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Kern County • 1031 S. Mt. Vernon Avenue • Bakersfield, CA 93307 • 661-868-6200



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*John Karlik, Advisor
Environmental Horticulture/Environmental Science
(661) 868-6220*

Cold-Weather Injury to Landscape Plants—The Aftermath

Landscape plants found in Kern County vary considerably in their ability to tolerate cold temperatures, and low winter temperatures may result in injury to them. Species sensitivity and microclimate play key roles in determining the extent of injury. The minimum temperatures recorded in Bakersfield in January, 2007, were below those normally encountered, leading to damage of a number of plant species that normally emerge from winter unscathed.

Wood of thin diameter is more affected by cold than the large-diameter wood of limbs and the trunk. If partial dieback occurs, we still expect regrowth of many species from latent buds or adventitious buds, if the injury to wood is not too severe. No other steps, such as fertilizers, fungicides or insecticides are necessary or helpful in promoting recovery. Time will tell the extent of injury, and pruning to remove damaged tissue should wait until mid- to late spring.

Deciduous trees and shrubs—those which normally lose leaves in autumn—were in general not injured at all by January temperatures, since temperatures in the 20's are only a prelude to winter in areas where most of these plants are found in nature. Similarly, many pine species are hardy in cold-climate areas, and temperatures in the 20's are relatively mild for them.

Air temperatures of approximately 20 °F will injure broadleaf evergreen plants such as silk oak, euryops daisy, bottlebrush, bottle tree, carob, and of course citrus. Of the ornamental plants, perhaps euryops daisy (yellow flowers in mid-winter) has been most affected, but the scaffold wood has likely survived. Citrus has been injured, the amount of injury dependent on microclimate. Most backyard trees

seem to have fared better than citrus in commercial groves, since urban plantings often have a more favorable microclimate due to protection by buildings.

What about palms? Some palms, such as Mexican fan palm and California fan palm are normally winter hardy in the Bakersfield area, and these species do not seem affected this year. The fronds of queen palms usually discolor, and we see more discoloration than usual this spring, but plants are growing new green leaves as spring arrives.

In Bakersfield, we expect to take a chance with plants which develop essentially no cold tolerance, such as the tropical herbaceous plants philodendron, dieffenbachia and schefflera. Their locations in a landscape in relation to microclimate often determine whether or how much of the plant survives. These tropical plants have no internal mechanism to develop cold hardiness, and when the temperature drops below 32 °F ice forms, rupturing cells and killing plant tissues. Some herbaceous plants, such as geraniums, begonia, hibiscus and lantana, are marginally hardy in normal winters on the valley floor. Many of these plants were injured, although some, such as lantana, may come back from the roots. A couple of tender woody plants, bougainvillea and cape honeysuckle (orange tubular flowers in summer), have been widely planted, and are marginally hardy most winters, but were severely injured or killed this past January. Jacaranda has also been more widely planted around Bakersfield, with many specimens showing brown foliage in March, and we wait to see how much recovery will occur.

