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**Ministry of Fisheries and Livestock**

**Notification**

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S R O No. 297, - Act/ 2013. - Under the authority prescribed in Section 22 of the Fish Feed and Animal Feed Act, 20 (Act No. II of 2010), the following rules have been prescribed by the Government, viz.: -

- 1. Short Title.** – These Rules will be referred to as the Animal Feed Rules, 2013.
- 2. Definition.** – Unless there is nothing contradictory to the subject or context, then in these Rules: -
  - (A)** “Act” refers to Fish Feed and Animal Feed Act, 2010 Act No. II of 2010);
  - (B)** “Ideal Level” refers to prescribed levels of nutrients, for example- moisture, fiber, protein, fats, carbohydrates, vitamins, mineral salts, etc., required for animal nutrition and normal physical growth and increase in animal productivity;
  - (C)** “Technical Manpower” refers to BScAH (Hons.) in Animal Husbandry/ MS with Major in Animal Nutrition/ DVM/ higher degree in Animal Nutrition from any recognized University;
  - (D)** “Food Ingredients” refer to food ingredients, ingredient mixture and feed additives defined in Schedule- 1 and Schedule- 2;
  - (E)** “Schedule” refers to the schedule of these rules;
  - (F)** “Produced Animal Feed” refers to animal feed made commercially by the mixing of various food ingredients;

- (G)** “Adulterated Animal Feed” refers to adulterated animal feed defined in clause (11) of Section 2 of the Act;
- (H)** “Vitamin and Mineral Premix” refers to all the vitamins and minerals used in animal feed which will balance the diet by eliminating vitamin and mineral deficiencies in animal feed and will help in increasing the physical growth and productivity of the animal;
- (I)** “Animal” refers to animal defined in clause (5) of Section 2 of the Act;
- (J)** “Animal Feed” refers to animal feed defined in clause (6) of Section 2 of the Act and Feed Premix and Additives mentioned in these Rules;
- (K)** “Form” refers to Form- 1 to Form- 13 mentioned in Schedule 11;
- (L)** “Fee” refers to fee mentioned in Schedule 12;
- (M)** “Feed Additives” refer to ingredients mixed in order to preserve and improve physical qualities of animal feed and quality of food and to increase the appetite of animals;
- (N)** “Quality Control Laboratory” refers to quality control laboratory defined in clause (15) of Section 2;
- (O)** “Sample” refers to reasonable amount of animal feed and food ingredients collected using random sampling technique from animal feed or animal feed ingredients by an Authorized Officer for verification of food and nutrition quality (Minimum 500 gm);
- (P)** “License” refers to license defined in clause (16) of Section 2 of the Act;
- (Q)** “Licensing Authority” refers to licensing authority mentioned in Section 5 of the Act;
- (R)** “Proprietor” refers to Manufacturers, Importers, Exporters, Animal Feed Warehouses, Wholesalers and Retailers, Company Owners or any representative nominated or appointed by them;
- (S)** “Healthy Environment” refers to environment that is free from harmful germs or any other substance or component or anything else which might pose a threat to public health;
- (T)** “Harmful Substance or Component” refers to any substance that is present or added to animal feed that disrupts the animal's metabolic functions or impairs the animal's physical growth and productivity, reduces production, causes poisoning, and can lead to animal death;

**3. Application method for License.** – (1) According to sub- section (1) of Section 6 of the

Act, if a person wants to get a license, then the said person has to apply to the Licensing Authority on Form- 1, Form- 2 or, as the case may be, Form- 3 according to the category mentioned in Rule 4.

(2) The fee mentioned in Schedule 12 has to be paid if an application for license is placed under sub- rule 1.

(3) The Licensing Authority shall, after selecting and verifying the application received under sub- rule (1), if it is satisfied with the compliance of the conditions mentioned in Schedule 3, instruct the applicant to pay the license fee referred to in Schedule 12 on Form- 7 and issue license on Form- 4, Form- 5 or, as the case may be, Form- 6 license if the applicant pays the license fee.

(4) The Licensing Authority may, in accordance with clause (B) of sub- section (2) of Section 6 of the Act, give any person additional time on Form- 9 to fulfill the conditions of the license.

(5) The Licensing Authority may reject the application of the applicant on Form- 8 if the applicant fails to fulfill the conditions of the license as per the provisions of clauses (B) and (C) of sub- section 2 of Section 6 of the Act.

**4. Category of Applicant and Fee, etc.** – (1) There will be these 3 (three) below mentioned categories in case of applying for a license, viz.: -

- (A) Category- 1: Animal Feed Producer or Processor or Preserver or Marketer;
- (B) Category- 2: Animal Feed Importer or Exporter or Preserver or Marketer;  
and
- (C) Category- 3: Animal Feed Seller, who sells minimum 10 ton or more animal  
feed on an average.

(2) The application fee, license fee, renewal fee and appeal fee of the categories referred to in sub- rule (1) shall be applicable according to Schedule 12.

**5. Suspension or Cancellation of License.** – (1) If any licensee does not comply with the provisions of Rule 7 or, as the case may be, the conditions mentioned in Schedule 3, the Licensing Authority may issue a show cause notice to the Licensee within 15 days on Form- 10 for suspension or cancellation of such license.

(2) If the Licensee does not show cause within the prescribed time after receipt of the notice referred to in sub- rule 1 or if the reply given does not appear satisfactory to the Licensing Authority, the Licensing Authority may suspend or cancel the Licensee's License on Form- 11 within 15 (fifteen) after the time limit for receipt of reply or no reply.

**6. Appeal and Reconsideration.** – (1) In case of suspension or cancellation of any license under sub- section (2) of Section 9 of the Act, the licensee may appeal to the Government against the order of suspension or cancellation of the license on Form- 12 subject to payment of the appeal fee as mentioned in Schedule 12.

(2) In accordance to the conditions in sub- section (2) of Section 9 of the Act, an applicant may apply for a reconsideration of the appeal order on Form- 13.

**7. Ideal Level of Animal Feed.** – Animal feed has to be produced following the ideal standards mentioned in Schedule 4 (A), 4 (B), 4 (C), 4 (D), 4 (E), 4 (F), 4 (G), 4 (H), 5 (A), 5 (B), 6 (A), 6 (B), 7 (A), 7 (B), 7 (C), 7 (D), 8 (A), 8 (B), 8 (C) and approved method of Animal Feed Sample Analysis referred to in Schedule 9.

**8. Sample Collection for verification of Animal Feed Quality, Quality Control, sending to Laboratory and payment of Fees.** – (1) In order to verify the quality of any imported or domestically produced animal feed at any stage of commercial production or marketing, the Licensing Authority shall collect at least 3 (three) animal feed samples of at least 500 grams each from a proprietor in intact condition or in sacks by random sampling technique.

(2) The Licensing Authority shall send the samples collected under sub- rule (1) to a Government prescribed Quality Control Laboratory within not more than 4 (four) working days after packing and sealing the samples and putting the signature (s) of the Licensing Authority and the person under whose supervision the sample has been collected or any person designated as his/ her representative on the packet and 1 (one) of the other 2 (two) samples will be preserved by the proprietor and the other will be preserved by the Licensing Authority.

(3) The Quality Control Laboratory shall, maintaining confidentiality, submit the test report of the samples collected under sub- rule (1) to the Licensing Authority within not more than 20 (twenty) working days.

Provided, however, that if the concerned Quality Control Laboratory fails to submit the test report of the said collected samples within 20 (twenty) working days, then it should submit

the said report within the next 10 (ten) days to the Licensing Authority stating the logical reasons for delay.

(4) If any proprietor is aggrieved about the sample test report by the Quality Control Laboratory, the concerned proprietor may place a request to the Licensing Authority for testing the collected samples in any other Quality Control Laboratory prescribed by the Government.

(5) Upon receipt of the request placed under sub- rule (4), if the Licensing Authority is satisfied about the re- testing of the collected samples, it may send another sample of the collected animal feed to any other Quality Control Laboratory prescribed by the Government.

(6) If inconsistent or different reports or results are found after testing of any animal feed in 2 (two) Quality Control Laboratories, the Licensing Authority may test the sample of such animal feed in a third Quality Control Laboratory prescribed by the government.

(7) If an animal feed is tested in 3 (three) Quality Control Laboratories, the Licensing Authority shall consider the nutritional value of the animal feed on the basis of the test results of the 2 (two) Quality Control Laboratories which will be similar or close.

(8) The Quality Control Laboratory will complete all the necessary tests of samples sent by the Licensing Authority for Quality Control of animal feed or animal feed ingredients free of cost.

(9) To determine the ideal level or nutritional value of animal feed ingredients, proximate analysis can be done in the following manners following the approved method of sample analysis described in Schedule 9: -

- (A) Crude Protein: Geldal Method, Geltech Method or method described in Schedule 9 or any other scientifically approved method;
- (B) Ether Extraction: Soxtek Method, Soxlet Method (An- Hexen) or method described in Schedule 9 or any other scientifically approved method;
- (C) Liquid Part: Hot Air- Drying Oven, Vacuum Drying Oven, Toluene Distillation Method or method described in Schedule 9 or any other scientifically approved method;
- (D) Ash or Cinder: Method described in Muffle Furnace or method described in Schedule 9 or any other scientifically approved method;
- (E) Crude Fiber: Fiber Cap/ Bag, Fiber Tech, Manual Extraction Method or method described in Schedule 9 or any other scientifically approved method;
- (F) Nitrogen Free Extract: By Calculation;

**9. Container and Labelling.** - In accordance with the provisions of Section 13 of the Act, in case of marketing of any produced animal feed, the following items should be mentioned in the animal feed container or packet in addition to the items mentioned in the Act, viz.: -

(A) Percentage rate of the various nutritional ingredients in the produced animal feed according to animal feed ideal standards and the names of the nutritional ingredients described in Schedule 4 (A), 4 (B), 4 (C), 4 (D), 4 (E), 4 (F), 4 (G), 4 (H), 5 (A), 5 (B), 6 (A), 6 (B), 7 (A), 7 (B), 7 (C), 7 (D), 8 (A), 8 (B), 8 (C) (even if all the nutritional ingredients cannot be recorded on the packet, the essential ingredients must be recorded); and

(B) Label titled "To be used only as Animal Feed".

**10. Entrance into factory or related places, etc.** – (1) The Licensing Authority may, with the powers conferred in Section 5 of the Act, seek the assistance of the Law Enforcement Agency or the concerned Administrative Authority when entering any place and the said Agency or Authority shall co-operate with the Licensing Authority as appropriate.

