CODEX STANDARD FOR CERTAIN PULSES

CODEX STAN 171-1989 (Rev. 1 - 1995)

The Annex to this standard contains provisions which are not intended to be applied within the meaning of the acceptance provisions of Section 4.A (I)(b) of the General Principles of the Codex Alimentarius.

1. SCOPE

This Standard applies to the whole, shelled or split pulses defined below which are intended for direct human consumption. The Standard does not apply to pulses intended for factory grading and packaging, industrial processing, or to those pulses intended for use in the feeding of animals. It does not apply to fragmented pulses when sold as such, or to other legumes for which separate standards may be elaborated.

2. DESCRIPTION

2.1 Product Definition

Pulses are dry seeds of leguminous plants which are distinguished from leguminous oil seeds by their low fat content. The pulses covered by this Standard are the following:

- Beans of *Phaseolus* spp. (except *Phaseolus mungo* L. syn. *Vigna mungo* (L.) Hepper and *Phaseolus aureus* Roxb.syn. *Phaseolus radiatur* L., *Vigna radiata* (L.) Wilczek);
- Lentils of *Lens culinaris* Medic. Syn. *Lens esculenta* Moench.;
- Peas of *Pisum sativum* L.;
- Chick peas of *Cicer arientinum* L.;
- Field beans of *Vicia faba* L.;
- Cow peas of *Vigna unguiculata* (L.) Walp., syn. *Vigna sesquipedalis* Fruhw., *Vigna sinensis* (L.) Savi exd Hassk.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Quality Factors - General

3.1.1 Pulses shall be safe and suitable for human consumption.

3.1.2 Pulses shall be free from abnormal flavour, odours, and living insects.

3.1.3 Pulses shall be free from filth (impurities of animal origin, including dead insects) in amounts which may represent a hazard to human health.

3.2 **Quality Factors - Specific**

3.2.1 **Moisture Content**

3.2.1.1 Two maximum moisture levels are provided to meet different climatic conditions and marketing practices. Lower values in the first column are suggested for countries with tropical climates or when long-term (more than one crop year) storage is a normal commercial practice. The values in the second column are suggested for more moderate climates or when other short-term storage is the normal commercial practice.

Pulse	Moisture Content (per cent)	
beans	15	19
lentils	15	16
peas	15	18
chick peas	14	16
cow peas	15	18
field beans	15	19

Lower moisture limits should be required for certain destinations in relation to the climate, duration of transport and storage. Governments accepting the Standard are requested to indicate and justify the requirements in force in their country.

3.2.1.2 In the case of pulses sold without their seed coat, the maximum moisture content shall be 2 per cent (absolute) lower in each case.

3.2.2 **Extraneous matter** is mineral or organic matter (dust, twigs, seedcoats, seeds of other species, dead insects, fragments, or remains of insects, other impurities of animal origin). Pulses shall have not more than 1% extraneous matter of which not more than 0.25% shall be mineral matter and not more than 0.10% shall be dead insects, fragments or remains of insects, and/or other impurities of animal origin.

3.2.2.1 **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.

Crotolaria (*Crotalaria* spp.), Corn cockle (*Agrostemma githago* L.), Castor bean (*Ricinus communis* L.) Jimson weed (*Datura* spp.), and other seeds that are commonly recognized as harmful to health.

4. CONTAMINANTS

4.1 Heavy Metals

Pulses shall be free from heavy metals in amounts which may represent a hazard to health.

4.2 Pesticide Residues

Pulses shall comply with those maximum residue limits established by the Codex Alimentarius Commission for this commodity.

4.3 Mycotoxins

Pulses shall comply with those maximum mycotoxin limits established by the Codex Alimentarius Commission for this commodity.

5. HYGIENE

5.1 It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice - General Principles of Food Hygiene (CAC/RCP 1-1969, Rev. 2-1985, Codex Alimentarius Volume 1B), and other Codes of Practice recommended by the Codex Alimentarius Commission which are relevant to these products.

5.2 To the extent possible in good manufacturing practice, the products shall be free from objectionable mater.

5.3 When tested by appropriate methods of sampling and examination, the products:

- 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 in amounts which may represent a hazard to health.

6. PACKAGING

6.1 Pulses shall be packaged in containers which will safeguard the hygienic, nutritional, technological, and organoleptic qualities of the product.

6.2 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.

6.3 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 Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, Rev. 1-1991, Codex Alimentarius Volume 1A), the following specific provisions apply:

7.1 Name of the Product

The name of the product to be shown on the label shall be the commercial type of the pulse.

7.2 Labelling of Non-Retail Containers

Information for non-retail containers shall either be given 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

See Codex Alimentarius Volume 13.

ANNEX

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

FACTOR/DESCRIPTION	LIMIT	METHOD OF ANALYSIS
DEFECTS		Visual Examination
· seeds with serious defects. Seeds in which the cotyledons have been affected or attached by pests; seeds with very slight traces of mould or decay; or slight cotyledon staining	MAX: 1.0%	
· seeds with slight defects. Seeds which have not reached normal development; seeds with extensive seedcoat staining, without the cotyledon being affected; seeds in which the seedcoat is wrinkled, with pronounced folding, or broken pulses	MAX: 7.0% of which broken pulses must not exceed 3.0%	
- broken pulses. Broken in whole pulses are pulses in which the cotyledons are separated or one cotyledon has been broken. Broken in split pulses are pulses in which the cotyledon has been broken		
SEED DISCOLORATION		Visual Examination
· seeds of a similar colour but a different commercial type (except in beans with white seeds)	MAX: 3.0%	
· seeds of different colour (other than discoloured seeds)	MAX: 6.0%	
· discoloured seeds	MAX: 3.0%	
· discoloured seeds of the same commercial type	MAX: 10.0%	
· beans with green seed and peas with green seeds with slight discolouration of the seed	MAX: 20.0%	
PRESENTATION	Buyer Peference	Visual Examination

FACTOR/DESCRIPTION	LIMIT	METHOD OF ANALYSIS
· Shelled pulses. Pulses without their seedcoat, with the cotyledons not separated · split pulses. Pulses without their seedcoat, with the two cotyledons separated one from the other		