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SN/T 3447-2012

Detection and identification of strawberry multiplier phytoplasma

草莓簇生植原体检疫鉴定方法

(English Translation)

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Foreword

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

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

This standard was drafted. People's Republic of China Yantai Exit Inspection and Quarantine, Chinese Academy of Inspection and Quarantine.

1 Scope

This standard specifies the clustered strawberry phytoplasma quarantine and identification of the basic principles of biology and molecular methods.

This standard applies to strawberries and strawberries Strawberry clustered plant quarantine and identification of the original body.

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 1193 genetic testing laboratory technical requirements

3 Terms and Definitions

The following terms and definitions apply to this document.

Polymerase chain reaction Under the action of a polymerase to DNA template, dNTPs as substrate, two reverse primer as a starting point, according to the base pairing original

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Then, according to the nucleotide sequence of DNA, synthesis of DNA complementary to the template strand of the process. PCR is an in vitro gene amplification.

SYBRGreen real-time fluorescence PCR SYBRGreenrealtimePCR SYBRGreen reagent contains a fluorescent dye, a fluorescent dye that can be combined to produce a fluorescent double-stranded DNA, the use of fluorescent Optical signal accumulation time monitoring the entire PCR process. As the PCR reaction, the PCR reaction product was continuously accumulated, the fluorescence intensity signal Etc. also increase the proportion. After each cycle, the fluorescence intensity of a signal collecting, fluorescence intensity can be monitored by changes in the amount of product variants Technology, thereby obtaining a fluorescence amplification plot. After completion of the PCR reaction, will generate a melting curve, the peak level can be determined Given the amount of PCR product, a single peak showing strong specific PCR amplification. SYBRGreen real-time PCR with a common PCR primers Thus, without the need for additional probes are designed.

4.1 Taxonomic status

Strawberry clustered phytoplasma (Strawberrymultiplierphytoplasma) phytoplasma belonging 16SrI-K subgroups. Additional information can be found Appendix A.

4.2 Detection principle

This standard is based primarily on the detection of gene sequence information phytoplasma. First, according to phytoplasma universal primers 16sRNA gene PCR amplification was performed to determine whether the object is a phytoplasma quarantine; then, two pairs of clusters of strawberry phytoplasma specific primers SYBRGreen real-time PCR and electrophoresis result of determination, it is determined whether the quarantine strawberry phytoplasma clustered.

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