(2) The licensing authority shall take the necessary hygiene measures for each member of the inspection before entering the area referred to in sub- rule 1.

**11. Harmful and Adulterated Animal Feed Disposal, Purification, etc.** – (1) For the fulfillment of the purposes of Section 14 of the Act, the Licensing Authority may order the destruction or, as the case may be, to purify the prohibited animal feed by following the method described in Schedule 10.

(2) If the presence of prohibited antibiotics, pesticides, growth hormone, etc. in the animal feed is proved, the animal feed should be removed from the packet or bag and destroyed or disposed.

(3) All expenses for the disposal of animal feed shall be borne by the concerned proprietor.

## Schedule

### Schedule- 1

[See Rule- 2 (B)]

#### Classification of readily available Food Ingredients

Classification of Nutrition	Food Ingredient
1. Energy Source: (A) Fibrous	Straw, Hay, Corn cob, Corn tree, Sugarcane leaves, Sugarcane husk, Green grass, Silage, Palette of aquatic grass plants, Tree leaves, Derivatives of other grains and fruits for example: Pineapple pulp, Mango pulp, Sugarcane derivatives- Molasses.
(B) Grains and grain derivatives	Cron, Wheat, Rice, Barley, Oat, Buckwheat, Sorghum, Kaun, Wheat bran, Broken rice, Rice husk (without oil), Rice husk (with oil), Casaba, Dried potato meal.
(C) Oily	Soyabean oil, Palm oil (powder and liquid), Coconut oil, Fish oil.
2. Protein Source: (A) Plants	Soyabean meal, Sesame oil- cake, Palm oil- cake, Mustard oil- cake, Rapeseed meal, Sunflower oil- cake, Coconut oil- cake, Nut oil- cake, Cottonseed oil- cake, Pulse type grains and by- products Soyabean, Corn gluten meal, Flaxseed oil- cake, Dhaincha seed, Cowpea, Duckweed meal, Maize gluten meal.
(B) Animals	Germ free Fish meal, Meat meal, Meat and Bone meal, Powder skim milk, Feather meal, Hatchery derivatives, Intestinal powder (Offal meal), Silkworm pupa powder.
(C) Amino Acids	Natural sources derived and synthetic amino acids.
3. Minerals (Mineral Source)	Bone meal, Mono- Calcium Phosphate, Di- Calcium Phosphate, Tri- Calcium Phosphate, Limestone, Crushed snails and oysters, Edible salt, Crushed egg shells, Rock Phosphate.
4. Vitamins	Natural sources derived and synthetic vitamins.
5. Water	Pure water.
6. Others	Feed additives (Toxin binder, Palette binder, Enzyme, Antibiotic free growth promoter), Feed premix, Anti- Oxidant, Coccidiostat, Acidifier, Colorant, Flavoring agent, Mold inhibitor, Salmonella inhibitor, Prebiotic, Probiotic, Dry yeast, Electrolytes.

Schedule- 2  
[See Rule- 2 (B)]

Description of the quality of conventional food used in Animal Feed

Barley

Physical Quality	Nutritional Ingredient	Comments
Color: Light grey color	Moisture: Maximum- 12%	Free from any type of pesticides.
Smell: With the normal smell of Barley. Not with any other smell.	Aflatoxin: Maximum- 20 ppb	
	Mixture of other substances: Maximum- 3%	
	Mixture of other grains: Maximum- 2%	

Broken Rice:

Physical Quality	Nutritional Ingredient	Comments
Color: White or Brownish	Moisture: Maximum- 14%	Free from any type of pesticides. Very small amount of bran and completely free of cocoon.
Smell: With the normal smell of rice, no stale smell or fungi smell.	Aflatoxin: Maximum- 20 ppb	
	Mixture of other substances: Maximum- 3%	
	Mixture of other grains: Maximum- 2%	

Blood Meal:

Physical Quality	Nutritional Ingredient	Comments
Color: Darker colors ranging from light red to brighter	Moisture: Maximum- 10%	Free from mixture of any other substance
Smell: No smell	Protein: Minimum- 70%	
	Salmonella: Negative	

Casaba Meal:

Physical Quality	Nutritional Ingredient	Comments
Color: White	Moisture: Maximum- 13%	Free from fungi and mold.
Smell: Sweet smell, no stale smell	Aflatoxin: Maximum- 20 ppb	
	Mixture of other substances: Maximum- 2%	

Coconut Oil:

Physical Quality	Nutritional Ingredient	Comments
Color: Natural color of coconut oil, liquid, dark yellow to bright yellow colored. Cloudy color is indicative of high moisture.	Moisture: Maximum- 2%	Without mixture of other substances.
	Free Fatty Acid as Labib Acid: Maximum- 5%	
	Value per Oxide: Maximum- 7%	



**Molasses:**

Physical Quality	Nutritional Ingredient	Comments
Color: Brownish to dark brownish colored.	Moisture: Maximum- 22%	Sulfotent and Lignin free.
Smell: Normal smell of molasses. No smell of any type of germ infestation.	Brix: 75 degrees	
	Level of Sugar in Brix Hydrometer: Maximum- 78%	

**Coconut Meal:**

Physical Quality	Nutritional Ingredient	Comments
Color: Light brownish to Brownish colored.	Moisture: Maximum- 12%	Fungi and pest free and free from mixture of other substances.
	Protein: Minimum- 18%	
	Fiber: Maximum- 10%	
Smell: With coconut smell and fragrant like nuts. No rain seed or other smell.	Aflatoxin: Maximum- 50 ppb	

**Fish Meal, Grade A:**

Physical Quality	Nutritional Ingredient	Comments
Color: Light brown to reddish brown colored.	Moisture: Maximum- 10%	Fungi and pest free and free from mixture of other substances.
	Protein: Minimum 60%	
	Fats: Maximum- 12%	
	Mineral substance: Maximum- 3%	
	Calcium: Maximum- 6%	
Smell: Light fishy smell but no stale or rotten smell.	Phosphorus: Minimum- 2%	
	Salmonella: Negative	

**Fish Meal, Grade B:**

Physical Quality	Nutritional Ingredient	Comments
Color: Light brown to reddish brown colored.	Moisture: Maximum- 10%	Fungi and pest free and free from mixture of other substances.
	Protein: Minimum 50%	
	Fats: Maximum- 12%	
	Mineral substance: Maximum- 3%	
	Calcium: Maximum- 8%	
Smell: Light fishy smell but no stale or rotten smell.	Phosphorus: Minimum- 3%	
	Salmonella: Negative	

#### Fish Meal, Grade C:

Physical Quality	Nutritional Ingredient	Comments
Color: Light brown to reddish brown colored.	Moisture: Maximum- 10%	Fungi and pest free and free from mixture of other substances.
	Protein: Minimum 40%	
	Fats: Maximum- 9%	
	Silica: Maximum- 1%	
	Mineral substance: Maximum- 3%	
	Calcium: Maximum- 8%	
Smell: Light fishy smell but no stale or rotten smell.	Phosphorus: Minimum- 3%	
	Salmonella: Negative	

#### Hydrolyzed Feather Meal:

Physical Quality	Nutritional Ingredient	Comments
Color: Greenish grey	Moisture: Maximum- 10%	Free from other foreign matters.
	Protein: Minimum 79%	
Smell: Dried grass smell. No rotten smell.	Salmonella: Negative	

#### Ipil Ipil:

Physical Quality	Nutritional Ingredient	Comments
Color: Green.	Moisture: Maximum- 12%	Free from other foreign matters.
	Protein: Minimum 20%	
Smell: Dried grass smell. No rotten smell.	Fiber: Maximum: 13%	
	Level of Xanthophyl: Minimum- 500 m g/ kg	

#### Whole Maize:

Physical Quality	Nutritional Ingredient	Comments
Color: Brown colored.	Moisture: Maximum- 14%	Pesticide free. No grain is pest- eaten or fungi infested.
	Aflatoxin: Maximum- 50 ppb	
Smell: No stale smell. Fresh smell.	Impurities: Maximum- 2%	
	Quantity of pest eaten or harmed grains: Maximum- 3%	

#### Maize Gluten Meal:

Physical Quality	Nutritional Ingredient	Comments
Color: Brown colored.	Moisture: Maximum- 12%	Pesticide free. No presence of pest-eaten or fungi infested grain.
	Aflatoxin: Maximum- 50 ppb	
Smell: No stale smell. Fresh nut like smell.	Impurities: Maximum- 2%	
	Quantity of pest eaten or harmed grains: Maximum- 3%	

Rice Polish, Local:

Physical Quality	Nutritional Ingredient	Comments
Color: Brown colored.	Moisture: Maximum- 12%	Insects and cocoons will not exist. Will be free from other foreign matters. Will be free from dust and clumping. Because rice polish is high in fat, it should be used as soon as it is made, or if it is to be stored, it must be properly well ventilated.
Smell: Fresh smell. No stale smell.	Protein: Minimum- 11%	
	Fiber: Maximum: 15%	
	Aflatoxin: Maximum- 10 ppb	

Rice Polish, Auto:

Physical Quality	Nutritional Ingredient	Comments
Color: Brown colored.	Moisture: Maximum- 12%	Insects and cocoons will not exist. Will be free from other foreign matters.
Smell: Fresh smell. No nutty smell.	Protein: Minimum- 13%	
	Fiber: Maximum: 7%	
	Aflatoxin: Maximum- 50 ppb	

Rapeseed Meal:

Physical Quality	Nutritional Ingredient	Comments
Color: Fragrant brown to brown.	Moisture: Maximum- 12%	Insects and cocoons will not exist. Will be free from other foreign matters. No bleach. Glucosinolate will be present in low levels.
Smell: Fresh and nutty smell.	Protein: Minimum- 32%	
	Fiber: Maximum: 12%	
	Aflatoxin: Maximum- 50 ppb	

Sesame Oil- cake:

Physical Quality	Nutritional Ingredient	Comments
Color: Black to dark brown.	Moisture: Maximum- 12%	Insects and cocoons will not exist. Will be free from other foreign matters.
Smell: Fresh and nutty smell.	Protein: Minimum- 25%	
	Fiber: Maximum: 22%	
	Aflatoxin: Maximum- 50 ppb	

#### Soyabean Oil:

Physical Quality	Nutritional Ingredient	Comments
Color: Transparent, brownish yellow colored. Normal color of brown oil.	Moisture: Maximum- 2%	Will be free from other foreign matters.
Smell: Fresh smell.	Free Fatty Acid, Olive: Maximum- 6%	
	Per Oxide Value: Maximum- 7 meq/ kg	
	Aflatoxin: Maximum- 50 ppb	

