

Frost & Freeze Protection

by Brandi Keller, Harris County Extension Agent, Horticulture



Here are some tips/resources to protect your plants as best as you can. Remember, it's all a case-by-case basis and there are no sure things - except bringing potted plants into a protected garage or the house. We can expect the threat of frost or freeze through February 2nd to March 1st, depending on your location around Harris County.

Frost protection options

- Water if soil is dry.
- Cover tops and sides of plants.
- Move under cover (eaves, trees, patio)
- Move near buildings with heat.
- Place bucket of water near plants.

Freeze protection options

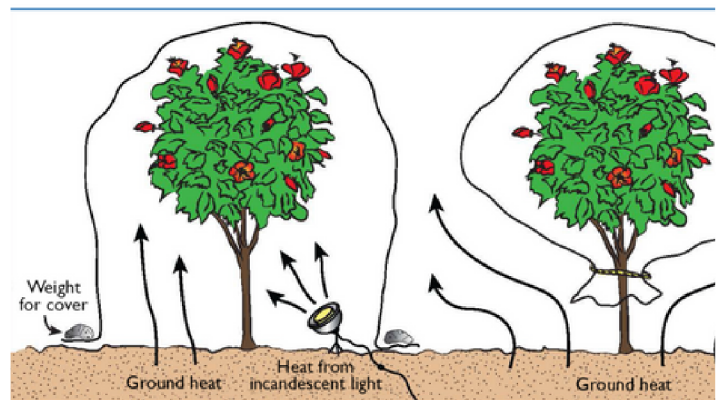
- Cover plant and secure to the ground.
- Add source of (safe) heat under cover.
- Provide windbreak
- Bank citrus and other plants with soil.
- Mulch annuals, perennial, and tender plants.



Cover partially

Drape or tent the upper/side parts of plants to slow the plant's cooling. Sheets, blankets, boxes, or frost-blankets can be used. Chance of frost increases with cold, clear nights. Moving plants under tables, eaves, covered patios, or larger plants can provide protection needed to prevent frost.

Frost can occur between 33-37° if dew point drops below 32°. Clear nights increase chances.



Cover fully and Heat

The image above can be found on the first resource link. Covering a plant's leaves alone during a freeze will not protect it. Heat needs to be captured and contained by securing the cover to the ground. This can be as simple as covering and forcing ground heat upward toward the plant or adding heat.

Freeze occurs below 32° and a hard freeze at 28° for more than 4 hours. Wind increases threat.

Resources:

[Protecting Landscapes and Horticultural Crops from Frosts and Freezes](#)

[Cold Weather Damage on Citrus](#)

IT'S COLD
outside



stay
WARM

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Q&A

Why water plants before a frost?

Dry soil stresses a plant, causing more damage during a freeze. Water also releases heat during cold periods or overnight.

Can I use plastic to cover plants?

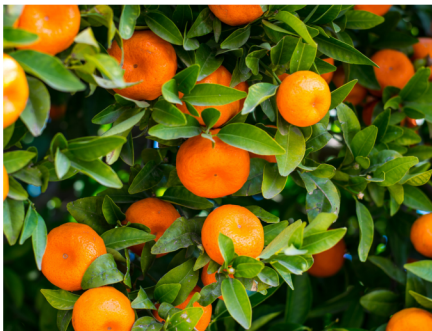
Plastic should not be used alone as it can burn the parts of the plants in which it is touching. However, plastic can be used if then covered with a blanket, as the blanket helps slow radiant cooling. Remove during the day to avoid overheating.

What type of lights can be used safely under coverings?

You don't need to produce a lot of heat, just enough to raise it a couple degrees, depending on the temperature. Holiday string lights accomplish this well, primarily the larger bulbs. A clamp-on floodlight with a heat lamp bulb can also be used.

Citrus Trees

Sweet oranges tend to be more cold-hardy. Cover and add heat to small trees.



Hardy Perennials

Proper mulch will insulate the roots, but decide on what is worth the effort if covering.



Winter Annuals

Cover with frost cloth for both events and survival will increase.



Tender Tropicals

Covering during prolonged freezes will not protect. Extra mulch insulates roots from cold weather.



Native Plants

Native plants have evolved with our region. They are more likely to survive from freeze and frosts.



Vegetables & Herbs

Cool season veggies vary with hardiness, but root crops will have the extra protection of soil, if it doesn't freeze.