

## HOME AND GARDEN COLUMN

# COLD DAMAGE ON PLANTS

It's a wacky winter concerning the weather patterns in Central Florida. It can be eighty degrees one day and temperatures near or below freezing another. With the cold weather we've been experiencing this winter, your tender landscape and patio plants may have been exposed to these damaging low temperatures. If they weren't protected, you may have noticed the damage immediately, however, some damage you may not see for weeks.

Tropical, subtropical, and even some temperate plants are sensitive to cold weather. Tropical plants and summer annuals can be injured by temperatures just below 50°F. Injury caused by cold temperatures can affect the entire plant or parts of the plant. The ability of plants to withstand cold temperatures depends on how great the temperatures fluctuate. If the temperature gradually decreases over a period of time, the plants are more likely to withstand the cold. This is because the plants are able to acclimate to the cold weather over that time.

Plants, however, can be greatly damaged if the temperature drops suddenly. They have no time to acclimate to the freezing temperatures. Plants are damaged when ice crystals form the plant cells. The crystals expand, rupturing the cell walls and preventing the plants from maintaining an) shape. If severe, this can kill tender plants. On hardier plants, damaged foliage will appear wilted and curl down. In a few hours or days, it will darken and turn black. Flowers and buds may die, blacken, and drop to the ground if exposed to cold temperatures. Damaged flowers will not develop into fruit. Young branches and new growth are especially susceptible and may also blacken and die.

After freezing temperatures occur, remove damaged leaves and flowers as soon as they turn brown or black. This will help prevent diseases from attacking the plant. Pruning should be postponed until cold temperatures are no longer expected and new growth begins to appear on the plant. This is to make sure that live wood, which appears dead from losing its leaves, is not mistakenly removed from the plant. Cold damaged wood can be detected by examining the cambium layer (under the bark) of the plant. If it has black or brown discoloration, it is damaged and should be pruned back behind these points. Plants should be fertilized in the spring, to encourage new growth.

Protect your plants from cold temperatures during the next cold front. Do this by moving potted plants indoors and covering tender landscape plants with a protective covering. Protective coverings can include old bed sheets, pieces of material or fabric, and cardboard boxes. Be careful not to let the protective covering touch the plants.

The surface of the covering will become as cold as the air temperatures and may damage any tender leaves it comes in contact with. Also, don't forget to remove the covering the next day when temperatures rise. This is important so the plants do not "bake" in the warmer temperatures. Plants placed near the house, lights, or other structures, which shelter them from wind, will be more protected than those fully exposed to the cold air.

Tropical and subtropical plants can be used in the landscapes in Central Florida, but they must be protected during freezes or replaced after cold weather has ceased. A combination of tender and cold hardy plants should be used in order to prevent total destruction of the landscape by cold temperatures. If you have any questions concerning some cold damage your plants received or if you have any other questions, please contact the Osceola County Master Gardener plant clinic.

Master Gardeners are available to take your calls Monday thru Friday from 10am to 2pm. You can reach them at (321) 607-3000.

Interested in learning more about the two of the most hated insects in the state of Florida? A seminar entitled, "Everything a Floridian should know about Africanized Honey Bees and Fire Ants" will be held Thursday, January 24<sup>th</sup> at 6:30pm and Thursday, February 14<sup>th</sup> at 10am at the Extension Services building in Osceola Heritage Park. The seminar is free, but registration is requested. Please call (321) 697-3000 for more information.

---

**Jennifer Welshans**  
**Osceola County Extension**  
**1921 Kissimmee Valley Lane**  
**Kissimmee, FL 34744**  
**321-697-3000**  
[jwel2@osceola.org](mailto:jwel2@osceola.org)  
[osceola.ifas.ufl.edu](http://osceola.ifas.ufl.edu)  
**Date: January 20th, 2008**