#### Soyabean Meal:

Physical Quality	Nutritional Ingredient	Comments
Color: Yellow and brown colored.	Moisture: Maximum- 12%	Insects and cocoons will not exist. Will be free from other foreign matters. Processing at high temperatures will result in no discoloration of the soyabean meal and no presence of burnt material. No taste of raw soybeans.
Smell: Fresh smell. No sour or stale smell. No Aflatoxin.	Protein: Minimum- 40%	
	Fiber: Maximum: 7.5%	
	Maximum: 50% ppb	
	Urage Activity: 0. 05 – 0. 30	

#### Wheat:

Physical Quality	Nutritional Ingredient	Comments
Color: Light brown to pale white.	Moisture: Maximum- 12%	Some peels may be present. No presence of cocoon. Will be free from other foreign matters.
Smell: Fresh smell. No stale smell.	Protein: Minimum- 16%	
	Fats or oil: Maximum- 7. 5%	
	Fiber: Maximum- 13%	

#### Wheat Bran:

Physical Quality	Nutritional Ingredient	Comments
Color: Light brown.	Moisture: Maximum- 12%	No presence of pesticides. No presence of pest-eaten bran.
Smell: Fresh smell. No stale smell.	Protein: Minimum- 12%	
	Fats or oil: Maximum- 5%	
	Fiber: Maximum- 13%	

Meat and Bone Meal:

Physical Quality	Nutritional Ingredient	Comments
Color: Greyish brown.	Moisture: Maximum- 10%	Will be free from foreign matters except for anti- oxidants and preservatives. Bone parts will be crushed finely such that they cannot be separated.
Smell: Fresh and fishy smell. No burnt smell.	Protein: Minimum- 45%	
	Mineral substance: Maximum- 3%	
	Calcium: Maximum- 11%	
	Phosphorus: Minimum- 4%	
	Salmonella: Negative	

Mustard Oil- cake:

Physical Quality	Nutritional Ingredient	Comments
Color: Greyish brown to black colored.	Moisture: Maximum- 12%	Fungi or pests will not exist. Will be free from other foreign matters.
Smell: Normal smell.	Protein: Minimum- 27. 0%	
	Fiber: Maximum: 20%	
	Aflatoxin: Maximum- 50. 0 ppb	

Schedule- 3  
[See Rule- 3 (3)]  
Conditions for obtaining a License

Sequential No.	Category	Conditions
1.	Animal Feed Production, Processing, Preservation and Marketing (Category- 1)	<p>(A) Has to have an updated Income Tax Certificate.</p> <p>(B) Has to have Technical Manpower.</p> <p>(C) Factory, Machineries, Equipment and Tools.</p> <p>(D) Has to have a Quality Control Laboratory. Has to have SOP, GMP, HACCP, etc. if necessary.</p> <p>(E) Has to have information on Animal Feed production, processing and preservation powers.</p> <p>(F) Has to have information on Packing and Labelling.</p> <p>(G) Factory shall be outside densely populated area but should have enough transport facilities.</p> <p>(H) Has to have waste and sewerage system.</p> <p>(I) Has to have an Income Tax and Trade License (updated).</p>
2.	Animal Feed Import, Export, Preservation and Marketing (Category- 2)	<p>(A) Has to have an Import and Export License.</p> <p>(B) Has to have an updated Income Tax Certificate</p> <p>(C) Should have a proper Warehouse with suitable quality and required capacity for warehousing Animal Feed.</p> <p>(D) Has to have Packing and Labelling system.</p>
3.	Animal Feed Seller (Category- 3)	<p>(A) Has to have full address of selling establishment.</p> <p>(B) Has to have an updated Trade License (updated Income Tax).</p> <p>(C) There should be a suitable warehouse for preservation of Animal Feed.</p>

Schedule- 4 (A)

(See Rule- 7)

Ideal Amount of Nutrition for Layer Chickens

Description of Nutrition	Unit	Level	Age of Layer Chicken	
			20 – 42 weeks	42 to last week
Moisture	% Food	Maximum	10. 00	10. 00
Metabolizable Energy	Kilo Cal. / KG DM	Minimum	2750	2750
Crude Protein	% DM	Minimum	17. 2	16. 2
ME: Protein		Minimum	160	170
Calcium	% DM	Minimum	3. 51	3. 73
Phosphorus	% DM	Minimum	0. 61	0. 58
Phosphorus (Available)	% DM	Minimum	0. 43	0. 41
Mineral Substance	% DM	Maximum	0. 30	0. 30
Amino Acid	% DM	-	-	-
Lysin	% DM	-	0. 78	0. 78
Methionine	% DM	-	0. 35	0. 32
Methionine + Cysteine	% DM	-	0. 68	0. 65
Threonine	% DM	-	0. 59	0. 58
Tryptophan	% DM	-	0. 19	0. 19

Special Note: The ideal amount of nutrients may be reasonably less or more depending on the breed (local, hybrid, foreign) and source of the layer chicken. Changeable from time to time in consultation with Poultry Breeders Association of Bangladesh or hatchery owners.

Schedule- 4 (B)

(See Rule- 7)

Ideal Amount of Nutrition for Broiler Chickens

Description of Nutrition	Unit	Level	Broiler Chicken	
			Starter	Finisher
Moisture		Maximum	10. 00	10. 00
Metabolizable Energy	Kilo Cal. / KG DM	Minimum	2800	2800
Crude Protein	% DM	Minimum	21. 20	18. 70
ME: Protein		Minimum	132	150
Calcium	% DM	Minimum	0. 84	0. 78
Phosphorus	% DM	Minimum	0. 70	0. 65
Phosphorus (Available)	% DM	Minimum	0. 42	0. 36
Mineral Substance	% DM	Minimum	0. 25	0. 30
Amino Acid	% DM	Minimum	-	-
Lysin	% DM	-	3. 71	3. 50
Methionine	% DM	-	1. 61	1. 21
Methionine + Cysteine	% DM	-	2. 71	2. 50
Threonine	% DM	-	2. 50	2. 29
Tryptophan	% DM	-	0. 78	0. 61

Special Note: The ideal amount of nutrients may be reasonably less or more depending on the breed (local, hybrid, foreign) and source of the broiler chicken. Changeable from time to time in consultation with Poultry Breeders Association of Bangladesh or hatchery owners.

## Schedule- 4 (B)

(See Rule- 7)

### 1. Ideal Amount of Vitamin in for Broiler Starter and Finisher Feed

Description of Nutrition	Unit	SCOTT		NRC		Recommended Levels	
		Starter	Finisher	Starter	Finisher	Starter	Finisher
Vitamin A	I U/ KG	800	4000	5000	1500	5000	1500
Vitamin D 3	I U/ KG	715	1000	200	200	200	200
Vitamin E	I U/ KG	3. 57	5. 0	10. 0	10. 0	10. 0	10. 0
Vitamin K 3	mg/ KG	0. 70	1. 0	0. 50	0. 50	0. 50	0. 50
Vitamin B 1	mg/ KG	0. 70	1. 50	1. 80	1. 80	1. 80	1. 80
Vitamin B 2	mg/ KG	1. 40	3. 0	3. 60	3. 60	3. 60	3. 60
Niacin	mg/ KG	12. 0	15. 0	27. 0	27. 0	27. 0	27. 0
Pantothenic Acid	mg/ KG	4. 60	10. 0	10. 0	10. 0	10. 0	10. 0
Vitamin B 6	mg/ KG	1. 40	3. 0	3. 0	3. 0	3. 0	3. 0
Vitamin B 12	mg/ KG	3. 60	5. 0	9. 0	9. 0	9. 0	9. 0
Folic Acid	mg/ KG	0. 43	0. 25	0. 55	0. 55	0. 55	0. 55
Biotin	mg/ KG	0. 05	0. 10	0. 15	0. 15	0. 15	0. 15
Chlorine	mg/ KG	425	500	1300	1300	1300	1300

### 2. Ideal Amount of Vitamin in Grower, Layer and Breeder Chickens.

Description of Nutrition	Unit	SCOTT			NRC			Recommended Levels		
		Grower	Layer	Breeder	Grower	Layer	Breeder	Grower	Layer	Breeder
Vitamin A	I U/ KG	4000	6000	11000	1500	4000	4000	1500	4000	4000
Vitamin D 3	I U/ KG	1000	1000	1000	200	500	500	200	500	500
Vitamin E	I U/ KG	5. 0	5. 0	15. 0	5. 0	5. 0	10. 0	5. 0	5. 0	10. 0
Vitamin K 3	mg/ KG	1. 0	1. 0	2. 0	0. 50	0. 50	0. 50	0. 50	0. 50	0. 50
Vitamin B 1	mg/ KG	1. 50	1. 50	2. 0	1. 30	0. 80	0. 80	1. 30	0. 80	0. 80
Vitamin B 2	mg/ KG	3. 0	4. 0	4. 0	1. 80	2. 20	3. 80	1. 80	2. 20	3. 80
Niacin	mg/ KG	15. 0	12. 0	15. 0	11. 0	10. 0	10. 0	11. 0	10. 0	10. 0
Pantothenic Acid	mg/ KG	10. 0	3. 0	12. 0	10. 0	2. 20	10. 0	10. 0	2. 20	10. 0
Vitamin B 6	mg/ KG	3. 0	3. 0	4. 50	3. 0	3. 0	4. 50	3. 0	3. 0	4. 50
Vitamin B 12	mg/ KG	5. 0	5. 0	6. 0	3. 0	4. 0	4. 0	3. 0	4. 0	4. 0
Folic Acid	mg/ KG	0. 25	0. 25	0. 40	0. 25	0. 25	0. 35	0. 25	0. 25	0. 35
Biotin	mg/ KG	0. 10	0. 10	0. 15	0. 10	0. 10	0. 15	0. 10	0. 10	0. 15
Chlorine	mg/ KG	500	500	500	500	-	-	500	-	-

SCOTT = Scott's Nutrition of the Chicken (4<sup>th</sup> Edition) by S. Leeson and J. D. Summers

NRC = National Research Council, Washington D. C., USA



Schedule- 4(D)

(See Rule- 7)

Ideal Amount of Nutrition for Layer Grower Chickens

Description of Nutrition	Unit	Level	Age of Layer Chicken (week)		
			Starter (0 – 5 weeks)	Grower (5 – 10 weeks)	Poulette Developer (10 – 20 weeks)
Moisture	% Food	Maximum	10. 00	10. 00	10. 00
Metabolizable Energy	Kilo Cal. / KG DM	Minimum	2800	2750	2700
Crude Protein	% DM	Minimum	19. 60	16. 0	14. 30
ME: Protein	-	Minimum	143	172	189
Calcium	% DM	Minimum	0. 98	1. 16	0. 95
Phosphorus	% DM	Minimum	0. 67	0. 63	0. 63
Phosphorus (Available)	% DM	Minimum	0. 48	0. 44	0. 45
Mineral Substance	% DM	Maximum	0. 25	0. 38	0. 20
Lysin	% DM	-	0. 90	0. 69	0. 70
Methionine	% DM	-	0. 36	0. 33	0. 34
Methionine + Cysteine	% DM	-	0. 70	0. 58	0. 58
Threonine	% DM	-	0. 67	0. 55	0. 56
Tryptophan	% DM	-	0. 20	0. 17	0. 16

Special Note: The ideal amount of nutrients may be reasonably less or more depending on the breed (local, hybrid, foreign) and source of the layer grower chicken. Changeable from time to time in consultation with Poultry Breeders Association of Bangladesh or hatchery owners.

