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## Hungarian beekeepers and their experiences with Feedbee

[Editor's note: this article (in Hungarian) was originally published in the Hungarian bee journal Meheszet on July 15, 2008. The translated version of the article was sent to Neil Farrer by Dr Abdi Saffari, a specialist in animal and honey bee nutrition who toured New Zealand in 2007 to promote Feedbee.]

In the beginning of this year Feedbee, a pollen substitute diet, has been introduced in Hungary as one of the first countries in Europe. Playing this pioneer role, the feedback about Feedbee using Hungarian beekeepers was eagerly awaited. During the month of June many customers were keen 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%. We would like to highlight some of their experiences in general:

- The bee colonies had reached very good results regarding development and honey production.
- The bees are strong, healthy, and have higher resistance
- During the spring feeding the general feed intake was 1 kg per colony.
- The three methods of feeding (powder, patty or liquid) turned out to be all effective.
- When feeding through patties, the addition of icing sugar resulted in a vigorous consumption. Without icing sugar

the patties being prepared with Feedbee and sugar syrup were not adequately sweet, and they were consumed a bit slower. But even in this case good results were achieved, as proved by the evaluation reports.

• The fast development is good for those that would like to see an intensive growth of the bec colonies or would like to make extra colonies in their apiaries. For those who don't have such plans the only "problem" seems to be the possibility of swarming. Of course the intensity of development can be manipulated when the prepared feed contains less Feedbee, and through the chosen time of feeding. Experiments on these will start next spring.

The evaluation of three beekeepers will be discussed as follows.

## More honey

On the 17th of February 2008 I used Feedbee for 30 colonies in the form of a patty as an experiment. The remaining 120 colonies were used to compare the results. I made Feedbee patties of half a kilo each according to the producer's advice. During the whole spring the Feedbee colonies were not fed with any other sugar syrups 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 consumed it all. The colonies fed with Feedbee became very strong and by the end of March we already had to make room for the honey in the hives. By this time most of the experimental colonies had reached a population extent of 7–8 frames in the honey super and 9–10 frames in the brood chamber. These colonies already started to prepare to swarm around the 10th of April, which is why we had to put empty honeycombs before the rapeseed plants bloomed, in order to make the bees busy and to prevent swarming.

Out of the 30 colonies 25 had to be split up until the rape blooming was over. The new colonies have already brought 10-15 kg of acacia honey. The five remaining colonies, which were much weaker in the spring and that had not been split up, were completely developed for acacia flowers. In one to two days' time the bee colonies had built up to three to four combs and the colony immediately laid eggs in full. For example, in the hives that I took five frames covered with new population and replaced them with five empty combs, the colony laid eggs on the entire combs during the next three days. We could not notice any weaknesses in the split colonies, because their development and their handling of the new bees were so rhythmic and rapid.

In the colonies fed with Feedbee, the average honey production for spring honey (fruits and grass) was 10 kg, rape 30 kg, and acacia 35 kg (one acacia, without counting the production of the new colonies), summer honey (sunflower) 12 kg. These quantities indicate the weight of the honey after rotation. The colonies that were not fed with Feedbee did not provide any honey that could be 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. (1 did not shift the hives.)

The bee colonies fed with Feedbee are calmer; they leave earlier and collect more nectar and pollen than the nonfed colonies (standard). The capped brood and population were larger than the non-fed colonies. During the day the colony laid more actively than the colonies in the non-fed colonies. Young queens started laying eggs earlier in the brood chamber.

We noticed that the workers are rounder and bigger. After the acacia period we did not notice any population decline. The Feedbee colonies remained more populated than the average colonies. There is another positive remark to make: I did not notice any mites, not even before the acacia period during the drone propagation inspection. During furnigation only a few mites could be noticed.

