

# **Intrinsic Value and organic beekeeping**

## **Demeter Beekeeping culture: a way to sustainable beekeeping**

### **1. Introduction**

What is organic beekeeping? In the common sense org. beekeeping means a practice to produce honey and wax free from chemical residues.: To achieve this aim, chemical medicine and unorganic materials are not allowed to use. Either for disease control and the equipement of the apiary too.

But in my appreciation,organic beekeeping is more. It is a part of the general organic agriculture movement This movement devellepod in the last decades to a solid manner of agricultural activity, based on different values:. These values are:

- Dignity of animals and plants, but also human beings
- -Intrinsic value of animals and plants
- Health of animals, plants and soil
- Sustainability
- Free from chemical residues

Looking to this ethical basis, we see, that organic beekeeping only fits to one of these components: free from chemical residues . Sure, at the beginning of the movement of org. agriculture in the 1970,, the freedom of residues was a very important aspect. The focus of the agricultural practice laid on reduction and renunciation of chemical ingredients. But within the years of growing and developing , the basics of org. agriculture increased to other positive values: health, sustainability, intrinsic value.

We see that the rules of organic beekeeping correspond only to a former stadium of organic agriculture and now need a further and deeper development onto these values. ‘This is not only an ethical or philosophical view, but concerns although the health and vitality of the bees. Especially in the current situation when beekeeping comes into an existential crisis, and beehives die from illness and weakness.

But in which direction this developement should go?

When we look to the present situation in bee keeping, the direction seems clear:

- it would be necessary to improve the health and vitality of the honey bees in general. This becomes more and more necessary. At the moment, we see, that the future of bees and beekeeping is threatened.

- -and naturally it is necessary to look to the ethical aspects: What are we doing with the animals , we use for production, which are intrusted to our care.

In this context it is important to know, that every animal, every plant, we are using, from which we are getting fruits, seeds, etc, is a being for itself. It has its own dignity, its own intrinsic value.

What does this mean to us as beekeepers?

## **2. Intrinsic value and the nature of bees**

I just said, that only to forego chemical substances against the varroa mite, is not enough to define organic beekeeping Especially in the current situation organic beekeeping has to refer to the welfare, health and the vitality of the bees. Who else, than the organic beekeepers is able and aware enough, to do this?

In this context, the most important question for the beekeeper, and the most important point within the rules of organic beekeeping is, what influences have the measures of the beekeeper to the health and the dignity of the bees. How we can respectate their intrinsic value and how we ca n improve their health and welfare. This is a question , very intensively related with the commen beekeeping practice.

To look to dignity and intrinsic value, these aspects mean, that in between an organic apiary the bees should have the possibility and the opportunity, to live their life corresponding to their nature, corresponding to their natural and their biological needs and requirements and according to their biological structure. But the reality of beekeeping today is very different . I would like to express this in a very simple and provocative term: Today the bees are no more allowed to live as a bee! The beekeepers do not respect their nature and do not pay enough attention to the biological necessities of the colonies they are dealing with.

Here some examples for this thesis:

- beekeepers very often do not use pure bees wax for foundations
- the interaction between honey harvest and feeding often produces stress to the bees
- the natural life of the bees is very often disturbed and manipulated from the beekeeper to make the bees producing more honey
- rearing new queens an d colonies is done in an artificial, but not in the natural way
- varroa control often produces stress to the bees

The beekeeper neglect what the bees need to follow their natural instincts. The main point in beekeeping today is the interest of the beekeeper. And the bees have to adapt themselves to these interests.

But the interest of the beekeeper is very often in discrepancy to the nature of the bees.

Here an example:

The most important process for a bee colony during the year is

- natural comb building
- reproduction( rearing new colonies and young queens) within the (natural) swarming process

But especially these two elemental processes have no place in modern beekeeping, and are directly opposite to the interest of the beekeeper: He wants a maximum of honey production

To achieve this, the beekeeper starts

- rearing queens artificially
- using chemical medicine to proceed against diseases
- to produce nuclei in an artificial and mechanistic manner
- moving bee hives to different flowers for fertilization of the flowers

In a long term, all these manipulations threaten life of the bees and weaken the health and vitality of the bee colonies. This is the opposite of a sustainable beekeeping. In the current situation, most of the colonies are far away from being really healthy. Often they are weak and ill. And also the varroa mite can be considered as an expression of weakness and susceptibility.

The current bad situation of bees is not only result of using insecticides in agriculture. But also result of the intensive manipulations of modern beekeeping, which neglects the nature and the biology of the bees. For a long time the bees had been able to compensate these manipulations and their stress. But in extend to the worsening of the environmental situation caused by the intensive agriculture, this fact becomes more and more obvious.

I think, to improve the vitality of the bees, beekeepers have to ask: What do the bees need for a good life, according to their nature? This will proceed long term strong and vital colonies and a sustainable future for beekeepers.

