



EM *Journal*

Strong Bees with EM

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Chef with EM and Terra-Preta Garden

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Editorial



Bees

Insects in general, but particularly bees, have it really difficult in today's world. Remember driving on summer holidays ten years ago and more? Every filling station would have these coarse plastic sponges to scrub the insect cadavers from the windscreen. Today this is no longer necessary. Industrialized agriculture has taken care of that for us.

The bees are struggling bravely against the deterioration and pollution of the environment, but many populations did not survive last winter. Weakened and worn down, they still have to defend themselves against the varroa mite lurking in the hive.

We have repeatedly been able to report that bee populations with EM are healthy and strong. Our member, Friedrich Blase, has been working this way for ten years now. He reported on his experiences at the members' annual meeting in Berlin. In this edition of the EM-Journal you can read a summary of his report with his wonderful discovery of how EM helps to master the varroa mite.

Healthy soil, healthy plants and animals, healthy human beings – EM technology is helping us day by day to generate and maintain this interconnection.

Wishing you all a beautiful late summer!

Pit Mau

This special English Translation has been requested and paid for by our EM Partner Hiro-michi Nago of EM HAWAII, LLC, with the assistance of Botanic Culture AB, Jan Roed, Sweden, www.botanic-culture.se

We hope that this article will help bee keepers in Hawaii and around the world.

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2015
Internationales
Jahr des Bodens



**EM e.V. Gesellschaft zur
Förderung regenerativer
Mikroorganismen**
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Varroa mites tricked by EM

If you ask any beekeeper what is the greatest threat to bee colonies, the first thing he will mention is the varroa mite. This exclusively parasitic creature originally comes from South-East Asia, and only arrived in Europe in the 1960s. In his fascinating talk at the annual congress of the **EM association** (NPO) in Berlin, Germany, the long-time beekeeper and bee expert Friedrich Blase from Lübbecke in Westphalia reported on his experiences.



Author: Pit Mau

Beekeeper for 40 years

During the presentation it soon became clear: somebody who has been devoted to bees for decades as he has – and with EM for the last ten years – cannot possibly pass on all his knowledge in a single presentation. His enthusiasm for everything to do with bees cast a

spell over the listeners, not least of all because Mr. Blase was able to communicate his highly detailed information with a great sense of humour. In *EMJournal* 24 (May 2008) Friedrich Blase reported for the first time on his experiences with EM, which he had already been using for several years in his garden, on himself and then on his bees.

EM used successfully against chalkbrood

Following his observations in the greenhouse and the garden that fungal attacks were considerably reduced after treatment with EM, he decided to try it in a beehive that was infested with chalkbrood, a fungal disease that affects bees. He was confident that the experiences in his garden could be transferred to the beehive. And so it was: by carefully spraying all parts of the beehive, he was able to save the bees and eliminate the disease.

Bees have a natural hive-cleaning instinct, even without EM. They clean with their proboscis, but distribute the spores with their feet. EM obviously inhibits this distribution. When the bees walk through the EM water, the distribution of the spores in the colony is prevented.

1 Friedrich Blase at one of his apiaries

2 Bees drinking water

3 Varroa mites on bee larvae

Varroa mites

Friedrich Blase reports that one of his honey customers, who keeps hens, was complaining that his birds were infested with mites. But he wanted to avoid using chemical remedies. Friedrich Blase immediately lent him his filled EM spray, and after just three applications over one week he brought it back and reported that his hens were now behaving normally again and were *free of mites*.

It occurred to Friedrich Blase that this could possibly be transferred to his bees. The greatest threat to bees are also mites, i.e. the varroa mite. Surely EM would help!

„In order to treat the bees against the varroa mite, you have to think like a mite, you have to understand how the mite propagates itself in the colony, and how it finds its food,“ says Blase. *„We know that the mite taps into the bee and sucks its blood. The mite is blind, has a good sense of touch, and multiplies among the larvae in the breeding cell, damaging the larvae so that no healthy bees can pupate. The mite finds its food with the aid of its sense of smell, located on its front legs. This is the crucial point. I was certain: this is where we can trick the mite.“*

First he tried to outwit the mite's sense of smell with a self-composed mix of herbs fermented with EM. This included bracken, which is known to repel vermin, and a type of berry that has grown in the Blases' garden for many years and was never attacked by any fungus or insects. Although this liquid stimulated the bees' cleaning instinct, only a few of the mites were killed. It was only when an alcoholic extraction of the herbs was mixed with activated EM and trickled into the colony that success was achieved in 2013: the mites were defeated.

