



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

GB/T 6434-2022

Determination of crude fiber content in feeds

Issued on: December 30, 2022

Implemented on: July 1, 2023

Issued by: SAMR; SAC

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Foreword

This document was drafted in accordance with the provisions of GB/T 1.1-2020 Directives for standardization - Part 1. Rules for the structure and drafting of standardizing documents.

This document replaces GB/T 6434-2006 Feeding stuffs - Determination of crude fiber content Method with intermediate filtration. Compared with GB/T 6434-2006, except for structural adjustment and editorial changes, the main technical changes are as follows.

a) The scope of the application is changed (see Chapter 1; see Chapter 1 of the

2006 edition);

b) The sampling is deleted (see Chapter 7 of the 2006 edition);

c) ISO 3696.1987 is replaced by the normatively cited GB/T 6682 (see 5.1.1) to adapt to the technical conditions in China;

d) The calibration method of the sulfuric acid solution is added (see 5.1.6, 6.1.5) to increase operability;

e) The calibration method of potassium hydroxide solution is added (see 5.1.7, 6.1.5) to increase operability;

f) ISO 6498.1998 (see 5.3) is replaced by the normatively cited GB/T 20195 to

adapt to the technical conditions in China;

g) The precision requirements are changed (see 5.6; see Chapter 12 of the 2006 edition);

h) The filter bag method is added (see Chapter 6);

i) The test report is deleted (see Chapter 13 of the 2006 edition).

This document is modified in relation to ISO 6865.2000 Animal feeding stuffs - Determination of crude fiber content - Method with intermediate filtration.

Compared with ISO 6865.2000, this document has made the following structural adjustments.

-- 5.1 corresponds to Chapter 5 of ISO 6865.2000;

-- 5.2 corresponds to Chapter 6 of ISO 6865.2000;

-- Chapter 7 of ISO 6865.2000 is deleted;

-- 5.3 corresponds to Chapter 8 of ISO 6865.2000;

-- 5.4.1 and 5.4.2 correspond to Chapter 9 and Chapter 10 of ISO 6865.2000;

-- 5.5 corresponds to Chapter 11 of ISO 6865.2000;

-- 5.6 corresponds to Chapter 12 of ISO 6865.2000;

-- Chapter 13 of ISO 6865.2000 is deleted;

-- The added filter bag method is Chapter 6.

The technical differences between this document and ISO 6865.2000 and their reasons are as follows.

-- In order to meet the testing needs of crude fiber in feed in China, the scope of application is changed (see Chapter 1);

-- In order to adapt to the technical conditions in China, the boiling range of petroleum ether is changed to 30 °C~60 °C (see 5.1.2);

-- The content of sampling is deleted (see Chapter 7);

-- The sample preparation method is changed (see 5.3);

-- According to the actual detection technology level of the feed industry in China, the precision requirements are changed (see 5.6);

- According to the development trend of crude fiber detection technology at home and abroad, in order to meet the actual detection needs of the feed industry in China, the filter bag method is added (see Chapter 6);
 - The content of the test report is deleted (see Chapter 13).
- The following editorial changes are made to this document.
- The name of the standard is changed to Determination of crude fiber content in feeds;
 - The "filter auxiliary material" is changed to "filter aid" (see 5.1.8);
 - The NOTE that the content of carbonate is calculated as calcium carbonate is added (see 5.4.1.1, 5.4.2.1);
 - The CHAPTERS "9 Procedure for manual method" AND "10 Procedure for semi-automatic method" are respectively changed to "5.4.1 Manual operation method by using a filter crucible" and "5.4.2 Semi-automatic operation method by using a filter crucible" (see 5.4.1, 5.4.2);
 - Appendix A and References in ISO 6865.2000 are deleted.

1 Scope

This document describes the filter crucible and filter bag methods for the determination of crude fiber content in feeds.

2 Normative references

The following documents contain the provisions which, through normative reference in this document, constitute the essential provisions of this document. For the dated referenced documents, only the versions with the indicated dates are applicable to this document; for the undated referenced documents, only the latest version (including all the amendments) is applicable to this document.

3 Terms and definitions

The following terms and definitions apply to this document.

According to the conditions specified in this document, the percentage of the mass lost

by ashing of the dry filter residue obtained after the sample is digested with acid and alkali respectively to the mass of the sample.

4 Principles

The sample is treated with boiling dilute sulfuric acid, filtered to separate the filter residue, and washed; it is treated with boiling potassium hydroxide solution, filtered to separate the filter residue, washed, degreased, dried, weighed, and then ashed.

5 Filter crucible method (arbitration method)

Connect the filter crucible containing the sample to the cold extraction device (5.2.9), add 30 mL of petroleum ether (5.1.2), soak for 5 min, and dry it by vacuum suction; repeat 3 times, and then transfer all the filter residue to the beaker (5.2.5).

Place the filter crucible in the ashing dish (5.2.4), and dry at 130 degrees C $\pm$ 2 degrees C for 2 h. Take

it out, place it in a desiccator (5.2.6), cool to room temperature, and weigh quickly, accurate to 0.0001 g.

6 Filter bag method

Put the filter bag containing the sample in the beaker (6.2.3), add 100 mL of hydrochloric acid solution I (6.1.4), and soak for 5 min; take out the filter bag, wash it with water until it is neutral, and then gently squeeze out the water from the bag with filter paper (6.1.7).

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