



Food and Agriculture
Organization of the
United Nations



World Health
Organization

CODEX
ALIMENTARIUS
INTERNATIONAL FOOD STANDARDS

CODEX ALIMENTARIUS
STANDARD

**STANDARD FOR WHEAT
AND DURUM WHEAT**
CXS 199-1995



ADOPTED 1995
AMENDED 2026

CXS 199-1995

History of the standard

2026 Amendments

Following decisions taken at the Forty-ninth Session of the Codex Alimentarius Commission in 2026, the Annex was amended by replacing the methods of analysis with a reference to Section 8: “Methods of analysis and sampling” which in turn references the *Recommended methods of analysis and sampling* (CXS 234-1999).

This publication was reformatted and published in 2026.

Amendments made prior to 2026:

Amended in 2019.

Adopted in 1995.

1 Scope

This standard applies to wheat grains and durum wheat grains as defined in Section 2: “Description” intended for processing for human consumption. It does not apply to club wheat (*Triticum compactum* Host.), red durum wheat, durum wheat semolina or products derived from wheat.

2 Description

- a) Wheat is the grains obtained from varieties of the species *Triticum aestivum* L.
- b) Durum wheat is the grains obtained from varieties of the species *Triticum durum* Desf.

3 Essential composition and quality factors

3.1 Quality and safety factors – general

- a) Wheat and durum wheat shall be safe and suitable for processing for human consumption.
- b) Wheat and durum wheat shall be free from abnormal flavours, odours, living insects and mites.

3.2 Quality factors – specific

3.2.1 Moisture content

	Maximum level
Wheat	14.5% m/m
Durum wheat	14.5% m/m

Lower moisture limits should be required for certain destinations in relation to the climate, duration of transport, and storage.

3.2.2 Ergot

Sclerotium of the fungus *Claviceps purpurea*

	Maximum level
Wheat	0.05% m/m
Durum wheat	0.05% m/m

3.2.3 Extraneous matter are all organic and inorganic materials other than wheat and durum wheat, broken kernels, other grains and filth.

3.2.3.1 Toxic or noxious seeds

The products covered by the provisions of this standard shall be free from the following toxic or noxious seeds in amounts which may represent a hazard to human health:

- *Crotalaria* (*Crotalaria* spp.);
- corn cockle (*Agrostemma githago* L.);
- castor beans (*Ricinus communis* L.);
- Jimson weed (*Datura* spp.); and
- other seeds that are commonly recognized as harmful to health.

3.2.3.2 *Filth*

Impurities of animal origin (including dead insects), 0.1% m/m maximum.

- a) Other organic extraneous matter which is defined as organic components other than edible grains of cereals (foreign seeds, stems, etc.):

	Maximum level
Wheat	1.5% m/m
Durum wheat	1.5% m/m

- b) Inorganic extraneous matter which is defined as any inorganic component (stones, dust, etc.):

	Maximum level
Wheat	0.05% m/m
Durum wheat	0.05% m/m

4 Contaminants

4.1 Heavy metals

The products covered by the provisions of this standard shall be free from heavy metals in amounts which may represent a hazard to human health.

4.2 Pesticide residues

Wheat and durum wheat shall comply with those maximum residue limits established by the Codex Alimentarius Commission (CAC) for this commodity.

5 Hygiene

- a) It is recommended that the product covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the *General principles of food hygiene* (CXC 1-1969),¹ and other codes of practice recommended by the CAC which are relevant to this product.
- b) To the extent possible in good manufacturing practice, the cleaned product shall be free from objectionable matter.
- c) When tested by appropriate methods of sampling and examination, the product, after cleaning and sorting, and before further processing:
- shall be free from microorganisms in amounts which may represent a hazard to health;
 - shall be free from parasites which may represent a hazard to health; and
 - shall not contain any substance originating from microorganisms, including fungi, in amounts which may represent a hazard to health.

6 Packaging

- a) Wheat and durum wheat shall be packaged in containers which will safeguard the hygienic, nutritional, technological, and organoleptic qualities of the product.
- b) The containers, including packaging material, shall be made of substances which are safe and suitable for their intended use. They should not impart any toxic substance or undesirable odour or flavour to the product.
- c) When the product is packaged in sacks, these must be clean, sturdy, and strongly sewn or sealed.

7 Labelling

In addition to the requirements of the *General standard for the labelling of pre-packaged foods* (CXS 1-1985),² the following specific provisions apply:

7.1 Name of the product

The name of the product to be shown on the label shall be “wheat” or “durum wheat” as applicable.

7.2 Labelling of non-retail containers

Information for non-retail containers shall be given either on the container or in accompanying documents, except that the name of the product, lot identification and the name and address of the manufacturer or packer shall appear on the container. However, lot identification and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

8 Methods of analysis and sampling

For checking compliance with this standard, the methods of analysis and sampling contained in the *Recommended methods of analysis and sampling* (CXS 234-1999)³ relevant to the provisions in this standard shall be used.

ANNEX

In those instances where more than one factor limit and/or method of analysis is given, it is strongly recommended that users specify the appropriate limit and method of analysis.

Factor/description	Limit		Method of analysis
	Wheat	Durum wheat	
1. Minimum test weight: the weight of a hundred litre volume expressed in kilograms per hectolitre.	68	70	Refer to Section 8: "Method of analysis and sampling"
2. Shrunken and broken kernels: broken or shrunken wheat or durum wheat which will pass through a 1.7 mm x 20 oblong-holed metal sieve for wheat and through a 1.9 mm x 20 oblong-holed metal sieve for durum wheat.	5% m/m max	6% m/m max	Refer to Section 8: "Method of analysis and sampling"
3. Edible grains other than wheat and durum wheat (whole or identifiably broken).	2% m/m max	3% m/m max	Refer to Section 8: "Method of analysis and sampling"
4. Damaged kernels (including pieces of kernels that show visible deterioration due to moisture, weather, disease, mould, heating, fermentation, sprouting, or other causes).	6% m/m max	4% m/m max	Refer to Section 8: "Method of analysis and sampling"
5. Insect bored kernels: kernels which have been visibly bored or tunnelled by insects.	1.5% m/m	2.5% m/m	Refer to Section 8: "Method of analysis and sampling"

REFERENCED TEXTS

- 1 *General principles of food hygiene* (CXC 1-1969).
- 2 *General standard for the labelling of pre-packaged foods* (CXS 1-1985).
- 3 *Recommended methods of analysis and sampling* (CXS 234-1999).

Codex Alimentarius

A collection of international food standards developed to protect consumer health and ensure fair practices in the food trade. Codex standards are adopted by the Codex Alimentarius Commission, an intergovernmental body with 189 Members, established by FAO and WHO. The standards are recognized by the World Trade Organization as the benchmark for the safety of internationally traded food.

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