



University of California Cooperative Extension

## *Kern Citrus and Subtropical Fruit*



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### *UPCOMING MEETINGS*

The California Citrus Nursery Board will be sponsoring a meeting entitled, “Life on the Inside: Successful Pest Control in Protective Structures.”

Because of the arrival of the Asian Citrus Psyllid and the threat of bacterial Huanglongbing disease, the citrus nursery industry is rapidly moving citrus seedlings and trees into protective structures. This is a new experience for many nurserymen, and there is some uncertainty about the mechanics of the structures, the screen mesh needed, the regulations that must be met and the pesticide treatments to be used in these situations. This workshop featuring industry and university experts will provide up-to-date information on these topics.

The meeting will be held Wednesday, August 10 at the Doubletree Inn in Ontario, California. Call the California Citrus Nursery Board at 559-591-9005 for details.

Mark your calendar: Two California Grower Seminars sponsored by the Citrus Research Board and University of California Cooperative Extension will take place this August (August 25 in Parlier, and August 26 in Exeter). For more information contact the Citrus Research Board at (559) 738-0248 or email [info@citrusresearch.org](mailto:info@citrusresearch.org).

### *KOREANS CLOSE TO SETTING MAXIMUM RESIDUE LEVELS (MRLS) FOR MOVENTO®*

The Korean market is important to many California citrus growers. Establishment of an MRL by an importing country is a necessary step before a pesticide can be used on fruit being exported from producing country such as the U.S into Korea.

Jim Cranney of the California Citrus Quality Council (CCQC) and others has been working with Korea's Food and Drug Administration (KFDA) in establishing an MRL in Korea for spirotetramat, the active ingredient in Movento. CCQC received word recently that Korea has agreed to establish a tentative MRL of 0.5 ppm for spirotetramat using CODEX MRLs on oranges, mandarins, lemons and grapefruits.

CCQC will publish an official notification and will be posting it on their website ([www.calcitrusquality.org](http://www.calcitrusquality.org)) in the coming days. The tentative standards will apply until the KFDA completes the review of pertinent data and sets standards.

## *ANTS!*

Anyone spending much time in the agricultural fields of the southern San Joaquin Valley will perform one or two impromptu ‘ant dances’ during the season after belatedly discovering that they had been standing in a hive for several minutes. Worse, ants can kill one- to three-year-old citrus trees, especially if the trees have trunk wraps. Usually, the offender in young orchards is the southern fire ant.

Soil disturbance associated with planting trees will keep ant populations low the first year. Infestations in second and third leaf citrus are usually a bigger problem. Southern fire ant populations are high in the spring and the fall and most tree damage occurs during those times. Hot summer temperatures reduce ant activity but they can still do damage. The ants make a hive in the trunk near ground level inside the wrap and girdle the tree. In severe ant infestations, young trees, often randomly scattered throughout the citrus block, will turn yellow, be stunted and may collapse with the first hot temperatures of summer. A disturbed trunk wrap will swarm with ants if they are still present in summer. If the damage was done in the spring, lifting the wrap in the heat of the summer may show no ants, but the honeycombed, earth-packed, dry-rotted lower trunk will be visible.

Any pest control program in young citrus should include a search for ants. Ants can be much localized within a block of citrus, and inspections for them will include lifting wraps throughout the block and looking for hives. Ants can frequently be seen on the trunks and on the leaves upon which they feed or running single-file along irrigation hose. The southern fire ant is particularly fond of young Fukumoto navel trees. Simply removing the tree wrap after freeze-danger has passed can be an effective control measure. Some materials that have been shown to control southern fire ants in citrus include various ant baits and Lorsban® granules and sprays (see [www.ipm.ucdavis.edu](http://www.ipm.ucdavis.edu) for more control methods). Always read and follow label directions and ensure that these pesticides are currently labeled for use against ants in young citrus. Ant baits, especially, but all pesticides in general, are much more effective when used according to manufacturers’ directions.

While you’re bent down looking for ants, you might as well look for earwigs and false chinch bugs too. The European earwig is also capable of damaging young citrus. Again, as with ants, the insects live in the wraps, leaf litter, or soil cracks. Earwigs feed on new, tender leaf tissue and can totally defoliate young trees. In addition to making shallow circular scars they can also make deep gouges on the stylar end of young fruit similar to the damage caused by cut worms.

Chinch bugs migrate from neighboring drying weeds to young and old orchards. The false chinch bugs are very fond of spurge. Sometimes populations are so high that the ground can appear to be moving. If infested weeds are sprayed with herbicides on the orchard floor, false chinch bugs can jump up into young citrus and onto the lower fruit of mature citrus. These insects appear to carry a toxin that can kill young trees. The insects can hide in tree wraps or can cover the tree berm. The damage on older trees is usually only on the fruit. Leaves are not commonly damaged. The insects cause shallow scarring on fruit similarly to that done by the potato leafhopper. In severe infestations the fruit can prematurely turn a yellowish orange color and drop from the tree. Since usually only fruit in the bottom one or two feet of canopy are affected, the damage is often not observed until it is in the packing house.

### *SOME BAKERSFIELD HOMEOWNER NAVEL TREES SHY OF FRUIT*

An unusually high number of Bakersfield homeowners phoned in May saying that there was little or no fruit on their navel orange trees. The trees were otherwise healthy. A late spring frost in early April this year is the suspected culprit. Much of Bakersfield is out of the true citrus belt, and the frost appears to have struck at a sensitive time for fruit set.

### *MAGNESIUM DEFICIENCY*

In past newsletters I have remarked that magnesium deficiency is fairly common on some of the alkaline soils in the Edison, California area east of Bakersfield. An observant PCA brought in the leaves in the pictures below. Magnesium deficiency is difficult to correct with a single spray. The most effective treatment seems to be to include magnesium foliar fertilizers, with other spray treatments, at intervals throughout the season.



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*Citrus, Pistachios/Subtropical Horticulture*

**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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