

Bee Protection Stakeholder Advisory to the San Diego County Agricultural Commissioner

Bee Protection Practices

The Bee Protection Stakeholder Advisory to the San Diego County Agricultural Commissioner is a group of beekeepers, avocado growers, pest control advisors and applicators (aerial and ground). The group came together in a grassroots effort to support the Agricultural Commissioner by providing practical guidelines for the protection of managed bees in local orchards during spring when chemicals potentially hazardous to bees need to be applied in some avocado groves to control avocado thrips populations. The Advisory has met on four occasions including their first on April 8, 2009 and this document is the product of those meetings. It outlines unanimously agreed upon standard criteria and practices that would provide suitable protection for bees during the application of materials with bee hazard warning labels. These guidelines are based on those practices already being successfully used in the County to protect bees and are the product of a decade of experience in the application of these materials in avocados, as well as the many years of cooperation and trust between local beekeepers, grove owners, PCAs, and pesticide applicators.

We have known from experience that unlike other crops (i.e. citrus) bees are not attracted to avocado flowers in great numbers, but visitation of bees can be significant during the middle of the blooming period when avocado flowers are most abundant. The scientific literature supports our experience.

Bees become more active as temperature increases. Although some bees are active at temperatures near 55°F, it has been observed in San Diego County that bees don't begin visiting avocado trees in significant numbers until the temperature exceeds 75°F and this is mostly during the peak of flowering when there are a large number of open flowers.

The beekeeper members of this Advisory represent the vast majority of beekeepers with hives in, and adjacent to, avocado properties in the County. These Advisory members would like to note (by unanimous agreement) that in the case of thrips control applications in avocados, moving hives prior to application or covering hives to protect bees during application, are both significantly more detrimental to the health and productivity of the hives than a properly made application.

The Advisory understands that there has been only one bee complaint specifically attributable to abamectin or spinosad applications to avocado. This

occurred in 1999, soon after the appearance of avocado thrips in 1997, and the first applications of control materials began in 1998. While the case remains unresolved, the Advisory does not believe orchard spray materials were the direct cause of the reported bee kill.

The Advisory understands that the Agricultural Commissioner is in no way obliged, nor required, to consider or follow their recommendations, and the Commissioner has authority in the enforcement of pesticide use regulations as provided by law. Members of the Advisory are prepared to act as arbitrators should situations of conflict arise between constituents associated with the application of materials potentially hazardous to bees for avocado thrips control.

The criteria for application and best management practices outlined below are current used by the San Diego County avocado growing community and the professionals who work with them to control avocado thrips, while at the same time meeting regulatory requirements to protect bees and hives from spray hazards.

APPLICATION OF INSECTICIDES WITH BEE-HAZARD LABEL WARNINGS SHOULD ONLY BE MADE:

1. When air temperatures are below 75° F and less than 25% of total flowers have opened and closed.

Note:

Once the threshold temperature is reached, the applicator shall terminate the application as soon as practically possible, within a maximum of 30 minutes .

The applicator is responsible for the air temperature monitoring and calling the time when the threshold temperature is reached.

The pest control advisor, or grower, who provided the treatment recommendation, is responsible for determining the percent bloom opened.

Percent bloom opened is calculated by counting the flower nodes on representative flowering branch tips, one inflorescence each sampled from the southwest facing side of 10 representative trees. The flower nodes should be classified as either unopened, or opened. Opened is the total of open flowers, plus flowers that have gone through opening but are now closed that show clear petal shrivel or brown petal tips, plus nodes where

flowers have shed from the inflorescence.

When trees are at peak bloom, the period when 25 to 75% of flowers have opened, bees may be visiting avocado trees in significant numbers for most of the day so only materials that pose no hazard to bees and that have no bee label warnings may be used.

2. When air temperatures are below 75°F and more than 75% of total flowers have opened and closed.

See note above.

BEST MANAGEMENT PRACTICES

Prior to and during the application of bee hazardous material to avocados for thrips control, the PCA, grower, applicator and beekeeper should observe the following best management practices:

Beekeepers must register with the County so the notification process works as intended, in addition to it being a requirement of the Food and Agricultural Code.

Beekeeper contact information (name and phone number) must be provided to the property owners/operators where hives are situated, to facilitate contact if needed.

The applicator shall notify registered beekeepers who maintain hives within 1 mile of the application site 48 hours before the application. Beekeepers may take those precautions they feel necessary to protect their bees.

Unregistered beehives found within one mile of the treatment site and not on the grower's property, must be posted by the grower with notice of the application at least 120 hours (5 days) prior to any application of a pesticide injurious to bees. If conditions prevent posting by the grower, phone 858-694-8980 to report unregistered hives in your area. Please provide your name, phone number and the location of the unregistered hives. Maps of the locations would be very helpful and can be faxed to 858-694-3845.

Growers should suppress flowering weeds within the application area before the application is made.

Where practical, applicators should start applications as soon after dawn as safety allows, beginning applications in areas closest to commercial beehives and progressing applications outward from these areas.

Licensed pest control advisors who write the pest control recommendation should document in the recommendation the percent bloom, status of flowering weeds within the application area, other flowering crops and weeds adjacent to the area, and the location of commercial beehives within a 1 mile radius of application.

An annual agreement to follow these best management practices will be signed by the growers, applicators, beekeepers, and pest control advisors who are involved in the application of any material for controlling thrips in avocados in San Diego County with a hazard statement for bees on the label. Any party to this agreement has the right to revoke their participation at any time and for any reason, thereby nullifying the agreement.

Jim Davis
Advisory Chair
Bee Protection Stakeholder Advisory
to the San Diego Agricultural Commissioner
4/30/2009

Advisory Members

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Kevin Grangetto	Pest Control Advisor	Grangetto Farm & Garden	760 745 4671
Brock Ashurst	Beekeeper	Brock Ashurst Bees	760 427 0464
John Nickels	Beekeeper	San Luis Rey Apiaries	760 727 7771
Lon Lloyd	Beekeeper	Lloyds Honey Co.	760 788 2452
David Winter	Beekeeper	Chaparral Honey Co.	760 749 2574
Dave Farmer	Beekeeper	Farmer Bees	760 310 0005
Jim Oakley	Beekeeper	Oakley Honey Farms, LLC	619 871 1419
Bob Hoag	Applicator	Hummingbirds, Inc.	760 749 9162
Jason Colquhoun	Applicator	Hummingbirds, Inc.	760 749 9162
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