

Izatizon application experience for bee rescue from fungal and viral diseases

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The article "Izatizon shield will stop flu and AIDS" was printed in the "Uryadovyy courier" newspaper (№ 215 from 18 November 2000). This material is supplemented with own observations of ascophereose disease bees.

Ascophereose or chalky brood is a regular larvae fungal disease strongly dependent on the family physical condition and dependent on this bee immunity to the given disease. The reason that has led to such a wide dispersion of this disease during last 10 years is still unknown.

Cleaning bees, while scrubbing combs from dead mummy-larvae, gnaw out stucked remains from the comb walls. This leads to the fungal littering of bee alimentary system. This has a big influence on the disease spreading among bees. This disease propagates the whole family.

Specialists recommend, in case of sickness, not only to change frames with the new one's but also to change queen bee that is considered to be the host or a carrier of the disease along the hive. Maybe there is a reason in this, because queen bee is always in contact, including alimentary, with bees and can be a host or a carrier of the infection.

Ascophereose propagates much rarely in the strong and healthy families than in weak one's. This disease propagates best among the queenless drone families and drone broods where fixed temperature is absent in the brood area. Climatic conditions distress factor for brood evolution and dependent on this larvae immunity is the deciding factor in the dispersion of this disease. Decrease and increase cycling of the humidity and temperature in the bee nest, food inflow drop to the hive and dependent on this larvae feeding leads to their immunity decrease. Different viruses, inflammatory and fungus infections, which beekeeper does not even know about, influence this, because they are always hard to diagnose. They could be imperceptible visually, but they have a strong influence on the immunity decrease.

In 1999 because of late spring frosts and drought and dependent on this sudden oscillation of food inflow – all these factors caused the ascophereose dispersion. Beekeepers had to use different medicines against ascophereose, however result was not long lasting, in most cases, and the disease restored in a while. Inflow of the strong forage to the hive has a very good influence on the treatment results fixation that every beekeeper may observe in his bee-garden. Bee family in the presence of good forage regenerates and disease decelerate or disappear.

Old frames, especially infected one's, are infection hosts (fungal spores), because bees, gnawing out old cocoons from sick brood and ill larvae remains, become again infected restoring for disease. Another place of the disease preservation is the hive bottom. A large number of small specks with spores fall down to the bottom, which bees gnaw out from combs. If beekeeper sweeps out the hive bottom by throwing away the honeycomb bag (crude net) this does not mean that, he has disinfected the hive because these small specks remain in it.

Why strong forage influences treatment process so well? Probably because bees fill up empty infected combs with honey and loose contact with their internal infected surface. A queen bee move to propagate to the newly built combs and the situation improves until autumn. However, in spring bees, having used all the food from dark combs, begin to clean them up from cocoon remains to enlarge the nest, where queen bee propagates, and contact again with the infection. Ascophereose restores. Ascophereose expansion forwarded by humidity, instability of spring weather and beekeeper's interference, which helps to cool the open brood, as well. Autumn and spring bee robberies in the bee gardens have a sufficiently big influence on the disease dispersion. These stealings happen in the infected bee families in most cases. Infection spreads, during these thefts, along the whole bee garden. This is not only ascophereose but also

helomyzid flies, vaarotoz and other unknown diseases. We are surprising, at the same time, why ascophereose is spreading so well today?

As far back spring 1999 the Institute of Health Promotion and Rebirth of people of Ukraine offered to conduct in Stryy additional researches to study the influence of the new, in beekeeping, veterinary preparation called "Izatizon" on the ascophereose. Preparation instruction tells us that Izatizon increases immunity and is very effective against viral, microbial and some fungal infections, has an antitumoral action. Aerosol treatment of bees was recommended to cure ascophereose.

The treatments were conducted according to the suggested method that gave us encouraging results. Better result was obtained when izatizon was added to the food. Ascophereose disappeared for a very long time after such, not mentioned in the instruction, procedure in spite of the application of the large number of old frames in the bee garden. This procedure of medicine adding to the food also was tested many times with families that had not been treated with aerosol. The results of the treatment were encouraging because izatizon price is slight in the comparison with the other preparations, its result is very good, and it does not need a lot of time and efforts during large bee-gardens treatment. The preparation does not affect honey quality and is not harmful for bees and human organism.

We have to mention that during bee application of izatizon with nutrition it disinfects food tracts of nurse bees that make forage for larvae. In such a way, they guarantee food decontamination.

Probably open brood (larvae) becomes infected with ascophereose during nutritional contacts with nurse bees and having treated nurse bees, we disinfect larvae, increasing their immunity.

The researches have shown that the most effective was izatizon complex treatment of the families against ascophereose and other viral-inflammatory diseases where both aerosol treatment and preparation adding to the food were conducted. Here we have only to calculate, on the scientific level, the scheme of these treatments to guarantee the absolute health of bees and to minimize effective dozes.

During the parallel treatment of different bee families Izatizon was the most effective and the cheapest, that is very important for a beekeeper, among the other preparations of chemical and natural composition like nystatin, onions, garlic and scoping. The other preparation advantage is that it can be used for prevention of healthy families without fear to harm honey quality.

Therefore, because of these researches we can make such conclusions:

1. Bee family over one or two weeks becomes completely clean from infected larvae in the combs during izatizon application and you do not have to change the queen bee.
2. Combs, that were infected, during the treatment have to be marked and, as far as possible, expropriated for remelting over the season.
3. Probably izatizon having treated viral diseases, invisible for a beekeeper, increases the immunity of bee families and decreases to the minimum the possibility of ascophereose development that parasitizes on the open brood.
4. During preventive treatments, it is enough to add the preparation to the food. During ascophereose after the treatment, frames and hives have to be additionally treated with izatizon aerosol fine-dyspersated solution.
5. To fight effectively with the infection beekeeper, as a doctor, has to understand the ways of the disease spread, the factors that lead to the disease and the treatment method influence on the bee curing and guarantee his own and honey consumer's safety and the purity of the production from harmful preparations.