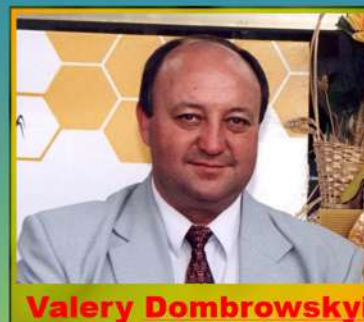


Beeswax foundation Dombrovskiy «Antivarroa»



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The Varroa destructor mite (hereinafter referred to as Varroa) is the biggest threat to bees worldwide.

Our research aims to develop a new ecological method that will help to curb the development of the mite by influencing its behavior in search of a host.

The mite is oriented by smell thanks to special sensors located on its forelimbs. Pheromones and chemical signals play an important role in maintaining its connection with the host, the bee. Taking advantage of this, we have proposed a new approach to curbing the development of Varroa destructor in bee colonies by adding extracts from medicinal essential oil plants and fruits to the wax that will be used to make the honeycomb base, which change its orientation.

Foreign odors disrupt Varroa's relationship with the honey bee at the stage when female mites have to enter the cells before sealing. Due to the unpleasant odor in the cell, it does not enter it, but remains on adult bees.

We have achieved two goals. First, the female mite does not enter the cell with the pupa, so it does not harm it, and the bee is born healthy. The second goal, which is achieved by using the Antivarroa honeycomb base, disrupts the Varroa reproduction cycle. The mite can only reproduce in sealed brood cells. For three years, the effectiveness of using the Antivarroa honeycomb base was tested both in the laboratory and in apiaries.

The results obtained in colonies relocated to Antivarroa wax in the spring, which were not treated with any chemicals during the year, had a Varroa infestation rate of 0.5% - 4%. Control families on a routine basis that were not treated with any product were affected by 35% - 47%. Families that were treated once with amitraz remained 8% affected.

Production trials have confirmed the results of laboratory studies and the high efficiency of Antivarroa wax in containing Varroa development.

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Copyright to the invention



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