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SN

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

SN/T 3178-2012

**Detection and identification *Anisogramma anomala* (Peck)
E.Muller**

榛子东部枯萎病菌检疫鉴定方法
(English Translation)

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard uses redrafted Law Amendment uses EPPO Standard PM7/90 (1).

This standard and EPPO Standard PM7/90 (1) of the technical differences and their reasons are as follows.

--- On normative references, this standard has been adjusted with technical differences, in order to adapt to China's technical conditions, the adjusted situation Focus is reflected in the status of Chapter 2, "Normative references", the specific adjustments are as follows.

- increase cited SN/T 2122 (see 6.1);

- increase cited SN/T 1157 (see 6.1).

--- Preface to increase the present standards based, centralized departments, the drafting units, the main drafter of the reasons for the GB/T 1.1-2009 Claim.

--- Amend the "Chapter 1" and the provisions of this standard applies to Eastern filbert blight from infected areas *Corylus* (*Corylus* spp.) Quarantine and eastern hazelnut seedlings wilt pathogen identification, the reason for the enhanced operability.

--- Added "3.2 quarantine and identification based on" the provisions eastern hazelnut *Fusarium* form, damage symptoms, culture traits, host range, Transmission characteristics are the main basis for the identification, causes a standard structural adjustment, to adapt to China's technical requirements.

--- Added "4 equipment, utensils, reagents and media," because the standard structure

adapted to the technical conditions of our country.

--- Modified "5.2.2 pathogen morphology," adds producer and a method similar species beech branch dry *Fusarium oxysporum* (A.vir-gultorum) morphological characteristics of distinction, the reason for the enhanced operability standards.

--- Modify the "isolation and culture 5.2.3 Characters", modify the method of isolation and culture of Eastern filbert *Fusarium oxysporum*, the reason for the enhanced standard Operability.

--- Added "6 result judgment" because the standard structural adjustment, to adapt to China's technical requirements.

--- Added "7 sample storage" because the standard structural adjustment, to adapt to China's technical requirements.

--- Added "8 species preservation" because the standard structural adjustment, to adapt to China's technical requirements.

--- Added "Appendix B (informative) Distribution eastern filbert blight, host, route of transmission, symptoms and biological characteristics" Reason for the standard structural adjustment.

--- Added "Appendix C (informative) eastern filbert blight morphology diagram" because the standard structural adjustment.

--- Added "Appendix D (informative) deformed shell spore genus (*Anisogramma*) compare two similar species identifying characteristics" for the reasons Enhanced operability standards.

--- Removed "Appendix E (normative) Main reference" because a reference to other supporting scientific literature.

--- Deleted "1 Introduction" because the standard structural adjustment.

--- Deleted "4.2 biochemistry and molecular biology methods applied instructions." No real reason for its technical content.

--- Deleted "5 of reagents and media," because the standard structure adapted to the technical conditions of our country.

--- Deleted "6 reports and records" because the standard structural adjustment.

--- Deleted "7 further sources of information" because the standard structural adjustment.

--- Deleted "8 Acknowledgements", the reason for the standard structural adjustment.

--- Remove the "Isolation and culture of Eastern filbert *Fusarium* Appendix" because the standard structural adjustment.

--- Removed "Appendix culture traits" because the standard structural adjustment.

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

This standard was drafted. People's Republic of China Jiangsu Entry-Exit Inspection and Quarantine Bureau, Nanjing Forestry University.

1 Scope

This standard specifies the entry plant quarantine in Hazel (*Corylus* spp.) East hazelnut seedlings on *Fusarium oxysporum* [*Anisogramma anomala* (Peck) E. Muler] quarantine and identification methods.

This standard applies to Eastern filbert blight hazel from infected areas belong seedlings quarantine and eastern hazelnut *Fusarium* identification.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

SN/T 1157 export plant seedlings quarantine rules SN/T 2122 entry and exit quarantine of plants and plant products sampled Principle 3

3.1 Taxonomic status

English name. eastern filbert blight Scientific name. *Anisogramma anomala* (Peck) E. Muler
Synonyms. *Apioporthae anomala* (Peck) Hohn *Cryptosporella anomala* (Peck) Saccardo
Eastern filbert genus *Fusarium oxysporum* Fungi (Fungi), Ascomycetes (Ascomycetes),
between the seat shell mesh (Diaporthales), black shell Yuba Section (Valsaceae),
deformed shell spore genus (*Anisogramma*).

3.2 Based quarantine and identification

Eastern filbert shape wilt pathogen, damage symptoms, culture traits, host range, transmission characteristics are the main basis for their identification.

4.1 Equipment

Stereoscopic microscope (with a microscopic camera device), bio-microscope (with a microscopic camera device) (x 400, x 1000), the balance (accuracy 0.001g), clean bench, incubator, pH meter, Autoclave like.

4.2 Appliances

Micrometer, scalpels, UV lamp, hand-held magnifying glass, pick a needle, beakers, petri dishes, flasks, weighing bottles, tweezers, rulers, scissors, slide glass Sheet, single concave slides, well-shaped slides, cover slips, measuring alcohol lamp, straws, pipettes and the like.

4.3 Reagents

Sterile water, distilled water, rifampicin ($C_{43}H_{58}N_4O_{12}$), potassium nitrate (of KNO_3), ammonium nitrate (of NH_4NO_3), calcium chloride ($CaCl_2$ ·