

## Meetings and Announcements

### **Food Preservation Class—Please Respond if interested—this will happen.**

As previously announced, Margaret Johns, our Advisor emerita for foods and nutrition has offered to present a class on food preservation. So far, I have received a number of responses, and I've made a note of them. If you are interested in this topic and would likely attend a class on food preservation, please send me an email ([jfkarlik@ucdavis.edu](mailto:jfkarlik@ucdavis.edu)) or call 661 868-6220 and let me know that a) you are interested, and b) the meeting time that would work best for you. Margaret is aware of your interest but has not yet specified the time. I expect this class will occur in the September-October time frame.

### **Fall Horticulture Classes—Not too late to join.**

For more than 30 years we've offered horticulture classes to our community, and we are pleased to do so again this autumn. Upcoming classes can benefit homeowners by conveying knowledge of how to take care of turf and landscape plants as well as how to grow food, including vegetables and fruits. The classes have been attended by many Kern residents as well as professionals in the turf and landscape industry, since we offer research-based information on how plants grow and up-to-date information on pest management and irrigation practices. We emphasize water conservation and non-chemical alternatives to pesticides. Representatives from homeowners associations and real estate professionals may also wish to attend to pick up tips on evaluating landscapes, using appropriate terminology to request work from landscape contractors, and evaluating work that is done.

Our Horticulture I class has begun, meeting on successive Tuesdays from 5:30-8:30 pm at our UC Cooperative Extension office, 1031 S. Mt. Vernon Avenue. Topics include soils, irrigation systems and repair, insect biology and management, fruit trees, shade tree selection, and more.

Horticulture IV has also begun, meeting on Mondays from 5:30-8:30 pm, and offers a series of topics including training young trees, a soils lab, landscape design, large-scale composting, palm tree selection and care, and others. The horticulture classes we offer are not sequential, but rather cover a variety of specific topics. In other words, it's not necessary to have taken Horticulture I, II, or III to benefit from Horticulture IV.

Cost for each is \$75. The syllabus for each class may be found on our website, <http://cekern.ucanr.edu/>.

## Ants

Ants are perhaps the most common household insect pest in Kern County, with favorable weather and climate 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. As we progress into autumn, colonies have continued to enlarge and ants are everywhere looking for food. A multi-prong strategy is usually necessary to control them. Development of improved ant baits has helped in managing these insects.

A number of useful references regarding ant biology and control are to be found on the UC IPM website, <http://www.ipm.ucdavis.edu>. Some of the background information for this newsletter article has been excerpted from the Pest Notes found on that website.

Ants are social insects of the order Hymenoptera, the same insect order that contains 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 super-colony of Argentine ants. Southern fire ants (not the same as the 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 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, fast-acting but short-lived compounds. These can be used when an ant trail is discovered and they do 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 that can be done with a longer-lasting insecticide or that a pest control service can provide. Once a barrier has been established (and it will be temporary since insecticides break down), it is possible to augment control with baits.

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. Ant baits available today are a big improvement in terms of both effectiveness and environmental safety compared to products available ten years ago. The newer ant baits, containing insecticides such as hydramethylnon, fipronil, abamectin or sodium tetraborate (borax), are slow acting with very low toxicity to mammals as formulated products. Different active ingredients are found in protein or sugar baits. After feeding, workers carry the active ingredient to the queen, and if the queen is eliminated the colony collapses. Ant baits should be used according to label directions, and the bait material selected as 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 them and carry them back to the nest. Placing a little in an ant runway will result in workers congregating and feeding almost immediately if that bait is desirable to the ant. Repeat applications of baits may be needed. Please note that ant insecticides containing pyrethroids, such as bifenthrin or lambda-cyhalothrin, are short-lived contact materials, and will not be effective 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.

## **More Meetings and Announcements**

### **Return to Chernobyl, April, 2018**

Chernobyl, Ukraine, was the site of a nuclear accident 31 years ago. Since that time, the ecosystem in the affected area (the "Zone") has recovered remarkably. Several people have said they would like to visit, but did not have previous opportunity. We have plans for a return visit April 15-20, 2018. We anticipate access to areas not previously visited, and there have been developments in the social and cultural aspects of the Zone as well. Please see the flyer on our website at <http://cekern.ucanr.edu/> or contact me at [jfkarlik@ucdavis.edu](mailto:jfkarlik@ucdavis.edu).

### **Early Announcement: 2019 Horticultural Study Tour destination Thailand**

Due to feedback, we have rescheduled our planned 10<sup>th</sup> Horticulture Study Tour to February, 2019. The weather in Thailand at that time is cool and dry. Thailand is home to a number of botanic gardens, and a visit would provide exposure to the fascinating culture of Asia. The best definition I have ever seen of sustainable agriculture comes from the demonstration farm at Mae Rim, near Chiang Mai. We plan to visit Bangkok and Chiang

Mai, and we will also arrange a side trip to Angkor Wat in Cambodia. Lodging and other expenses are relatively low in Thailand. Further details will be available in a few months.

*John Karlik*  
*Environmental Horticulture/Environmental Science*

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