

ICS 65.020.01
CCS B 15



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

GB/T 23391.1-2026

Replacing GB/T 23391.1-2009

**Technical specification for the control of major corn diseases
and insect pests - Part 1: Northern corn leaf blight**

玉米主要病虫害防治技术规范 第1部分：玉米大斑病

Issued on: February 27, 2026

Implemented on: September 1, 2026

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

Table of Contents

- 1 Scope
- 5 Agricultural pest control
- 6 Chemical control
- 7 Biological control

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document is Part 1 of GB/T 23391, "Technical Specifications for the Control of Major Diseases and Pests of Maize". GB/T 23391 has been published as follows: Part 2.

1. Maize Leaf Spot;

2. Corn Leaf Spot Disease;

3. Asian Corn Borer. This document replaces GB/T 23391.1-2009 "Technical Specifications for the Control of Large and Small Leaf Spots and Corn Borers in Maize - Part

1. Large Leaf Spots in Maize". Compared with GB/T 23391.1-2009, the main technical changes in the "Disease" standard, apart from structural adjustments and editorial modifications, are as follows:

a) The principles for the prevention and control of maize leaf spot have been changed (see Chapter 4, Chapter 4 of the 2009 edition);

b) Planting disease-resistant varieties changed the selection of disease-resistant varieties (see 5.1, 2009 edition 5.1);

c) The evaluation of variety resistance to large leaf spot has been removed (see section 5.2 of the 2009 edition);

d) The timely early broadcasting requirement has been removed (see 6.1 in the 2009 version);

e) Change the requirement for reasonable dense planting to a requirement for planting (see 5.2,

6.2 in the 2009 edition);

1 Scope

GB/T 23391.1-2026 is the Chinese national standard covering controlling northern corn leaf blight - a fungus that takes hold in cool wet summers, managed by resistant hybrids, by rotation and residue management and, where it is worth it, by a fungicide timed to the crop's growth stage. It replaces GB/T 23391.1-2009 and has been in force since 1 September 2026, with Part 2 on southern leaf blight and Part 3 on the corn borer. It was issued on 27 February 2026 and has been in force since 1 September 2026, replacing GB/T 23391.1-2009. The document is under the responsibility of the Ministry of Agriculture and Rural Affairs. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document establishes the principles for the prevention and control of maize leaf spot, specifies the requirements for agricultural, chemical, and biological control, and describes the record-keeping process. Etc. verification methods. This document applies to the prevention and control of corn leaf blight.

4.Prevention and Control Principles Adhere to the plant protection policy of "prevention first, comprehensive control", prioritize the use of disease-resistant varieties and ecological regulation measures, and combine chemical control and biological control. Treatment involves implementing precise and comprehensive prevention and control measures for diseases based on accurate disease prediction and forecasting.

5 Agricultural pest control

5.1 Select disease-resistant varieties Based on the composition of the physiological races of maize leaf spot pathogen in the local area, promote the planting of multi-gene resistant and disease-tolerant varieties, and pay attention to... Rotate planting of varieties with the same disease-resistant genes or combinations (see Appendix A for a description of the symptoms of maize leaf spot).

5.2 Planting Each region should select an appropriate planting density based on local natural conditions, soil fertility, and the characteristics of the maize variety. Wide-narrow row planting methods may also be adopted. The planting method can be either intercropping with the previous crop, intercropping with short-stalk crops (soybeans, peanuts, peppers, potatoes, some melons, etc.), or mixed strip planting. In areas where conditions permit, crop rotation with other non-host plants should be adopted.

5.3 Fertilization Apply sufficient base fertilizer, seed fertilizer, and top dressing in stages. At sowing, apply granular fertilizers such as chemical fertilizers and microbial fertilizers in strips or holes. Apply top dressing during the corn's jointing stage or large-scale growth

stage. Apply nitrogen fertilizer during the trumpet stage. When the soil is deficient in phosphorus and potassium, appropriate amounts of phosphorus and potassium fertilizer can be supplemented.

5.4 Irrigation and Drainage Irrigation and drainage in cornfields should be carried out according to local climate characteristics, water requirements of varieties, yield levels, and soil water holding capacity, with key irrigation and drainage periods. The stages are jointing, tasseling, bolting, and grouting. In areas where conditions permit, drip irrigation systems and drainage equipment should be installed to conserve water by using small amounts of water multiple times as needed. irrigation.

5.5 Cleaning up the fields After corn harvest, remove diseased and damaged plant parts from the field and thoroughly plow and prepare the land. Collect and process the straw properly; straw intended for composting should undergo high-temperature fermentation. Fermentation kills germs.

6 Chemical control

6.1 Prevention and control indicators Based on the development of disease symptoms, if the disease rate reaches 10% or the leaf disease level reaches level 3, the disease grading shall be carried out in accordance with the provisions of Appendix B. In warm and humid regions, when the disease incidence rate of leaves reaches 5% to 10% during the large trumpet stage or when the leaf disease level reaches level 1, prevention and control measures should be implemented.

6.2 Number of applications Apply pesticides when the control threshold is reached. If there is continuous rain or the disease worsens before tasseling, 1-2 additional sprays can be applied, with an interval between each application. 7 days to 10 days.

6.3 Control Agents and Precautions The main single-agent pesticides include azoxystrobin, pyraclostrobin, and tebuconazole. The main compound pesticides include propiconazole-azoxystrobin and eugenol-tebuconazole. Use pesticides rationally in strict accordance with pesticide registration information.

7 Biological control

7.1 Seed Treatment Coat the seeds evenly with a microbial preparation and allow them to air dry thoroughly in the shade (avoid direct sunlight or high-temperature drying). Sow within 7 days of coating. For already coated seeds... Before applying a second coating of seeds with chemical seed agents to microbial pesticides, the effect of the chemical seed coating agent on the activity of the microbial preparation should be tested.

7.2 Prevention and Control Indicators Apply biological pesticides when the leaves are in the large trumpet stage or when the disease rate reaches 5% to 10%.

7.3 Number of applications When the control threshold is reached, spray biological pesticides 2 to 3 times, with an interval of 7 to 10 days. If there is continuous rainfall, the interval should be shortened appropriately.

7.4 Control Agents The main registered biological pesticides include Jinggangmycin A and *Bacillus subtilis*.

8. Archival Records Record the date of onset, disease index, type of medication, date of administration, and person administering the medication to establish a traceable file. GB/T 23391.1-2026. Technical Specifications for the Control of Major Diseases and Pests of Maize Part 1. Maize Large Leaf Spot ICS

15 National Standards of the People's Republic of China Replaces GB/T 23391.1-2009 Technical Specifications for the Prevention and Control of Major Diseases and Pests in Maize Part