Schedule- 4 (E)  
(See Rule- 7)  
Nutrition List of Commercial Layer Chickens of different Age

(A) Grower Chicken

Description of Nutrition	Unit	Starter (0 – 5 weeks)	Grower (5 – 10 weeks)	Poulette/ Developer (10 – 16 weeks)
Metabolizable Energy	Kilo Cal. / KG	2950 – 3010	2800 – 2950	2750 – 2850
Crude Protein	%	20. 5 – 21. 5	17. 5 – 20. 0	16. 5 – 16. 8
Methionine	%	0. 43 – 0. 52	0. 36 – 0. 47	0. 34 – 0. 35
Methionine + Cystine	%	0. 77 – 0. 86	0. 65 – 0. 80	0. 58 – 0. 63
Lysin	%	1. 07 – 1. 16	0. 88 – 1. 03	0. 76 – 0. 78
Tryptophan	%	0. 21 – 0. 22	0. 19 – 0. 20	0. 16 – 0. 17
Threonine	%	0. 75 – 0. 78	0. 67 – 0. 69	0. 53 – 0. 60
Isoleucine	%	0. 90 – 0. 95	0. 82 – 0. 85	0. 72 – 0. 75
Arginine	%	1. 0 – 1. 15	0. 98 – 1. 0	0. 88 – 0. 90
Linolenic Acids	%	1. 2 – 1. 3	1. 0 – 1. 10	1. 0 – 1. 10
Extra oil	%	1. 0 – 1. 25	0. 50 – 0. 60	0. 50 – 0. 60
Major Minerals				
Calcium	Not less than %	1. 05	0. 90	0. 95
Phosphorus (Available)	Not less than %	0. 48	0. 44	0. 38
Chlorine	Not less than %	0. 15 – 0. 17	0. 15 – 0. 17	0. 15 – 0. 17
Sodium	Not less than %	0. 15 – 0. 18	0. 15 – 0. 18	0. 15 – 0. 18
Added Trace Mineral/ KG				
Manganese	Ppm	50 – 60	50 – 60	50 – 60
Zinc	Ppm	40 – 60	40 – 60	40 – 60
Iron	Ppm	35 – 60	35 – 60	35 – 60
Copper	Ppm	5 – 10	5 – 10	5 – 10
Iodin	Ppm	0. 35 – 1. 0	0. 35 – 1. 0	0. 35 – 1. 0
Selenium	Ppm	0. 2 - 30	0. 2 - 30	0. 2 - 30
Added Vitamin/ KG				
Vitamin A	I U	10000 – 13000	10000 – 13000	10000
Vitamin D 3	I U	300	300	2000 - 3000
Vitamin E	I U	20 – 25	20 – 25	20 – 25
Vitamin K 3	Mg	2. 0 – 2. 2	2. 0 – 2. 2	2. 0 – 2. 2
Vitamin B 2	Mg	5. 0 – 5. 5	5. 0 – 5. 5	5. 0 – 5. 5
Vitamin B 12	Mg	0. 01 – 0. 02	0. 01 – 0. 02	0. 01 – 0. 02
Thyacine	Mg	35 – 60	35 – 60	35 – 60
Vitamin B 1	Mg	2. 0 – 2.1	2. 0 – 2.1	2. 0 – 2.1

Vitamin B 6	Mg	4. 5 – 5. 0	4. 5 – 5. 0	4. 5 – 5. 0
Pantothenic Acid	Mg	12 – 15	12 – 15	12 – 12
Folic Acid	Mg	0. 5	0. 5	0. 50 – 0. 75
Biotin	Mg	0. 1 – 0. 20	0. 1 – 0. 20	0. 1 – 0. 20
Chlorine Chloride	Mg	600 – 1300	600 – 1300	500 – 1300

(B) Pre- Layer

Ingredient	Unit	Pre- Layer 16 – till first lay	Layer – 1 From first lay to Week 30	Layer – 2 31 – 42 weeks	Layer – 3 From week 43 till 80% laying	Layer – 4 Lower than 80% laying
Metabolizable Energy	Kilo Cal. / KG	2750 – 2910	2880 – 2960	2860 – 2925	2820 – 2910	2820 – 2910
Crude Protein	%	17. 5	18. 7	18. 0	18. 5	16. 0
Methionine	%	0. 36 – 0. 38	0. 43	0. 41 - . 38	0. 39 - . 37	0. 35
Methionine + Cystine	%	0. 62 – 0. 68	0. 71	0. 67 – 0. 70	0. 63 – 0. 66	0. 61
Lysin	%	0. 80 – 87	0. 88	0. 85	0. 81	0. 78
Tryptophan	%	0. 18 – 0. 19	0. 21 – 22	0. 19 - . 20	0. 18 - . 19	0. 17
Threonine	%	0. 56 – 61	0. 67 – 69	0. 64 - . 67	0. 6 - . 62	1. 59
Linolenic Acids	%	1. 10	1. 30	1. 25	1. 20	1. 10
Extra oil	%	0. 5 – 1.0	1. 0 – 3. 0	0. 5 – 1. 0	0. 5 – 1. 0	0. 5 – 1. 0
Major Mineral						
Calcium	Not less than %	2. 0	3. 95	4. 0	4. 15	4. 20
Phosphorus (Available)	Not less than %	0. 47	0. 46	0. 44	0. 42	0. 38
Chlorine	Not less than %	0. 15 – 0. 16	0. 16	0. 15	0. 15	0. 15
Sodium	Not less than %	0. 15 – 0. 18	0. 17 – 0. 19	0. 16 – 0. 18	0. 15 – 0. 18	0. 15
Added Trace Mineral/ KG						
Manganese	Ppm	60 – 65	60 – 65	60 – 65	60 – 65	60 – 65
Zinc	Ppm	50 – 60	50 – 60	50 – 60	50 – 60	50 – 60
Iron	Ppm	35 – 60	35 – 60	35 – 60	35 – 60	35 – 60
Copper	Ppm	5. 0 – 6. 0	5. 0 – 6. 0	5. 0 – 6. 0	5. 0 – 6. 0	5. 0 – 6. 0
Iodin	Ppm	0. 5 – 1. 0	0. 5 – 1. 0	0. 5 – 1. 0	0. 5 – 1. 0	0. 5 – 1. 0
Selenium	Ppm	0. 2 – 0. 30	0. 2 – 0. 30	0. 2 – 0. 30	0. 2 – 0. 30	0. 2 – 0. 30

Added Vitamin/ KG						
Vitamin A	I U	10000	10000	10000	10000	10000
Vitamin D 3	I U	2000 – 3000	2000 – 3000	2000 – 3000	2000 – 3000	2000
Vitamin E	I U	20 – 25	20 – 25	20 – 25	20 – 25	20 – 25
Vitamin K 3	Mg	2. 0	2. 0	2. 0	2. 0	2. 0
Vitamin B 2	Mg	5. 0	5. 0	5. 0	5. 0	5. 0
Vitamin B 12	Mg	0. 008 – 01	0. 008 – 01	0. 008 – 01	0. 008 – 01	0. 008
Thyaccine	Mg	25 – 30	25 – 30	25 – 30	25 – 30	25 – 30
Vitamin B 1	Mg	2. 0	2. 0	2. 0	2. 0	2. 0
Vitamin B 6	Mg	3. 0 – 5. 0	3. 0 – 5. 0	3. 0 – 5. 0	3. 0 – 5. 0	3. 0 – 5. 0
Pantothenic Acid	Mg	10 – 11	10 – 11	10 – 11	10 – 11	10 – 11
Folic Acid	Mg	0. 50 – 0. 75	0. 50 – 0. 75	0. 50 – 0. 75	0. 50 – 0. 75	0. 50
Biotin	Mg	0. 10 – 0. 15	0. 10 – 0. 15	0. 10 – 0. 15	0. 10 – 0. 15	0. 10
Chlorine Chloride	Mg	500 - 550	500 - 550	500 - 550	500 - 550	500 - 550

Special Note: The nutrition list for Commercial Layer Chicken of different Age given by Poultry Breeders Association Bangladesh may vary due to logical reasons.

