

Hungarian Beekeepers' Experiences with Feedbee

In the beginning of this year Feedbee, the pollen substitute diet for bees, has been introduced in Hungary - as one of the first countries in Europe. Playing this pioneer role, the feedback of the Feedbee using Hungarian beekeepers was eagerly awaited. During the month of June many customers were asked on phone about their experiences and remarks concerning the Feedbee product.

In the course of this survey we were happy to notice that the beekeepers were definitely positively satisfied with the results of Feedbee in a range of more than 90%. Shortly we would like to highlight some of the general experiences:

- The bee colonies reached very good results regarding development and honey production.
- The bees are strong and in good health, and more resistant.
- During the spring feeding the general Feedbee consumption was 1 kg per colony.
- The three ways of feeding (powder, patty or syrup form) turned out to be all effective.
- When feeding through patties, the addition of icing sugar resulted in a lively consumption.

Without icing sugar the patties being prepared with Feedbee and sugar syrup were not adequately sweet, and they were consumed more slowly. But even in this case good results were achieved, as proved by the reports.

- The fast development is good for those that would like to realize an intensive growth of the bee colonies or would like to make reserve colonies in their apiaries. For those that have not got such plans the only "problem" seems to be the existence of an increased danger of swarming. Naturally the intensity of development can be manipulated with reducing the Feedbee portion in the prepared feed, and through the chosen time of feeding. Experiments on this will start next spring.

In the following three beekeepers' report will be presented.

MORE HONEY

On the 17th of February this year I used Feedbee for 30 bee colonies in the form of patty as an experiment. The remaining part - 120 colonies- can be regarded as control. I made Feedbee patties of half a kilo each according to the manufacturer's advice. During the whole spring the Feedbee colonies were not fed with any other sugar syrup preparations than with half a kilo healing patty and half a kilo Feedbee patty. In the beginning it was a bit difficult for the bees to carry the patty, but after a whole month they had eaten it up. The colonies fed with Feedbee became very strong and already at the end of March we had to prepare space for honey in the beehives. By this time most of the experimental colonies reached a brood extent of 7-8 frames in the "middle Boczonádi beehive type" (1/2 space for honey), and 9-10 frames in the "NB beehives". These colonies already started to prepare to swarm around the 10th of April, and that is why we had to put in artificial honeycombs before the rape blooming, in order to make the bees weaker and to prevent them from swarming.

Out of the 30 colonies 25 had to be split up until the rape blooming was finished for 2/3rd. The new colonies already brought 10-15 kg of acacia honey. The 5 remaining colonies that had not been split up were much weaker in spring, but were completely developed for acacia. In 1-2 days time the bee colonies had built up 3 to 4 artificial honeycombs and the queens immediately spawned eggs on these. For example in the beehives from which I took 5 frames

covered brood away and replaced them with 5 artificial honeycombs the queen spawned eggs on the entire honeycombs during the next three days. We could not notice any weaknesses in the split up colonies, because their development and their handling of the new bees were so cadenced.

The Feedbee fed colonies' average honey production: *spring honey* (fruits and willow) 10 kg, *rape* 30 kg, *acacia* 35 kg (one acacia, without counting the production of the new colonies), *summer honey* (up to sunflower) 12 kg. These quantities indicate the weight of the honey after running. The colonies that were not fed with Feedbee did not provide any honey that could have been taken away before the blooming of the rape and after the blooming of the acacia. The average honey production was 18 kg of rape honey and 30 kg of acacia honey. I did not wander with the bees.

The bee colonies fed with Feedbee are calmer; they leave earlier and collect more nectar and pollen than the control colonies. The covered and open brood is larger and more closed. During the day the queens spawn more actively, than the queens in the control colonies. Young queens start spawning earlier in the brood chamber.

We noticed that the working bees are rounder and plumper. After the acacia period we could not notice any population decline. The Feedbee colonies remained more populated than the average colony.

There is another positive remark to make: I did not notice any mites; neither did I find any before the acacia period during the drone brood inspection. During fumigation only a few mites fell off.

A good advice to those that would like to use Feedbee, it is useful to put another empty beehive with artificial honeycombs next to every single beehive, in order to hinder swarming. I can only advice Feedbee to all my colleagues! (Levente Kámán, Alsópáhok)

My opinion about Feedbee is very positive. My bees are strong and develop faster compared to previous years. For the rape -blooming they were strong, maybe even too strong.

