



BEEKEEPING BASICS - PESTS AND DISEASES

Cape honey bee

The Cape honey bee (*Apis mellifera capensis*) is a subspecies of Western honey bee, and one of the most common causes of social parasitism in European honey bee colonies. Small swarms of female cape honey bees sneak into EHB hives, where they develop ovaries and lay eggs. Due to the different pheromones (smell) of Cape honey bee brood, EHB worker bees give them better food than what is fed to their own brood. This food contains more nutrients and less sugar filler, similar to the food given to the queen of the hive. Pampered and well fed, the Cape honey bee larvae turn into pseudoqueens, possessing a number of characteristics that are specific to the European honey queen bee, such as greater body weight.

Cape honey bee workers gradually increase in number within the colony, competing in egg laying with the queen of the EHB colony. This will ultimately result in the death of the queen and host colony, leading to the parasitic Cape honey bees seeking out a new host colony.

Identification

Identifying Cape honey bees within an EHB colony is generally difficult, if not impossible, due to the very close physical similarities between the two species. Cape honey bees are generally a little darker in colour and slightly smaller than European honey bees. CHB colonies are capable of swarming every

month or two, whilst EHB colonies swarm once every 12 months. CHB are also more “flighty” as compared to European honey bees, and they tend to leave the hive when it is being inspected. CHB colonies are smaller but tend to grow faster. Another difference is the amount of honey both species store – Cape honey bees store significantly less honey compared to European honey bees.

However, both Cape and European honey bees may look nearly identical to the naked eye. In order to accurately distinguish the two species, genetic analysis is required.

Prevention

Cape honey bees are currently present in South Africa, and there have been no reports of swarms in Europe, United States or Australia. If you are raising European honey bee colonies in South Africa, it is important that you consistently check the hives for any behavioural sign that may indicate the presence of the parasitic Cape honey bees.

It is important to do a genetic analysis of the suspected bees if any of these signs show up. If the parasite is present in your beehives, keep in mind that there may be a swarm of CHB around, so you will need to identify and destroy it in order to prevent the pest from causing more damage.

Eradication of Cape honey bees

Once the presence of Cape honey bees in the hives is confirmed, it is necessary to determine the extent of the social parasitism they have caused. If the queen's ability to lay eggs has not been affected yet, you may be able to relocate your European honey bee colonies into a new hive, incinerating the old one in order to successfully kill Cape honey bee larvae. Since CHB usually leave the hive when it is being inspected, you can easily relocate the EHB colony (or colonies), and then proceed to burning the old hive(s).

The next step is using pesticides in order to effectively kill any Cape honey bees flying close to the new beehive(s). Opt for environmentally-friendly solutions to avoid damage to your EHB colonies. Identifying and removing nearby nests as well as swarm is essential to preventing re-infestation of the pest. Unless you have adequate equipment on hand, it is best to have the nests removed by a professional pest control company. This will ensure that any trace of this pest will be completely and permanently eradicated.

SOURCES

<http://beeaware.org.au/archive-pest/cape-honey-bee/#ad-image->
<http://www.nev.nl/pages/publicaties/proceedings/nummers/13/103-107.pdf>
http://www.beekeeping.com/articles/us/battle_of_the_bees.htm
<http://sundoc.bibliothek.uni-halle.de/habil-online/04/05H007/t4.pdf>

BANNER PHOTOS ON PAGE 1

1. Cape honey bee on Oxalis. PHOTO: Julia Anne Workman
2. Cape honey bees. PHOTO: Discott