# International Standard



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# Fenugreek, whole or ground (powdered) — Specification

Fenugrec, entier ou en poudre — Spécifications

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# **Foreword**

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International Standard ISO 6575 was developed by Technical Committee ISO/TC 34, Agricultural food products, and was circulated to the member bodies in May 1981.

It has been approved by the member bodies of the following countries:

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The member body of the following country expressed disapproval of the document on technical grounds:

USA

# Fenugreek, whole or ground (powdered) - Specification

## 1 Scope and field of application

This International Standard specifies requirements for the seeds of *Trigonella foenum-graecum* Linnaeus, whole or ground (powdered).

Recommendations relating to storage and transport conditions are given in an annex.

#### 2 References

ISO 927, Spices and condiments — Determination of extraneous matter content.

ISO 928, Spices and condiments — Determination of total ash.

ISO 930, Spices and condiments — Determination of acid-insoluble ash.

ISO 939, Spices and condiments — Determination of moisture content — Entrainment method.

ISO 941, Spices and condiments — Determination of cold water-soluble extract.

ISO 948, Spices and condiments — Sampling.

ISO 1208, Spices and condiments — Determination of filth (Reference method).1)

ISO 2825, Spices and condiments — Preparation of a ground sample for analysis.

#### 3 Requirements

#### 3.1 Description

Fenugreek is constituted by dried, mature seeds of *Trigonella foenum-graecum* Linnaeus. The seeds are smooth, oblong to rhomboidal in outline, with a deep, oblique furrow on one side,

yellow to yellowish-brown in colour, the size and shape being characteristic of the type, variety and country of origin. (The main producing countries are those of the Mediterranean basin, India, Pakistan, Ethiopia and Afghanistan.) The seeds shall not be black or green.

#### 3.2 Odour and flavour

- **3.2.1** The odour of freshly ground fenugreek shall be strong and pleasant with a sweet, maple-like character, somewhat reminiscent of celery.
- **3.2.2** The flavour of ground (powdered) fenugreek shall be farinaceous and very bitter.
- **3.2.3** Fenugreek shall be free from any off-flavours or other atypical taste, odour or flavour, particularly mustiness. Ground (powdered) fenugreek shall be free from rancidity.

# 3.3 Freedom from moulds, insects, etc.

Fenugreek, whole or ground (powdered), shall be free from living insects and moulds, and shall be practically free from dead insects, insect fragments and rodent contamination visible to the naked eye (corrected, if necessary, for abnormal vision), with such magnification as may be necessary in any particular case. If the magnification exceeds X 10, this fact shall be stated in the test report.

In cases of doubt, filth in ground (powdered) fenugreek may be determined by the method specified in ISO 1208.

#### 3.4 Extraneous matter

The proportion of extraneous matter in whole fenugreek, whether it originates from the plant or not, shall not be more than 4,0 % (m/m) when determined by the method specified in ISO 927.

<sup>1)</sup> At present at the stage of draft.

#### 3.5 Chemical requirements<sup>1)</sup>

Fenugreek, whole or ground (powdered), shall comply with the requirements given in the table.

Table - Chemical requirements for fenugreek

Characteristic	Requirement	Method of test
Moisture content, % (m/m), max.	11,0	ISO 939
Total ash, % $(m/m)$ on dry basis, max.	5,0	ISO 928
Acid-insoluble ash, $(m/m)$ on dry basis, max.	1,5	ISO 930
Cold water-soluble extract, $(m/m)$ on dry basis, min.	30,0	ISO 941

# 4 Sampling

Sample the fenugreek by the method specified in ISO 948.

#### 5 Methods of test

**5.1** The samples of fenugreek shall be tested for conformity with the requirements of this International Standard by the methods of test referred to in 3.4 and the table.

- **5.2** Samples of whole fenugreek shall be ground so that the whole of the material passes through a sieve of aperture size 1,00 mm, in accordance with ISO 2825. The material so ground shall be used for determining the characteristics specified in the table.
- **5.3** Samples of ground (powdered) fenugreek shall be prepared by thoroughly mixing the laboratory sample.

# 6 Packing and marking

## 6.1 Packing

Fenugreek shall be packed for transport in sealed, clean and sound containers made of a material which does not affect the product.

#### 6.2 Marking

The following particulars shall be marked or labelled on each container:

- a) name of the product;
- b) producing country;
- c) batch, code or test certificate number, or similar means of identification;
- d) any other information required by the purchaser.

<sup>1)</sup> Limits for toxic substances will be included later, in accordance with the recommendations of the Joint FAO/WHO Codex Alimentarius Commission.

### **Annex**

# Recommendations relating to storage and transport conditions

(This annex does not from part of the standard.)

- A.1 Containers of fenugreek should be stored in covered premises, well protected from the sun, rain and excessive heat.
- **A.2** The store room should be dry, free from objectionable odours, protected from direct sunshine, and proofed against entry of insects, vermin, rodents or other animals. It is particularly important to prevent infestation by moth caterpillars. The ventilation of the store room should be controlled so as to give good ventilation under dry conditions and to be fully closed under damp conditions. Suitable facilities should be available for fumigation.

Fumigation should only be performed using products authorized in the importing countries.

**A.3** Containers of fenugreek should be so handled and transported that they are protected from rain, excessive humidity, the sun or other sources of excessive heat, objectionable odours and from insect or other infestation, especially in the holds of ships.