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## Dry whole peas — Specification

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## National foreword

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- (a) a member of International Organisation for Standardisation (ISO);
- (b) a contact point for the WHO/FAO Codex Alimentarius Commission on Food Standards; and
- (c) the National Enquiry Point on TBT Agreement of the World Trade Organisation (WTO).

The work of preparing Uganda Standards is carried out through Technical Committees. A Technical Committee is established to deliberate on standards in a given field or area and consists of representatives of consumers, traders, academicians, manufacturers, government and other stakeholders.

Draft Uganda Standards adopted by the Technical Committee are widely circulated to stakeholders and the general public for comments. The committee reviews the comments before recommending the draft standards for approval and declaration as Uganda Standards by the National Standards Council.

This Draft Uganda Standard, DUS DARS 869:2022, *Dry whole peas — Specification*, is identical with and is being reproduced from an African Standard, DARS 869:2022, *Dry whole peas — Specification*, and is proposed for adoption as a Uganda Standard.

The committee responsible for this document is Technical Committee UNBS/TC 203, *Cereals, pulses and related products and processes*.

Wherever the words, "African Standard" appear, they should be replaced by "Uganda Standard".

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## Foreword

The African Organization for Standardization (ARSO) is an African intergovernmental organization established by the United Nations Economic Commission for Africa (UNECA) and the Organization of African Unity (AU) in 1977. One of the fundamental mandates of ARSO is to develop and harmonize African Standards (ARS) for the purpose of enhancing Africa's internal trading capacity, increase Africa's product and service competitiveness globally and uplift the welfare of African communities. The work of preparing African Standards is normally carried out through ARSO technical committees. Each Member State interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, Regional Economic Communities (RECs), governmental and non-governmental organizations, in liaison with ARSO, also take part in the work.

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This African Standard was prepared by the ARSO Technical Committee on *Cereals, pulses and derived products* (ARSO/TC 12).

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## Introduction

Peas are part of the strategic food commodity basket recognized by the declaration of the African Union Food Security Summit held in December 2006 in Abuja, Nigeria. This standard was harmonized as part of the response by the resolution of the AU Food Security Summit to harmonize standards and grades for strategic food commodities as a means of promoting and facilitating intra-African food trade. Such facilitation would lead to free movement of food commodities from areas of surplus to areas of deficit, leading to overall achievement of food and nutrition security, food self-sufficiency and socioeconomic development of the African continent.

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## Dry whole peas — Specification

### 1 Scope

This African Standard specifies the requirements and methods of sampling and test for dry whole peas of varieties (cultivars) grown from *Pisum sativum* (L.) and *Pisum sativum* var. *arvense* (L.) intended for human consumption. It does not apply to processed whole peas after scope.

### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ARS 53, *General principles of food hygiene — Code of practice*

ARS 56, *Pre-packaged foods — Labelling*

AOAC Official Method 999.10:1999, *Determination of lead, cadmium, copper, iron and zinc in foods — Atomic absorption spectrophotometry after microwave digestion*

AOAC Official Method 999.11:1999, *Determination of lead, cadmium, copper, iron and zinc in foods — Atomic absorption spectrophotometry after dry ashing*

AOAC Official Method 2001.04, *Determination of Fumonisin B<sub>1</sub> and B<sub>2</sub> in corn and corn flakes — Liquid chromatography with immunoaffinity column cleanup*

CODEX STAN 193, *Codex general standard for contaminants and toxins in food and feed*

ISO 605, *Pulses — Determination of impurities, size, foreign odours, insects, and species and variety — Test methods*

ISO 6579, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection of Salmonella spp.*

ISO 6888-1, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 1: Technique using Baird-Parker agar medium*

ISO 6888-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 2: Technique using rabbit plasma fibrinogen agar medium*

ISO 6888-3, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 3: Detection and MPN technique for low numbers*

ISO 7251, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of presumptive Escherichia coli — Most probable number technique*

ISO 16050, *Foodstuffs — Determination of aflatoxin B<sub>1</sub>, and the total content of aflatoxin B<sub>1</sub>, B<sub>2</sub>, G<sub>1</sub> and G<sub>2</sub> in cereals, nuts and derived products — High performance liquid chromatographic method*

ISO 21527-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds — Part 2: Colony count technique in products with water activity less than or equal to 0.95*

ISO 24333, *Cereals and cereal products — Sampling*

ISO 24557, *Pulses — Determination of moisture content — Air-oven method*

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## 3 Terms and definitions

For the purpose of this standard the following definitions shall apply.

### 3.1

#### **whole dry peas**

threshed seeds of the garden type pea plant (*Pisum sativum* (L.) and *Pisum sativum* var. *arvense* (L.))

### 3.2

#### **damaged/defective peas**

whole peas that are split, pest-damaged, rotten and diseased, discoloured and immature or shrivelled

### 3.3

#### **rotten peas**

peas that are materially damaged or discoloured by frost, weather, disease, weevils or other insects, or other causes so as to materially affect the appearance and quality of the peas

### 3.4

#### **shrivelled/immature peas**

peas which are under-developed and wrinkled over their entire surface

### 3.5

#### **discoloured peas**

peas whose colour has been altered due to heat, frost or water

### 3.6

#### **pest damaged peas**

peas which show damage owing to attack by rodents, insects, mites or other pests

### 3.7

#### **food grade packaging material**

material made of substances which are safe and suitable for their intended use and which will not impart any toxic substance or undesirable odour or flavour to the product

### 3.8

#### **foreign matter**

all organic and inorganic material (such as plant parts, sand, soil, glass, filth) other than peas