And I am convinced about this through my experiences in Germany as a professional and especially in Egypt.

### **3. Egyptian Experience**

Since 4 years I am working in the Nile Delta in the SEKEM bee project. We want to build up an organic apiary in Egypt. But this is not easily done, because we found a desolate situation with the bees there. The colonies were weak and ill. Many diseases exist in one colony: American foulbrood, European

foulbrood, sack brood, varroa. To produce 5 to 7 kg of honey, the beekeepers fed their bees with 10 to 15 kg of sugar.

First we tried to improve the level of health and vitality by some important measures:

- - changing varroa control from formic acid or chemicals to lactic acid
- - changing honey harvesting practice
- - changing feeding practice
- - starting a selection program

4 years later, we see good success:

- Diseases disappeared without using antibiotics
- Bee colonies start showing defense strategies against enemies (Hornets) and started to regulate inequilibrium by themselves
- The size of the colonies increased from 4,07 combs with bees per colony in spring 2008 to 6,7 combs with bees in spring 2010. In spring 2010 we had 22 colonies full of bees, occupying 10 Langstroth frames from 65 colonies. In former times we had only 3 or 4 strong colonies with 6 or 7 frames, occupied with bees.
- varroa regulation with lactic acid shows good success

These impacts show, how important it is, to look what the bees need. And how important it is, to consider and bear in mind their natural life and biological rhythms and life terms. And to develop a beekeeping practice dealing with this.

In Egypt I also learned, how important it is, to consider the relation between bees and their native surroundings, their relationship to the plants there and their adaptation to climate.

In a second strategy we started to work with the autochthonic *Apis Mellifera*, living in the Nile Valley since millions of years, and being cultivated there for a very long time. But now in danger to become extinct quickly, today nearly completely displaced by European honey bees.

#### **4. Demeter Bee Culture**

Demeter is a specific label of organic agriculture, which puts a strong focus on the fertility of the plants and soil, and especially on the quality of the Demeter products. Demeter is the oldest organic label in Germany.

Since 1995 rules for Demeter beekeeping exist too. They are very "nature related" and put the focus on a practice strongly accorded to the natural life of the bees.

The basics of Demeter Beekeeping are:

Queen rearing only by the natural swarming process

New colonies are produced by using and cultivating this swarming process

## Natural comb building at least in the brood chamber

This happens beside following the rules of regular organic beekeeping.

In the beginning, 1995, conventional and other organic beekeepers looked very suspicious to the Demeter beekeepers. They expected, that a beekeepers practice, based on these Demeter rules could not work. It would lead to chaotic comb building and a chaos with many swarming colonies, but without any honey.

Now, 15 years later, Demeter beekeeping is very lively and the movement increases everywhere and finds good interest and attention. The pessimistic prognosis didn't happen. The bees build up wonderful moveable natural combs in frames. This produces also a very good quality of bees wax. And a good quantity too.

The predicted swarming chaos didn't happen too. But the swarming process as the basic of queen rearing and founding new colonies produces strong and vital, long living queens. Honey production is about 20-30 % lower than in a conventional apiary. But the beekeeper has no work with queen rearing and would be able to care for more colonies.

The bees show good defense strategies against enemies ( wasps, hornets) and begin to repair disharmonies by themselves. In these 15 years since 1995 the rate of swarming colonies didn't increase over the years, also by only using "swarm queens"

The Demeter-beekeeper tries to work with his bees, and not against the bees. He tries to give the bees the opportunity to live a life according to their natural and biological conditions. To express and to live, what is essential and necessary for a good live as a bee.

The beekeeper tries to find a compromise between his interests and the interests of his bees. But Demeter beekeeping doesn't mean, that the beekeeper has to wait until all the swarms are hanging in the trees. It means , that the swarming instinct is not obstructed. But it can be expressed in different ways. Between the rules it is possible to give the colonies the opportunity to produce natural swarms. But it also possible to find a good compromise between beekeeper and his bees: This is the artificial pre - swarm. This means the beekeeper tries to work without obstructing the beginning swarming attitude and waits shortly before the natural swarm will leave the bee hive. Now he starts intervention in the natural process and produces an artificial swarm with the old queen. This is, in my eyes, a good compromise between ecology and economy. The bees have the opportunity to live the natural swarming development and process, as long as possible. And the beekeepers stops this process, just before the swarm will fly away.

This is cultivating the swarming process.

My experience is, that Demeter beemanagement is an agreeable and successful method of organic beekeeping. The beekeeper produces a good quality of honey and wax, free from chemical residues. But his focus lies on what the bees need. Healthy and vital bees always will bring him enough honey. This is the philosophy behind Demeter beekeeping. Vitality and sustainability guarantee a healthy economy. This method could be realized simply and everywhere. And it will be the first step to bee colonies, with long term fertilized queens, strong enough to resist diseases.