

BHILSHNORDFORDUGUUU **TANZANIA BUREAU OF STANDARDS** 

# Compounded horse feed – Specification

# 0 FOREWORD

Horse (*Equus feruscaballus*) is a hooved (ungulate) mammal, a subspecies of the family Equidae. Proper formulation of diets for horses depends on adequate knowledge of their nutrient requirements. This standard is intended to ensure that the diets of horses contain adequate amounts of nutrients for balanced growth and performance.

This standard has been prepared to ensure that compounded horse feed manufactured or imported into the country are safe and meet the nutritional requirements of horses.

In the preparation of this Tanzania standard assistance was drawn from KS 1742:2013 Horse feed supplement – Specification published by Kenya Bureau of standards.

In reporting, the results of a test or analysis made in accordance with this standard, if the final value observed or calculated, is to be rounded off, it shall be done in accordance with TZS 4 (see clause 2).

#### 1.0 SCOPE

This Tanzania standard specifies requirements, methods of sampling and test for compounded horse feed.

#### 2.0 NORMATIVE REFERENCES

For the purpose of this Tanzania standard, the following references shall apply. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies:

TZS 4 – Rounding off numerical values

TZS 76 – General method for determination of Arsenic silver diethyldithiocarbamate photometric method

TZS 109 – Food Processing units – code of hygiene – General.

TZS 268 – General atomic absorption spectrophotometric method for determination of lead in food stuffs

TZS 538 – Labelling of pre-packaged foods — General requirements

TZS 799 – Food stuffs – Determination of aflatoxin B1 and the total content

TZS 821 – Animal feeds and feeding stuffs – Preparation of test samples.

TZS 2470 – Animal feeding stuffs - Determination of lysine, methionine and threonine in commercial amino acid products and premixtures

TZS 2472 – Animal feeding stuffs – Determination of acid detergent fibre (ADF) and acid detergent lignin (ADL) Contents

TZS 2476 – Animal feeding stuffs -Determination of fat content

TZS 2478 – Animal feeding stuffs – Determination of moisture and other volatile matter content

TZS 2480 – Animal feeding stuffs - Determination of nitrogen content and calculation of crude protein content - Part 1: Kjeldahl method

TZS 2487 – Animal feeding stuffs - Determination of the contents of calcium, copper, iron, magnesium, manganese, potassium, sodium and zinc - Method using atomic absorption spectrometry

TZS 2488 – Animal feeding stuffs – Sampling

#### 3.0TERMS AND DEFINITIONS

For the purpose of this standard, the following terms and definitions shall apply:

#### 4.0REQUIREMENTS

#### 4.1 General requirements

- 4.1.1 Compounded horse feed may be in form of a meal (or mash), cubes or pellets.
- **4.1.2** The Compounded horse shall be free from harmful constituents, metallic objects, adulterants, fungi, pathogenic bacteria or insect infestation and free from fermented, musty, rancid or any other objectionable odour.
- 4.1.3 Free from antibiotics and hormones

#### 4.2 Permitted feed additives

**4.2.1** Only feed additives accepted internationally and approved by OIE for use in animal feeds shall be incorporated in compounded horse feeds.

#### 4.3Specific requirements

The compounded horse feed shall conform to the requirements prescribed in Table 1.

S/No.	Nutrients /Parameters	Requirements	Method of test
	Moisture (for other forms excluding mash)	13	TZS 2478
i)	Crude Protein, %, min.	6	TZS 2480
ii)	Crude fat, %, max	12	TZS 2476
iii)	Crude fibre, %, max	12	TZS 2472
iv)	Lysine, %, Min	0.4	TZS 2470
V)	Calcium, %, Min	1.5	TZS 2487
vi)	Phosphorus, %, Min	1	ICP/AAS

Table 1: Nutrients requirements in dry matter basis

# **5.0 CONTAMINANTS**

**5.1** The products covered by this Standard shall comply with the maximum limits for heavy metals specified in Table 2.

Table 2: Heavy metals

S/No.	Heavy metal	Limits	Method of test (see clause 2)
i)	Mercury (Hg), mg/kg, max	8	ICP/AAS
ii)	Lead (Pb), mg/kg, max	15	TZS 268
iii)	Arsenic (As), mg/kg, max	10	TZS 76
iv)	Cadmium (Cd), mg/kg, max	10	ICP/AAS

# 5.2 Aflatoxins

Total aflatoxins content maximum limit in compounded horse feed shall be 20 ppb when tested in accordance with TZS 799.

## 5.3 Pesticide residues

Horse feed supplement shall comply with pesticide residues limits as prescribed in the Codex Alimentarius Commission.

## 6.0 HYGIENE

The product shall be prepared under strict hygienic conditions according to TZS 109 (see clause 2).

# 7.0SAMPLING AND TESTS

## 7.1 Sampling

Sampling of the product shall be done according to TZS 2488 and TZS 821 (see clause 2).

## 7.2Tests

Testing of this product shall be done according to test methods prescribed in Table 1 and 2 (see clause 2).

## 8 PACKING, MARKING AND LABELLING

## 8.1 Packing

Compounded horse feed 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 normal handling and transportation. The container shall be clean and not previously used.

Each container for Compounded horse feed shall be clean and free from visible indications of contamination, infection and insect infestation.

## 8.2 Marking and labelling

In addition to marking and labelling requirements prescribed in TZS 538, compounded horse feed containers shall be also legibly and indelibly marked with the following:

- (i) Name of product,
- (ii) Name and physical address of the manufacturer;
- (iii) Category of animals for which it is intended;
- (iv) Net Weight content;
- (v) Batch or code number;
- (vi) Date of manufacture shall be clearly shown on the container;
- (vii) Expiry date shall be clearly shown on the container;
- (viii) Nutrient declaration;

8.3 The container may also be marked with TBS Certification Mark.

**NOTE** – The TBS Standards Mark of Quality may be used by the manufacturers only under licence from TBS. Particulars of conditions under which the licences are granted may be obtained from TBS.

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