



# Mosquito Spraying and Honeybees

Alaska Department of Environmental Conservation  
Division of Environmental Health  
Pesticide Control Program

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## Are pesticides used to control mosquitoes affecting honeybees?

- The insecticides being sprayed to control mosquitoes in Alaska are not the same as the neonicotinoid insecticides that are raising most concerns for pollinators in more agricultural areas. Mosquito control companies typically apply pyrethroid-type insecticides. However, any insecticide can affect bees if they come into contact with them.
- The insecticides used by mosquito control companies in Alaska include specific label directions that are designed to protect bees and avoid any impacts. Honeybees could be impacted if they are sprayed directly or come into contact with the residue on plants.



## Is the Alaska Department of Environmental Conservation (ADEC) aware of discussions and concerns among honeybee keeping groups about mosquito spraying?

- Yes. So far, this has been generalized concerns. ADEC has not had any reports of actual honeybee kills that ADEC could investigate.



## If I see dead honeybees, how do I know if the honeybees died of pesticide poisoning?

- Honeybees typically live only 5-6 weeks. There are many causes of honeybee death. Poor nutrition or starvation, unusual weather, viruses, nosema fungus, varroa mites, and even overdosing with mite treatments are the most common causes of honeybee deaths. Pesticide poisoning isn't always obvious and may be confused with other factors.
- It is normal to see dead bees in or around the hive. In a healthy hive there will generally be about 100 dead honeybees per day. Honeybees remove the dead bees and throw them away from the entrance. However, pesticide poisonings can cause large numbers of honeybee deaths, resulting in piles near the hive.
- Signs of possible pesticide poisoning include the following:
  - a larger than normal pile of dead honeybees outside the hive
  - a large number of twitching honeybees dying in front of the hive
  - honeybees with abnormally jerky, wobbly movements
  - honeybees spinning rapidly on their backs



## Should I report to ADEC if I see dead honeybees?

- Honeybee keepers are encouraged to share their information and report any honeybee kills.
- If honeybee keepers see signs of pesticide poisoning as listed above, please contact the Pesticide Control Program at **1-800-478-2577**.
- Please be ready to provide: photos or video of the incident – along with the time and location; information describing the previous health of the colony; how you believe the honeybees may have been exposed; and pesticide or parasite treatments you have applied to the hives.
- Please collect dead/dying honeybees in a large Ziploc bag and place it in a freezer. Select recently dead or dying honeybees – decaying honeybees will not provide good results. You will need to gather at least 100 honeybees.