

**KENYA STANDARD**

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**Pig feed premixes- Specification**

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The following organizations were represented on the Technical Committee:

1. Ministry of Agriculture Livestock and Fisheries — Department of Livestock Production
2. Kenya Agricultural Research Institute (KARI)
3. Unga Farm Care EA Ltd.
4. Modern Ways Ltd.
5. Consumer Information Network
6. Department of Veterinary Services
7. AKEFEMA-Association of Kenya Feed Manufacturers
8. Government chemist department.
9. Pioneer Feeds Ltd
10. Nutrimix (K) Ltd
11. Pembe Flour Mills
12. Eaglevet (K) Ltd
13. Joeliz Bone meal Ltd.
14. Proctor and Allan (EA) Ltd
15. Kenya Bureau of Standards — Secretariat

## REVISION OF KENYA STANDARDS

In order to keep abreast of progress in industry, Kenya Standards shall be regularly reviewed. Suggestions for improvements to published standards, addressed to the Managing Director, Kenya Bureau of Standards, are welcome.

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# Pig feed premixes- Specification

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## Foreword

This Kenya Standard was prepared by the Animal Feeds Technical Committee under the guidance of the Standards Projects Committee, and it is in accordance with the procedures of the Kenya Bureau of Standards.

Animal mineral and vitamin requirements vary from herd to herd and group to group depending on physiological statuses and seasonality. Appropriate levels of vitamins and minerals impact energy and fat metabolism, immunity, health and lameness, feed intake, and animal productivity. Many factors influence vitamin and mineral availability and utilization.

The animal feed manufacturing industry in Kenya has continued to utilize animal premixes that are either imported whole (ready for use) or locally re-constituted in our factories without clear guidelines on specifications on nutrient requirements for the premixes. In view of the above, it has become necessary to develop standards for animal feed premixes for use in compounding animal feeds in Kenya. It is expected that such an attempt could facilitate increased trade volumes as well as create a vibrant and competitive animal feed manufacturing industry in the region.

During the preparation of this Kenya Standard, reference was made to the following publications:

KSEAS- 55 :2011 Pig feeds -Specification

The assistance received from these sources is acknowledged with thanks.

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## KENYA STANDARD

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### Pig feed premixes- Specification

#### 1. Scope

This Kenya Standard covers the specification for pig feed premixes.

#### 2. Definitions

For the purpose of this standard, the following definitions apply:

##### 2.1.

##### **premix**

concentrated mixture of vitamins, trace minerals and diluents. it may contain other feed additives such as amino acids or medicaments.

##### 2.2. categories of pigs

##### 2.2.1.

##### **piglets**

young pigs up to 8 weeks of age.

##### 2.2.2.

##### **porkers**

pigs especially bred and kept for pork production, and have a live weight of not more than 55 kg

##### 2.2.3.

##### **baconers**

pigs especially kept for production of bacon, and have a live weight of 55 kg to 100 kg

##### 2.2.4.

##### **gilts**

young female breeding pigs which have not farrowed

##### 2.2.5.

##### **sows**

female pigs which have farrowed at least once

##### 2.2.6.

##### **boars**

male breeding pigs

##### 2.2.7.

##### **heavy hogs**

pigs which have a live weight of not less than 100 kg

#### 2.3. pig rations

##### 2.3.1.

##### **pig creep-feed**

feed suitable for piglets up to normal weaning age of eight weeks of age and weighing up to 20 kg body weight

##### 2.3.2.

**pig grower feed**

feed intended for growing pigs from approximately eight weeks until they have reached a body weight of approximately 55 kg

**2.3.3.****pig finishing feed**

feed intended and suitable for fattening pigs weighing over 55 kg body weight and are intended for slaughter

**2.3.4.**

pig breeder feed (sow and weaner feed)

feed intended for breeding pigs of both sexes and of more than 55 kg body weight

**3. Requirements**

**3.1. Description** —Premixes shall be a fine powder, granular or liquid concentrate.

**3.2.** The Premix shall be free from harmful constituents, metallic objects, adulterants, moulds, pathogenic micro-organisms or pest infestation and free from fermented, musty, rancid or uncharacteristic odour.

**3.3.** The pig feed premix shall contain the following nutrients.

**Table 1—minimum levels of minerals and vitamins in pig feed premixes**

S/No.	Parameter	Creep feed	Grower feed	Finishing feed	Breeder feed	Method of test
		Min	Min	Min	Min.	
i)	Selenium, mg/kg	200	200	200	200	AOAC 996.16
ii)	Manganese, mg/kg	30000	30000	20000	20000	ISO 27085
iii)	Iodine, mg/kg	1000	500	500500	1000	AOAC 935.14
iv)	Zinc, mg/kg	50000	100000	100000	100000	ISO 27085
v)	Iron, mg/kg	100000	80000	125000	80000	ISO 27085
vi)	Copper, mg/kg	200000	14000	20000	20000	ISO 27085
vii)	Cobalt, mg/kg	5000	300	300	300	ISO 27085
viii)	Vitamin A, IU/kg	10000000	10000000	8000000	12000000	ISO 14565
ix)	Vitamin B <sub>1</sub> (thiamine), mg/kg	-	-	-	-	AOAC 942.23
x)	Vitamin B <sub>2</sub> (riboflavin), mg/kg	15000	5000	5000	5000	AOAC 970.65
xi)	Vitamin B <sub>3</sub> (niacin), mg/kg	15000	15000	15000	15000	AOAC 961.14
xii)	Vitamin B <sub>5</sub> (pantothenate), mg/kg	10000	10000	10000	10000	AOAC 945.74
xiii)	Vitamin B <sub>6</sub> (pyridoxine), mg/kg	-	-	-	-	AOAC 961.15
xiv)	Vitamin B <sub>7</sub> (biotin), mg/kg	500	500	500	50	AOAC
xv)	Vitamin B <sub>9</sub> (folic acid), mg/kg	-	-	-	1000	AOAC 944.12
xvi)	Vitamin B <sub>12</sub> (cobalamin), mg/kg	10	10	10	15	AOAC 952.20
xvii)	Vitamin D <sub>3</sub> , IU/kg	2000000	2000000	1600000	2400000	AOAC
xviii)	Vitamin E, IU/kg	10000	10000	5000	20000	ISO 6867
xix)	Vitamin K, mg/kg	2000	2000	1000	3000	AOAC 974.30
xx)	Antioxidant (BHT) <sup>3)</sup> , mg/kg	125	125	125	125	AOAC 968.17

Note: The above levels must be attained by inclusion at 1kg of premix per metric tonne of feed. Premixes labelled at different inclusion rate must contain a pro rata level of nutrient.

## 4. Packaging and labelling

### 4.1. Packaging

4.1.1. Pig feed premixes for sale 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.

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

4.2. **Labelling** — the packages shall be securely closed and marked with the following information:

- (i) Name of product;
- (ii) Category of animals for which it is intended;
- (iii) Net Weight of the product;
- (iv) Batch number;
- (v) Name and physical address of the manufacturer;
- (vi) Date of manufacture and expiry
- (vii) Nutrient declaration:-
- (viii). Instructions for use and storage

## 5. Sampling

For the purpose of determining compliance with this standard, samples of pig feed premixes shall be collected from the market or elsewhere and shall be required to comply with all the requirements of this Kenya Standard.