E.H. Thorne (Beehives) Ltd

APIGUARD

by VITA beehealth

VMD APPROVED

VARROA TREATMENT

Overview

About the Treatment: Apiguard

Apiguard is a slow release gel that ensures correct dosage of its active ingredient, thymol. Thymol is a naturally occurring substance derived from the plant thyme.

Apiguard gel comes in 50g ready-to-use aluminium trays (two will treat one standard colony). Once in place, vapour from the Apiguard gel is given off. Unlike some other formulations and raw crystals, the release from the gel works steadily and does not disturb the bees unnecessarily.

Worker bees climb into the Apiguard tray, remove the gel as a hive-cleaning behaviour and distribute it throughout the colony. The gel sticks to the bees' body hairs and, as the bees move through the hive, particles are left throughout the hive. The worker eventually throws out the gel it is carrying, but the traces remain until they too are removed later.

Apiguard trials in more than 600 honeybee colonies in 10 countries across Europe, the Middle East and North America have shown it to be a very effective, easy-to-use treatment. Under normal conditions it gives an average efficacy of 93%.

How to use it:

- Remove your roof and crownboard, exposing the top of the brood frames
- Take one tray of Apiguard and peel back the bottom left corner, leaving the top right corner of the foil attached to the tray
- Place the open tray on top of the brood frames, in the centre and gel side up
- Ensure that there is a free space of at least 5mm between the top of the tray and the hive cover board
- Close the hive
- After 2 weeks, replace the tray with a new one in the same way
- Leave the second tray in the hive until it is empty - this usually takes 2-4 weeks
- Once this tray has been removed the treatment is completed

Questions & Answers

The following information has been supplied by Vita Bee Health (2021)

Q: Should I use Apiguard when supers are on the hive?

A: It is preferable to remove supers before treating with Apiguard. Apiguard may taint honey in supers, but it is unlikely, especially if the honey stores are sealed. Apiguard may taint the brood wax, and low traces may reach the wax of the supers. If you do use Apiguard when supers are in place, make sure that the Apiguard is positioned immediately above the brood nest and that the bees have enough room to get into the tray and to walk through the gel. Honey collected during Apiguard treatment can be fed back to the bees.

Q: At what time of the year should I use Apiguard?

A: Apiguard is best applied in summer or autumn, not during honey flow. The external temperature should be above approximately 15˚C (60˚F), which means that the colony is active. Distribution of the Apiguard gel depends on the bees transporting it around the hive during the process of hive cleaning and this activity increases as the external temperature rises.

Q: Can Apiguard be used in springtime?

A: Apiguard can be used in springtime, if necessary, provided the daily temperature is high enough. However, it is not the best time to apply the product. Thymol, which is the active ingredient in Apiguard, can sometimes make the queen stop egg-laying for a short period and that is not ideal in early spring – the colony needs to be growing. If the mite infestation is high in spring then it is safer to use Apiguard rather than let the mites reproduce further, but otherwise treatment is best left until the summer.

Q: What is the best time of day to apply Apiguard?

A: Apiguard can be applied at any time of day but for best results treat colonies when the temperature is lower (early morning or late afternoon).

If the Apiguard can be applied when it is cooler, the rate of sublimation of the gel will be lower and the bees will become accustomed to the odour more readily than if the product is applied at the hottest part of the day.

Q: Can I feed my colonies whilst using Apiguard?

A: Yes. We suggest feeding with a protein patty during Apiguard treatment. It encourages the bees up to the gel and increases their cleaning activities, improving the treatment efficacy. Using a liquid feed, there may still be some benefit because the colony becomes more active and that probably encourages the increased spread of Apiguard throughout the hive

Q: The first dose is supposed to be left on for 2 weeks, but I've noticed that the gel disappears after only a few days; do I need to put on another dose straight away?

A: No, the speed at which the gel disappears depends on the temperature and on the behaviour of the individual colony. It can take from 2 to 10 days for Apiguard to be removed from the tray. The gel will reduce as vapour is given off and as the bees detect the "foreign material" and try to remove it. At high temperatures the vapours are stronger. The bees will find the gel and try to clean it up quickly. Strong colonies generally work faster than smaller or weaker ones. At lower temperatures, the gel vaporises more slowly. The workers do not detect it as readily and they do not remove it as quickly. Even if the gel seems to have disappeared after only a few days there is no need to apply a second treatment until 2 weeks have passed. The thymol, although not in the tray, is active throughout the colony during this time having been carried around by the bees.

Q: It takes longer for the gel in the second dose to disappear; why is this?

A: The second dose usually lasts longer in the trays because the bees have become more accustomed to the odour of thymol in the hive by this time. The cleaning behaviour is not as pronounced as for the initial introduction.

Q: What mite control level will I get by treating with Apiguard?

A: Apiguard often gives results as good as those obtained previously with "chemical" treatments but a lower efficacy should be generally expected, somewhere between 85-95% varroa control. The average efficacy rate recorded after thousands of hive treatments is 93%.

Q: Why should I use Apiguard if it doesn't work as well as some other treatments?

A: Strains of Varroa mite resistant to pyrethroids and amidines (such as Amitraz) exist in many areas. Treatments with these active ingredients may not be effective in those areas so another type of treatment needs to be used. Apiguard works in a different way to pyrethroids and amidines and will kill mites that are resistant to these chemicals. Where resistant mites are not already established it is a good idea to "rotate" treatments with active ingredients of different chemical class (e.g. between pyrethroids and Apiguard). Apiguard is an effective alternative treatment, authorised as a veterinary medicine for use on honeybees in many countries. Apiguard is a product suitable for use in organic farming in the European Union.

Q: How do I store the Apiguard?

A: Apiguard should be kept out of direct sun and heat and ideally stored at temperatures lower than 30°C (86°F). The gel will start to separate into solid and liquid phases at around 38°C (100.4°F) and even with stirring the gel may not regain its original quality once this has happened. The results obtained with separated gel cannot be guaranteed. Therefore, do not keep Apiguard in the back of a beekeeping car or truck in hot conditions for any longer than is necessary. Keep the product below 30°C (86˚F) in transport where possible and in storage.

Contact Information

For any questions or clarifications, please reach out to us:

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