

## TERRESTRIAL ANIMAL HEALTH STANDARDS COMMISSION

## SEPTEMBER 2011 REPORT

## CHAPTER 9.6.

**INFESTATION VARROOSIS OF HONEY BEES WITH VARROA SPP.**

## Article 9.6.1.

**General provisions**

For the purposes of this chapter, varroosis is a *disease* of the honey bees; (*Apis* species) *Apis mellifera* L. It is caused by the Korea and Japan haplotypes of the mites in the genus *Varroa destructor*, primarily *Varroa destructor*, the original hosts of which are the Korea and Japan haplotypes of *Apis cerana* (under study). The mite is an ectoparasite of adults and brood of *Apis* spp. *mellifera* L. During its life cycle, sexual reproduction occurs inside the honey bee brood cells. Early signs of infection normally go unnoticed, and only when infection is heavy does it become apparent. The infection and spreads by direct contact from adult bee to adult bee, and by the movement of infested bees, and bee brood, bee products and used equipment associated with beekeeping. The mite can also act as a vector for viruses of the honey bee.

The number of parasites steadily increases with increasing brood activity and the growth of the bee population, especially late in the season when clinical signs of infestation can first be recognised. The life span of an individual mite depends on temperature and humidity but, in practice, it can be said to last from some days to a few months.

Standards for diagnostic tests are described in the *Terrestrial Manual*.

~~When authorising import or transit of the commodities covered in the chapter, with the exception of those listed in Article 9.6.2, Veterinary Authorities should require the conditions prescribed in this chapter relevant to the varroosis status of the honey bee population of the exporting country or zone.~~

## Article 9.6.2.

**Trade in Safe commodities**

When authorising import or transit of the following commodities, *Veterinary Authorities* should not require any varroosis related conditions, regardless of the varroosis status of the honey bee population of the *exporting country* or *zone*:

1. honey bee semen, honey bee eggs and honey bee venom;
2. extracted honey, pollen, propolis, and royal jelly for human consumption and processed beeswax (not in the form of honeycomb).
3. extracted honey and processed beeswax.

~~When authorising import or transit of other commodities listed in this Chapter, Veterinary Authorities should~~

require the conditions prescribed in this Chapter relevant to the varroosis status of the honey bee population of the ~~exporting country or zone~~.

#### Article 9.6.3.

### Determination of the varroosis status of a country or zone/~~compartment~~

The varroosis status of a country or ~~zone/compartment (under study)~~ can only be determined after considering the following criteria:

1. a *risk assessment* has been conducted, identifying all potential factors for varroosis occurrence and their historic perspective;
2. varroosis should be notifiable in the whole country or ~~zone/compartment (under study)~~ and all clinical signs suggestive of varroosis should be subjected to field and laboratory investigations;
3. an on-going awareness programme should be in place to encourage reporting of all cases suggestive of varroosis;
4. the *Veterinary Authority* or other *Competent Authority* with responsibility for reporting and control of *diseases* of honey bees should have current knowledge of, and authority over, all domesticated *apiaries* in the country.

#### Article 9.6.4.

### Country or zone/~~compartment (under study)~~ free from varroosis

#### 1. Historically free status

A country or ~~zone/compartment (under study)~~ may be considered free from the *disease* after conducting a *risk assessment* as referred to in Article 9.6.3. but without formally applying a specific *surveillance* programme (historical freedom) if the country or ~~zone/compartment (under study)~~ complies with the provisions of Chapter 1.4.

#### 2. Free status as a result of an eradication programme

A country or ~~zone/compartment (under study)~~ which does not meet the conditions of point 1 above may be considered free from varroosis after conducting a *risk assessment* as referred to in Article 9.6.3. and when:

- a) the *Veterinary Authority* or other *Competent Authority* with responsibility for reporting and control of *diseases* of honey bees has current knowledge of, and authority over, all domesticated *apiaries* existing in the country or ~~zone/compartment (under study)~~;
- b) varroosis is notifiable in the whole country or ~~zone/compartment (under study)~~, and any clinical cases suggestive of varroosis are subjected to field and laboratory investigations;
- c) for the 3 years following the last reported *case* of varroosis, an annual survey supervised by the *Veterinary Authority*, with **no positive negative** results, have been carried out on a representative sample of *apiaries* in the country or ~~zone/compartment (under study)~~ to provide a confidence level of at least 95% of detecting varroosis if at least 1% of the *apiaries* were infected at a within-*apiary* prevalence rate of at least 5% of the hives; such surveys may be targeted towards areas with a higher likelihood of *disease*;

