



Protect Your Plants from Frost Damage

By Laurel Rady

UCCE Master Gardener of El Dorado County

Overnight freezes can happen here any time between November and April. Prepare now, so you will be ready and your plants will be protected. First, learn how hardy your plants are. Plants are classified according to the lowest temperatures they can tolerate. "Hardy" plants tolerate some amount of short-term freezing, while "tender" plants are killed or injured by freezing temperatures. Identify the plants at risk and understand what measures protect each plant.

It doesn't have to freeze for plants to be damaged by frost; it just has to get cold enough for water vapor to condense on plant tissue. Plant leaves lose heat faster than surrounding objects. This difference in temperature between the air and leaves encourages the formation of ice crystals that grow through surface cells and thin tissues. This makes water unavailable to plant tissues and prevents fluid from moving through the plant. When tissues warm above freezing, their contents leak out, causing the death of these punctured cells. Although some plants can survive this kind of damage, other plants, such as some succulents and tropicals, may not.

Soil, buildings, and plants near the earth's surface absorb heat during the day. At night heat is lost, and plants are damaged when the earth's surface lowers to critical temperatures; the damage worsens the longer the cold lasts. Identify the cold spots in your landscape: open, exposed areas or low spots where cold air settles. Warmer spots are usually near a south or west-facing wall, which absorbs heat during the day and radiates it at night. Fences, boulders and shrubs can help protect nearby plantings. Cluster container plants close together; move them to a sheltered spot close to the house.

Moist soil retains heat better than dry soil, protecting roots and warming the air near the plant, so water the soil thoroughly--except around succulents, which can rot if their roots are too wet.

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Holiday lights (not LED) or a 100-watt lamp designed for outdoor use can emit enough warmth to reduce frost damage. Be sure they don't touch any covering materials and start a fire. Use only lights, extension cords, and power strips that are grounded (3 pronged) and rated for outdoor use. Do not connect more than three light strings together or use cords that are frayed, cracked, broken, or have a loose plug.

Frost cloth can be an easy, affordable way to protect sensitive plants during a temperature dip. It comes in a variety of sizes, shapes and weights. Identify which plants will need protection and then select the fabric that will provide the best coverage. Some frost cloth is light and water permeable and can be left on plants for a few days; other options include heavier, water-resistant cloth that should be removed during the day. Although no frost cloth provides complete protection from severe freezing, most provide 4-8 degrees of protection. The most effective use of frost cloth involves interior supports, so nothing touches the plant; a layer of cloth or plastic on top; stakes and ties, so the coverings are anchored and will not blow off; and enough length so plants are covered down to the ground. Wrap trunks of tender trees if a hard freeze is expected.

After a frost, identify plant damage: buds, flowers, and shoots may shrivel, curl, turn brown or black and die. Foliage appears scorched because low temperatures severely dehydrate plant tissue. Wood can split, and entire plants may be killed if temperatures go below those tolerated by the plant. But plants can be remarkably resilient. If you see damage, do not dig up the plant or prune off the affected parts. Leave them in place to protect the lower parts of the plant and its roots, and wait until spring to see whether new leaves sprout. If you see new growth at the base of the plant, prune out the damaged parts after all danger of frost has passed.

Sources: UCANR, Frost Protection for Citrus and Other Subtropicals; Master Gardeners of California; UCIPM; Fair Oaks Horticulture Center.

Join Master Gardeners on November 2, from 9:00 a.m. to 12:00 p.m. for a class on Fall Propagation. Learn how to propagate some of the most common plants found within your own home, garden or landscape. Cuttings, layering and divisions will be discussed. Save money, have fun and learn a simple way to expand your garden using materials you already have and grow. The class will be held at the Sherwood Demonstration Garden, 6699 Campus Dr. in Placerville.

For more information on the UCCE Master Gardeners of El Dorado County, see our website at <http://mgeldorado.ucanr.edu>. Master Gardeners are available to answer home gardening questions Tuesday through Friday, 9:00 a.m. to noon, by calling [\(530\) 621-5512](tel:5306215512), or send us an email using the Ask a Master Gardener option on our website. Walk-ins are welcome at our office, located at 311 Fair Lane in Placerville. We also encourage you to visit us at the Sherwood Demonstration Garden, located at 6699 Campus Drive in Placerville, behind Folsom Lake College, El Dorado Center. See http://mgeldorado.ucanr.edu/Demonstration_Garden for more information and days and hours of operation, or call us to schedule a tour. To sign up for notices and newsletters, see http://ucanr.edu/master_gardener_e-news. Master Gardeners are also on Facebook and Instagram; we hope you enjoy our postings and will share them with your friends.

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