MORE BEES

In February I was offered a chance to order Feedbee diet. I was sceptical, so I wanted to make only a try. I was driven by curiosity for what extent it could do more or perhaps less than the substitute diet I used before. I have to admit that it can do more. Much more. This material has been developed well by researchers. On what do I base my statement? Because I wanted to test the product I pointed only a part of my apiary as test colonies without any special selections (15 colonies). At the time of the starting of patty feeding (22. February) these bee colonies showed an average state of development, were free from illnesses and were provided with a sufficient honey stock. The control colonies (70 colonies) were provided with the same facilities and were located in the same area.

I prepared three kinds of patties for my Feedbee group: 1. (Following the instructions of the manufacturer) Feedbee kneaded with sugar syrup to the density of bread dough; 2. Feedbee kneaded with icing sugar and sugar syrup; 3. Feedbee kneaded with icing sugar and the pollen substitutes that I had been using before. For all three kinds of patty I used the same proportions (1:1) when adding the sugar syrup to the basic product.

The control colonies received the same pollen substitute sugar patties prepared with honey that I had been using for years with satisfaction.

The first checks were directed towards only the decrease of patties. The bees started only slowly to eat the pure Feedbee patties, carried them haltingly, while the other types of patties were consumed well. Probably it was because of its consistence, as the other patties were a

little softer. I thought that the bees did not like these patties, but after a while its consumption increased. I compensated the consumption where it was necessary. Bringing pollen from outside only quickened the consumption.

At the end of March I got the chance to examine my bees extensively. By that time it was already clear that the bees fed with Feedbee were living a more "active" life. When the brood of the Feedbee colonies was examined we noticed that the largest propagation had been reached in those colonies that had been eating more Feedbee (pure Feedbee patties).

For me the biggest surprise was the fact that even the strongest colonies of the control colonies were underdeveloped compared with any Feedbee colony. In some cases we were able to state the number of brood according to the number of frames. In the case of the same number of frames (in brood) the control colonies were behind with 15-20% within the covered brood range compared to the Feedbee colonies. At the moment of comparison the Feedbee colonies were in a much more developed state than the control colonies. They kept and increased this advantage until the time they got to be "broached" with the exception of one colony because of a possible danger of swarming. It is a fact that those colonies highly overperformed the control colonies and that was also shown in the rape honey quantity during its running.

For me this difference is already convincing enough. Learning from the experiment I would like to use this substance for my bee colonies to stimulate them at the end of the winter and in spring by all means in the future. (*János Kiss, Kalocsa*)

The bee colonies are in good health now as well. The experiences of the first year suggest that the invested money will return with a certain rate of interest.

FEWER ILLNESSES

At the end of February I gave Feedbee to my bees in the form of sugar patties mixed with icing sugar. Every colony received 1 kg. Despite the fact that I did not make any possibilities for comparison (there were no control colonies to check the results), my opinion about Feedbee is very positive. My bees are strong and developed faster compared to previous years. For the rape they were strong, maybe even too strong. The prevention of the swarming took a lot of time and was only partly a success.

Because I am not a wandering beekeeper I realise that my yearly honey production depends on the local natural facilities. Also the weather plays an important role. Considering these circumstances it is important how my bees make use of the possibilities.

The rape provided a good honey production: 23 kg per colony. The acacia honey did not turn out as we planned because of natural facts. When the acacia started blooming the rape still bloomed for another two days and the bees rather visited this plant. Three beautiful days followed but we could already feel hot weather coming. This heat - wave took away the acacia and that is why we had a result of only 18 kg acacia honey after running. It is important to know that my bees live in a region where there are no contiguous acacia groves.

As I am a bee queen raiser, I have to send in bee samples for the checkups of nosema and throttle mites every year (*the author lives in Slovakia. Ed.*). The results were better compared to previous years but the most important was the fact that there was no colony showing strong infection.

A few prepared Feedbee patties in plastic bags remained from the end of February and I did not store them refrigerated. At the end of June I put these in into the mating beehives next to the traditionally prepared sugar patties (not kneaded together). I noticed that the traditional patties were more wanted. That was my mistake, because I should have realised beforehand that Feedbee is rich in proteins that can start fermentation after a while. But it is surprising

that this only happened after a period of 4 months. I had heard that patties made out of smaller amounts of other substitute proteins (like soy flour or milk powder) usually start fermentation after 1 or 2 months.

At this moment in June my bees are in good health. The bee colonies are in good health now as well. The experiences of the first year suggest that the invested money will return with a certain rate of interest. By all means I will try Feedbee for feeding my bees in the autumn as well. (*Sándor Kiss, Ipolyság*)