

PAKISTAN STANDARD

POULTRY FEEDS (4TH REVISION)



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PAKISTAN STANDARD SPECIFICATION
FOR
POULTRY FEEDS (4TH REVISION)

0. FOREWORD

- 0.1 This Pakistan Standard was adopted by the Pakistan Standards & Quality Control Authority, Standards Development Centre, on 09-01-2012 after the draft finalized by the Animal Feeds Technical Committee had been approved by the National Standard Committee for Agriculture & Food Products.
- 0.2 This standard specification was established in 1963, first revised in 1991 and secondly revised in 1994. Keeping in view the latest developments made in the industries, the committee felt it necessary to revise.
- 0.3 This standard prescribes the nutritional requirements for the poultry feeds and the ingredients to be used in their manufacture, and also included a few feed formulae which could give the stipulated performance. The Technical Committee responsible for the preparation of this standard.
- 0.4 In the preparation of this standard due weightage was given to the need for accoordination between the standards enforce in different countries of the world for promotion of International trade.
- 0.5 In selecting the feed, special attention has been paid to the availability of raw materials in relation to their nutritional efficiency, utilization of waste materials that have some nutritional value.
- 0.6 This standard is intended chiefly to cover the technical provisions relating to poultry feeds, and it does not include all the necessary provisions of a contract.
- 0.7 The feed when tested by actual biological style should not cause deficiency in the symptoms.
- 0.8 For the purpose of deciding whether a particular requirement of this standard is complied with the final value observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with PS: 103 Methods of Rounding Off Numerical Values. The number of significant places retained in the rounded off value shall be the same as that of the specified value in the standard.

1 SCOPE

- 1.1 This standard prescribes the requirements and sampling for poultry feeds and its raw material.

2. TYPES

- 2.1 The poultry feed shall be of the following eight types:

a. LAYERS

- i. Chick starter feed: It is complete ration to be fed to chick up to 6 weeks.
- ii. Grower feed: It is complete ration to be fed to growing chicken from 6 to 12 weeks.

- iii. feed: It is complete ration to be fed to the pullet developer from 12 weeks of age up to the period of 5 % egg production.
- iv. Layer Feed: It is complete ration fed from 5 % egg production up to the end of the laying cycle.
- b. BROILER
 - i. Broiler Starter Feed: It is complete ration to be fed up to the age of 4 weeks or as may be prescribed.
 - ii. Broiler Finisher Feed: It is complete ration to be fed from 4 weeks up to the age of marketing.
- c. BREEDERS
 - i. Layer Breeder Feed: It is complete ration fed from 5 % egg production up to the end of the laying cycle.
 - ii. Broiler Breeder Feed: It is complete ration fed from 5 % egg production up to the end of laying cycle.

Note: Addition/Deletion in the above types of Poultry Feeds can be made and their respective Standards will be prescribed accordingly.

3. SAMPLING

- 3.1 Representative samples of the material shall be drawn according to the method prescribed in Appendix – A.

4. REQUIREMENTS

- 4.1 Description – Poultry Feeds/raw materials shall be nutritionally balanced as prescribed and free from toxicants / poisonous material injurious to poultry health.
- 4.2 The material shall conform to the requirements prescribed in Table – I, II, III, IV & V.

Note: In case of Table No. IV and VI the ingredients shall be free from porcine origin.

5. TESTS

- 5.1 The relevant Testing method of ISO, CAC, AOAC and of other internationally recognized standard methods may be taken in to account for analysis purpose.
- 5.2 Quality of Reagents

Unless specified otherwise, pure chemicals shall be employed in tests and distilled water shall be used where the use of water as reagent is intended.

Note: 'Pure Chemicals' shall mean chemicals that do not contain impurities which affect the results of analysis.

6. PACKING AND MARKING

6.1 Packing.

Unless agreed otherwise by the purchaser and the vendors the materials shall be packed in suitable packing.

6.2 Marking

Each pack shall be suitably marked so as to give the following information: -

- a. Name of the material in block letters.
- b. Brand name or trade name if any.
- c. Name and address of the manufacturers.
- d. Net weight.
- e. This Pakistan Standard Number, PS Mark and Licence Number.

A printed tag bearing information regarding following Nutrients and feed additives etc. shall be attached/inserted inside.

