International Standard 6574

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Celery seed (*Apium graveolens* Linnaeus) — Specification

*Graines de céleri (*Apium graveolens *Linnaeus) — Spécifications*

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

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Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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Celery seed (*Apium graveolens* Linnaeus) — Specification

1 Scope and field of application

This International Standard specifies requirements for whole celery seed[1] (*Apium graveolens* Linnaeus) for use as a spice.

It does not apply to seeds used for agricultural purposes.

Recommendations relating to storage and transport conditions are given in the 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 948, *Spices and condiments — Sampling.*

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

ISO 6571, *Spices, condiments and herbs — Determination of volatile oil content.*

3 Description

Whole celery seeds are dried, ripe fruits of *Apium graveolens* Linnaeus. The seeds are light brown to greyish-brown in colour. Their shape is ovoid to hemispheric, their length about 1 to 1,5 mm and width 0,5 to 1,0 mm. The seeds have several raised streaks running along their longitudinal axis, these streaks being lighter than the rest of the seed.

4 Requirements

4.1 Odour and flavour

The odour and flavour of celery seeds shall be fresh, slightly bitter, and characteristic of the type and variety. The seeds shall be free from mustiness and other foreign flavours.

4.2 Freedom from insects, moulds, etc.

Whole celery seeds 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) or with such magnification as may be necessary in any particular case. If the magnification exceeds X10, this fact shall be stated in the test report.

1) Although the correct botanical term is "fruit", the term "seed" is widely used in the trade.

4.3 Extraneous matter

For the purpose of this International Standard, the following are considered to be extraneous matter: all vegetable matter other than celery seeds, and all matter of animal or mineral origin.

The total percentage of this extraneous matter, when determined by the method specified in ISO 927, shall not exceed the value given in table 1 for the relevant grade.

Table 1 — Classification of whole celery seeds

Grade		Extraneous matter content % (*m*/*m*), max.
1	Special	1,0
2	Good	2,0
3	Fair	4,0

4.4 Classification of celery seeds

Whole celery seeds shall be classified into three grades according to their extraneous matter content and their chemical requirements, in accordance with tables 1 and 2.

4.5 Chemical requirements[1)]

Whole celery seeds of all categories shall comply with the requirements given in table 2.

5 Sampling

Sample the celery seeds by the method specified in ISO 948.

6 Methods of test

Samples of whole celery seeds shall be tested for conformity to the requirements of this International Standard by the methods of test referred to in 4.3 and table 2.

The sample for analysis shall be ground so that most of the product passes through a sieve of mesh size 500 µm, and shall be prepared in accordance with ISO 2825.

7 Packing and marking

7.1 Packing

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

7.2 Marking

The container shall be marked or labelled with the following particulars:

a) name of the product and the trade name or brand name, if any;

b) name and address of the producer or packer;

c) batch or code number;

d) net mass;

e) category or grade;

f) producing country;

g) any other marking required by the purchaser, such as year of harvest and date of packing;

h) possibly, a reference to the number of this International Standard.

Table 2 — Chemical requirements for whole celery seeds

Characteristic	Requirement		Method of test
	Grade 1	Grades 2 and 3	
Moisture content, % (*m*/*m*), max.	10	11	ISO 939
Total ash, % (*m*/*m*) on dry basis, max.	10	12	ISO 928
Acid-insoluble ash, % (*m*/*m*) on dry basis, max.	2,0	3,0	ISO 930
Volatile oil content, ml/100 g on dry basis, min.	2,0	1,5	ISO 6571

1) Limits for toxic substances will be indicated 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 form part of the Standard.)

A.1 Containers of celery seeds 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 and proofed against the entry of insects and vermin. The ventilation should be adjusted so as to give good ventilation under dry conditions and to be fully closed under damp conditions. In a storage warehouse, suitable facilities should be available for fumigation.

A.3 The containers should be handled and transported so that they are protected from the rain, from the sun or other source of excessive heat, from unpleasant odours and from cross-infestation, especially in the holds of ships.