



# HONEY BEE BEST MANAGEMENT PRACTICES QUICK GUIDE FOR ALMONDS

All parties involved in honey bee pollination of California Almonds and/or applying pesticides should follow these precautions to ensure both honey bee hive health and the best possible pollination of the almond crop<sup>1</sup>:

- 1. Communication should occur between all pollination stakeholders about pest control decisions.** These stakeholders, as illustrated in the “Honey Bee BMP Communication Chain for California Almonds” on the reverse, can include beekeeper, bee broker, county agricultural commissioner, grower (owner/lessee), farm manager, pest control adviser (PCA) and pesticide applicator.
- 2. Agreements should include a pesticide plan that outlines which pest control materials may be used.** Grower and beekeeper should agree on which products may be applied if a treatment is deemed necessary. If deemed necessary, growers should give beekeepers 48-hour notice before treatment.
- 3. If applying pesticides, contact your local county agricultural commissioner** as specified in “Honey Bee BMP Communication Chain for California Almonds” on the reverse to give advance notification to beekeepers with nearby managed hives.
- 4. Avoid applying insecticides** during almond bloom until more is known, particularly about their impact on bee brood (young developing bees in the hive). If treatment is necessary, only apply fungicides and **avoid tank-mixing insecticides with fungicides.**
- 5. Any fungicide application deemed necessary during bloom should occur in the late afternoon or evening, when bees and pollen are not present.** This timing avoids contaminating pollen with spray materials.
- 6. Provide clean water for the bees to drink.** This will ensure that they spend more time pollinating the crop than searching for water. Either cover or remove water sources before a pest control treatment, or empty and refill water after a treatment is made. Check water levels throughout bloom and refresh as necessary.
- 7. Do not directly spray hives with any pesticide spray application.** Ensure that the spray-rig driver turns off nozzles when near hives. Spray applications that come in contact with bee hives could adversely affect bee health and the pollination of the crop.
- 8. Do not hit flying bees with any spray application materials.** Bees that come in contact with agricultural sprays will not be able to fly because of the weight of spray droplets on their wings.
- 9. Report suspected pesticide-related bee incidents** to the county agricultural commissioner’s office. Bee health concerns cannot be addressed without the data from these incidents. See “Honey Bee BMP Communication Chain for California Almonds” on the reverse for reporting detail.
- 10. Beekeeper and grower should agree on hive removal timing.** The University of California recommends bee removal when 90% of the flowers on the latest blooming variety are at petal fall. Past this point, no pollination is taking place, and bees that forage outside the orchard (up to 4 miles) seeking alternate food sources and water will have a higher risk of coming in contact with insecticide-treated crops.

<sup>1</sup>Curtis, Bob, Gabriele Ludwig and Danielle Veenstra, eds. 2014. *Honey bee best management practices for California almonds*. Almond Board of California.



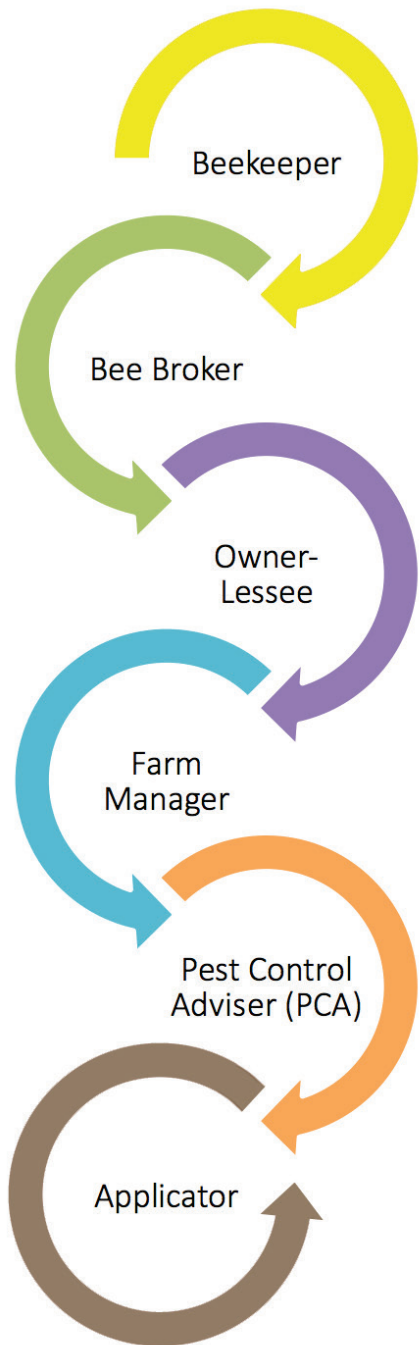
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A digital version of this publication is available at [Almonds.com/BeeBMPs](http://Almonds.com/BeeBMPs)

