
Suppressing Varroa Mites In Bee Hives

ECHO Inc.

Preliminary research done by the USDA suggests that varroa mites which parasitize bees can be controlled with the smoke of certain plant species. Smoking has long been used by beekeepers to calm bees. Early results of work done by these scientists suggest that dried grapefruit leaves, when burned, produce a smoke that contains chemicals that irritate or confuse the mites. The mites aren't killed; instead they fall off the bees. Bees are not bothered by the smoke.

A mite infestation can result in the loss of an entire bee colony. The varroa mite attaches itself to the honey bee and feeds on the blood of the bee. Mite infestations have become a major economic loss for beekeepers in several places in the world. The standard chemical treatment has been the use of fluvalinate-impregnated strips that are inserted into the hives. However, this control measure is accompanied by several limitations – it only can be used during times when bees are not making honey, and some mites are beginning to develop resistance to the chemical. These are reasons why an alternative method of control is being sought.

The USDA emphasizes these findings with dried grapefruit leaves are preliminary. They are working to isolate the active chemicals so they can formulate a miticide. However, given that the smoke is harmless to bees, some of our readers may want to experiment with this control method. The article in *Agricultural Research* (Aug. 1997) indicated that after 30 seconds, smoke from the grapefruit leaves knocked 90 to 95 percent of the mites off the bees in the test cage.

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