day. Leaving a plant covered day after day may cause the plant to break dormancy under the warm covering. The plant will then be much more susceptible to cold injury the next time it freezes as compared to an uncovered plant. Heat from an ordinary light bulb placed under the covering will provide additional cold protection.

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