



DRAFT EAST AFRICAN STANDARD

Hay as animal feed — Specification — Part 1: Grass hay

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*.

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Hay as animal feed — Specification — Part 1: Grass hay

1 Scope

This Draft East African Standard specifies requirements, sampling and test methods for grass hay used as animal feed.

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.

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

CAC/RCP 54, *Code of Practice on Good Animal Feeding*

ISO 5983, *Animal feeding stuffs — Determination of nitrogen content and calculation of crude protein content*

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

ISO 16472, *Animal feeding stuffs — Determination of amylase-treated neutral detergent fibre content (aNDF)*

ISO 13906, *Animal feeding stuffs — Determination of acid detergent fibre (ADF) and acid detergent lignin (ADL) contents*

ISO 6497, *Animal feeding stuffs — Sampling*

3 Terms and definitions

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

3.1 hay

cultivated or natural pasture that has been cut and dried for use as animal feed

3.2 grass hay

Cultivated or natural pasture (not cultivated) grass that has been cut and dried for use as animals feeds

NOTE Grass hay may be single species or mixed species.

4 Requirements

4.1 General requirements

Grass hay shall be free from:

- a) harmful constituents such as glass, stones, soil, metallic objects and other adulterants;
- b) moulds or insect infestation e.g. Ergot spp;
- c) musty, rancid or uncharacteristic odour;
- d) waste material including faecal matter and any other
- e) rain damage;
- f) poisonous plants and seeds including but not limited to the following Cuscuta, Datura, Solanum, Moraea, Stipa, Crotalaria Ornithogalum, Senecio;
- g) plant pests and diseases; and
- h) animal pests and disease causing agents.

4.2 Specific requirements for grass hay

4.2.1 Grass hay shall be classified into grades on the basis of nutritional value as per the requirements given in Table 1 when tested in accordance with the test methods prescribed therein.

Table 1 — Nutritional requirements for grass hay

Parameter at 100 %, DM	Grade					Test method
	Premium	Good	Fair	Utility	Straw	
Crude protein, %	11 (min.)	8 – 10	5 – 7	3 – 5	<3	ISO 5983
Acid Detergent Fibre (ADF)	30.5	30- 32	32- 34	41	41- 45	ISO 13906
Neutral Detergent Fibre (NDF)	< 60	60-64.4	64.4-68	68-70	70- 75	ISO 16472
[Calcium, g/kg]	0.72	0.66	0.47	< 0.2 5	0.45	ISO 6490-1
[Phosporus, g/kg]	0.34	0.29- 0.34	0.26-0.29	< 0.26	< 0.07	ISO 6491
[Metabolisable energy, kcal/KgDm]	2222.75	2031.55	< 1673.04	< 1673.04	< 1673.04	

4.2.2 Moisture content for grass hay shall comply with the requirements given in Table 2 when tested in accordance with the test methods specified therein.

Table 2 — Moisture content for grass hay

Hay classification	Pelleted hay	Rectangular baled hay up to 25 kg	Rectangular baled hay 26 - 400 kg	Rectangular baled hay 400 - 800 kg	Round baled hay 200 - 900 kg	Test method
Moisture content, %, max.	12	18	16	12	15	ISO 6496

5 Contaminants

5.1 Pesticide residues

Grass hay shall comply with the maximum pesticide residue limits established by the Codex Alimentarius Pesticide Database.

5.2 Heavy metals

Grass hay shall comply with those maximum limits for heavy metals established in CODEX STAN 193.

6 Hygiene

Grass hay shall be produced and handled in accordance with CAC/RCP 54.

7 Packaging

7.1 Baled hay for sale shall be baled using sufficient strong binding. Bales may be tied using sisal ropes or wire so as to withstand reasonable handling without tearing or falling open during transportation and storage.

7.2 Chopped, milled, or pelleted hay shall be packed in containers which are of sufficient strength and sufficiently sealed so as to withstand reasonable handling without tearing, bursting or falling open during handling and transportation.

7.3 Hay should be transported in clean vehicles and should be protected from environmental factors that might affect the quality of the hay.

8 Labelling

Each package of hay shall be legibly and indelibly labelled with the following:

- a) type of hay - if being sold as a single species, then a declaration is required stating that the contents consist of more than 90% m/m dry matter of that species;
- b) name and physical address of the manufacturer/producer;
- c) grade of hay;
- d) crude protein level;

- e) net weight;
- f) batch/lot number;
- g) production date;
- h) “Use by” date; and
- i) storage instructions.

10 Sampling

Sampling shall be done in accordance with ISO 6497.

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