

HONEY BEE BEST MANAGEMENT PRACTICES

A QUICK GUIDE for spray operators

Providing a safe environment for honey bees to forage and maximising the number of almond flowers pollinated requires careful use of pesticides. Here is a summary of what you can do to keep bees safe when using pesticides in almond orchards:

- ✓ Always read the chemical label and follow the directions for use.
- ✓ Review the agreed pesticide plan that has been developed in consultation with the property owner, agronomist, chemical supplier and bee keeper. Make sure all chemicals listed are available early to avoid last minute substitution.
- ✓ Maintain a spray diary with records of spray activities and climate conditions while bee hives are on the property.

Before bloom



- ✓ Do not use pesticides with cautions on the label that read “dangerous to bees”, “toxic to bees”, “residual times” or “extended residual toxicity.” Residual toxicity to bees varies significantly between pesticides and products, and their impact can last anywhere from hours to weeks, or longer!
- ✓ Do not apply insecticides in the ten days prior to hives being moved into the property or while hives are in the orchard.
- ✓ Dispose of any insecticide-contaminated liquid or other bee-toxic material so that bees cannot gain contact.
- ✓ Check that adjoining landowners have received at least 10 days notice of bee hive arrivals and notice of the full period that hives may be present on the property.
- ✓ Establish clear lines of communication with the grower and beekeeper so that each party is informed in advance of spray applications.

During bloom



- ✓ Spray fungicides only if essential and only at mid-afternoon/night when the bees aren't active and finish spraying before sunrise. Ensure the fungicide has time to dry before bees start foraging the next day.
- ✓ Thoroughly clean spray tanks and spray equipment to avoid remnant insecticide contaminating fungicide sprays.



- ✓ Surfactants (adjuvants) should not be added to fungicides during bloom, unless stated on the label. Most fungicides are formulated with adjuvants including wetting agents, spreaders and stickers.
- ✓ Notify the beekeeper, with a minimum of 48 hours notice, if there is a change to the pesticide plan or before spraying fungicides with “dangerous or toxic to bees” on the label.
- ✓ Remove or cover water sources and landings before spraying and replace with clean water immediately after chemical application.
- ✓ Do not spray hives directly with any pesticide. Ensure that the spray nozzles are turned off when driving spray equipment past bee hives.
- ✓ Ensure bees are not foraging in the area to be sprayed and do not hit flying bees with spray applications as the weight of spray droplets on their wings hinders flight.
- ✓ Monitor hives for signs of dead or dying bees and notify the grower immediately if a significant number (one cup or more) of dead bees are observed.

After bloom



- ✓ After hive removal, check within 1-2 kilometres of where hives were located as bees may still be foraging.
- ✓ Before making insecticide applications, register your spray through the [BeeConnected](#) app to check for hives and alert beekeepers in the area.

**Hort
Innovation**
Strategic levy investment

**ALMOND
FUND**

This project has been funded by Hort Innovation using the almond research and development levy and funds from the Australian Government. For more information on the fund and strategic levy investment visit horticulture.com.au