



DRAFT EAST AFRICAN STANDARD

Bone meal for animal feeds — Specification

EAST AFRICAN COMMUNITY

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East African Community
P.O. Box 1096,
Arusha
Tanzania
Tel: + 255 27 2162100
Fax: + 255 27 2162190
E-mail: eac@eachq.org
Web: www.eac-quality.net

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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 231:2001), which has been technically revised.

Bone meal for animal feeds — Specification

1 Scope

This Draft East African Standard specifies requirements, sampling and test methods for bone meal used as a mineral supplement in animal feeds.

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*

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

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 6579-1, *Microbiology of the food chain — Horizontal method for the detection, enumeration and serotyping of Salmonella — Part 1: Detection of Salmonella spp*

ISO/TS 17919, *Microbiology of the food chain — Polymerase chain reaction (PCR) for the detection of food-borne pathogens — Detection of botulinum type A, B, E and F neurotoxin-producing clostridia*

ISO 21871, *Microbiology of food and animal feeding stuffs — Horizontal method for the determination of low numbers of presumptive Bacillus cereus — Most probable number technique and detection method*

3 Terms and definitions

For the purposes of this document, the following terms and definitions 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

bone meal

product obtained from under composed bones after removal of adhering tissues, defatting, sterilization, drying and milling

3.2

extraneous matter

organic or inorganic materials other than bone meal such as sand, stones, chaff, dead insects and others

3.3

ruminants

animals with a stomach divided into four compartments (one of which is called a rumen) and chew a cud consisting of regurgitated, partially digested food. Ruminants include cattle, buffalo, sheep, goats, deer, antelopes and camels.

3.4

monogastrics

also called non-ruminants are animals with a single compartment stomach. They include; poultry, swine, cats and horses

4 Requirements

4.1 General requirements

Bone meal shall be:

- a) free from extraneous matter; and
- b) free from any objectionable odour, toxic ingredients, adulterants, insects and pathogenic micro organisms.

4.2 Specific requirements

4.2.1 Bone meal shall conform to the requirements in Table 1 when tested in accordance with the test methods specified therein

Table 1 — Specific requirements for bone meal

Parameter	Requirement (per cent by mass)	Test method*
Moisture content, max.	7.5	ISO 6496
Crude fat, max.	3	ISO 6492
Calcium, min.	20 ^a	ISO 6490-1
Phosphorus, min.	9	ISO 6491
Total ash, min.	65	ISO 5984
Acid insoluble ash, max.	4.0	ISO 5985
^a The values are on dry basis.		

4.2.2 The particle size shall be such that not less than 90 % by weight of the meal passes through a-1 700-µm (1.70 mm) sieve.

5 Hygiene

Bone meal shall conform to the maximum microbiological limits specified in Table 2 when tested in accordance with the test methods specified therein.

Table 2 — Microbiological limits in bone meal

S/No	Microorganism	Limit, max.	Test method
i	<i>Salmonella spp</i>	Absent	ISO 6579-1
ii	Spores of <i>Bacillus anthracis</i>	Absent	ISO 21871
iii	<i>Clostridium botulinum</i>	Absent	ISO/TS 17919

6 Weights and measures

Bone meal shall be weighed according to the weights and measures regulation of the destination country

7 Packaging

Bone 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.

8 Labelling

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

- a) name of the product as “Bone meal”;
- b) name and physical address of the manufacturer;
- c) calcium and phosphorus content;
- d) net weight in metric units;
- e) precautions for use;
- f) batch number /lot identification;
- g) manufacturing date; and
- h) storage instructions.

Bones from ruminants shall not be used for ruminants but can be used for monogastrics and vice versa.

9 Sampling

Sampling shall be done in accordance with ISO 6497

Bibliography

EAS 231, *Bone meal feed specification*

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