- i) percentage of crude protein
- ii) percentage of crude fibre
- iii) percentage of crude fat
- iv) percentage of crude Ash
- v) Name of cocoidiostate, antibiotic or any additive
- vi) Date of manufacture & Expiry
- vii) Batch or code number

TABLE-I
NUTRIENTS LEVELS FOR POULTRY FEEDS

Class of Poultry	Moisture% (Max.)	Crude Protein %	Crude Fat % (Min.)	Crude Fiber %	Total Ash % (Max.)	ME Kcal / Kg	Aflatoxin B ₁ (PPb) (Max.)
Chick Starter	12	17-20	2	3.0-5.5	9	2600-2800	50
Grower / Prelayer	12	14-17	2	3.0-7.0	9	2600-2800	50
Layer Feed	12	15-17	2	3.0-5.5	13	2600-2800	50
Broiler Starter	12	18-22	2	3.0-6.0	9	2700-2900	50
Broiler Finisher	12	17-20	2	3.0-6.0	9	2700-3000	50
Broiler Breeder Starter	12	17-20	2	3.0-6.0	9	2700-2900	50
Broiler Breeder Grower	12	14-16	2	3.0-7.0	9	2700-2900	50
Broiler Breeder Prelayer	12	15-17	2	3.0-6.0	10	2700-2900	50
Broiler Breeder Layer	12	15-17	2	3.0-6.0	13	2700-2900	50
Layer Breeder Starter	12	17-20	2	3.0-6.0	9	2700-2900	50
Layer Breeder Grower	12	15-17	2	3.0-6.0	9	2700-3000	50
Layer Breeder Layer	12	14-16	2	3.0-6.0	13	2700-3000	50
GP Breeder Starter	12	17-19	2	3.0-6.0	9	2700-2900	50
GP Breeder Grower	12	14-16	2	3.0-7.0	9	2700-3000	50
GP Breeder Layer	12	15-17	2	3.0-6.0	13	2700-2900	50
Broiler Breeder Male	12	13-16	2	3.0-7.0	9	2700-2900	50
Layer Breeder Male	12	13-16	2	3.0-7.0	9	2700-2900	50
GP Breeder Male	12	13-16	2	3.0-7.0	9	2700-2900	50
Quails	12	20-26	2	3.0-6.0	9	2700-3000	50

TABLE-II
NUTRIENTS LEVELS OF CEREALS / COARSE GRAINS

Ingredients/ Feedstuffs	Moisture% (Max.)	Crude Protein % (Min.)	Crude Fat % (Min.)	Crude Fiber % (Max.)	Total Ash % (Max.)	Aflatoxin B ₁ (PPb) (Max.)
Maize	13	8	3	4	2.5	50
Rice Broken	12.5	7	1	4	2	10
Sorghum	12	9	2	4	2.7	10
Wheat	12.5	10	1	5	2.5	10
Barley	12.5	8	2	10	3.5	10

TABLE-III
NUTRIENTS LEVELS OF VEGETABLE PROTEIN SOURCES

Ingredients/ Feedstuffs	Moisture% (Max.)	Crude Protein % (Min.)	Crude Fat % (Min.)	Crude Fiber % (Max.)	Total Ash % (Max.)	Aflatoxin B ₁ (PPb) (Max.)
Cotton Seed Meal	10	35	1	13	6	200
Rape Seed Meal	10	32	1	13	7	20
Canola Meal	10	32	1	12	7	20
Sunflower Meal	10	22	1	24	8	200
Soyabean Meal	12	42	1	8	7	20
Sesame Meal	10	35	1	8	12	20
Linseed Oil Cake	10	25	5	10	7	50
Maize Oil Cake	10	16	7	14	4	100
Maize Gluten Feed	10	20	1	9	8	100
Maize Gluten Meal	10	52	1	1	3	100

Rice Polishing	12	10	13	12	10	50
Rice Protein Meal	10	30	2	2.5	3.5	20
Wheat Bran	12	12	4	11	7.5	20
Rice Bran Meal	12	12	0.2	14	12	50
Matri	10	22	1.8	8	3.5	20
Guar Meal	10	38	4.5	12	7	50
Pulses Meal	10	18	2.5	20	8	50

TABLE-IV
NUTRIENTS LEVELS OF ANIMAL PROTEIN SOURCES

Ingredients/ Feedstuffs	Moisture% (Max.)	Crude Protein % (Min.)	Crude Fat % (Min.)	Crude Fiber % (Max.)	Total Ash % (Max.)
Fish Meal	10	44	5	1.5	26
Blood Meal	10	60	15	3	6.2
Meat Meal	6	41	7	3.5	22
Poultry by Product Meal	10	45	10	1	8