**Schedule- 4 (F)**

**(See Rule- 7)**

**Nutrition List of Layer Parent Stock of different Age**

Ingredient	Unit	Starter	Grower	Layer
Metabolizable Energy	Kilo Cal. / KG	2850 – 3040	2700 – 2890	2700 – 2890
Crude Protein	%	19 – 21. 5	17 – 19	16 – 19
Methionine	%	0. 36 – 0. 52	0. 33 – 0. 45	0. 34 – 0. 43
Methionine and Cystine	%	0. 72 – 0. 86	0. 57 – 0. 76	0. 60 – 0. 72
Lysin	%	0. 95 – 1. 52	0. 72 – 0. 98	0. 72 – 0. 88
Threonine	%	0. 70 – 0. 76	0. 50 – 0. 67	0. 57 – 0. 70
Tryptophan	%	0. 20 – 0. 22	0. 16 – 0. 19	0. 16 – 0. 21
Linolenic Acids	%	1. 1 – 1. 5	0. 80 – 1. 25	1. 1 – 1. 50
Isoleucine	%	0. 90	0. 72 – 0. 78	-
Arginine	%	1. 05 – 1. 15	1. 05 – 1. 15	0. 83 – 0. 88
Extra oil	%	1	0. 50 – 1. 0	0 – 3
<b>Major Mineral Content</b>				
Calcium	Not less than %	1. 1 – 2. 0	0. 90 – 2. 50	2. 25 – 4. 30
Phosphorus (Available)	Not less than %	0. 45 – 0. 55	0. 36 – 0. 55	0. 38 – 0. 52
Chlorine	Not less than %	0. 15	0. 15	0. 15 – 0. 25
Sodium	Not less than %	0. 11 – 0. 19	0. 11 – 0. 19	0. 15 – 0. 19
<b>Added Trace Mineral/ KG</b>				
Manganese	Ppm	45 – 100	45 – 100	60 – 66
Zinc	Ppm	40 – 80	40 – 80	50 – 70
Iron	Ppm	35 – 60	35 – 65	35 – 60
Copper	Ppm	. 35 – 1. 0	. 35 – 1. 0	. 35 – 1. 0
Iodin	Ppm	5 – 10	5 – 10	5 – 8
Selenium	Ppm	0. 20 - . 40	0. 20 - . 40	0. 30
<b>Added Vitamin/ KG</b>				
Vitamin A	I U	8, 00 – 15, 000	8, 00 – 15, 000	10, 00 – 14, 000
Vitamin D 3	I U	2000 – 3750	2000 – 3000	2500 – 3000
Vitamin E	I U	20 – 45	20 – 35	20 – 40
Vitamin K 3	Milli Gram	2 – 6	2 – 3	2 – 3
Vitamin B 2	Milli Gram	4. 15	3. 10	5. 8
Vitamin B 12	Milli Gram	0. 01 – 04	0. 08 – 03	0. 08 – 03
Niacin	Milli Gram	35 – 60	25 – 60	35 – 50
Vitamin B 1	Milli Gram	1. 5 – 3	1. 5 – 3	2 – 3
Vitamin B 6	Milli Gram	3 – 6	3 – 4. 5	3 – 5. 5
Pantothenic Acid	Milli Gram	10 – 12	5 – 12	10 – 15
Folic Acid	Milli Gram	0. 50 – 1. 20	0. 50 – 1. 0	0. 50 – 1. 20
Biotin	Milli Gram	0. 1 – 0. 25	0. 1 – 0. 25	0. 1 – 0. 25
Chlorine Chloride	Milli Gram	500 – 1300	500 – 1300	700 – 1000

Special Note: The nutrition list for Layer Parent Stock of different Age given by Poultry Breeders Association Bangladesh or Parent Stock Company may vary due to logical reasons.

**Schedule- 4 (G)**

**(See Rule- 7)**

**Nutrition List of Commercial Broiler Chicken of different Age**

Ingredient	Unit	Starter 0 – 21 days	Grower 22 – 37 days	Breeder 38 days
Metabolizable Energy	Kilo Cal. / KG	3000 – 3100	3050 – 3200	3100 – 3200
Crude Protein	%	21 – 23	19 – 21	18 – 20
Crude Fat	%	5. 0 – 7. 0	5. 0 – 7. 0	5. 0 – 7. 0
Linolenic Acids	%	0. 95 – 1. 0	0. 95 – 1. 0	0. 95 – 1. 0
Anti- Oxidants	Milli Gram/ KG	120 – 150	120 – 150	120 – 150
<b>Amino Acids</b>				
Methionine	%	0. 47 – 0. 5	0. 44 – 0. 49	0. 38 – 0. 47
Methionine and Cystine	%	0. 90 – 0. 93	0. 82 – 0. 89	0. 75 – 0. 86
Lysin	%	1. 06 – 1. 25	0. 98 – 1. 15	0. 90 – 1. 05
Tryptophan	%	0. 02 – 0. 24	0. 18 – 0. 21	0. 1 – 0. 18
Threonine	%	0. 70 – 0. 80	0. 67 – 0. 756	0. 63 – 0. 70
Arginine	%	1. 28 – 1. 40	1. 20 – 1. 25	0. 96 – 1. 05
<b>Major Mineral Content</b>				
Calcium	Not less than %	0. 90	0. 90	0. 80
Phosphorus (Available)	Not less than %	0. 43	0. 39	0. 35
Chlorine	Not less than %	0. 18 – 0.30	0. 18 – 0.30	0. 18 – 0.30
Sodium	Not less than %	0. 16 – 0. 22	0. 16 – 0. 22	0. 16 – 0. 22
<b>Added Trace Mineral/ KG</b>				
Manganese	Ppm	66 – 100	60 – 100	60 – 100
Zinc	Ppm	50 – 80	50 – 80	50 – 80
Iron	Ppm	66 – 100	66 – 100	66 – 100
Copper	Ppm	8 – 10	8 – 10	8 – 10
Iodin	Ppm	0. 45 – 1. 0	0. 45 – 1. 0	0. 45 – 1. 0
Selenium	Ppm	0. 20 - . 30	0. 20 - . 30	0. 20 - . 30
<b>Added Vitamin/ KG</b>				
Vitamin A	I U	9, 00 – 12, 500	9, 00 – 12, 500	9, 00 – 10000
Vitamin D 3	I U	2000 – 3300	2000 – 3300	2000 – 3300
Vitamin E	I U	30 – 35	30 – 35	30 – 35
Vitamin K 3	Milli Gram	20 – 22	20 – 22	20 – 22
Vitamin B 2	Milli Gram	5. 5 – 8. 0	5. 5 – 8. 0	5. 5 – 8. 0
Vitamin B 12	Milli Gram	0. 01 – 0. 022	0. 01 – 0. 022	0. 01 – 0. 015
Niacin	Milli Gram	40 – 66	40 – 66	40 – 66
Vitamin B 1	Milli Gram	2. 0 – 4. 5	2. 0 – 4. 5	1. 65 – 4. 0
Vitamin B 6	Milli Gram	3. 0 – 4. 4	3. 0 – 4. 4	3. 0
Pantothenic Acid	Milli Gram	10 – 12	10 – 12	9. 0 – 12
Folic Acid	Milli Gram	1. 0	0. 9 - 1. 0	0. 75 - 1. 0
Biotin	Milli Gram	0. 10 – 0. 20	0. 10 – 0. 20	0. 10 – 0. 15
Chlorine Chloride	Milli Gram	550 -750	550 -750	440 - 675

**Special Note:** The nutrition list for Commercial Broiler Chicken of different Age given by Poultry Breeders Association Bangladesh may vary due to logical reasons.

Schedule- 4 (H)  
(See Rule- 7)  
Nutrition List of Broiler Parent Stock of different Age

Ingredient	Unit	Starter	Grower	Breeder
Metabolizable Energy	Kilo Cal. / KG	2750 – 2915	2640 – 2860	2650 – 2915
Crude Fat	%	3 – 5	3	3
Crude Fiber	%	4	6	4 – 5
Linolenic Acids	%	1 – 1. 5	1 – 1. 8	1 – 1. 8
Crude Protein	%	17 – 20	15 – 17	13 – 16. 5
Amino Acids				
Arginine	%	0. 9 – 1. 0	0. 75 – 1. 0	0. 88 – 1. 0
Methionine	%	0. 34 – 0. 45	0. 30 – 0. 40	0. 27 – 0. 39
Methionine and Cystine	%	0. 70 – 0. 76	0. 50 – 0. 65	0. 50 – 0. 69
Lysin	%	0. 92 – 1. 1	0. 60 – 0. 85	0. 60 – 85
Tryptophan	%	0. 17 – 0. 20	0. 16 – 0. 19	0. 16 – 0. 20
Threonine Extra oil	%	0. 52 – 0. 70	0. 48 – 0. 55	0. 50 – 0. 60
Isoleucine	%	0. 66 – 0. 70	0. 58 – 0. 62	0. 58 – 0. 62
Major Mineral Content				
Calcium	%	0. 90 – 1	0. 85 – 1. 75	3 – 3. 5
Phosphorus (Available)	%	0. 45 – 0. 70	0. 38 – 0. 70	0. 35 – 0. 70
Chlorine	%	0. 15 – 0. 30	0. 15 – 0. 30	0. 15 – 0. 30
Sodium	%	0. 16 – 0. 20	0. 16 – 0. 20	0. 15 – 0. 20
Potassium	%	0. 70 – 0. 75	0. 70 – 0. 75	0. 55 – 0. 75
Salt	%	0. 45 – 0. 50	0. 45 – 0. 50	0. 45 – 0. 50
Added Trace Mineral/ KG				
Manganese	Ppm	60 – 120	60 – 120	100 – 120
Zinc	Ppm	50 – 110	50 – 110	100 – 110
Iron	Ppm	40 – 60	40 – 60	40 – 65
Copper	Ppm	1 – 1. 1	1 – 1. 1	1 – 2
Iodin	Ppm	5 – 8	5 – 8	5 – 10
Selenium	Ppm	0. 3 – 0. 4	0. 3 – 0. 4	0. 3 – 0. 4
Added Vitamin/ KG				
Vitamin A	I U	12, 000 – 15, 400	10, 000 – 15, 400	9, 000 – 10000
Vitamin D 3	I U	2000 – 3300	2000 – 3300	2000 – 3300
Vitamin E	I U	30 – 40	20 – 40	30 – 35
Vitamin K 3	Milli Gram	2 – 2. 2	2 – 2. 2	2 – 2. 2
Vitamin B 2	Milli Gram	2 – 2. 2	2 – 2. 2	5. 0 – 8. 0
Vitamin B 12	Milli Gram	0. 01 - . 015	0. 01 - . 015	0. 01 - . 015
Niacin	Milli Gram	3 – 5. 5	3 – 5. 5	4. 0 – 6. 6
Vitamin B 1	Milli Gram	0. 013 – 0. 02	0. 013 – 0. 02	1. 65 – 4. 0
Vitamin B 6	Milli Gram	4. 4 – 6. 0	3. 0 – 4. 4	3. 0
Pantothenic Acid	Milli Gram	10 – 13. 2	10 – 13. 2	9. 0 – 12
Folic Acid	Milli Gram	0. 5 – 1. 65	0. 5 – 1. 65	0. 75 – 1. 0
Biotin	Milli Gram	0. 10 – 0. 22	0. 10 – 0. 22	0. 10 – 0. 15
Chlorine Chloride	Milli Gram	120	440 – 1, 000	440 – 675

Special Note: The nutrition list for Broiler Parent Stock of different Age given by Poultry Breeders Association Bangladesh or Parent Stock Company may vary due to logical reasons.