### 3.9

#### **poisonous, toxic and/or harmful seeds**

any seed which if present in quantities above permissible limit may have damaging or dangerous effect on health, organoleptic properties or technological performance such as Jimson weed — *Datura* (*D. fastuosa* L. and *D. stramonium* L.) corn cockle (*Agrostemma githago* L., *Machai Lallium remulenum* L.) Akra (*Vicia* species), *Argemone mexicana*, Khesari and other seeds that are commonly recognized as harmful to health

### 3.10

#### **shrivelled peas**

dry peas which are distinctly shrivelled in contrast to the natural shape and appearance of normally developed peas

### 3.11

#### **split peas**

broken pieces of peas that are less than three-quarters of the whole grain, and cotyledons that are loosely held together by the seed coat

## 4 Requirements

### 4.1 General requirements

Dry whole peas shall meet the following general requirements/limits.  
Peas shall be:

- (a) mature dry seeds of the garden type pea plant *Pisum sativum* (L.) and *Pisum sativum* var. *arvense* (L.);
- (b) clean, well-filled, wholesome, uniform in size, shape, colour;
- (c) free from substances which render them unfit for human consumption;
- (d) free from abnormal flavours, musty, sour or other undesirable odour, obnoxious smell and discolouration;
- (e) free of pests, live insects, animal droppings, fungus infestation, added colouring matter, moulds, impurities of plant and animal origin including insects, rodent hair and excreta and shall meet any other sanitary and phytosanitary requirements;
- (f) free from micro-organisms and substances originating from micro-organisms, or other poisonous or deleterious substances in amounts that may constitute a hazard to human health;
- (g) free from toxic or poisonous or harmful seeds that are commonly recognized as harmful to health.

### 4.2 Specific requirements

#### 4.2.1 Grading

Dry whole peas shall be graded into three grades on the basis of the tolerable limits established in Table 1 which shall be additional to the general requirements set out in this standard.

**Table 1 — Specific requirements**

Characteristics		Limits			Method of test
		Grade 1	Grade 2	Grade 3	
(1)	Moisture, % m/m	14.0	14.0	14.0	ISO 24557
(2)	Purity, % min. m/m	99	97	97	ISO 605
(3)	Foreign matter, % max m/m	0.2	0.5	0.7	ISO 605
(4)	Inorganic matter, % max m/m	0.1	0.2	0.3	
(5)	Broken/split peas, % max m/m	1	2.5	5	
(6)	Pest damaged peas, % max m/m	0.3	0.8	1.5	
(7)	Rotten & diseased peas, max% m/m	0.2	0.5	0.5	
(8)	Discoloured peas, % m/m	1	1	1	
(9)	Immature/shrivelled peas, % max m/m	2	4	5	
(10)	Filth, % max m/m	0.1	0.1	0.1	
(11)	Total defective dry whole peas, % max m/m	3	5	8.5	
NOTE 1 The parameter, total defective dry whole peas is not the sum total of the individual defects. It is limited to 70% of the sum total of individual defects.					
NOTE 2 For Grade 1 whole dry peas, more than 70% by weight of the whole shall be peas of a size that will not pass through a 6.35mm round hole screen.					

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## 5 Contaminants

### 5.1 Heavy metals

Dry whole peas shall comply with those maximum limits for metal contaminants specified in CODEX STAN 193 and in particular those listed in Table 2.

Table 2 — Metal contaminants

S/N	Parameter	Limit (mg/kg max)	Test method
(1)	Lead (Pb)	0.1	AOAC 999.11 or AOAC 999.10
(2)	Cadmium (Cd)	0.1	AOAC 999.11 or AOAC 999.10

### 5.2 Pesticide residues

Dry whole peas shall comply with those maximum pesticide residue limits established by the Codex Alimentarius Commission for this commodity

## 6 Hygiene

6.1 Dry whole peas shall be produced and handled under hygienic conditions in accordance with ARS 53

### 7 Packaging

7.1 Dry whole peas shall be packaged in suitable food grade packaging materials which shall be clean, sound, free from insect, fungal infestation and the packaging material shall be of food grade quality and shall be securely closed and sealed.

7.2 Dry whole peas shall be packaged in packaging materials which will safeguard the hygienic, nutritional, technological and organoleptic qualities of the products.

7.3 Each package shall contain dry whole peas of the same type and of the same grade designation.

## 8 Labelling

### 8.1 General labelling

The following specific labelling requirements shall apply and shall be legibly and indelibly marked in accordance with the requirements of ARS 56:

- (i) product name as “Dry whole peas”;
- (ii) variety;
- (iii) grade;
- (iv) name, address and physical location of the producer/ packer/importer;
- (v) lot/batch/code number;
- (vi) net weight, in SI units;
- (vii) the declaration “Food for Human Consumption”
- (viii) storage instruction as “Store in a cool and dry place away from any contaminants”;

- (ix) crop year;
- (x) packing date;
- (xi) instructions on disposal of used package;
- (xii) country of origin;
- (xiii) a declaration on whether the dry whole peas were genetically modified or not.
- (xiv) 'best before' date

## **8.2 Labelling of non-retail containers**

Information detailed in 8.1 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 processor or packer as well as storage instructions, shall appear on the container.

For products purchased for use by the buyer/retailer, at least the name of producer, lot number and/or 'crop year' shall be indicated on the container.

Lot identification and the name and address of the processor or packer may be replaced by an identification mark provided that such a mark is clearly identifiable with the accompanying documents.

## **9 Sampling**

Sampling shall be done in accordance with the ISO 24333.

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*Peas*, Official Grain Grading Guide, August 1, 2012, Canadian Grain Commission

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