

# **The African way: healthy bee colonies and sustainable income maintenance**

**Dr. Wolfgang Ritter,  
Ute Schneider-Ritter,  
Martin Ritter,  
Gozde Okcu**  
Bees for the world



## **Abstract**

By honey production honeybees offer an important food item for human consumption. But by pollinating plants for a better harvest they contribute even more. In recent decades, this new service of bees is increasingly questioned. Honeybees are increasingly weakened by the changed environment and agriculture. The less varied diet and the increased use of pesticides make them more susceptible to disease. In many countries medicines are used to solve this problem. Indeed these only bring a short-term solution. In the long term, the natural self-healing powers of bee colonies need to be strengthened.

Bee colonies in East Africa usually do not have problems with brood diseases. The native bee races evidently own a very strong hygiene behaviour enabling them to remove infected larvae before American or European Foulbrood can develop. Obviously, this also helps them to keep the infestation rate by Varroa-Virus-Infection low. If there are reports of problems with this disease, they mostly come from so-called “modern” apiaries where the application of American / European management methods had been introduced and treatment of Varroa-Virus-Infection is practised. As a side effect, residues in wax and honey inevitably occur. However what is even more serious is that every single treatment deteriorates the natural self-healing capacity of the bee colony and prevents the colony from maintaining its natural tolerance against the Varroa mite.

In contrast to hives used in American / European management methods, bee colonies in rural development are managed in local and top-bar hives. A small hive size stimulates the hygienic behaviour of the bees and the colony's swarming instinct. Furthermore these bee colonies are allowed to migrate to other regions. They come back exactly in time for the next nectar flow. This natural selection is one of the strengths of native bees in East Africa.

If this natural renovation of the brood nest, repeated swarming and migration by swarms is interrupted, as it is done in most American and European management methods, nest and body hygiene behaviour is not sufficient to prevent the

outbreak of diseases. Therefore, it is better for Africa to cut its own path and to aim at finding an African solution without the need of medicaments, foreign bee races and hive systems: The African way.