TABLE-V
NUTRIENTS LEVELS OF INDUSTRIAL & AGRICULTURAL PRODUCTS & BY PRODUCTS

Ingredients/ Feedstuffs	Moisture% (Max.)	Crude Protein % (Min.)	Crude Fat % (Min.)	Crude Fiber % (Max.)	Total Ash % (Max.)
Molasses	26	1	-	-	12
Vegetable Oil	0.1	0	99.9	-	-

TABLE-VI
NUTRIENTS LEVELS OF MINERAL SOURCES

Ingredients	Calcium % (Min.)	Phosphorus (Available) % (Min.)	Total Ash % (Max.)
Dicalcium Phosphate	22	18	90
MDCP	24	20	90
Monocalcium Phosphate	15	18	90
Limestone	35	-	90
Marble powder	35	-	90
Bone meal	18	7	60
Bone Ash	34	15	99

APPENDIX – A

SAMPLING OF POULTRY FEEDS/RAW MATERIAL

A-1 GENERAL REQUIREMENTS OF SAMPLING

- A-1.0 In drawing, preparing, storing and handling samples taken care should be the following precautions and directions shall be observed.
- A-1.1 Sample shall be taken in a protected place not exposed to damp air dust or soot.
- A-1.2 The sampling instrument shall be clean and dry when used.
- A-1.3 Precautions shall be taken to protect the samples, the material being sampled, the sampling instrument and the containers for samples from adventitious contamination.
- A-1.4 The samples shall be placed in clean and dry containers. The samples containers shall be of such size that they are almost completely filled by the sample.
- A-1.5 Each container shall be sealed airtight after filling and marked with full details of sampling, date of sampling, date of manufacture, batch number, name of the manufacturer and other important particulars of the consignment.
- A-1.6 Samples shall be stored in such a manner that the temperature of the material does not vary unduly from the normal temperature.

A-1.7 Sampling shall be done by a person agreed to between the purchaser and the vendor and in the presence of the purchaser (or his representative) and the vendor (or his representative).

A-2 SCALE OF SAMPLING

A-2.1 Lot - All the packs in a single consignment of the material drawn from a single batch of manufacture shall constitute a lot. If a consignment is declared to consist of different batches of manufacture, the batches shall be marked separately and the groups of packs in each shall constitute separate lots.

A-2.2 Gross Sample - a number of packs not less than the sample sizes indicated in Table – I, shall be selected at random from a lot for the purpose of drawing samples for test. This number of packs shall constitute the gross sample.

TABLE – I - MINIMUM NUMBER OF PACKS TO BE
SELECTED FOR SAMPLING FROM VARIOUS SIZES OF LOTS

LOT SIZE			SAMPLE SIZE
2	to	8	2
9	to	27	3
28	to	64	4
65	to	125	5
126	to	216	6
217	to	343	7
344	to	512	8
513	to	729	9
730	to	1000	10
1001	to	1331	11

A-3 TEST SAMPLES AND REFEREE SAMPLE

A-3.1 Preparation - To prepare a set of test samples, drawn, with an appropriate sampling instrument, about 0.7 kg of the material from the top, middle and bottom part of each pack in the gross sample, mix thoroughly the portions drawn from each pack so as to form a composite sample of that particular pack into the required number of samples so as to give reduced samples. A set of such

reduced samples consisting of one reduced samples from each pack in the gross samples, shall constitute the test sample.

A-3.2 Three sets of test samples, each sample being not less than 0.5 kg shall be transferred immediately to thoroughly clean and dry bottles, which shall be sealed airtight. These shall be labeled with particulars given under A-1.5 one set of the test samples shall be sent to the purchaser and one to the vendor.

A-3.3 Referee sample – The third set of the test samples bearing the seals of the purchaser and the vendor, shall constitute the referee sample to be used in case of dispute between the purchaser and the vendor. It shall be kept at a place agreed to between the purchaser and the vendor.

A-4 TEST FOR ACCEPTANCE

A-4.1 Examination and Tests – The purchaser may examine and test each of the reduced samples constituting a test sample separately for compliance with the requirements of this standard or he may prepare, for the purpose of such examination.

A-4.2 Criterion for Judgment – When the individual reduced samples in a test sample are separately examined and the results vary from one reduced sample to another, the criterion for judging the quality of the lot for the purpose of acceptance on the basis of the results obtained shall be at the discretion of the purchaser, unless otherwise previously agreed to between the purchaser and the vendor.

