

Greetings...

I hope you're doing well amidst the shutdown. On a positive note, my roses are spectacular this year due to the late rains and cool temperatures we have experienced.

Meetings and Announcements

Return to Chernobyl, August 2020

At this point, as you may have guessed, the status of our planned return to Chernobyl is to be determined. You may have read about forest fires near the nuclear plant. According to news reports, those have been extinguished and the abandoned city of Pripyat remains. Fires are no surprise, since the vegetation has been growing without any management for more than 30 years.

Horticulture Tour XI 2020 Cancellation

Due to the lockdown in the UK and limited travel, we have cancelled our planned tour to Wales and Scotland. However, we hope to offer the same itinerary in May, 2021, with a start date of May 23 and lasting two weeks. Of course, we will have more details in time. Travel Gallery, our cooperator, is right now unwinding tours that they've had in the works for 12-18 months. It will be awhile before we and they can contemplate a new venture.

UCCE Kern County Office Closure

Which brings me to our local situation. Our local UC Cooperative Extension office at 1031 S. Mt. Vernon Ave., like all other UCCE offices, will be closed to public access for awhile—we don't yet know the end date. All of us advisors are mostly working from home, and I'm regularly answering emails from Kern residents as well as from those who live much further away, northern Idaho as an example.

If you have a question about a plant, please do contact me, and attach a photo to your email if you can. My email is jfkarlik@ucanr.edu. I will still be picking up messages on my office phone, but email is best.

Ideal Conditions for Fireblight

The rains we have experienced, both in terms of amount and timing, have created ideal conditions for the bacterial disease fireblight. Fireblight takes its name from the blackened appearance of twigs and branches, which appear as though scorched by fire.

If a tree or shrub contracts the disease, careful pruning may be needed to prevent death of sections of the canopy or even the whole plant. Only plants in the rose family can be affected, so problems in unrelated trees and shrubs, for example, elm, willow, redwood, etc., cannot be the result of fireblight.

Although most plant diseases are caused by fungi, fireblight is caused by *Erwinia amylovora* bacteria. Infection occurs during wet spring weather when splashing rain, wind, bees, and other insects contribute to spread the bacteria from old bark infections to blossoms and new leaves. As bacteria multiply, plant shoots suddenly wilt, with leaves showing patches of brown and twigs turning black. Shoot tips bend over into a hook shape as wilt progresses down a twig. As bacteria move further down the stem to larger wood, attached branches may wilt as water-conducting tissues are killed. Cankers, which are sunken areas of dead tissue, form on branches. During warm (70-85°F) wet weather bacteria mixed with sap ooze to the surface of these cankers and can spread to uninfected parts of the plant or nearby susceptible plants. Overhead irrigation will prolong the active period. As weather turns warmer and drier, bacterial activity ceases, but bacteria residing in wood are not killed and remain quiet until the following spring.

Susceptible plants can be killed in one season by fireblight. Edible pears and quince are extremely susceptible, while apples and crabapple are less so, with some varieties showing more susceptibility than others. Ornamental pear species and varieties vary in susceptibility, with most exhibiting low incidence of fireblight in Kern County. However, 'Aristocrat' ornamental pear is very susceptible and cannot be grown further north in the San Joaquin Valley, although it does well in Bakersfield. Occasionally, pyracantha, hawthorn, photinia, cotoneaster, or loquat may be affected, but damage is usually slight. Non rose-family members, such as camphor, redwood, ash, and oaks, cannot contract fireblight.

If the disease is progressing in a tree or shrub, pruning several inches below the infected wood can arrest further damage. During dry weather dead areas should be cut out of the tree several inches below the diseased twigs or cankers. On heavier wood in very susceptible trees, like pears, pruning cuts should be made in healthy wood 6-12 inches below cankers. Because pruning tools can spread the bacteria, it is important to disinfect pruning tools between cuts by dipping in a solution of one part bleach to nine parts water, or using another household disinfectant.

If fireblight seems likely to occur based on weather, plant susceptibility, past history, and local disease prevalence, blossoms can be given limited protection through application of a copper-containing fungicide. For larger plants, such treatment would need to be repeated and is impractical in most landscape situations. Protective sprays must be applied before infection occurs, and it's already too late this year to catch the beginning of the disease.

Succulent growth is more susceptible to infection. Excessive nitrogen, heavy irrigation, and heavy pruning force rapid growth. Try to be moderate with these cultural practices if fireblight is a problem.

Further information is found in the University of California Pest Note, *Fireblight*, publication no. 7414, available at the UC Cooperative Extension office, or via the web at www.ipm.ucdavis.edu/PDF/PESTNOTES.

The photos below show multiple infection centers in 'Aristocrat' pear. Notice the lack of green leaves and dark unnatural coloration. A closeup from last year is further below.



Many other plants may be affected by dieback, including oleander, ash, Chinese pistache, goldenrain, etc., but again, if a plant is not in the rose family, the problem can't be fireblight.

A Lawn Care Tip

The photo below shows damage to turf characteristic of glyphosate (Roundup™, other trade names). Although glyphosate can be used for turf weed control, it will kill the turf, too. Sometimes glyphosate is used for weed management in bermudagrass with the knowledge that bermudagrass is so persistent that it will recover within about a month. That approach is a bit like driving a nail with a sledgehammer. There are selective herbicides available that will take out broadleaf weeds or nutsedge and not injure the turf.



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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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