

Bee breeders select genetic qualities that help colonies stave off varroa mites

The plight of the threatened honeybee was made a national priority last month when President Obama announced the first [National Strategy to Promote the Health of Honey Bees and Other Pollinators](#) — a multifaceted plan aiming to save the honeybee and other vulnerable pollinating insects from ongoing population declines.

The [Sustainable Honeybee Program](#) — a volunteer-based organization with more than 50 bustling bee colonies in Neersville, Va.— has been working steadily toward the same goal as it tries to cultivate a genetic line of honeybees that is specifically suited for survival in the metropolitan region and beyond.

“Our goal is to build a more sustainable bee,” said Alex McLellan, chief operations officer for the Sustainable Honeybee Program.

“We look for certain characteristics — the principal one is hygienic behavior,” McLellan said, meaning the ability of the bees to “detect and remove diseased bees from the colony.”

The beekeepers test this behavior by using liquid nitrogen to deliberately destroy a certain number of bees, usually about 100, in the honeycomb, McLellan said.

“Then we come back 24 hours later and see how many have been removed,” he said. “If they have removed 100 dead bees, then we consider the hive to be 100 percent hygienic.”

The group tests for other characteristics as well, McLellan said, “but this is the most important — their ability to take care of themselves, to detect when things aren’t right and take corrective action.”

It’s an especially critical trait, he said, because one of the most dire threats to honeybees is a parasite called the varroa mite, which can transmit dangerous viruses and bacteria to bees.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: [How one small Loudoun nonprofit hopes to help save the honeybee](#)