

Recognizing Cold Damage on Plants

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It came and went so fast, but it left some noticeable damage behind. The freezing temperatures from last week, may have caused some havoc on your landscape. Tropical, subtropical, and even some temperate plants are sensitive to cold weather. With some tropical plants being damaged in temperatures just below 50F, you can be sure they were damaged last week, if they weren't protected.

Injury caused by cold temperatures can affect the entire plant or parts of the plant, such as the fruits, flowers, buds, leaves, trunks, stems, or roots. The ability of plants to withstand cold temperatures depends on how great the temperature fluctuations are that occur. 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, as they did last week. They had no time to acclimate to the freezing temperatures.

The plants are damaged when ice crystals form within the plant cells and in the spaces between the cells. The crystals expand, rupturing the cell walls and preventing the plants from maintaining any 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 on plants may also blacken and die.

The lawn will turn brown when damaged by the cold. This is not the time to start watering it more or applying fertilizer. It will remain dormant until the warmer springtime temperatures arrive and the days become longer.

For landscape plants, 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, which is usually mid-February to early March in central Florida. This is to make sure that live wood, which appears dead from losing its leaves, is not 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.

In the spring, you may fertilize your landscape plants to encourage new growth. Use a fertilizer that contains slow release ingredients, so it will supply the plant with nutrients over time. Follow the fertilizer instructions on exactly how much to use. Be careful not to over fertilize, as this can be damaging to the plants.

If you failed to protect your plants from the cold temperatures this past week, it's not too late to protect them from additional cold weather that may occur later this winter. Protect them by moving potted plants indoors and covering tender landscape plants with a protective covering, such as sheets or cardboard. Be careful not to let the protective cover touch the plant or the cold will generate through and damage it. The material should reach all the way to the ground in order to trap the warm air under it. It is also important to remove the cover the next day when temperatures rise. 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.

For a list of cold tolerant plants or for answers to other gardening and landscape questions, contact the Osceola County Master Gardeners. They are available to take your calls, Monday to Friday from 9am to 3pm at (321) 697-3000. You may also email me at (321) 697-3000.