

Zoe Wohlgenant

Junior Division Animal Sciences

The Efficacy of Sugar Dusting in Controlling Populations of Honey Bee Mites

In the early fall of 2009, headlines exploded. The covers of science and nature magazines all pondered the disappearance of the common honey bee. No, these bees did not just vanish off of the face of the planet, not exactly, but their populations decreased enough to have scientists question the cause of their slow extinction. Theories then circulated, all pertaining to the disappearance of our beloved honeybees. One of these said theories were bee mites. Bee mites are leeches to honey bees, they latch onto bees and suck their blood, the bees' energy out of them. The purpose of my experiment was to test a method of controlling the mite populations by sugar-dusting the bees. Basically, for my control, I counted the mites that fell off the bees without sugar-dusting the hive, by collecting them on a tray, then dusted the hive with confectioners sugar and counted the mites in the same way. And, after four trials of this procedure, I found that sugar-dusting hives is a good way to control the population of honey bee mites. The sugar-dusting dramatically increased the mite fall in each trial, but was fairly inconsistent. This method has its faults, but overall, sugar-dusting is a superior way to control mite populations in beehives.