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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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Protocol of diagnosis for acariosis of bees

蜜蜂武氏蜂盾螨病诊断方法

(English Translation)

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Foreword

This standard refers to the 2004 edition of the OIE Manual for Diagnostic Reagents and Vaccines for Terrestrial Animals.

Appendix A of this standard is a normative appendix.

This standard is proposed and managed by the National Certification and Accreditation Administration.

This standard was drafted. Beijing Entry-Exit Inspection and Quarantine Bureau of the People's Republic of China.

1 Scope

This standard specifies the diagnostic method for the bee sting Shield.

This standard applies to the quarantine of the bee sting Shield.

2 Principle

The beeosis of bees is caused by the bee mites. Is an in vivo transmission of the bee's respiratory system the worms live and reproduce in the chest and trachea of the bees, feed on the host's hemolymph, and sometimes parasitize the head, chest and abdomen. along with as the number of parasitic mites increases, the trachea gradually develops lesions. Due to melanin, the original normal white translucent tracheal wall becomes non-Transparent and with black spots, the trachea is filled with different stages of tracheal fistula.

3 Equipment and reagents

The equipment and reagents that need to be prepared are.

- Optical microscope;
- Dissecting mirror;
- 8% potassium hydroxide solution;
- 1% methylene blue solution;
- 70% alcohol.

4.1 Anatomy

4.1.1

Randomly sample 50 bee samples (live, dead or sudden death), first kill with alcohol or freeze, place the bee body up, back down and supine or pinch with your thumb and forefinger.

4.1.2

Remove the head and forefoot with tweezers, remove the neck piece around the neck, open the exposed trachea, and see if the trachea closest to the stomata is infested.

4.1.3

Cut the chest between the middle leg and the front leg, and the thin disc is further processed to remove muscle tissue.

4.1.4

Set 8% potassium hydroxide solution (see Appendix A for solution preparation) and heat gently for about 20 minutes or without heating overnight.

4.1.5

Use a 18x~20x dissection mirror to examine the first pair of trachea with muscle tissue, or move the trachea to another slide with glycerin or water.

Observe at a higher magnification.

4.1.6

Small oval mites can be easily seen through the transparent tracheal wall.

4.1.7

Judgment. Under the anatomical microscope, it was found that the oval-shaped mites were positive in the trachea, and no oval mites were found in the trachea.

Is a negative result.

4.2 Staining method

4.2.1

Remove the head and front legs.

4.2.2

A pair of legs in the middle of the base of the front wing are then cut transversely to the front.

4.2.3

Remove the slice from 1mm to 1.5mm and set 8% potassium hydroxide solution.

4.2.4

Gently stir and heat until near the boiling point for about 10 minutes until the internal tissue is dissolved and removed. Do not move the chitin tissue.

4.2.5

Filter and collect the sections and rinse with tap water for 2 min to 5 min.

4.2.6

Staining. Dyeing with 1% methylene blue (see Appendix A for solution preparation), sectioning in distilled water for 2 min to 5 min, with 70% wine Fine rinse, when stored in 95% alcohol, can be further colored for 6h.