

Investigation of Alleged Pesticide Bee Kills and Compensation Process

Phase 1: Initial Investigation & Lab Results

Step 1: Conduct Investigation

Agricultural Chemical Investigators (ACIs) conduct a pesticide investigation following Minnesota Department of Agriculture (MDA) protocols. A staff entomologist performs hive health assessments and collects samples for *Varroa* mite, *Nosema* spore, and virus analysis when investigation conditions allow.

Step 2: Verify Pesticide Presence

Samples of affected bees are analyzed for non-beekeeper applied pesticides. Laboratory results from the USDA National Science Laboratories and Minnesota State Laboratories are reviewed.

- **If NO agricultural pesticides are present:** The case is ineligible for compensation because it is not an acute pesticide poisoning.
- **If YES, agricultural pesticides are present:** Proceed to Step 3.

Step 3: Evaluate Environmental Protection Agency (EPA) Level of Concern (LOC)

The MDA determines if pesticide residues on or in the dead bees exceed the EPA's LOC, strongly indicating an acute death from a pesticide could have occurred.

- **If YES (Exceeds LOC):** Skip directly to Step 5 (Registration check).
- **If NO LOC exceedance:** Proceed to Step 4 (Bee count check).

Phase 2: Biological & Registration Criteria

Step 4: Quantify a Colony's Dead to Live Bee Ratio

Where sublethal effects, or a combination of factors may have led to bee death, the MDA further assesses colony health by quantifying a live to dead bee ratio. The MDA assesses hive health results and quantifies whether there are ≥ 100 dead bees in/around a hive for every live frame of bees.

- **If NO:** The claim **may be ineligible** for compensation.
- **If YES:** Proceed to Step 5.

Note: If a colony contains three or fewer frames of live bees, a minimum of **300 dead bees** is required. If a colony contains 10 or more frames of live bees, a maximum of **1,000 dead bees** is needed.

Step 5: Check Apiary Registration

The MDA will confirm whether the affected apiary was **registered in BeeCheck**, Minnesota's commonly utilized pesticide registry program.

- **If NO:** The claim is **ineligible for compensation** based on Minnesota law.
 - **If YES:** The beekeeper is **eligible for compensation**.
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Phase 3: Compensation & Claims Process

Step 6: MDA Issued Claim Form

When the MDA provides the beekeeper notice of the investigation's acute pesticide poisoning determination and compensation eligibility, an application to request compensation will be included. The beekeeper must return the claim form within three months of the MDA's determination of compensation eligibility. The beekeeper will be reimbursed at a fair market value for the colonies affected, as determined by the United States Department of Agriculture's annual Emergency Livestock Assistance Program compensation value for colony replacement.

Step 7: Optional Upward Adjustment

Based on the financial loss a beekeeper may have experienced from an acute pesticide poisoning, they can request an upward adjustment to their claim to recoup up to the remainder of their financial loss. If a beekeeper requests an upward adjustment:

- **If NO:** The claim goes directly to the Commissioner for review and approval.
- **If YES:** The beekeeper must provide supporting documentation to show the additional financial input into the affected colonies. The anonymized claim and supporting documentation are **submitted to experts for review** and recommendation to approve or deny the requested upward adjustment.

Phase 4: Reporting

The MDA writes an anonymized summary of all bee kill investigations for the year and publishes it on their website.

The Role of External Experts

Throughout this process, experts are consulted to:

- Provide pesticide and honey bee (pathogen and viral) analytical services.
- Review eligible cases seeking upward adjustments for fair market value compensation.
- Review the conclusions of closed investigations.