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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 23182-2025

Replacing GB/T 23182-2008

Guideline for method development, validation & verification and internal quality control in feed quality and safety detection

饲料质量安全检测方法建立、确认、验证和实验室内部质量控制实施指南

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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 supersedes GB/T 23182-2008 "Experimental Procedures for the Detection of Veterinary Drugs and Other Chemicals in Feed" and is consistent with GB/T 23182-2008.

In comparison, aside from structural adjustments and editorial changes, the main technical changes are as follows.

a) The scope has been changed (see Chapter 1, Chapter 1 of the 2008 edition);

b) The section on "Feed Sampling" has been removed (see Chapter 4 of the 2008 edition);

c) Change "Detection of veterinary drugs and other chemicals in feed" to "Method establishment" and "Method validation" (see Chapters 4 and 5).

Chapter 5 of the 2008 edition);

d) Change "Confirmation of detection of veterinary drugs and other chemicals" to "Method validation" (see Chapter 6, Chapter 6 of the 2008 edition);

e) Added "Internal Quality Control in the Laboratory" (see Chapter 7);

f) The sections on "Results Calculation and Presentation" and "Experiment Report Writing" have been removed (see Chapters 7 and 8 of the 2008 edition).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Feed Industry (SAC/TC76).

This document was drafted by: Institute of Agricultural Quality Standards and Testing Technology, Chinese Academy of Agricultural Sciences; National Animal Husbandry Service; China Agricultural University.

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The release history of this document and the document it replaces is as follows.

- First published in 2008 as GB/T 23182-2008;

- This is the first revision.

Establishment, validation, and verification of feed quality and safety testing methods Laboratory Internal Quality Control Implementation Guide

1 Scope

This document provides guidance on the establishment, validation, verification, and internal quality control of chemical analysis methods for feed quality and safety testing. suggestion.

This document applies to the establishment, validation, verification, and internal quality control of chemical analysis methods for the quality and safety testing of feed and feed additives. control.

This document does not apply to biological analysis methods.

2 Normative references

GB 5009.295-2023

GB 13078

GB/T 32465-2015

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Qualitative method

Analytical methods for identifying substances based on their chemical, biological, or physical properties.

[Source. GB/T 27417-2017, 3.5]

3.2 Quantitative method

Analytical methods for determining the mass or mass fraction of an analyte.

Note. Express numerical values using appropriate units.

[Source. GB/T 27417-2017, 3.6, with modifications]

3.3 Confirmatory method

It can provide all or part of the information about the target substance, based on which the nature of the substance can be clearly defined, and, if necessary, further analysis can be performed at the concentration level of interest. Methods of measurement.

[Source. GB/T 27417-2017, 3.7]

3.4 Screening method

It has the ability to efficiently process large numbers of samples, and is used to detect the

presence of a substance or a group of substances at a concentration level of interest. method.

Note. These methods are used to screen a large number of samples for potential positive results and to avoid false negatives. The test results obtained by these methods are typically qualitative.

Results or semi-quantitative results.

[Source. GB/T 27417-2017, 3.8]

3.5 sensitivity

The degree of change in the response quantity of an analytical method to a change in the unit concentration or unit amount of analyte.

3.6 Trueness

The degree of agreement between the average of an infinite number of repeated measurements and a reference value.

[Source. ISO /IEC Guide 99 2007, 2.14]

3.7 accuracy

The degree of consistency between the measured value (result) of the analyte in the sample and the true value or agreed true value of the measured substance.

3.8 matrix effects

The influence of one or more components in the sample matrix on the detection results of the target analyte.

Note. Compared to the detection results of the target analyte in the reagent, the matrix effect may cause the target analyte response signal to be enhanced or weakened.

[Source. GB/T 32467-2015, 9.29]

3.9 linear range

The concentration range of the analyte exhibits a linear relationship with the instrument response value and meets quantitative requirements (precision and accuracy).

3.10 Limit of detection (LOD)

The analytical method can detect the lowest amount (or lowest concentration) of the analyte from the sample background signal within a given confidence level, but accuracy is not guaranteed. Quantitative.