

Hi Erica, Ernest and readers.

It seems to me that Erica found an example of varroa resistance in her bee colony. This is what is researched and worked on for many years now. It is called VSH, Varroa Sensitive Hygiene.

This is not the normal hygienic behavior of honey bees that is tested with the so called pin-test. Here we kill 100 almost mature pupae, red eyes, by stinging a thin needle through the cell capping. Then after 8 hours we count the number of cleaned-out cells. It should of course be near to 100%.

The VSH is a property that is found in some worker bees, and it seems to be in the genetics of the worker. These workers open the cell capping when they detect a mite inside the cell. This way they disrupt the breeding cycle of the mite. When the number of these workers in the colony is sufficient, the mite level can be kept to a safe level.

To read more about this I can advise you to check the sites of:

USDA-ARS, The Honey Bee breeding and Genetics Laboratory in Baton Rouge, USA:

- 1 - <https://www.ars.usda.gov/southeast-area/baton-rouge-la/honeybeelab/docs/varroa-sensitive-hygiene-vsh/>
- 2 - <https://www.ars.usda.gov/southeast-area/baton-rouge-la/honeybeelab/docs/varroa-sensitive-hygiene-vsh-publications/#>

Arista Bee Research in The Netherlands and Hawaii:

- 3 - <https://aristabeereseearch.org/introduction/>
- 4 - <https://aristabeereseearch.org/varroa-resistance/>