

Poultry feed premixes — Specification

DKS 2508: 2021

TECHNICAL COMMITTEE REPRESENTATION

The following organizations were represented on the Technical Committee:

Ministry of Agriculture Livestock and Fisheries — Directorate of Livestock Production
Directorate of Veterinary Services
Kenyatta University — Department of Animal Science
Kenya Agricultural and Livestock Research Organization (KALRO)
Kenya Industrial Research and Development Institute (KIRDI)
National Public Health Laboratories
Unga Farm Care E.A. Ltd.
Mombasa Maize Millers Ltd
Modern Ways Ltd.
Pet Pal Ltd
Animix Ltd
Consumer Information Network
Association of Kenya Feed Manufacturers — AKEFEMA
Government Chemist's Department
Pioneer Feeds Ltd.
Pembe Feeds
Bureau Veritas Kenya Ltd
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Lunadka Ltd – East Africa
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Kenya Bureau of Standards — Secretariat

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Foreword

This Kenya Standard was prepared by 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 status 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 standard, reference was made to the following document:

KS EAS 90: 2019 Poultry feed supplements — Specification.

Acknowledgement is hereby made for the assistance derived from this source.

Poultry feed premixes — Specification

1 Scope

This Kenya Standard specifies requirements for compounded poultry feed premixes used as a sole source of vitamins and trace elements for poultry.

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 6497, *Animal feeding stuffs — Sampling*

ISO 13903, *Animal feeding stuffs — Determination of amino acids content*

ISO 14565, *Animal feeding stuffs — Determination of vitamin A content — Method using high-performance liquid chromatography*

3 Terms and definitions

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

3.1

premix

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

3.2

compound feeds

is a mixture of feedstuffs blended from various raw materials and additives as a concentrate that provides part of the ration (energy, protein, trace elements) for poultry

3.3

chicks

young laying or breeding chicken up to 6 – 8 weeks of age

3.4

growers

laying or breeding chicken from 6 weeks of age up to the point of laying

3.5

layers

laying hens producing eggs

3.6

breeders

breeding chicken producing fertile eggs

3.7

broilers

chicken specially bred for meat

- Broiler starter 0 – 3 weeks.
- Broiler finisher after 3 weeks

3.8

ducklings

young ducks up to 6 – 8 weeks of age

3.9

poults

young turkeys up to 6 weeks of age

4 Requirements

4.1 Description

Premixes shall be a fine powder, granular or liquid concentrate.

4.2 Quality requirements

4.2.1 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.

4.2.2 The poultry feed premix shall contain levels of nutrients as stipulated in Table 1.

Table 1 Minimum Mineral Nutrients levels for poultry feed premixes

SL No	Class of stock	Copper mg	Manganese mg	Iodine mg	Zinc mg	Selenium mg	Test method
i)	Chicks	5000	75000	1000	50000	100	AOAC ^a
ii)	Ducklings	5000	75000	2000	65000	100	
iii)	Poults	5000	75000	400	70000	200	
iv)	Growers	5000	50000	1000	50000	100	
v)	Layers	5000	50000	1000	50000	100	
vi)	Breeders	5000	75000	2000	50000	200	
vii)	Broilers: Starter Finisher	5000	75000	1000	50000	100	
viii)	Ducks	5000	75000	1000	50000	100	
ix)	Turkey	6000	60000	400	40000	200	

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

a Association of Official Analytical Chemists Methods

5 Packaging and labelling

5.1 Packaging

5.1.1 Poultry 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.

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

5.2 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.

6 Sampling

Representative samples shall be drawn in accordance with ISO 6497.

ANNEX I
(Informative)

Table 2 Recommended Minimum Vitamin levels in Poultry feed premix

SL No	Class of stock	Vit. A IU	Vit. D3 IU	B2 mg	B12 mg	E IU	K mg	B6 mg	Panthenic acid mg	Nicotinic acid mg	Folic acid mg	Choline mg	Biotin mg	Test Method
i)	Chicks	6000000	1500000	4000	15	10000	2000	3000	10000	27000	500	250000	100	AOAC ^a
ii)	Ducklings	8000000	2000000	3000	10	25000	1000	2500	15000	30000	1000	250000	100	
iii)	Poults	10000000	2000000	5000	10	10000	2000	4500	15000	75000	2000	1600000	250	
iv)	Growers	4000000	1000000	3000	4	5000	1000	2800	10000	25000	250	250000	100	
v)	Layers	3000000	300000	2500	4	5000	500	1000	2000	10000	250	250000	25	
vi)	Breeders	8000000	2000000	4000	8	20000	2000	2500	10000	20000	550	250000	100	
vii)	Broilers: Starter Finisher	1500000	200000	3500	10 5	10000	500	1500 10000	10000	20000	1000	250000	150	
viii)	Ducks	2500000	400000	40000	5	10000	500	2500	11000	55000	1000	250000	150	
ix)	Turkey	5000000	1100000	2500	3	10000	750		9000	40000	700	950000	150	

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

NOTE 2 Vitamin B₁₂ may substitute cobalt at a minimum rate of 3000 µg/kg to represent 100 mg/kg of cobalt with no upper limit.

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