- d) to maintain free status, an annual survey supervised by the *Veterinary Authority*, with negative results, is carried out on a representative sample of *apiaries* in the country or ~~zone/compartiment (under study)~~ to indicate that there has been no new *cases*; such surveys may be targeted towards areas with a higher likelihood of *disease*;
- e) ~~(under study)~~ there is no self-sustaining feral population of *Apis* species *A. mellifera*, the Korea and Japan haplotypes of *Apis cerana* or other possible host species in the country or ~~zone/compartiment (under study)~~;
- f) the importation of the *commodities* listed in this chapter into the country or ~~zone/compartiment (under study)~~ is carried out in conformity with the recommendations of this chapter.

Article 9.6.4.bis

Apiary free from varroosis

1. The *apiary* is located in a country or *zone* complying with the requirements in points 2. a) b) and f) of Article 9.6.4.;
2. the *apiary* should be situated in an area with a radius of 50 kilometres in which no *case* of varroosis has been reported for at least the past 2 years; and
3. the *apiary* meets the conditions prescribed in Article 4.14.3.

Article 9.6.5.

**Recommendations for the importation of live queen honey bees, worker bees, and drones, with or without associated brood combs larvae of honey bees, pupae of honey bees and brood combs**

*Veterinary Authorities* of *importing countries* should require the presentation of an *international veterinary certificate* attesting that the *commodities* bees come from an *apiary* situated in a country or ~~zone/compartiment (under study)~~ officially free from varroosis : the *apiary* meets the conditions prescribed in Article 9.6.4. bis.

In the case of the country or zone is not free from varroosis, *Veterinary Authorities* of *importing countries* should only allow the importation of queen honey bees with attendants worker bees without associated brood combs and should require that the bees meet the following conditions:

1. come from an artificial broodless swarm with the caged queen, and
2. caged queen and swarm have been treated with an effective veterinary medicinal product, and
3. were inspected by a representative of the *Veterinary Services* prior to the shipment and showed no evidence of the presence of the mites.

Article 9.6.6.

**Recommendations for the importation of larvae and pupae of honey bees**

*Veterinary Authorities* of *importing countries* should require the presentation of an *international veterinary certificate* attesting that the products:

1. ~~were sourced from a free country or *zone/compartiment* (under study); or~~
2. ~~have originated from queens in a *quarantine station* and were inspected and found free of *Varroa destructor*.~~

Article 9.6.76.

### Recommendations for the importation of used equipment associated with beekeeping

*Veterinary Authorities* of *importing countries* should require the presentation of an *international veterinary certificate* attesting that the equipment:

1. comes from a country or ~~*zone/compartiment* (under study)~~ free from varroosis; or
2. contains no live honey bees or bee brood and has been held away from contact with live honey bees for at least ~~7~~21 days prior to shipment; or
3. has been treated to ensure the destruction of *Varroa* species ~~*destructor*~~, in conformity with one of the following procedures:
  - a) heating to 50°C core temperature and holding at that temperature for 20 minutes, or
  - b) freezing for 48 hours once the core reached -20°C, or
  - c) fumigation with methyl bromide at a rate of 48 g per cubic metre at atmospheric pressure and at a temperature of 10-15°C for a period of 2 hours, or
  - d) irradiation with 350 Gy.

referred to in Chapter X.X: recommended by the OIE (under study).

Article 9.6.87.

### Recommendations for the importation of honey-bee collected pollen and propolis for apiculture use, unprocessed beeswax (in the form of honeycomb), and comb honey and propolis

*Veterinary Authorities* of *importing countries* should require the presentation of an *international veterinary certificate* attesting that the products:

1. come from a country or ~~*zone/compartiment* (under study)~~ free from varroosis; or
2. contain no live honey bees or bee brood and has been held away from contact with live honey bees for at least ~~7~~21 days prior to shipment; or

3. have been treated to ensure the destruction of *Varroa* species destructor, in conformity with one of the following procedures referred to in Chapter X.X. recommended by the OIE (under study):
- a) heating to 50°C core temperature and holding at that temperature for 20 minutes, or
  - b) freezing for 48 hours once the core reached -20°C, or
  - c) fumigation with methyl bromide at a rate of 48 g per cubic metre at atmospheric pressure and at a temperature of 10-15°C for a period of 2 hours, or
  - d) irradiation with 350 Gy.