

Meetings and Announcements

UCCE Kern County Office Situation--UCCE is still working!

Yes, the usual: Our office on Mt. Vernon Ave. is currently open with current public health restrictions. **In accordance with the public health emergency declared by the County of Kern, all visitors are required to wear face coverings in all public places until further notice.** There is discussion about reopening July 1. I expect many of us advisors will be alternately in the office, in the field and at times working from home. For now, email remains the best way to reach me, my address is jfkarlik@ucanr.edu.

Weekly Zoom Presentation

My weekly zoom presentations on gardens and landscapes is running. These presentations are Thursdays at 4:30 pm and are mostly based on photos from our past horticultural tours. The next presentation, May 13, will be a visit to the Los Angeles County Arboretum, and I hope you have at some time visited that arboretum. If you didn't receive the Zoom log-in information, please send me an email, jfkarlik@ucanr.edu, and I'll send you the meeting ID and password.

Horticultural Study Tour XII: Wales, Edinburgh, Northern Scotland

As you know, we've had to cancel Hort Tour XI due to Covid. We had hoped we might reschedule for 2021, but that seems infeasible. Accordingly, and so we might see spring bloom, we are looking at spring 2022 for this tour. It will be Horticulture Study Tour XII, and we plan to offer essentially the same itinerary listed for the cancelled Hort Tour XI.

Position Announcement from North-of-the-River Recreation and Park District (NOR).

NOR is a special district of 215 square miles in size offering a variety of recreation programs and managing 24 park sites totaling 270 acres. NOR is currently announcing an opening for a Parks Superintendent. For more information, please contact NOR at their office on Riverlakes Blvd. near Centennial HS, or email egrijalva@norrecreation.org.

Ants

Ants are perhaps the most common household insect pest in Kern County, which has favorable weather for colony development of several species. Ants can also be found in landscapes, often more as a nuisance to humans than as a damaging insect to plants.

Arrival of summer and warmer weather allows ants to reproduce rapidly and colonies to increase in size. Development of improved ant baits has helped in managing these insects.

A useful reference regarding ant biology and control are several files on the UC IPM website, <http://ipm.ucanr.edu/>. Some of the background information for this newsletter article has been excerpted from the Pest Notes found on that website, e.g., UC ANR publication 7411 *Ants* by Rust and Choe.

Ants are social insects of the order Hymenoptera, the same insect order containing bees and wasps. Like bees, the duties within an ant colony are divided among different groups or castes, workers being the most numerous. The queen remains protected in the colony and produces eggs, which pass through complete metamorphosis of larva, pupa and adult. Unlike termites, ants have a thread-like waist and antennae with an elbow rather than straight. Of the two hundred or so species found in California, fewer than a dozen are important pests, and in Kern County most ant problems are caused by only two species, Argentine ant (*Linepithema humile*) and southern fire ant (*Solenopsis xyloni*). Argentine ants are common household pests, while southern fire ants are found mostly outdoors. Argentine ants are unusual in that a colony has multiple queens and workers from one location are welcomed elsewhere, thus Bakersfield is essentially one supercolony of Argentine ants. Southern fire ants (not the same as the red imported fire ant of Texas, and more recently Southern California), are recognizable by their stings when crawling on exposed skin.

Ants need food, water, and shelter. Outdoors, food sources for some species include honeydew secreted by aphids and soft scales. Reducing aphid populations may limit the food source and hence the colony size. It is, however, impossible to completely and permanently eliminate ants from a landscape, and would be counterproductive, since ants perform useful scavenging functions, feeding on dead insects and animals. Since neither very wet nor very dry conditions are favorable for ants, it should be no surprise that an irrigated landscape, with its combination of wet and dry soil conditions, provides very favorable conditions for ant colonies. Occasionally, ant colonies may be found in potted indoor plants or in planter areas, especially if the planter area has contact with soil beneath the house. Colonies may also be found underneath concrete slabs with access into houses through cracks in the slab or via expansion joints in a garage. Partly depending on species and time of year, ants may prefer sugary foods, oils, or protein such as meat. Kitchens are sources of all of these, so ants may discover via scouts a food source and quickly build a trail to the colony.

Management of ants includes familiar principles of IPM, including exclusion and sanitation. Caulking cracks and sealing openings into houses is helpful. Cleanup of food residues and countertops leaves less source material for ants to find. Because ants leave behind and follow chemical scents to form a trail, cleanup of trails with soap disrupts the procession and ants must rediscover food sources.

What about limiting ant numbers with insecticides? Household aerosol sprays often contain pyrethroids, which are analogs of the naturally occurring pyrethrins, and are fast acting but short lived. These can be used when an ant trail is discovered and provide quick knockdown (be sure to follow label directions with any insecticide product). However, worker ants are easily replaced by the colony. To limit intrusion by ants, a perimeter spray around a dwelling may be helpful and is something a pest control service can provide. A barrier will be temporary, since insecticides break down.

Baits are often part of an effective IPM strategy. These materials are a big improvement in terms of both effectiveness and environmental safety compared to

products available 20 years ago. (Formerly, one could search for the ant nest and attempt to eliminate it with contact insecticides. However, removing even 90% of the workers would not be effective since the queen was well protected and new workers would be produced.) The newer ant baits, containing insecticides such as hydramethylnon, fipronil, abamectin, or borax, are slow acting with very low toxicity to mammals. The active ingredients can be included in either protein or sugar baits. After feeding, workers transmit the active ingredient to the queen, leading to collapse of the colony. Ant baits should be used according to label directions, and the bait material selected according to the food preferences of the ant in question (sugar or protein-feeding, for example). The insecticides in the baits can be degraded rapidly by sunlight and to a lesser extent by water, so application in shaded, dry areas, or application in the evening, can allow more time for workers to find the bait and carry it back to the nest. Placing a little bait in an ant runway will result in workers congregating and feeding almost immediately if bait is desirable to the ant. Several baits can be tried to see which is most attractive.

Since colonies typically increase in size, ant problems tend to become worse as we move through summer. Repeat applications of baits, as needed, can limit these nuisance insects. Please note that ant insecticides containing pyrethroids, such as bifenthrin or lambda-cyhalothrin, are short-lived contact materials and will have limited effectiveness as baits. Although ant insecticides are widely available, the more effective bait products may not be available at the big box home stores; however, specialty turf and landscape stores often carry them.

Of course, follow label directions for use of any pesticide.

The UC IPM website, <http://ipm.ucanr.edu/>, has peer-reviewed free publications about ants and many other insect, weed, and disease pests.

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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.

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