



## **DRAFT EAST AFRICAN STANDARD**

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### **Oilseed cakes and meal for animal feeds — Specification**

**EAST AFRICAN COMMUNITY**

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## Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in the East African Community. It is envisaged that through harmonized standardization, trade barriers that are encountered when goods and services are exchanged within the Community will be removed.

The Community has established an East African Standards Committee (EASC) mandated to develop and issue East African Standards (EAS). The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the public and private sector organizations in the community.

East African Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the Principles and procedures for development of East African Standards.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

The committee responsible for this document is Technical Committee EASC/TC 001, *Animal feeds and feeding stuffs*.

Attention is drawn to the possibility that some of the elements of this document may be subject of patent rights. EAC shall not be held responsible for identifying any or all such patent rights.

This second edition cancels and replaces the first edition (EAS 287:2002), which has been technically revised.



# Oilseed cakes and meal for animal feed — Specification

## 1 Scope

This Draft East African Standard specifies requirements, sampling and test methods for oilseed cakes and meal used as livestock feedstuffs

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 5510, *Animal feeding stuffs — Determination of available lysine*

ISO 5983-1, *Animal feeding stuffs — Determination of nitrogen content and calculation of crude protein content — Part 1: Kjeldahl method*

ISO 5984, *Animal feeding stuffs — Determination of crude ash*

ISO 5985, *Animal feeding stuffs — Determination of ash insoluble in hydrochloric acid*

ISO 6490-1, *Animal feeding stuffs — Determination of calcium content — Part 1: Titrimetric method*

ISO 6491, *Animal feeding stuffs — Determination of phosphorus content — Spectrometric method*

ISO 6492, *Animal feeding stuffs — Determination of fat content*

ISO 6495, *Animal feeding stuffs — Determination of water-soluble chlorides content*

ISO 6496, *Animal feeding stuffs — Determination of moisture and other volatile matter content*

ISO 6497, *Animal feeding stuffs — Sampling*

ISO 6865, *Animal feeding stuffs — Determination of crude fibre content — Method with intermediate filtration*

ISO 9831, *Animal feeding stuffs, animal products, and faeces or urine — Determination of gross calorific value — Bomb calorimeter method*

ISO 13903, *Animal feeding stuffs — Determination of amino acids content*

ISO 14718, *Animal feeding stuffs — Determination of aflatoxin B1 content of mixed feeding stuffs — Method using high-performance liquid chromatography*

ISO 17375, *Animal feeding stuffs — Determination of aflatoxin B1*

ISO 16050, *Foodstuffs — Determination of aflatoxin B1, and the total content of aflatoxins B1, B2, G1 and G2 in cereals, nuts and derived products — High-performance liquid chromatographic method*

ISO 27085, *Animal feeding stuff — Determination of calcium, sodium, phosphorous, magnesium, potassium, iron, zinc, copper, manganese, cobalt, molybdenum, arsenic, lead and cadmium by ICP-AES*

ISO 660, *Animal and vegetable fats and oils — Determination of acid value and acidity*

EAS 38, *Labelling of pre-packaged foods — General requirements*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions shall apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <http://www.iso.org/obp>

#### 3.1

##### **oilseed cakes**

oilseeds from which most of the oil is pressed/expelled and formed into a cohesive mass

#### 3.2

##### **oilseed meal**

oilseeds from which most of the oil is extracted using solvents

#### 3.3

##### **extraneous matter**

organic or inorganic material other than the specified oilseed cake and meal such as stone, dead insects, bones, stems and others

### 4 Requirements

#### 4.1 General requirements

Oilseed cakes and meal for feedstuff shall be free from:

- a) any odour indicating a change in condition such as mouldy or rotten material;
- b) contaminants such as harmful bacteria, yeasts and moulds; and
- c) impurities such as stones or metallic particles, castor seed and any toxic material or extraneous material.

#### 4.2 Specific Requirements

4.2.1 Oilseed cakes and meal shall conform to the requirements specified in Table 1 when tested in accordance with the test methods specified therein.

