



**DRAFT TANZANIA STANDARD**

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**Rice bran as animal feed – Specification**

DRAFT STANDARD FOR PUBLIC COMMENTS

## Rice bran as animal feed – Specification

### 0 FOREWORD

Rice bran is widely used in formulation of animal feeds at both industrial and farm levels. This Tanzania standard lays down specifications to guide production and trading of safe and quality rice bran for use in the manufacture of animal feed.

In the preparation of this Tanzania Standard substantial assistance was drawn from Indian standard, IS 3648 – 1973 Rice bran as livestock feed.

In reporting the results of a test or analysis made in accordance with this Tanzania 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 prescribes the requirements, methods of sampling and test for rice bran as animal feed.

### 2.0 NORMATIVE REFERENCES

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

TZS 4 – Rounding off numerical values.

TZS 122-1– Microbiology of food and animal feeding stuffs – Horizontal method for the detection of *Salmonella spp.*

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

TZS 730-1 – Microbiology of food and animal feeding stuffs – Horizontal method for the detection of *Escherichia coli*

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

TZS 821 – Animal feeding stuffs – Preparation of test samples

TZS 2044 – Animal feeding stuffs – Determination of ash insoluble in hydrochloric acid

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

TZS 2473 – Animal feeding stuffs - Determination of crude ash

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 2488 – Animal feeding stuffs – Sampling

### 3.0 TERMS AND DEFINITIONS

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

### 3.1 rice bran

is the pericarp or bran layer and germ of rice, with only such quantity of hull fragments, and chipped or broken rice as is unavoidable in the regular milling of edible rice.

## 4.0 REQUIREMENTS

### 4.1 General requirements

4.1.1 Rice bran shall be free from harmful constituents, metallic objects, adulterants, fungal and microbial contamination, stale odour, sour or rancid taste, insects and rodent infestation, and other extraneous matter.

4.1.2 Shall be free flowing without clumps and discolouration.

### 4.2 Specific requirements

4.2.1 Rice bran for animal feeding shall also conform to the requirements detailed in Table 1.

**Table 1: Requirements for rice bran for animal feed**

S/No	Parameters	Requirements	Methods of test (See clause 2)
1	Moisture, %, m/m, max	10	TZS 2478
2	Crude protein (6.25 X N), %, m/m, Min	11	TZS 2480
3	Crude fat, %, m/m, min	12	TZS 2476
4	Crude fibre, %, m/m, max	12	TZS 2472
5	Acid insoluble ash, %, m/m, max	8	TZS 2044

**NOTE** – All values obtained are calculated from samples on dry basis except for those dealing with moisture

## 5 HYGIENE

5.1 Rice bran shall be prepared under strict hygienic conditions according to TZS 109 (see clause 2).

5.2 Rice bran shall comply with microbiological limits as shown in Table 2;

**Table 2: Status for microbiological tolerance in animal feeds**

S/No.	Microorganism	Status	Test methods (see clause 2)
1.	<i>Salmonella spp</i> 25/g	Absent	TZS 122-1
2.	<i>Escherichia coli</i> cfu/g	Absent	TZS 730-1

## 6.0 CONTAMINANTS

### 6.1 Pesticide residues

Rice bran shall comply with pesticide residues limits as prescribed in the Codex Alimentarius Commission.

## 6.2 Aflatoxins

Total aflatoxins content maximum limit in rice bran shall be 10 ppb when tested in accordance with TZS 799.

## 7.0 SAMPLING AND TESTS

### 7.1 Sampling

Sampling of Rice bran for animal feeding shall be done according to TZS 821 and TZS 2488 (see clause 2).

### 7.2 Tests

Testing of Rice bran for animal feeding shall be done according to test methods prescribed in Tables 1 and 2.

## 8.0 PACKING, MARKING AND LABELLING

### 8.1 Packing

Rice bran for animal feeding shall be packed in clean and sound containers capable of protecting the product from moisture ingress, contamination and spillage during normal handling and transportation. The containers shall be sealed/stitched in a manner that the product will be effectively protected.

### 8.2 Marking and labelling

Rice bran containers shall be marked and labelled in accordance with TZS 538 (see clause 2). In addition, each container shall be legibly and indelibly marked with the following information:

- a) Name of the product;
- b) Name and address of the manufacturer;
- c) Batch or code number;
- d) Date of production;
- e) Net weight in metric unit;
- f) Expiry date;
- g) Country of origin;
- h) Storage instructions;
- i) Guaranteed analysis.

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 license from TBS. Particulars of conditions under which the licenses are granted may be obtained from TBS.