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University of California
Agriculture and Natural Resources
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The Green Scene

UCCE

June 2020

Greetings

I hope you're doing well amidst whatever level of shutdown you are experiencing. On a positive note, this week on June 20 we reach the summer solstice, the longest day of the year. After that, physics is on our side since days begin to get shorter, and weather has to cool off—eventually.

Meetings and Announcements

UCCE Kern County Office Situation—But, UCCE is still working!

Our office on Mt. Vernon Ave. is currently closed to public visitors and the reopening date is currently not known. When the office reopens, it will be with changes as to how the public interacts with us. Many of us advisors will be alternately in the office and working from home, and I have answered may questions via email, and new queries come in regularly from Kern residents as well as from those who live much further away. Email is the best way to reach me, my address is jfkarlik@ucanr.edu.

Weekly Zoom Presentation: Gardens and Design

I am making weekly Zoom presentations on gardens and landscape design, augmented with a bit of history. These presentations are weekly, Thursdays, at 4:30 pm, and are based on photos from our past horticultural tours. The next presentation, June 18, will discuss landscapes and gardens of Andalusia (southern Spain), specifically as found in Seville, Cordoba, and Granada (the Alhambra). Next week I plan to go to Wisley Garden (UK) and the Floriade of 2012 to show photos illustrating design for small gardens. Everyone on this mailing list should receive weekly a note with the Zoom meeting number and password.

Horticulture Tour XII 2021

At this point, are planning to reschedule our horticulture tour to Wales and Scotland for 2021, more specifically departure from London May 23 and conclusion June 4. Of course, much needs to happen to allow this tour, but we do want to visit the sites and gardens already identified.

Rose Rosette Disease

As a reminder, we are still on the lookout for rose rosette disease!

Rose rosette disease (RRD) is a destructive disease of roses caused by a recently identified virus. The virus is transmitted by a very small (microscopic) eriophyid mite. RRD is always fatal to a rose plant, although the length of time to kill the plant varies up to perhaps three or four years. RRD has been a major problem in some eastern U.S. states but not in California. Identification and removal of infected plants can safeguard other roses in the landscape, as well as protecting Kern's rose plant crop.

Please be on the lookout in rose plants in your landscape or that you see in public parks or commercial plantings for the early RRD symptom of excessive thorniness (two photos to the right), multiple terminal shoots (called witch's broom), and in a very late stage, the bright red of terminal foliage. I have posted three papers to our UCCE Kern County website (cekern.ucanr.edu) under the heading "Environmental Horticulture/ Environmental Science" that give further information and contain additional photos. These include an Extension publication from Texas A&M, an article from American Rose magazine, as well as an article from HortScience. Conditions in Kern will affect the spread and development of the disease, so our experience may not be the same as has occurred back east.

If you see such a plant, please note its specific location (address, placement on the property), and contact me at 868-6220, or jfkarlik@ucanr.edu. A photo would also be helpful. I will arrange for sample submission to test for the rose rosette virus and check for the presence of the vector.

Please note that damage to rose plants from glyphosate (Roundup™) (photo at right) has a limited resemblance to RRD. However, glyphosate damage does not produce excessive thorniness. Also, rose terminals affected by glyphosate are needle-like and do not appear as a witch's broom.

Tree Problems in the Bakersfield Area

Dieback of certain tree species is noticeable around Bakersfield and the Valley, so I am repeating part of an article from my July, 2016, Greenscene. Jim Downer, my UCCE colleague in Ventura County, contributed substantially to this article.

Diseases appear to be affecting several species of trees found in the Bakersfield area.

Liquidambar has been one of the most reliable shade trees in the Bakersfield and greater Kern area, but no more. For the past several years, and especially since 2015, liquidambar (*Liquidambar styraciflua*, aka sweetgum) trees in many locations are dying from outer top branches to lower branches (two photos right and below). These symptoms match those resulting from infection by a bacterium, *Xylella fastidiosa*, which is the same bacterium that causes Pierce's disease of grapes and also oleander scorch. Both of those diseases also occur in Kern County.

Xylella is transmitted by sharphooters, particularly the glassy winged sharpshooter (*Homalodisca vitripennis*) which feeds on leaf tissue. The insect acquires bacteria from infected plants and then injects them into uninfected plants during feeding. As bacteria multiply, they plug the water-conducting tissue (xylem) leading to symptoms of drought stress followed by leaf loss. Disease progression in liquidambar seems to be similar in that trees die back and eventually succumb over a period of several years. Unfortunately, there is no control, chemical or otherwise. Extra water may help a tree temporarily, but since the disease blocks water transmission within the plant, extra water won't be absorbed as the disease progresses.

Xylella also affects purpleleaf plum (*Prunus cerasifera* 'Krauter Vesuvius'), another mainstay of local landscapes. Affected trees lose leaves and die back even though they receive adequate water (photo at right). Dead purpleleaf plums are now dotting boulevard plantings.

Botryosphaeria spp., more simply referred to as bot, is a fungal canker disease of trees that is opportunistic; that is, it attacks stressed trees. It, too, can cause twig and branch dieback. We suspect bot is also playing a role in the dieback of liquidambar and perhaps purpleleaf plum.

Neither liquidambar nor purpleleaf plum should be considered reliable in our Kern landscapes at this time.

John Karlik
Environmental Horticulture/Environmental Science

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.