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

GB/T 37719.4-2024

**Grain and oil storage-Assistant atlas of stored grain insect
pests-Part 4: Borer insect pests (Curculionidae, Bruchidae,
Bostrychidae, Anthribidae, Gelechiidae)**

粮油储藏 储粮害虫检验辅助图谱 第4部分：蛀食性害虫（象甲科、豆象科、长蠹
科、长角象科、麦蛾科）

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Table of Contents

Preface	III
Introduction	IV
1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Pest types	1
5 Inspection environment and tools	1
6 Identification features and diagrams	2
6.1 Basic Characteristics of Curculionidae	2
6.2 Basic characteristics of Bruchidae	2
6.3 Basic characteristics of Bostrychidae	3
6.4 Basic characteristics of Anthribidae	4
6.5 Basic characteristics of Gelechiidae	5
6.6 Characteristics and diagrams of species of Curculionidae	6
6.6.1 Corn weevil <i>Sitophilus zeamais</i> Motschulsky	6
6.6.2 Rice weevil <i>Sitophilus oryzae</i> (Linnaeus)	7
6.6.3 <i>Sitophilus granarius</i> (Linnaeus)	8
6.7 Characteristics and diagrams of the species of the family Brassicidae	9
6.7.1 <i>Acanthoscelides obtectus</i> (Say)	9
6.7.2 Pea Weevil <i>Bruchus pisorum</i> (Linnaeus)	10
6.7.3 <i>Bruchus rufimanus</i> Boheman	11
6.7.4 <i>Callosobruchus analis</i> (Fabricius)	12
6.7.5 <i>Callosobruchus chinensis</i> Linnaeus	13
6.7.6 <i>Callosobruchus maculatus</i> (Fabricius)	15
6.7.7 <i>Callosobruchus phaseoli</i> (Gyllenhal)	15
6.7.8 Brazilian Bean Weevil <i>Zabrotes subfasciatus</i> (Bohenman)	16
6.8 Characteristics and diagrams of species of the family Mylidae	17
6.8.1 <i>Rhyzopertha dominica</i> (Fabricius)	17
6.8.2 <i>Prostephanus truncatus</i> (Horn)	18
6.9 Characteristics and diagrams of the species of the family Elephantiidae	19
6.9.1 Coffee bean weevil <i>Araecerus fasciculatus</i> (De Geer)	19
6.10 Characteristics and diagrams of the species of the family Gnaphalidae	20

6.10.1 Wheat moth <i>Sitotroga cerealella</i> Oliver	20
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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 is required.

This document is Part 4 of GB/T 37719 "Auxiliary Atlas for Inspection of Stored Grain Pests in Grain and Oil Storage". GB/T 37719 has been published for Lower part. --Part 1: Tenebrionidae;

--Part 2: Saw-beetle family, Flat-beetle family; --Part 3: Bookliceidae;

--Part 4: Boring pests (Curculionidae, Leguminosae, Botrycidae, Botrycidae, and Gnaphalidae).

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 was submitted by the State Administration of Grain and Material Reserves.

This document is under the jurisdiction of the National Technical Committee on Standardization of Cereals and Oils (SAC/TC 270).

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Introduction

The auxiliary atlas for stored grain pest inspection belongs to the category of basic standard atlas. There are many species of stored grain insects, which are small and similar.

It is easy to identify and take prevention and control measures according to different pest types or groups, damage methods, habits, etc. It is necessary to accurately identify the insect species.

In practice, manual identification and machine vision image recognition of pests in grain and oil storage meet the information development of grain pests and their prevention and control.

In order to meet the development needs, GB/T 37719 "Auxiliary Atlas for Inspection of Grain and Oil Storage Pests" was formulated.

GB/T 37719 is intended to consist of the following 4 parts. --Part 1: Tenebrionidae.

--Part 2: Saw-toothed Beetles, Flat-toothed Beetles. --Part 3: Bookliceidae.

--Part 4: Boring pests (Curculionidae, Leguminosae, Botrycidae, Botrycidae, and Gnaphalidae).

The release of GB/T 37719 provides a standard basis for grain storage safety, the improvement of grain storage technology and the improvement of the skills of industry technicians.

Boring pests (Curculionidae, Leguminosae, Longicornidae, Longicornidae, and Gnaphalidae) are pests that can bore into stored grain and often harm stored grain.

The raw grains are damaged and it is easy to introduce later pests. Some species are dangerous pests that are prohibited from entering China.

Provide a scientific basis for accurate species identification.

Auxiliary Atlas for Inspection of Grain and Oil Storage Pests Part 4: Boring pests (Curculionidae, Leguminosae, Longhorn beetle family, Longhorn beetle family, Lithophoridae family)

1 Scope

This document provides the inspection environment and working conditions for the common insect species of Curculionidae, Leguminosae, Longicornidae, Longicornidae and Gnaphalidae in stored grain.

tools, identifying features and illustrations.

This document is used as an auxiliary reference for identifying adults of the common Curculionidae, Fabaceae, Mylidae, Mylophoridae, and Gnaphalidae species found in stored grain.

2 Normative references

GB/T 37719.1

GB/T 37719.2

GB/T 37719.3

3 Terms and Definitions

The terms and definitions defined in GB/T 37719.1, GB/T 37719.2, GB/T 37719.3 and the following apply to this document.

3.1 Borer insect pests

Stored grain pests whose adults or (and) larvae bore into grain kernels to feed and cause damage.

3.2 hypognathous type

The mouthparts are located under the head, and the longitudinal axis of the head and the longitudinal axis of the body are almost at right angles or inclined.

3.3 gular suture

A slit formed by the posterior cheeks extending toward each other in the posterior head region of an insect's head.

4 Pest types

This document includes 15 species of stored grain pests from 5 families with feeding habits, namely. corn weevil, Rice weevils, corn weevils; mung bean weevils, pea weevils, broad bean weevils, four-striped bean weevils, Brazilian bean weevils, common bean weevils, chickpea weevils, and gray bean weevils in the bean weevil family; long beetles The grain borer and the giant grain borer in the family; the coffee bean weevil in the family of...

5 Inspection environment and tools

The insect species inspection environment and tools should comply with the relevant provisions of GB/T 37719.1.