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

SN/T 1375-2004

**Methods for quarantine and identification of *Pantoea stewartii*
(Smith) Mergaert et al.**

玉米细菌性枯萎病菌检疫鉴定方法
(English Translation)

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Foreword

Appendix A and Appendix B of this standard are normative appendices.

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

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

Introduction

Stewart's Bacterial Wilt of Corn is a devastating disease on corn.

In 1992, the Ministry of Agriculture promulgated the "List of Imported Plant Quarantine for Sexually Transmitted Diseases, Insects and Weeds in the People's Republic of China", which is classified as a type of danger.

Harmful creatures. In order to protect China's agricultural production, prevent the bacterial wilt of corn from being introduced into China, and do a good job in quarantine of imported plants, standardized and correct this standard is specially formulated to master the quarantine and identification methods of the pathogen.

Quarantine and identification method for bacterial wilt disease of maize

1 Scope

This standard specifies the quarantine and identification methods for bacterial wilt pathogens in imported phytosanitary plants.

This standard is applicable to the quarantine and identification of bacterial wilt pathogens in corn for introgression and other uses.

2 Normative references

The terms in the following documents become the terms of this standard by reference to this standard. All dated references, followed by all Modifications (not including errata content) or revisions do not apply to this standard, however, parties to agreements based on this standard are encouraged to study if it is possible to use the latest version of these files? For undated references, the latest edition applies to this standard.

GB/T 4789.28-1994 Food hygiene microbiological examination Staining method, medium and reagents

3.1 Classification status of bacterial wilt pathogens in maize

Dye, a prokaryotic organism, Procaryotae Bacterium, Bacillus, Gracilicutes, Enterobacteriaceae, no flagella, blunt ends, solitary or short-chain. The bacterial blight of corn caused by the pathogen on corn is a typical dimension.

Tube bundle disease, the disease is a species transmission, and the carrier seeds are the main factors for its long-distance transmission.

3.2 Principle of quarantine

Enzyme-linked immunosorbent assay (ELISA) and immunoadsorption separation assays use serological techniques to have specific advantages, and conventional

4 Instruments, equipment

Small pulverizer, ultra-clean workbench, balance, constant temperature incubator, autoclave, biological microscope, microplate reader, plate washer, acidity meter, high speed centrifuge, adjustable pipette, polystyrene plastic petri dish, etc.

5 Drugs, reagents, culture media

The drugs required for the test were of analytical grade.

5.1 Drugs

Sodium carbonate (Na_2CO_3), sodium bicarbonate (NaHCO_3), disodium hydrogen phosphate ($\text{Na}_2\text{HPO}_4 \cdot 12\text{H}_2\text{O}$), potassium dihydrogen phosphate (KH_2PO_4), sodium chloride (NaCl), potassium chloride (KCl), calcium chloride (CaCl_2), Tween-20, dipotassium hydrogen phosphate (K_2HPO_4), magnesium sulfate ($\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$), hydrogen peroxide (H_2O_2), tetramethylbenzidine, dimethyl sulfoxide, peptone, sucrose ($\text{C}_{12}\text{H}_{22}\text{O}_{11}$), ascorbic acid ($\text{C}_6\text{H}_8\text{O}_6$), protein A (SPA), enzyme-labeled protein A (HRP-SPA), mercury (HgCl) or sodium hypochlorite (NaOCl), 95% ethanol ($\text{CH}_3\text{CH}_2\text{OH}$), and the like.

5.2 Reagents

Gram staining solution, flagella staining solution.

5.3 Medium

Modified W's medium. See Appendix A for the production method.