ICS 65.120
CCS B 46

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 21107-2025

Replacing GB/T 21107-2007

Determination of horse and donkey-derived materials in feeds

饲料中马、驴源性成分的测定

Issued on: June 30, 2025 **Implemented on: January 1, 2026**

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

Table of Contents

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.

This document replaces GB/T 21107-2007 "Qualitative detection method of horse and donkey derived ingredients in animal feed - PCR method" Compared with GB/T 21107-2007, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

a) The scope of application and detection limit have been changed (see Chapter 1, Chapter 1 of the 2007 edition);

b) Added a chapter on "Abbreviations" (see Chapter 4);

c) Added a chapter on "Real-time Fluorescence Polymerase Chain Reaction" (see Chapter 5);

d) The sample has been changed (see 6.4, Chapter 7 of the 2007 edition);

e) The result determination and presentation have been changed (see 6.6, Chapter 9 of the 2007 edition);

f) The laboratory pollution prevention and control measures have been modified (see Chapter 7, Chapter 10 of the 2007 edition);

g) Added a chapter on "Hazardous Waste Disposal" (see Chapter 8).

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 Feed Industry Standardization

Technical Committee (SAC/TC76).

This document was drafted by: Shanghai Customs Animal, Plant and Food Inspection and Quarantine Technical Center and New Hope Liuhe Co., Ltd.

The main drafters of this document are: Cai Yicun, Pan Liangwen, Han Wei, Li Yong, Xu Zhenjian, Yang Qing, Zhang Yuqiu, Zhang Chen, Shao Bingyu, Xue Junxin, Lin Yingzheng.

The previous versions of this document and the documents it replaces are as follows.

- GB/T 21107-2007, issued in 2007;

- This is the first revision.

1 Scope

This document describes methods for the detection of horse and donkey-derived ingredients in feed using real-time fluorescent polymerase chain reaction and polymerase chain reaction.

The real-time fluorescence PCR method in this document is applicable to compound feed, concentrated feed, concentrate supplement, feed raw materials, compound premix feed and Qualitative detection of horse and donkey-derived ingredients in mixed feed additives; PCR method is applicable to the qualitative detection of horse and donkey-derived ingredients in animal-derived feed raw materials. Detection.

The detection limit for this document is 0.1%.

2 Normative references

GB/T 6682

GB/T 19495.3-2004

GB/T 20195

3 Terms and Definitions

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

4 Abbreviations

The following abbreviations apply to this document. bp. base pair Ct value. cycle threshold

5.1 Principle

Primers and probes were designed based on the specific DNA fragments of horses and donkeys, and real-time fluorescence PCR technology was used for amplification.

The fluorescent signal and Ct value generated in the reaction can be used to detect the DNA components derived from horses and donkeys.