

# AFB Road-Map

1. This is a first attempt at “living with AFB”; how we proceed from here
2. It assumes that all the positive results are verified as correct
3. And hence, that AFB is present in most commercial beekeeping operations in the Western Cape.
4. And hence, that AFB is likely to already be well represented in the wild honeybee population of the Western Cape.
5. And hence, because of (3) and (4), that the short-term eradication of AFB is not feasible.
6. If AFB is only present in colonies in the Western Cape, then a containment strategy will be implemented, to try to prevent the spread of AFB to the rest of the country. This will entail a buffer zone where no beekeeping is allowed; as well as the compulsory irradiation or testing of all bee products moving from the Western Cape to the rest of the country.
7. If AFB is already present in parts of the rest of the country, then the same measures will apply to those areas.
8. These are just suggestions on the way forward, with the strategy to be work-shopped by all stakeholders.

## The suggested strategy will require:

- Continued inspection services.
- Continued analytical services.
- Continued DAFF support and DAFF taking responsibility for disease management.
- Appropriate legislation.
- Extensive monitoring and research.

## It is important to realize that, at present, we -:

- Have no idea about how seriously AFB is going to affect the commercial *Apis mellifera capensis* population. We do not know if 1%, 5%, 50% or 99% of colonies will get infected with AFB; we do not know if 1%, 5%, 50% or 99% of colonies will be sufficiently infected with AFB to exhibit clinical symptoms; we do not know if 1%, 5%, 50% or 99% of colonies infected with AFB will die from it; we do not know if 1%, 5%, 50% or 99% of colonies infected with AFB will recover from it.
- We also know very little about the success or otherwise of management tools such as the ‘shook-swarm’ method, and the various options of this that are available.
- We basically do not know if there will be natural tolerance to AFB in commercial *Apis mellifera capensis* honeybees, or if this tolerance will develop.
- And we know nothing about the effect on the wild *Apis mellifera capensis* population.
- And we know nothing about the effect on the *Apis mellifera scutellata* population, commercial and wild.

Suggested measures to be adopted are as follows:

- a) Within the affected area (Western Cape, or otherwise), beekeepers are free to carry on beekeeping as normal; including the movement of colonies, the trapping of colonies, the use of bees for commercial pollination, and the removal and marketing of bee products.
- b) Beekeepers are strongly recommended to adopt stringent quarantine and hygiene measures to limit the extent of AFB in their operations. This means keeping their hives, apiaries or regions as discrete unit, not interchanging hive components or bee products between these discrete units; not feeding colonies with any bee products; continually inspecting colonies for clinical symptoms of AFB, eliminating colonies with heavy infections of AFB and treating colonies with light AFB infections; keeping away from other beekeepers as far as possible; and being responsible with the bee products that they produce.
- c) All beekeepers and all sites are to be registered with DAFF.
- d) Legislation to be promulgated requiring the above registration, requiring all bee products that are transported from the infected area to anywhere else in South Africa be either irradiated or analysed for AFB, and requiring that all colonies exhibiting severe symptoms of AFB (100 or more cells exhibiting AFB) be immediately destroyed, without compensation.
- e) DAFF to maintain a continual inspection process in the affected area, to ensure compliance to (d). DAFF is to develop a procedure for the removal and destruction of severely affected colonies, by burning. No costs for the procedure are to be transferred to beekeepers. If irradiation is available as an option to the burning of colonies, and is preferred by the beekeeper, the irradiation procedure is to be administered by DAFF and the costs for irradiation are to be paid by the beekeeper.
- f) The onus is therefore on each beekeeper to manage the AFB infection rate in his/her colonies and apiaries, by shook swarm methods and other good beekeeping practices; failure to do so will result in colonies being destroyed, and all apiaries thoroughly inspected, on detection of severely infected colonies by inspectors.
- g) DAFF will also continue to survey in the non-affected areas of South Africa, in a continuous manner, with honey samples being collected for analysis, to monitor for the spread of AFB.
- h) A number of infected apiaries need to be designated as research apiaries, and the AFB infection in the apiaries allowed to run its course, to monitor the severity and impact of the AFB infection.
- i) Research also needs to be conducted on the shook-swarm method, in its various manifestations, as well as on other management options.
- j) Research is also needed on possible contributing factors such as *Varroa destructor* and *Nosema ceranae*.
- k) A decision needs to be taken on the use of antibiotics (Terramycin, OTC) for the control of AFB. It must either be allowed to be used for AFB control, or the use of OTC in honeybee colonies, even for the control of EFB, must be completely prohibited.

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