Schedule- 5 (A)  
(See Rule- 7)  
Daily Energy and Protein requirements of Growing Bulls

Physical Weight (KG)	Daily Weight Increase (KG)	Dry Material Intake (KG)	Energy Requirement		Crude Protein (Gram)	
			Metabolic Energy (Megajoule)	TDN (KG)	Total	DCP
1	2	3	4	5	6	7
100	0. 0	2. 20	15. 73	1. 00	167	107
	0. 25	2. 60	19. 92	1. 30	306	200
	0. 50	3. 00	24. 35	1. 60	379	254
	0. 75	3. 20	28. 78	1. 90	448	309
	1. 00	3. 30	33. 22	2. 20	541	363
150	0. 0	3. 00	21. 34	1. 40	231	123
	0. 25	3. 80	24. 45	1. 80	400	251
	0. 50	4. 20	33. 56	2. 20	478	305
	0. 75	4. 40	39. 96	2. 60	589	361
	1. 00	4. 50	45. 76	3. 00	607	414
200	0. 0	3. 70	26. 36	1. 80	285	152
	0. 25	4. 50	33. 89	2. 20	470	293
	0. 50	5. 20	41. 42	2. 80	554	348
	0. 75	5. 40	48. 95	3. 20	622	403
	1. 00	5. 60	6. 53	3. 70	690	457
250	1. 10	5. 60	59. 54	3. 90	714	479
	0. 0	4. 40	30. 96	2. 00	337	180
	0. 25	5. 30	39. 83	2. 60	534	329
	0. 50	6. 20	48. 70	2. 20	623	383
	0. 75	6. 40	57. 66	3. 80	693	438
300	1. 00	6. 60	66. 27	4. 30	760	492
	1. 10	6. 60	69. 79	4. 60	782	514
	0. 0	5. 00	35. 56	2. 40	385	206
	0. 25	6. 00	45. 61	3. 00	588	357
	0. 50	7. 00	56. 07	3. 70	679	411
350	0. 75	7. 40	66. 11	4. 30	753	466
	1. 00	7. 50	76. 27	5. 00	819	520
	1. 10	7. 60	80. 33	5. 30	847	542
	0. 0	5. 70	39. 75	2. 60	432	231
	0. 25	6. 80	51. 13	3. 30	635	378
400	0. 50	7. 90	62. 51	4. 10	731	433
	0. 75	8. 30	73. 89	4. 80	806	487
	1. 00	8. 50	85. 27	5. 60	874	542
	1. 10	8. 50	89. 83	5. 90	899	563
	1. 20	8. 50	94. 39	6. 20	923	585
	0. 0	6. 20	44. 35	2. 90	478	256
	0. 25	7. 50	57. 03	3. 70	664	393
	0. 50	8. 70	69. 71	4. 60	772	447
	0. 75	9. 10	82. 38	5. 40	875	502
	1. 00	9. 30	95. 14	6. 20	931	556
	1. 10	9. 40	100. 21	6. 60	942	578
	1. 20	9. 40	105. 27	7. 00	967	600
	1. 30	9. 40	110. 33	7. 20	988	622



Schedule- 5 (B)  
(See Rule- 7)  
Daily Energy and Protein requirements for Dairy Cows

Physical Weight (KG)	Daily Weight Increase (KG)	Dry Material Intake (KG)	Energy Requirement		Crude Protein (Gram)	
			Metabolic Energy (Megajoule)	TDN (KG)	Total	DCP
Last Trimester of Pregnancy						
150	0. 25	4. 00	28. 28	1. 90	414	258
200	0. 50	5. 60	42. 67	2. 80	577	358
250	0. 60	6. 50	52. 30	3. 40	579	405
300	0. 60	7. 40	59. 40	3. 90	614	430
350	0. 60	8. 30	67. 36	4. 40	650	455
400	0. 60	9. 20	74. 47	4. 90	671	470
450	0. 60	10. 00	81. 17	5. 30	679	475
First 12 weeks of milk producing adult (Nutritional requirement based on fat per kg of milk)						
Fat%	Energy Requirement		Crude Protein (Gram)		Mineral Substance (Gram)	
	Metabolic Energy (Megajoule)	TDN (KG)	Total	DCP	Calcium	Phosphorus
1	2	3	4	5	6	7
3. 00	4. 18	0. 28	64	45	2. 50	1. 80
3. 50	4. 48	0. 30	71	50	2. 60	1. 90
4. 00	4. 77	0. 31	79	55	2. 70	2. 00
4. 50	5. 06	0. 33	86	60	2. 80	2. 10
5. 00	5. 36	0. 35	93	65	2. 90	2. 20
5. 50	5. 65	0. 37	100	70	3. 00	2. 30
6. 00	5. 98	0. 39	107	75	3. 10	2. 40

## Schedule 6 (A)

(See Rule- 7)

## Daily Energy and Protein requirements of Growing Buffaloes

Physical Weight (KG)	Daily Weight Increase (KG)	Dry Material Intake (KG)	Energy Requirement		Crude Protein (Gram)	
			Metabolic Energy (Megajoule)	TDN (KG)	Total	DCP
1	2	3	4	5	6	7
100	0. 0	2. 40	16. 53	1. 09	163	107
	0. 25	3. 00	26. 99	1. 78	312	195
	0. 50	2. 80	37. 45	2. 47	373	254
	0. 75	2. 90	47. 91	3. 16	439	313
150	0. 00	3. 30	22. 43	1. 48	223	109
	0. 25	3. 90	32. 89	2. 17	393	242
	0. 50	4. 10	43. 35	2. 86	486	319
	0. 75	3. 90	53. 81	3. 55	548	378
	1. 00	3. 90	64. 27	4. 24	609	427
200	0. 0	4. 10	27. 82	1. 84	288	135
	0. 25	4. 80	38. 28	2. 53	465	281
	0. 50	5. 10	47. 74	3. 22	543	341
	0. 75	5. 10	59. 20	3. 91	610	400
	1. 00	4. 80	69. 66	4. 60	682	471
250	0. 0	4. 80	32. 89	2. 17	327	160
	0. 25	5. 50	43. 35	2. 86	525	615
	0. 50	5. 90	53. 81	3. 55	604	674
	0. 75	6. 10	64. 27	4. 24	677	433
	1. 00	5. 60	74. 73	4. 93	732	493
300	0. 0	5. 60	37. 70	2. 41	377	183
	0. 25	6. 20	49. 20	3. 25	579	343
	0. 50	6. 80	60. 71	4. 01	663	402
	0. 75	7. 00	76. 40	5. 04	736	461
	1. 00	6. 50	83. 72	5. 52	709	521
350	0. 0	6. 40	42. 30	2. 79	426	205
	0. 25	7. 10	54. 85	3. 62	620	357
	0. 50	7. 60	67. 40	4. 45	703	416
	0. 75	7. 80	79. 66	5. 28	776	457
	1. 00	7. 20	92. 51	6. 11	826	535
400	0. 0	7. 00	46. 74	3. 09	469	227
	0. 25	7. 70	60. 33	3. 98	653	369
	0. 50	8. 40	73. 93	4. 88	740	428
	0. 75	8. 70	87. 53	5. 78	818	487
	1. 00	8. 30	101. 13	6. 68	874	547

Schedule- 6 (B)  
(See Rule- 7)  
Daily Energy and Protein requirements for Dairy Buffaloes

Physical Weight (KG)	Daily Weight Increase (KG)	Dry Material Intake (KG)	Energy Requirement		Crude Protein (Gram)	
			Metabolic Energy (Megajoule)	TDN (KG)	Total	DCP
1	2	3	4	5	6	7
Last Trimester of Pregnancy						
350	0. 40	7. 40	58. 99	3. 90	538	294
400	0. 5	8. 00	63. 60	4. 20	644	358
450	0. 50	8. 60	67. 78	4. 50	720	405
500	0. 50	9. 30	71. 96	4. 80	776	435
550	0. 50	9. 80	76. 15	5. 00	832	470
Adult buffalo produces 4 kg of milk with 7% fat						
350	-	8. 40	70. 29	4. 60	865	537
400	-	9. 00	75. 31	5. 00	908	559
450	-	9. 60	79. 91	5. 30	950	580
500	-	10. 10	84. 50	5. 60	988	600
550	-	10. 70	89. 12	5. 90	1028	620
Excess Nutritional Requirements based on fat per kg of milk						
Fat%	Energy Requirement		Crude Protein (Gram)		Mineral Substance (Gram)	
	Metabolic Energy (Megajoule)	TDN (KG)	Total	DCP	Calcium	Phosphorus
1	2	3	4	5	6	7
4. 00	5. 15	0. 34	87	61	2. 70	2. 00
5. 00	5. 86	0. 38	98	69	2. 90	2. 20
6. 00	6. 57	0. 43	108	76	3.10	2. 40
7. 00	7. 28	0. 48	118	83	3. 30	2. 60
8. 00	7. 99	0. 53	128	90	3. 50	2. 80
9. 00	8. 70	0. 57	138	97	3. 70	3. 00
10. 00	9. 41	0. 62	149	104	3. 90	3. 20
11. 000	10. 13	0. 67	159	111	4. 10	3. 40

Schedule 7 (A)  
(See Rule- 7)

