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PEOPLE'S REPUBLIC OF CHINA**

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Diagnostic techniques for silkworm white muscardine

蚕白僵病诊断技术

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the Ministry of Agriculture and Rural Affairs of the People's Republic of China. This document is under the jurisdiction of the National Technical Committee on Animal Health Standardization (SAC/TC181). This document was drafted by: Southwest University, Sericulture Research Institute of Chinese Academy of Agricultural Sciences, and Sichuan Provincial Sericulture Management Station. The main drafters of this document are. Yu Bin, Chen Tao, Ma Luyun, Meng Xianzhe, Li Chunfeng, Pan Guoqing, Chen Shuang, He Zhangshuai, and Fan Zhuoxi.

A disease affecting the sericulture industry. After silkworms die from this disease, they are covered with powdery white or off-white conidia, hence the name "white muscardine disease." In my country, it is classified as a Class III animal disease. *Beauveria bassiana* belongs to the phylum Ascomycota, class Sordariomycetes, order Hypocreales, and is associated with Cordyceps. *Beauveria* species belong to the family Cordycipitaceae and the genus *Beauveria*. Among them, *Beauveria bassiana* is the most pathogenic to silkworms. *Beauveria tenella* (often called Brück's white muscularis) is the most common pathogenic bacterium, causing the typical symptoms of white muscularis. Risky. Natural infections with other species of the *Beauveria* genus are extremely rare. Diagnostic

techniques for silkworm white muscular dystrophy

1 Scope

GB/T 47216-2026 is the Chinese national standard covering diagnosing white muscardine in silkworms - a *Beauveria* infection that mummifies the larva and covers it in white spores, and that can sweep a rearing room. It belongs with the silkworm disease control standard GB/T 47302-2026 published in the same period. The standard fixes the sampling, the laboratory methods - serological, microscopic and molecular as applicable - the interpretation of the results and the criteria for a confirmed diagnosis. First edition, in force since 1 September 2026, one of a group of animal disease diagnostic standards published together. It was issued on 27 February 2026 and has been in force since 1 September 2026, as a first edition. The document is under the responsibility of the Ministry of Agriculture and Rural Affairs. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document describes the clinical diagnosis, microscopic examination, pathogen isolation and identification, polymerase chain reaction (PCR), and quantitative fluorescence detection of silkworm white muscardine disease. Diagnostic methods such as PCR. This document applies to the diagnosis, detection, and epidemiological investigation of silkworm white muscular dystrophy.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 6682 Specifications and test methods for water used in analytical laboratories

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4. Abbreviations The following abbreviations apply to this document. BHQ. Blackhole Quencher Ct. Cyclethreshold FAM. 6-Carboxyfluorescein

5.1 Epidemiology

5.1.1 Silkworm white muscardine disease occurs mostly in rainy seasons and humid

silkworm-producing areas. The disease can infect silkworms at all instars, but it is mostly sporadic in the early stages (1st to 3rd instar). The disease is more common in the later stages of silkworm development (4th to 5th instar). The time from infection to death is generally 2-4 days for smaller silkworms and 4 days for larger silkworms. 6d.

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