

# Apiculture

## Locust Spraying Issues

During spring and summer, insecticides are used over a large areas of the agricultural regions to control locust infestations that could become a plague to crops.

Horticulturists are likely to spray their crops even though many are netted. Locusts have been reported as 'eating' shade cloth and netting.

Honeybees are susceptible to insecticides including fenitrothion. Beekeepers need to keep informed about the Department of Agriculture and Food's and landholders' spray programs to avoid honeybee losses, as chemical sprays will also kill honeybees.

The Department and farmers may only be able to provide a 24 to 48 hour warning to beekeepers of their intention to spray insecticides and therefore it may not be possible for beekeepers to move all their apiaries out of an affected area in time.

Beekeepers may need to avoid some honey flow areas this season due to spraying for locusts. Apiarists will be aware of the areas where spraying is likely to occur from the map rating of the various shires as to their potential to produce locusts this spring. When spraying is about to commence in a particular shire, they will be informed in time to be able to move their beehives.

Beekeepers contracting pollination services to growers in locust-affected areas will need to take into consideration the possibility of having to move their honeybees during the pollination period, due to the application of insecticides, which may affect the conditions of their pollination contract.

### **Management Options**

- Keep yourself informed on locust issues and planned spraying programs. Also, make sure the property owner has your contact details.
- Consider moving beehives to a honey flow in another location where spraying is not being conducted and where nectar resources are available, to avoid the risk of pesticide sprays that kill honeybees.
- In susceptible areas, liaise with the Department's Local Operations Coordinators and local property owners within a 7 km radius of apiaries (15 km if attractive crops such as canola are flowering) of intended spraying programs. Move honeybees away from affected areas before they are likely to be sprayed. Beehives should be moved from areas that are about to be sprayed.
- If more than one apiary is located in a susceptible area, arrange for another beekeeper to assist with moving the apiaries at short notice to an alternative safe area.
- Beekeepers involved in pollination services may need to consider changing the condition of their pollination contract to permit the movement of beehives, if their honeybees are threatened by the application of insecticides to control locusts during the pollination period. Fenitrothion breaks down very quickly so that beehives could be returned to an area two weeks after spraying. A guide to bee toxicity of commonly used insecticides is contained in the table overleaf.

For further information contact the Department of Agriculture and Food:

**Pest and Disease Information Service**

**Freecall 1800 084 881; Email [info@agric.wa.gov.au](mailto:info@agric.wa.gov.au)**

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### Chemicals used to spray locusts and their toxicity to honey bees

ACTIVE INGREDIENT	TRADE NAME	BEE TOXICITY
<b>Alpha-Cypermethrin</b>	Alpha Duop, Alpha-Cyp, Alphasip, Dominex, Fastac, Dictate, Alphamax, AlphaScud, Alphamax, Alphacypermethrin, Astound, Ken-Tac, Buzzard, Dictate.	Can be applied whenever bees are not foraging.
<b>Beta-cyflthrin</b>	Bulldock Duo Bulldock Prime Bulldock 8UL	Dangerous to bees. Cannot be sprayed safely to flowering crops.
<b>Carbaryl</b>	Carbaryl, Bugmaster	Toxic to bees. Cannot be applied safely to flowering crops
<b>Chlorpyrifos</b>	Bar, Chlorpyrifos, Chlorpyrimax, Fortune, Generifos, Kensban, Lorsban, Optem, Pest Controller, Profos, Protector, Strike Out, Voodoo.	Cannot be sprayed safely to flowering crops.
<b>Diazinon</b>	Diazinon Dimethoate	Cannot be sprayed safely to flowering crops.
<b>Fenitrothion</b>	Fenitrothion (ULV)	Cannot be sprayed safely to flowering crops.
<b>Fipronil</b>	Regent 200SC, Adonis 3UL (Restricted use) Adonis 8.5UL (Restricted use)	Cannot be sprayed safely to flowering crops.
<b>Lambda-Cyhalothrin</b>	Karate with Zeon Matador with Zeon	Can be applied in the evening after foraging.
<b>Maldison</b>	Malathion, Maldison, Hy-Mal	Cannot be sprayed safely to flowering crops.
<b>Cypermethrin</b>	Cypermethrin	Dangerous to bees. Do not spray any plants in flower while bees are foraging.
<b>Esfenvalerate</b>	Sumi-Alpha	Dangerous to bees. Do not spray any plants in flower while bees are foraging.