

ICS 67.040
CCS X 04



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

GB/T 5514-2008

Replacing GB/T 5514-1985

**Inspection of grain and oils -- Determination of starch content
in grain and oilseeds**

粮油检验 粮食、油料中淀粉含量测定

(English Translation)

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Foreword

This standard replaces GB/T 5514-1985 "grain and oilseeds test starch determination." the main changes compared to 5514-1985 standard and GB/T as follows.

- The standard name from "grain and oilseeds test starch determination" to "Inspection of grain and grain and oilseeds starch content Determination ";
- Crushed sample size requirements all over the aperture 0.45mm sieve;
- Test water should meet the requirements of GB/T 6682 in the three water requirements;
- Hydrolysis temperature acid treatment was changed to a boiling water bath reflux for 1h;
- Modify the sample weighing accuracy;
- Amylase reagent replacement homemade amylase;
- Revised repeatability requirements.

The standard proposed by the National Food Authority.

This standard by the National Standardization Technical Committee OILS.

This standard was drafted. Academy of State Grain Administration, Shandong-edge biotechnology company.

1 Scope

This standard specifies the grain and oilseeds starch determination of terms and definitions, principles, reagents and materials, equipment, operation of step Suddenly, the results of calculations and repeatability.

This standard applies to food, fuel measuring starch content.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

Determination of GB/T 5009.7 reducing sugar in food GB/T 5497 grain and oilseeds -
Determination of water test GB/T 6682 analytical laboratory use specifications and test
methods (GB/T 6682-2008, ISO 3696. 1987, MOD)

3 Terms and Definitions

The following terms and definitions apply to this standard.

Dehydrated glucose molecule by a single polymerized glucose molecules in alpha-1,4-glycosidic linkages, alpha-1,3- glycosidic linkages, alpha-1,6- glycosidic bond chain Then from natural substances.

Principle 4

The sample was removed and fat soluble sugars after which the alpha- amylase starch hydrolysis in pairs, disaccharides and then hydrolyzed with hydrochloric acid to have a reduction Monosaccharide in nature, according to the final determination of reducing sugars and converted into starch.

5 Reagents and materials

Unless otherwise stated, use only analytical reagent.

5.1

amylase solution. Weigh alpha- amylase 0.5g, add 100mL water dissolved by adding a few drops of toluene or chloroform, to prevent mildew.

5.2

iodine solution. Weigh 3.6g of potassium iodide was dissolved in 20mL of water was added 1.3g of iodine, diluted with water to dissolve 100mL.

5.3

to 85% ethanol.

5.4 6mol/L HCl. hydrochloride 100mL water was added to 200mL.

5.5 200g/L sodium hydroxide solution.

5.6

Methyl red indicator solution. Weigh 0.1g of methyl red in 95% ethanol solution to volume 100mL.

5.7

ether.

5.8

Water. should be consistent with GB/T 6682 in the three water requirements.

6 Equipment

Conventional laboratory equipment and the following instruments.

6.1

mill grinding. the sample, making it completely through the aperture 0.45mm (40 mesh) screen.