Daily Energy and Protein demand of Goats

Physical Weight (KG)	Daily Weight Increase (Gram)	Dry Material Intake (KG)	Energy Demand		Crude Protein (Gram)	
			Metabolic Energy (Megajoule)	TDN (KG)	Total	DCP
1	2	3	4	5	6	7
For Daily requirement, growth and primary conception						
5	0. 00	0. 19	1. 46	0. 10	15	10
	25	0. 22	2. 18	0. 14	22	15
	50	0. 21	2. 89	0. 19	29	20
10	0. 00	0. 32	2. 43	0. 16	25	17
	25	0. 36	3. 14	0. 21	32	22
	50	0. 37	3. 85	0. 25	39	26
	75	0. 35	4. 56	0. 30	46	31
15	0. 00	0. 44	3. 31	0. 22	33	23
	25	0. 45	3. 60	0. 24	36	25
	50	0. 50	4. 73	0. 31	48	33
	75	0. 50	5. 44	0. 36	55	37
20	0. 00	0. 54	4. 10	0. 27	41	28
	25	0. 58	4. 81	0. 32	49	33
	50	0. 60	5. 52	0. 36	56	38
	75	0. 62	6. 23	0. 41	63	43
	100	0. 62	6. 95	0. 46	70	48
25	0. 00	0. 64	4. 85	0. 32	49	33
	25	0. 68	5. 56	0. 37	56	38
	50	0. 71	6. 28	0. 41	63	43
	75	0. 73	6. 99	0. 46	71	48
	100	0. 74	7. 70	0. 51	78	53
	125	0. 71	8. 49	0. 56	86	58
30	0. 00	0. 74	5. 56	0. 37	56	38
	25	0. 77	6. 28	0. 41	63	43
	50	0. 80	6. 99	0. 46	71	48
	75	0. 83	7. 70	0. 51	78	53
	100	0. 84	8. 41	0. 56	89	58
	125	0. 84	9. 12	0. 60	92	63
40	0. 00	0. 91	6. 90	0. 46	70	48
	25	0. 95	7. 61	0. 50	77	53
	50	0. 98	8. 37	0. 55	85	58
	75	1. 01	9. 08	0. 60	92	62
	100	1. 04	9. 79	0. 65	99	67
	125	1. 05	10. 50	0. 69	106	72
50	0. 00	1. 08	8. 12	0. 54	82	56
	50	1. 15	9. 54	0. 63	96	66
	75	1. 20	10. 96	0. 72	111	75
	100	1. 23	11. 67	0. 77	118	80
	125	1. 24	12. 38	0. 82	125	85
	150	1. 24	13. 10	0. 86	132	90

Schedule- 7 (B)  
(See Rule- 7)  
Daily Energy and Protein requirements for Dairy Goats

Physical Weight (KG)	Daily Weight Increase (Gram)	Dry Material Intake (KG)	Energy Requirement		Crude Protein (Gram)	
			Metabolic Energy (Megajoule)	TDN (KG)	Total	DCP
1	2	3	4	5	6	7
For producing milk for first 10 weeks						
20	20	1. 13	11. 46	0. 76	116	88
25	20	1. 34	12. 64	0. 83	128	97
30	20	1. 53	13. 77	0. 91	139	105
35	20	1. 72	14. 81	0. 98	150	113
40	20	1. 90	15. 86	1. 05	160	121
45	20	2. 25	17. 41	1. 15	176	133
Excess Nutritional Requirements based on fat per kg of milk						
Fat%	Energy Requirement		Crude Protein (Gram)		Mineral Substance (Gram)	
	Metabolic Energy (Megajoule)	TDN (KG)	Total	DCP	Calcium	Phosphorus
1	2	3	4	5	6	7
2. 50	5. 02	0. 33	62	42	2	1. 4
3. 00	5.06	0. 34	66	45	2	1. 4
3. 50	5. 15	0. 34	71	48	2	1. 4
4. 00	5. 23	0. 35	75	51	3	2. 1
4. 50	5. 27	0. 35	79	54	3	2. 1
5. 00	5. 36	0. 35	84	57	3	2. 1

Schedule 7 (C)  
(See Rule- 7)  
Daily Energy and Protein demand of Sheep

Physical Weight (KG)	Daily Weight Increase (Gram)	Dry Material Intake (KG)	Energy Demand		Crude Protein (Gram)	
			Metabolic Energy (Megajoule)	TDN (KG)	Total	DCP
1	2	3	4	5	6	7
5	0. 00	0. 19	1. 46	0. 10	15	10
	25	0. 22	2. 18	0. 14	22	15
	50	0. 21	2. 89	0. 19	29	20
10	0. 00	0. 32	2. 43	0. 16	25	17
	25	0. 36	3. 14	0. 21	32	22
	50	0. 37	3. 85	0. 25	39	26
	75	0. 35	4. 56	0. 30	46	31
15	0. 00	0. 44	3. 31	0. 22	33	23
	25	0. 45	3. 60	0. 24	36	25
	50	0. 50	4. 73	0. 31	48	33
	75	0. 50	5. 44	0. 36	55	37
20	0. 00	0. 54	4. 10	0. 27	41	28
	25	0. 58	4. 81	0. 32	49	33
	50	0. 60	5. 52	0. 36	56	38
	75	0. 62	6. 23	0. 41	63	43
	100	0. 62	6. 95	0. 46	70	48
25	0. 00	0. 64	4. 85	0. 32	49	33
	25	0. 68	5. 56	0. 37	56	38
	50	0. 71	6. 28	0. 41	63	43
	75	0. 73	6. 99	0. 46	71	48
	100	0. 74	7. 70	0. 51	78	53
	125	0. 71	8. 49	0. 56	86	58
30	0. 00	0. 74	5. 56	0. 37	56	38
	25	0. 77	6. 28	0. 41	63	43
	50	0. 80	6. 99	0. 46	71	48
	75	0. 83	7. 70	0. 51	78	53
	100	0. 84	8. 41	0. 52	89	58
	125	0. 84	9. 12	0. 60	92	63

Schedule- 7 (D)  
(See Rule- 7)  
Daily Energy and Protein requirements for Female Sheep

Physical Weight (KG)	Daily Weight Increase (Gram)	Dry Material Intake (KG)	Energy Demand		Crude Protein (Gram)	
			Metabolic Energy (Megajoule)	TDN (KG)	Total	DCP
1	2	3	4	5	6	7
For Daily requirement, growth and non- lactation and first 15 weeks of lactation of female sheep						
10	0. 00	0. 33	2. 18	0. 14	26	12
	25	0. 36	2. 68	0. 18	30	15
	50	0. 39	3. 18	0. 21	35	18
	100	0. 42	4. 18	0. 28	43	24
	150	0. 39	5. 19	0. 34	49	30
15	0. 00	0. 45	2. 97	0. 20	36	17
	25	0. 49	3. 64	0. 24	42	21
	50	0. 53	4. 35	0. 29	49	25
	100	0. 56	5. 73	0. 38	58	33
	150	0. 52	7. 07	0. 47	65	41
20	0. 00	0. 55	3. 38	0. 24	44	21
	25	0. 61	4. 52	0. 30	52	26
	50	0. 66	5. 40	0. 36	59	31
	100	0. 71	7. 07	0. 47	72	41
	150	0. 65	8. 79	0. 58	81	50
25	0. 00	0. 65	4. 35	0. 29	53	25
	25	0. 72	5. 36	0. 36	61	31
	50	0. 78	6. 36	0. 42	70	36
	100	0. 83	8. 37	0. 55	85	48
	150	0. 77	10. 38	0. 69	96	60
30	0. 00	0. 75	4. 98	0. 33	59	27
	25	0. 89	7. 28	0. 48	81	42
	50	0. 95	9. 58	0. 63	98	55
	100	0. 94	10. 75	0. 72	103	60
	140	0. 87	11. 42	0. 75	106	66
35	0. 00	0. 85	5. 61	0. 37	68	32
	25	0. 99	8. 20	0. 54	10	47
	50	1. 07	10. 79	0. 71	111	62
	100	1. 06	12. 09	0. 80	117	69
	140	0. 98	12. 84	0. 85	121	74

40	0. 00	0. 93	6. 19	0. 41	75	36
	50	1. 10	9. 04	0. 60	100	52
	100	1. 19	11. 92	0. 79	121	68
	125	1. 18	13. 35	0. 88	131	77
	140	1. 10	14. 23	0. 94	133	82
For first 8 weeks of lactation						
20	5	0. 99	9. 79	0. 55	105	60
25	5	1. 35	12. 51	0. 75	143	82
30	- 10	1. 67	14. 10	0. 93	176	101
35	- 20	1. 79	16. 69	1. 10	209	120
40	- 30	2. 26	19. 12	1. 26	239	137
50	- 30	2. 54	21. 46	1. 42	267	154

#### Daily Energy and Protein Requirements of Reproductive Male Sheep

Physical Weight (KG)	Daily Weight Increase (Gram)	Dry Material Intake (KG)	Energy Requirement		Crude Protein (Gram)	
			Metabolic Energy (Megajoule)	TDN (KG)	Total	DCP
1	2	3	4	5	6	7
30	120	1. 15	10. 84	0. 72	113	62
40	110	1. 43	12. 84	0. 85	137	74
50	100	1. 69	14. 56	0. 96	159	84
60	100	1. 98	16. 69	1. 10	181	96



Schedule- 8 (A)  
(See Rule- 7)

Maximum or Minimum Ideal Amount of Nutrition for Milk Replacer or Calf Starter

Description of Nutrition	Unit	Level	Milk Replacer	Calf Starter
Moisture	% Food	Maximum	-	10. 0
Metabolizable Energy (Metabolic Energy), ME	MJ/ KG DM	Minimum	14. 0	10. 5
TDN	%	Minimum	75. 8	54. 2
Crude Protein	% DM	Minimum	17. 2	16. 2
Digestible Crude Protein (DCP)	% DM	Minimum	22. 0	16. 0
Ether Extract	% DM	Minimum	10. 0	2. 50
Crude Fiber	% DM	Maximum	3. 0	15. 0
Minerals				
Calcium	% DM	Minimum	0. 55	0. 41
Phosphorus (Total)	% DM	Minimum	0. 42	0. 32
Magnesium	% DM	Minimum	0. 60	0. 70
Potassium	% DM	Minimum	0. 70	0. 10
Sodium	% DM	Minimum	0. 10	0. 25
Sodium Chloride	% DM	Minimum	0. 25	0. 20
Sulphur	% DM	Minimum	0. 20	0. 20
Iron	Ppm	Minimum	100. 0	100. 0
Manganese	Ppm	Minimum	20. 0	20. 0
Iodin	Ppm	Minimum	0. 10	0. 10
Cobalt	Ppm	Maximum	10. 0	10. 0
Copper	Ppm	Maximum	100. 0	100. 0
Zinc	Ppm	Maximum	500. 0	500. 0
Molybdenum	Ppm	Maximum	6. 0	6. 0
Fluoride	Ppm	Maximum	40. 0	40. 0
Selenium	Ppm	Maximum	5. 0	5. 0
Vitamins				
Carotene	Ppm	Minimum	9. 50	4. 20
Vitamin – A	I U	Minimum	380	160
Vitamin – D	I U	Minimum	60. 0	25. 0
Vitamin – E	Ppm	Minimum	30. 0	

Special Note: DM = Dry Matter; Ppm = Parts per million; I, U = International Unit; TDN = Total Digestible Nutrient

