

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

SN/T 1135.2-2016

Replacing SN/T 1135.2-2003

Detection and identification of Potato yellow dwarf virus

马铃薯黄化矮缩病毒检疫鉴定方法

(English Translation)

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Table of Contents

Foreword
1 Scope
2 Normative references
3 Potato yellowing dwarf virus basic information
4 Methodology
5 Apparatus, Equipment, and Reagents
5.1 Instruments and Equipment
5.2 Appliances
5.3 Reagents

Foreword

The SN/T 1135 series of standards is divided into 13 parts.

- Part 1. Quarantine and identification methods for potato cancer;
- Part 2. Quarantine and identification methods for potato yellowing dwarf virus;
- Part 3. Quarantine and identification methods for potato vetch virus;
- Part 4. Quarantine and identification methods for potato smut powder;
- Part 5. Quarantine and identification methods for potato ring rot bacteria;
- Part 6. Quarantine and identification methods for potato rot rot.
- Part 7. Potato A virus quarantine and identification method;
- Part 8. Quarantine and identification methods for potato gangrene pathogens;
- Part 9. Quarantine and identification methods for potato bacterial wilt;
- Part 10. Potato V virus quarantine and identification methods;
- Part 11. Quarantine and identification methods for potato leaf spot pathogens;
- Part 12. Quarantine and identification methods for potato M virus;
- Part 13. Quarantine and identification methods for potato virus Y.

This section is Part 2 of SN/T 1135.

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

This section replaces SN/T 1135.2-2003 "Potato yellow dwarf virus quarantine and identification methods." this section compared with SN/T 1135.2-2003, the main technical differences are as follows.

- Deleted the "terms and definitions" chapter;
- Added chapter "Potato Yellow Dwarf Virus Basic Information";
- Deleted the "Spot Quarantine and Sampling" section;
- Added "detection method" section;
- Increased RT-PCR detection method.

1 Scope

This part of SN/T 1135 specifies the basic principles and methods for quarantine and identification of potato yellowing dwarf virus.

This section applies to the inspection of potato yellowing dwarf virus in potato germplasm such as all incoming seed potatoes, commodity potatoes, tissue culture seedlings, and virus-free seedlings.

Disease identification and field investigations caused by potato yellowing dwarf virus.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. For undated references, the latest version (including all amendments) applies to this document.

SN/T 1840 Plant Virus Immunoelectron Microscopy Assay
SN/T 2122 Quarantine sampling of entry and exit plants and plant products

3 Potato yellowing dwarf virus basic information

Chinese name. Potato yellowing dwarf virus Scientific name. Potatoyellowdwarfvirus

Abbreviation. PYDV Taxonomic status. Rhabdoviridae, Nucleorhabdovirus.

See Appendix A for additional information on potato yellowing dwarf virus.

4 Methodology

The serological, molecular biological and biological characteristics of potato yellowing dwarf virus are the main basis for quarantine and identification.

5.1 Instruments and Equipment

Electronic analytical balance (0.0001g), small centrifuge, bench-top refrigerated centrifuge, constant-temperature water bath, microplate reader, ordinary PCR, electrophoresis System, pH meter, gel imaging system, 4 °C refrigerator, clean bench, -80 °C ultra-low temperature refrigerator, autoclave, ice maker, vortex Devices, microwave ovens, electron transmission microscopes, etc.

5.2 Appliances

Adjustable micropipettes (2.5μL, 10μL, 20μL, 100μL,.200μL, 1000μL, 5000μL) and corresponding RNase-free Tips, RNase-free centrifuge tubes, PCR tubes, mortars, sample bags, labels, etc.

5.3 Reagents

Except for special instructions, all experimental reagents were of analytical grade.