

Chemical Control/New Products

Effects of Different Chemicals on Honey Bee Foraging of Dandelion

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Thirty-three chemicals in 19 different tests were evaluated for their effects on honey bee (*Apis mellifera*) foraging when applied to blooming dandelions.

Plots were established in 3 different apple orchards with high populations of blooming dandelions on the orchard floors. Plot size was 0.01 acre arranged in a randomized complete block (4 replications). Applications were done with a R&D CO<sub>2</sub> pressurized sprayer at a rate of 26 gallons of water per acre. Evaluations were made by slowly walking through the plots and recording the number of honey bees per plot at 2 and 4 hours after application.

There was a significant reduction of foraging honey bees in the plots sprayed with O-cresol (100 ml/liter) at one hour as compared to the untreated check. However, it was phytotoxic and in a second test where 50 ml of O-cresol was left in the plastic spray bottle overnight it ate through the plastic. There was a significant reduction of honey bees in the plots sprayed with Nu Film (100 ml/liter) at 4 hours as compared to the untreated check.

**Conclusion**

Some treatments reduced the number of bees foraging dandelions at 1 hour or 4 hours after application although the differences were not significant. Also, any repellent would have to repel bees for at least one day to reduce bee poisoning. None of the chemicals tested showed great promise as a honey bee repellent.