The mix, which he calls **„EM Varex“**, only kills mites, however, that ride on the bees. Mites reproducing in the brood cell remain unaffected. How can these be reached?

The standard treatment against mites involves the use of formic acid, which also reaches the mites in the brood cell. This treatment is quite good if the temperature, evaporation rate and time of application are correctly coordinated. Some loss of eggs and brood must, however, be expected. If a bee colony does not have a brood, the treatment can be carried out without exposing the bees directly to formic acid.



- 4 Friedrich Blase checking his bees. He sprays some activated EM-water as a greeting. This calms the bees and keeps them occupied.

Due to the droppings, it is absolutely necessary to spray the front of the hive and the alighting board with the EM-water solution in order to prevent diseases.

- 5 „EM-Varex“ is what Friedrich Blase calls his herbal extract plus EM with which he managed to eliminate most of the destructive mites (*Latin: varroa destructor*).

- 6 A whole lot of dead mites already after the first treatment. It should, however, be repeated after 7 days.





The new approach with EM Varex

In order to achieve this, the beekeeper first has to prevent the queen from depositing her eggs. On the 4th of July she is removed to a queen excluder for 21 days – the development time for a bee. This means that the hive is without a brood on the 25th of July. The treatment is carried out immediately and all the mites are affected.

It is obvious that healthy, strong bees are less susceptible to disease and infestation. This is why it should be pointed out that EM – just as in other animals or humans – has a positive influence on the metabolism. The healing of intestinal disorders in bees such as nosemosis is considerably promoted by the addition of EM (in the water or in the sugar solution). In addition to this, EM stimulate the bees' cleaning instinct, which keeps the whole colony healthy.

EM added to the drinking water

Various beekeepers have reported that bees prefer water with a small quantity of EM. One beekeeper observed that his bees flew to the drops on his freshly washed car. The solution to the mystery: he had added activated EM instead of detergent to the washing water. But why would he do that? With every EM wash, the paintwork on the car looks better and is probably also stronger.

On the drinking habits of the bees, the Swiss beekeeper Joe Meier (joe.n.meier@bluewin.ch), who has been using EM on his bees for 7 years now, shares his experience. „What I can tell you is that none of my EM products are ever accepted in 1:1 dosage. The bees would leave this



7 Busy bees. Some of the combs are covered. This is where the young bees develop; they are just about to pupate.

8 Perfectly healthy bee colonies at work.

9 The selection of the location is also an important factor. This apiary is protected against wind and direct sunlight, but near to rich feeding grounds.



untouched for two weeks. After various attempts to offer EM in increasingly diluted form, I eventually got it right with my tried and tested dosage of 30 ml to 1.5 litres of water (1:50). They drink this eagerly. All of the colonies, with the exception of one, drink 3 dl activated EM or Bienenfit (EM ready product in Switzerland) in this dosage every day.“

Beyond the hive

The greater the natural diversity in the bees' environment, the happier they are. Spraying the hives with EM and spraying the proximate and wider area is a big help.

In the countryside, of course, it is also necessary to speak with the local farmers to make sure that they take account of the bees when they are spraying pesticides, i.e. that they keep their distance, that, wherever possible, they allow patches of wild flowers to grow, and that they take account of the bees' life cycle when mowing. Most farmers understand that they, like the rest of us, depend on the bees.

Outlook

Beekeepers in Europe have been using EM almost as long as EM has existed. Every beekeeper has had his own individual experiences. What a vast body of (hidden) knowledge this represents! Perhaps it is time for beekeepers to form a working group on this subject. We will be glad to receive suggestions and to facilitate a fruitful exchange.



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Articles on bees and EM

can be found in the
EMJournal Issues: No. 4, 15,
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10 Always in reach: the EM
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