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

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**Methods for quarantine and identification of *Phymatortichopsis
omnivorum* (Duggar) Hennebert**

棉花根腐病菌检疫鉴定方法
(English Translation)

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Table of Contents

- Foreword
- Introduction
- 1 Scope
- 2 Definitions and terms
- 3 Principle

Foreword

Appendix A of this standard is a normative appendix, Appendix B, Appendix C, and Appendix D are informative appendices.

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

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

Introduction

Cotton root rot, also known as Texas root rot, is one of the devastating diseases of cotton and various plants. At present, China has not yet occurred.

Exogenous quarantine of the second category of dangerous pests. Pathogens have a wide range of hosts (see Appendix D), which can infect more than 2,300 plants and make plants Withered, leaves fall off and even die, but the losses are mostly cotton, alfalfa, stone fruit trees and tree-lined trees; the diseased plant disease department produces a large number of bacteria Nuclear, sclerotia survives in the soil for at least 5 years, up to 12 years. pathogens can be transmitted from the soil and roots. Cotton root rot is a cotton A devastating disease can reduce production by more than 15%. Cotton is one of the main economic crops that affects the people's livelihood in China, preventing the disease from being introduced into me.

The country is of great significance in protecting the development of China's cotton industry.

In the process of standard setting, the latest international research results have been absorbed, combined with the biological characteristics and morphological characteristics of pathogenic bacteria.

On the basis of in-depth research, various technical requirements for quarantine testing and identification of cotton root rot were determined.

Quarantine and identification method for cotton root rot

1 Scope

This standard specifies the quarantine and identification methods for cotton root rot in imported phytosanitary.

Quarantine and identification of cotton root rot.

2 Definitions and terms

The following terms and definitions apply to this standard.

A pathogenic fungus that is one of the important pathogens that are parasitic on dicotyledonous plants, especially cotton.

In the modified No. On the medium 70, the mycelium is loose, white, and has a right-angled branch. The lateral hyphae are cross-shaped and the tip of the branch is sharp.

Shaped like a needle (see Annex B), the branched hyphae are often intertwined into a mycelial bundle, initially colorless, and mature after cinnamon.

It is produced from large cells of hyphae, spherical or elliptical, and has a size (12 to 20) μm x (20 to 30) μm .

Produced on the conidiophores, mostly spherical, diameter 4.8 μm ~5.5 μm ; elliptical spore size is (5~6) μm x (6-8) μm , single spore, colorless.

The white hyphae are closely intertwined and chained, and gradually become brown to dark brown over time. Mature fungus There is a central pith composed of parenchyma cells, and the outer part is a thick cortex composed of thick-walled cells, ranging in size from 1 mm to 2 mm, round or not.

Regular shape, single or cross.

3 Principle

Cotton root rot is affiliated with the fungus kingdom (KingdomFungi), Deuteromycota, and Hyphomyce-Pan is a devastating pathogen that harms dicotyledonous plants, especially cotton. The pathogen is present in the soil as a sclerotia or as a diseased body, or it exists in plants in the form of hyphae, spreads by humans with long distances, or spreads by means of wind, water, etc. pathogen the bacteria grow under suitable conditions, infecting the roots of the cotton, causing the roots to rot, resulting in insufficient water supply to the plants, and sudden death when the cotton is budded.

The hazard of the pathogen on the host plant, the colony on the selective medium and the morphological characteristics of the hyphae are the main indicators for identifying the

pathogen.

in accordance with.