My advice to those who would like to use Feedbee. It is useful to put another empty bechive with foundation combs next to every single hive, in order to hinder swarming. I can only advise Feedbee to my colleagues! (Kámán Levente, Alsópahok)

## More bees

In February I was offered a chance to order Feedbee food, I was sceptical, but willing to try it. I wanted to know to what extent it could do more or less than my pollen substitute. I have to admit that it can do more; much more. This substance has been developed well by researchers. On what do I base my

statement? Because I wanted to try out the Feedbee product I only used it for some colonies without winnowing (15 colonies). At the time of patty feeding (the 22nd of February) these bee colonies showed an average state of development, were not ill and were provided with a sufficient honey stock. The standard 70 colonies were provided with the same facilities and were located in the same area.

I prepared three kinds of Feedbee patties for my bees: 1. according to the producer, a patty that had been kneaded with Feedbee sugar into something hard; 2. a patty kneaded with Feedbee icing sugar and sugar syrup; 3. a patty prepared with Feedbee icing sugar and sugar syrup and the pollen substitute that I had been using up to now. For all three kinds of patty I used the same proportions when adding the sugar syrup to the basic product (1:1).

The standard colonies received the same pollen substitute and sugar patties prepared with honey that I had been using for years and was satisfied with.

The first checks pointed only at a decrease in patties. The bees started only slowly to eat the pure Feedbee patties, carried them heavily, while the other types of patties were consumed well. Probably because of its consistency, as they were a little softer. I thought that the bees did not like these patties, but after a while the consumption increased. I compensated the consumed patties where necessary. Bringing pollen from outside only enhanced 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 propagation of the Feedbee colonies was examined we noticed that the largest population 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 standard colonies were underdeveloped compared with a Feedbee colony. In some cases we were able to measure the population increase by the number of frames. In case of the same number of frames with bees the standard colonies were behind by 15–20% within the covered brood range compared with Feedbee colonies. At the time of comparison the Feedbee colonies were in a much more developed state than the standard colonies. They kept increasing their population under control until the time the hives were split with the exception of one colony because of a possible swarming. It is a fact that those colonies achieved much more than the standard colonies and that was also shown in the rape honey quantity during its extraction.

For me this difference is already convincing enough. Learning from the experiments 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. (Kiss János, Kalocsa)

## Fewer illnesses

At the end of February I gave Feedbee to my bees in the form of a flat sugar patty and mixed it with icing sugar. Every colony received 1 kg. Despite the fact that I did not make comparisons (there were no bee colonies to check the results), my opinion about Feedbee is very positive. My bees are stronger and develop faster compared to previous years. Regarding 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 shifting beckeeper I know that my yearly honey production depends on the local natural pollen and nectar and the weather plays an important role. Considering these circumstances it is important how I deal with my bees.

The rape provided a good honey production: 23 kg per colony. The acacia honey did not turn out as we planned because of natural factors. When the acacia started blooming the rape was still in bloom for another two days and the bees rather visited this plant. Three beautiful days followed but we could feel the hot weather would be on its way. This heatwave took away the acacia and that is why we had a result of only 18 kg acacia honey after feeding. It is important to know that my bees live in a region where the acacia tree groups are scattered around and are not close to one another.

As I am a bee queen breeder, I have to send in bee samples for nosema and mites testing every year (the author lives in Slovakia. Meheszet Ed.). The results were better compared to previous years but the most important thing was the fact that there was not one colony showing any serious infection.

A few prepared Feedbee patties in little bags remained from the end of February and I did not store them in a freezer. At the end of June I put these patties into the mating hives 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 food is rich in proteins that can start to spoil after a while. But it is surprising that this only happened after a period of four months. I had heard that patties made out of smaller amounts of other protein diets such as soy flour or milk powder usually start to get spoiled after one or two months.

At this moment in June my bees are in good health. This first year it seems that our invested money will return with a certain rate of interest. By all means I will try out Feedbee for feeding my bees in the autumn as well. (Kiss Sándor, Ipolyság).

- Piffkó László

