

How Do Pesticides Affect the Life Cycle of Bees?



Pesticide use represents one of the most significant threats to bumblebees, and places their entire life cycle at risk.

01 *Nest Building*

Commonly used neonicotinoid insecticides begin to kill off bumblebees during their nest building phase, as exposure makes it more difficult for a queen to establish a nest.



02 *Egg Laying*

Even if queen bumblebees are successful in setting up a nest, neonicotinoids inhibit queens from laying eggs.

03 *Once Hatched*

Exposure to neonicotinoids results in bumblebee colonies that are much smaller than colonies not exposed to the systemic insecticide.

Need image of queen with workers



04 *In the Field*

Workers that hatch from pesticide-exposed queens are likely to again be exposed in the field. Neonic exposure decreases pollination frequency, results in fewer social interactions, further alters feeding behavior, and degrades the effectiveness of bumble bee's classic "buzz pollination" process.

05 *Finding a Mate*

Bumble bee males exposed to neonicotinoids show reduced sperm production and increased mortality, making it difficult for queens to find a mate, particularly one that is fertile.



06 *Wild Bumble Bees are in Decline*

Bumble bees once common throughout the US have declined by upwards of 90% within the last two years. Congress must urgently pass the Saving America's Pollinators Act!

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