**Table 1 — Specific requirements for oilseed cakes and meal by mass**

Oilseeds	Form	Moisture, %, max.	Crude protein, %, min.	Crude fat (oil), %, max.	Free fatty acids, %, max. (calculated as lauric acid in extracted fat)	Crude fibre %, max.	Total ash, %, max.	Acid insoluble ash, %, max.
Coconut (Copra)	Cake	12.0	18.0	12.0	7.0	12.0	8.0	1.0
Ground nut	Cake	12.0	42.0	6.0	7.0	6.0	4.5	1.0
Soya Bean	Cake	12.0	40.0	9.0	7.0	7.0	7.5	1.0
	Meal	12.0	43.0	1.69	7.0	6.13	6.82	1.0
	Full fat soya	12.0	38.0	18.0	7.0	7.0	7.5	1.0
Cotton seed: decorticated	Cake	12.0	33.0	10.0	7.0	17.0	7.0	1.0
	Meal	12.0	43.0	2.8	7.0	11.47	6.46	1.0
Cotton seed: undecorticated	Cake	12.0	30.0	10.0	7.0	25.0	6.0	1.0
Sunflower: decorticated	Cake	12.0	32.0	10.0	7.0	17.0	8.0	1.0
	Meal	12.0	31.76	2.62	2.0	22.0	6.18	1.0
Sunflower: undecorticated	Cake	12.0	25.0	10.0	7.0	28.0	8.0	1.0
Sesame (Simsim)	Cake	12.0	40.0	8.0	7.0	5.0	14.0	1.0
Rape seed	Cake	12.0	30.0	10.0	7.0	14.0	8.0	1.0
	Meal	12.0	36.0	2.28	7.0	12.3	6.94	1.0
Maize germ cake	Cake	12.0	14.0	12.0	7.0	13.0	3.0	1.0
Amaranth	Cake	12.0	16.0	10.0	7.0	12.0	4.0	1.0
Black seed	Cake	12.0	35.0	6.0	7.0	6.0	12.7	1.0
Chia seed	Cake	12.0	25.0	18.2	7.0	29.2	6.8	1.0
EAS 74 Methods of test for animal feedstuffs (Reference to clause number		ISO 6496	ISO 5983-1	ISO 6492	ISO 660	ISO 6865	ISO 5984	ISO 5985

## 5 Contaminants

### 5.1 Aflatoxin

Aflatoxin contamination shall not be more than 20 ppb for B<sub>1</sub> and 50 ppb for total aflatoxin when tested in accordance with ISO 16050 and ISO 17375.



## **5.2 Pesticide residues**

Oilseed cakes and meal shall comply with the maximum pesticide residue limits established by the Codex Alimentarius Commission.

## **5.3 Heavy metals**

Oilseed cakes and meal shall comply with the maximum heavy metal limits established by the Codex Alimentarius Commission.

## **6 Hygiene**

Oil seed cakes and meal shall be prepared in accordance with CAC/RCP 54.

## **7 Weights and measures**

Oil seed cakes and meal shall be weighed according to the weights and measures regulation of the destination country.

## **8 Packaging**

Oil seed cakes and meal shall be packaged in suitable containers that are of sufficient strength, and sufficiently sealed to withstand reasonable handling without tearing, bursting or falling open. The containers shall be clean and not previously used.

## **9 Labelling**

In addition to the requirements in EAS 38, each package shall be legibly and indelibly labelled with the following:

- a) expiry date;
- b) name of the feed for example "Maize bran";
- c) name and physical address of the manufacturer;
- d) additives if included shall be declared;
- e) net weight in metric units;
- f) directions and precautions for use;
- g) batch number /lot identification;
- h) manufacturing date; and
- i) storage instructions.

## **10 Sampling**

Sampling shall be done in accordance with ISO 6497

## Bibliography

EAS 287:2002, *Oilseed cakes for animal feeds specification*

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