

**University of California**  
Agriculture and Natural Resources  
*Making a Difference for California*



*The Green Scene*

*December 2015*

## **Welcome to New Readers**

I'd like to welcome readers from our fall horticulture classes. We welcome you to continue to use the resources and information available at Cooperative Extension and University of California.

## **Pruning Demonstrations**

We invite you to come to our annual fruit tree pruning demonstrations, this year held Monday, December 14, and Tuesday, Dec. 15, at the orchard adjacent to the UCCE office, 1031 S. Mt. Vernon Ave., Bakersfield. The demonstration will begin at 12:00 noon each day, led by Mario Viveros of University of California Cooperative Extension. Trees include apple, apricot, cherry, and almond, and Mario will also show how to prune grapevines. Come and meet our newest advisor, Mohammed Yaghmour, who will be handling deciduous fruits and nuts.

The beneficial climate of Kern County allows residential planting of many deciduous fruit tree species. Unlike shade trees, deciduous fruit trees should be pruned every year before bud swell for optimum growth and yield. Pruning need not be complicated, but if pruned incorrectly the yield of fruit will be reduced or eliminated, and the life of the tree will be shortened. Pruning diagrams or photographs in books or on the Internet may be helpful, but seeing pruning in three dimensions and being able to ask questions are advantages for those who attend one of the demonstrations.

To reach the UCCE office and orchard, take Highway 58 and exit at Mt. Vernon, then proceed south for about 3/4 mile. Publications on pruning, fertilizer for fruit trees, and fruit tree varieties for the valley portion of Kern County will be available. There is no charge for attendance, nor is pre-registration required.

## **Upcoming Classes and Events**

### ***34th Annual Landscape Management Seminar***

The 34th Annual Landscape Management Seminar is scheduled for February 9, 2016, at Hodels. Visiting speakers include Dennis Pittenger of UC Cooperative Extension, Riverside, who will speak about irrigation management in the context of pest problems. We'll have a noon demonstration, updates on laws and regulations, and an update on the

current pest problems as they relate to reduced irrigation. Abate-a-Weed is cooperating as a sponsor for this meeting and is handling registration.

### ***Horticulture Classes in Ridgecrest and Tehachapi***

I plan to offer a series of horticulture classes in Ridgecrest and Tehachapi. I am working arrangements for start times as well as meeting places for both locations.

### ***2016 Horticultural Tour***

Landscape design and use of specific plant materials can be illustrated in superb botanic gardens and landscapes found throughout the world. Such gardens and landscapes offer design and plant ideas and inspiration. In 2005, I offered our first horticultural tour to England and France, and we have conducted seven tours since then. For spring 2016, we offer an opportunity to visit gardens of Italy, including the northern lakes area, Padova, selected cities of Tuscany including Siena and Florence, with an optional day in Venice. Since the tour ends in Florence, it would be a simple matter to extend your visit to Rome via a two-hour train ride. This custom tour begins May 2 with arrival in Milan. Please see [http://travelgallery.com/images/Hort\\_2016\\_Italy\\_Flyer\\_ver3.pdf](http://travelgallery.com/images/Hort_2016_Italy_Flyer_ver3.pdf) If you would like further information, please send an email to me at [jfkarlik@ucdavis.edu](mailto:jfkarlik@ucdavis.edu), or call 661 868-6220.

### ***Cold-Weather Injury to Landscape Plants***

Landscape plants found in Kern County vary considerably in ability to tolerate cold temperatures, and low winter temperatures may result in injury to them. The minimum temperatures recorded thus far in December on the valley floor of Kern County may lead to damage of some plant species that normally emerge from winter unscathed. Species sensitivity and microclimate play key roles in determining the extent of injury. More specifically, temperature factors include the minimum temperature and time at that temperature as well as total time below 32 °F. Early winter lows are more injurious to plants than low temps that occur later in winter since in adapted species cold tolerance develops as winter progresses.

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 immediate steps, such as applying fertilizers, fungicides or insecticides, are necessary or helpful in promoting recovery. Time will reveal 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—should not be injured at all by temperatures in the 20's, which 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. Some backyard citrus trees may fare better than citrus in some commercial groves, since urban plantings often have a microclimate that includes heat sources and 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 as well as the Kern desert. The fronds of queen palms usually discolor in winter, but plants grow new green leaves as spring arrives.

In Bakersfield, we 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 outside temperature drops below 32 °F ice forms inside the plant, 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 can be injured, although some, such as lantana, may come back from the roots. Bougainvillea and cape honeysuckle (orange tubular flowers in summer), have been widely planted and are marginally hardy most winters. Jacaranda has also been more widely planted around Bakersfield, and we wait to see how well it does.

### **Dormant Treatment for Home Fruit Trees and other Plants**

Many Kern County residents who have fruit trees decide to apply a dormant treatment during the winter months. Dormant sprays can aid in controlling certain insects and diseases. Some common spray materials, such as horticulture oil and lime-sulfur, are classified as organic. While a dormant spray will not harm a fruit tree if applied properly, it is not necessary in many situations. Before applying, we should ask ourselves whether we are just following habit or our neighbor's practices.

Insect control usually comes to mind first, and scale insects are particularly susceptible to control with dormant oil. Application of horticultural oil can be used to reduce the overwintering population of some other tree pests, but oil is not a complete management program. The oil acts to cover insects, interfering with respiration. Addition of a small amount (1-1/2 – 2% by volume) of an insecticide will improve the effectiveness of the spray. Horticultural oil may be applied to most deciduous fruit species from December 1 to February 1. Plums and walnuts should be treated, if needed, with a delayed-dormant treatment, applied February 1 to 15. For deciduous fruits such as peaches, the insects controlled include San Jose scale, brown apricot scale, soft scale, European red mite (not common in Kern County), and peach twig borer. For apples, some aphid control is also possible. For home citrus, a dormant spray may be used to reduce the scale population. Oil may spot the rind, but the damage is only cosmetic and does not affect internal quality. Note that many insects, such as green fruit beetle, codling moth, and most mites, are not controlled by a dormant spray. Flathead and shothole borers are also not controlled with dormant or any other spray.

Disease control is not only usually necessary in home orchards on the valley floor in Kern County because the dry climate does not favor development of fungus diseases. Additional winter rainfall, more likely further north or in foothill areas, favors these diseases. However, the diseases peach leaf curl and shothole (also called shoot blight) may develop in susceptible varieties of peaches and nectarines, but these can be prevented by prior application of suitable fungicides. Treatment during a disease outbreak is usually not effective because most fungicides act as protectants rather than eradicants. Unfortunately, a single spray will not control both diseases unless applied in late fall or early winter. Peach leaf curl can be controlled with Bordeaux mixture or a fixed copper fungicide, such as COCS or copper hydroxide, applied in January. Bordeaux mixture is difficult to apply and some of the liquid copper fungicides are not very effective. If a fixed copper is not available, a lime-sulfur (calcium polysulfide) fungicide can be used. If shothole is a problem, a

fungicide should be applied earlier in mid-November to mid-December, but lime-sulfur does not control shothole. Fireblight, a bacterial disease of apple and pear, is not controlled by a dormant treatment.

Be sure to read and carefully follow label directions of any plant protection chemical.

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Environmental Horticulture/Environmental Science*

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**Disclaimer:** Discussion of research findings necessitates using trade names. This does not constitute product endorsement, nor does it suggest products not listed would not be suitable for use. Some research results included involve use of chemicals which are currently registered for use, or may involve use which would be considered out of label. These results are reported but are not a recommendation from the University of California for use. Consult the label and use it as the basis of all recommendations.

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