

ICS 65.020.20

CCS B 16



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

GB/T 45590-2025

Detection and identification of *Leptosphaeria lindquistii* Frezzi

向日葵黑茎病菌检疫鉴定方法

Issued on: April 25, 2025

Implemented on: November 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

- Foreword
- 1 Scope
- 2 Normative references
- 3 Terms and definitions
- 4 Basic Information
- 5 Identification Principles
- 6 Instruments and Apparatus
- 6.1 Instruments

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document is proposed and coordinated by the National Technical Committee on Plant Quarantine Standardization (SAC/TC271).

This document was drafted by: Ningbo Institute of Inspection and Quarantine Science and Technology (Ningbo National Inspection Trade Facilitation Service Center), Chinese Academy of Sciences Microbiology Institute of Biological Sciences, Chinese Academy of Inspection and Quarantine, Tianjin Customs of the People's Republic of China.

The main drafters of this document are Duan Weijun, Cai Lei, Guo Lixin, Li Xuelian, Zhang Huili, Lei Rong, Xu Han, Liao Fang and Chen Xianfeng.

Quarantine and identification method of sunflower black stem pathogen

1 Scope

This document describes the morphological and molecular detection methods for sunflower blackstem pathogen.

This document applies to the quarantine detection and Identification.

2 Normative references

This document has no normative references.

3 Terms and definitions

There are no terms or definitions that require definition in this document.

4 Basic Information

Chinese name. Sunflower blackstem pathogen.

Classification. Fungi, Ascomycota, Pezizomycotina, Do- sphaeriaceae), Leptosphaeria.

For other relevant information on this pathogen, please see Appendix A.

5 Identification Principles

The symptom characteristics, culture characteristics, morphological characteristics and DNA sequence characteristics of the sunflower blackstem pathogen are the basis for identifying the pathogen.

According to the symptoms caused by sunflower blackstem pathogen on host plants, its disease characteristics were observed; according to the After being cultured on the substrate, the macroscopic morphological characteristics and microscopic microstructure of the colony were observed; based on the deoxyribonucleic acid of the sunflower black stem pathogen PCR) detection method and real-time fluorescence PCR detection method; through the effective combination of these methods, it is determined whether the sample carries sunflower black stem Germs.

6.1 Instruments

6.1.1 Ordinary refrigerator. 4°C~-20°C.