Also available:

*Honey Bee Best Management Practices for California Almonds  
Applicator/Driver Honey Bee Best Management Practices Quick Guide  
for Almonds*

# HONEY BEE BMP COMMUNICATION CHAIN FOR CALIFORNIA ALMONDS



- Engage in agreements with growers.
- Register hives with county agricultural commissioner by Jan. 1 each year or upon arrival in California.
- Request optional notification from county agricultural commissioner each year upon registration and with any hive movement.
- Immediately report any suspected pesticide-related bee incidents to owner-lessee/county agricultural commissioner at almond bloom and throughout the year.

- Engage in agreements with beekeepers/bee brokers.
- Communicate details and specifications of agreements to stakeholders down the chain (farm manager, PCA, applicator).
- Follow the *Honey Bee Best Management Practices Quick Guide for Almonds* and, if applying pesticides, follow the *Applicator/Driver Honey Bee Best Management Practices Quick Guide for Almonds*.
- If applying pesticides, contact local county agricultural commissioner to notify beekeepers with nearby managed hives before making applications any time of year. This is mandatory for “toxic to bees” label statements\* and recommended for other applications, particularly during almond bloom.
- Immediately report any suspected pesticide-related bee incidents to beekeeper/county agricultural commissioner at almond bloom and throughout the year.

- Communicate details and specifications of pesticide application agreement to the PCA and applicator.
- Follow the *Honey Bee Best Management Practices Quick Guide for Almonds* and, if applying pesticides, follow the *Applicator/Driver Honey Bee Best Management Practices Quick Guide for Almonds*.
- If applying pesticides, contact local county agricultural commissioner to notify beekeepers with nearby managed hives before making applications any time of year. This is mandatory for “toxic to bees” label statements\* and recommended for other applications, particularly during almond bloom.
- Immediately report suspected pesticide-related bee incidents to beekeeper/county agricultural commissioner at almond bloom and throughout the year.

- Communicate details and specifications of pesticide application agreement to applicator.
- Follow the *Honey Bee Best Management Practices Quick Guide for Almonds*.
- Immediately report suspected pesticide-related bee incidents to grower/beekeeper/county agricultural commissioner at almond bloom and throughout the year.

- Follow the *Applicator/Driver Honey Bee Best Management Practices Quick Guide for Almonds* and relay messages to the spray-rig driver.
- Before applying pesticides, contact local county agricultural commissioner to notify beekeepers with nearby managed hives before making applications any time of year. This is mandatory for “toxic to bees” label statements\* and recommended for other applications, particularly during bloom.
- Immediately report suspected pesticide-related bee incidents to farm manager/owner-lessee/beekeeper/county agricultural commissioner.

- Collect and map locations of managed bees throughout the county based on information provided by registered beekeepers.
- Provide pesticide applicators the contact information for beekeepers with hives within a 1-mile radius of the application location.
- Investigate reports of suspected pesticide-related bee incidents.

County  
Agricultural  
Commissioner