**Schedule- 8 (B)**

**(See Rule- 7)**

**Maximum or Minimum Ideal Amount of Nutrition of Total Ration (TMR) of Growing Cow or Adult Bull**

Description of Nutrition	Unit	Level	Milk Replacer	Calf Starter
Moisture	% Food	Maximum	10. 0	10. 0
Metabolizable Energy (Metabolic Energy), ME	MJ/ KG DM	Minimum	10. 0	8. 30
TDN	%	Minimum	66. 0	57. 0
Crude Protein	% DM	Minimum	10. 0	7. 70
Digestible Crude Protein	% DM	Minimum	6. 20	3. 60
Ether Extract	% DM	Minimum	2. 0	2. 0
Crude Fiber	% DM	Maximum	15. 0	15. 0
Minerals				
Calcium	% DM	Minimum	0. 34	0. 24
Phosphorus (Total)	% DM	Minimum	0. 26	0. 18
Magnesium	% DM	Minimum	0. 08	0. 08
Potassium	% DM	Minimum	0. 07	0. 07
Sodium	% DM	Minimum	0. 10	0. 10
Sodium Chloride	% DM	Minimum	0. 25	0. 25
Sulphur	% DM	Minimum	0. 20	0. 20
Iron	Ppm	Minimum	100. 0	100. 0
Manganese	Ppm	Minimum	20. 0	20. 0
Iodin	Ppm	Minimum	0. 10	0. 10
Cobalt	Ppm	Maximum	10. 0	10. 0
Copper	Ppm	Maximum	100. 0	100. 0
Zinc	Ppm	Maximum	500. 0	500. 0
Molybdenum	Ppm	Maximum	6. 0	6. 0
Fluoride	Ppm	Maximum	30. 0	40. 0
Selenium	Ppm	Maximum	5. 0	5. 0
Vitamins				
Carotene	Ppm	Minimum	4. 00	8. 00
Vitamin – A	I U	Minimum	150	320
Vitamin – D	I U	Minimum	25. 0	30. 0

Special Note: DM = Dry Matter; Ppm = Parts per million; I, U = International Unit; TDN = Total Digestible Nutrient; TMR = Total Mixed Ration

Schedule- 8 (C)

(See Rule- 7)

Maximum or Minimum Ideal Amount of Nutrition of Total Ration (TMR) of Dairy Cow

Description of Nutrition	Unit	Level	Milk Replacer	Calf Starter
Moisture	% Food	Maximum	10. 0	10. 0
Metabolizable Energy (Metabolic Energy), ME	MJ/ KG DM	Minimum	10. 0	8. 30
TDN	%	Minimum	66. 0	57. 0
Crude Protein	% DM	Minimum	10. 0	7. 70
Digestible Crude Protein	% DM	Minimum	6. 20	3. 60
Ether Extract	% DM	Minimum	2. 0	2. 0
Crude Fiber	% DM	Maximum	15. 0	15. 0
Minerals				
Calcium	% DM	Maximum	0. 34	0. 24
Phosphorus (Total)	% DM	Minimum	0. 26	0. 18
Magnesium	% DM	Minimum	0. 08	0. 08
Potassium	% DM	Maximum	0. 07	0. 07
Sodium	% DM	Minimum	0. 10	0. 10
Sodium Chloride	% DM	Minimum	0. 25	0. 25
Sulphur	% DM	Maximum	0. 20	0. 20
Iron	Ppm	Minimum	100. 0	100. 0
Manganese	Ppm	Minimum	20. 0	20. 0
Iodin	Ppm	Minimum	0. 10	0. 10
Cobalt	Ppm	Maximum	10. 0	10. 0
Copper	Ppm	Maximum	100. 0	100. 0
Zinc	Ppm	Maximum	500. 0	500. 0
Molybdenum	Ppm	Maximum	6. 0	6. 0
Fluoride	Ppm	Maximum	30. 0	40. 0
Selenium	Ppm	Maximum	5. 0	5. 0
Vitamins				
Carotene	Ppm	Minimum	4. 00	8. 00
Vitamin – A	I U	Minimum	150	320
Vitamin – D	I U	Minimum	25. 0	30. 0

Special Note: DM = Dry Matter; Ppm = Parts per million; I, U = International Unit; TDN = Total Digestible Nutrient; TMR = Total Mixed Ration

Schedule- 9  
[ See Rule- 8 (9)]  
Approved Methods for Sample Analysis

Organization	Title/ Description	References
AOAC	Sampling of Animal Feed	AOAC 965.16
„	Animal Feed: Preparation of Sample	AOAC 950.02
„	Acidity (water- soluble) in Feed	AOAC 920.43
„	Ash of Animal Feed	AOAC 942.05
„	Calcium in Animal Feed	AOAC 927.02
„	Chlorine (soluble) in Animal Feed	AOAC 935.13
„	Cobalt in Animal Feed	AOAC 952.02
„	Copper in Animal Feed	AOAC 947.03
„	Cyanogenetic Glucosides in Animal Feed	AOAC 970.10= > 93
„	Fat (Crude) of Acetone Extract in Fish Meal	AOAC 948.04
„	Fat (Crude) of Ether Extract in Animal Feed.	AOAC 920.39
„	Fat (Crude) of Ether Extract in Dried Milk Products	AOAC 932.02
„	Fat (Crude) or Ether Extract in Pet Foods	AOAC 954.02
„	Fiber (Acid Detergent) and Lignin)	AOAC 973.18
„	Fiber (Acid Detergent) and Protein (Crude) in Animal	AOAC 989.03
„	Feed and Forages	
„	Fiber (Crude) in Animal Feed	AOAC 962.09
„	Fluorine in Animal Feed	AOAC 978.10
„	Galactan in Animal Feed	AOAC 975.08
„	Identification of Furazolidone, Tylosin, and Zoalene	AOAC 975.09=>
„	Manganese (ACID- Soluble) in Animal Feed	973.80
„	Microscopy of Animal Feed: Basic Microscopic	AOAC 917.04
„	Examination	AOAC 964.07
„	Microscopy of Animal Feed: Identification of Animal	
„	Tissues and Mineral Constituents	AOAC 970.09
„	Microscopy of Animal Feed: Identification of	
„	Vegetable Tissues	AOAC 970.08
„	Mineral Salts in Animal Feed (Ferrous Salts, Copper	
„	Salts, Potassium Iodine)	AOAC 925.12
„	Minerals in Animal Feed	
„	Moisture in Animal Feed	AOAC 968.08
„	Moisture in Animal Feed in Highly Acid Milk By-	AOAC 934.01
„	Products	AOAC 953.07
„	Nitrogen (Albiminoid) in Animal Feed	
„	Nitrogen (Amido) in Animal Feed	AOAC 920.37
„	Nitrogen (Nitrate and Nitrite) in Animal Feed	AOAC 920.38
„	Pentosans in Animal Feed	AOAC 968.07
„	Pepsin Digestibility of Animal Protein Feeds	AOAC 920.41
„	Phosphorus in Animal Feed	AOAC 971.09

”	Protein (Crude) in Animal Feed	AOAC 946.06
”	Protein in Animal Feed	AOAC 954.01
”	Starch in Animal Feed	AOAC 935.11
”	Sucrose in Animal Feed	AOAC 920.40
”	Sugars (Total) in Animal Feed	AOAC 925.05
”	Urea and Ammoniacal Nitrogen in Animal Feed	AOAC 974.06
”	Urea in Animal Feed	AOAC 941.04
”	Arsanilic Acid in Feeds	AOAC 967.07
”	Arsenic (Total) in Feeds	AOAC 854.17
”	Aflatoxins B1 in Cottonseed Products and Mixed Feed	AOAC 957.22
”	Aflatoxins in Foods and Feeds	AOAC 989.06
”	Mycotoxins	AOAC 975.36
”	Sampling for Aflatoxins	AOAC 970.43
”	Arsenic (total) residues in animal tissues	AOAC 977.16
”	Antibiotics in Feeds	AOAC 973.78
”	Microbiological Methods	AOAC 957.23

Schedule- 10  
(See Rule- 11)  
Animal Feed Disposal and Purification

Sequential No.	Harmful and Adulterated Animal Feed	Disposal and Purification
1.	Usual Expired Animal Feed	Expired Animal Feed shall be, in the presence of Licensing Authority, buried underground or, if required, organic manure can be produced.
2.	Harmful Infected Animal Feed	If the test report by the Quality Control Laboratory identifies a harmful infection in the Animal Feed, the said Animal Feed shall be buried underground or burnt.
3.	Harmful Chemical Mixed Animal Feed	If the test report by the Quality Control Laboratory identifies a harmful chemical in the Animal Feed, the said Animal Feed may be buried underground or burnt or purified with chemicals or may be used to prepare organic fertilizer.
4.	Harmful Antibiotic Mixed Animal Feed/ With Radiation	If the test report by the Quality Control Laboratory identifies harmful antibiotics or radiation mixed with the Animal Feed, it should be disposed of following the Bangladesh Environment Protection Act, 1995 (Act No. I of 1995).
5.	Radioactive Related Animal Feed	If the test report by the Quality Control Laboratory identifies harmful radioactive, the concerned animal feed shall be refined or disposed in accordance with the provisions of the Atomic Energy Commission Order, 1973 (President's Order No. XV of 1973).

Schedule- 11  
Form  
[See Rule 2 (F)]

Form- 1  
[See Rule- 3 (1)]

To

Director General  
Department of Livestock,  
Bangladesh, Dhaka.

Recent  
Photograph  
(Attested) of  
the Applicant

Subject: - Regarding the Application for License as Animal Feed Producer/ Processing/ Preserving Company (Category- 1).

1. Name of Proprietor :  
Name of Father/ Husband :  
Name of Mother :  
Detailed Address :
2. Name and Address of Company :  
A) Head Office :  
B) Address of Factory :
3. Short Description of Produced Animal Feed :
4. Production Capacity of Proposed Factory :
5. Animal Feed Storage Capacity :
6. Infrastructural Facilities of the Factory (Building, Transportation, Water, Electricity, Gas, Sewerage and Waste Management etc.) :
7. Description of Equipment and Tools :
8. Information about Manpower :  
A) General :  
B) Technical :
9. Certificate of Income Tax Return (Update) :
10. Attested copy of Trade License (Updated) :
11. Receipt of Application Fee Payment (Original Copy):
12. Other Information (if available) :

I hereby declare that, all the information mentioned above is correct, I also declare that, I shall maintain the nutritional value of animal feed produced according to the described standards in Fish Feed and Animal Feed Act, 2010 and Animal Feed Rules- 2013 and shall be obliged to properly follow all the rules and regulations.

Date-

Signature of  
Proprietor

(Seal)

Form- 2  
[See Rule- 3 (1)]

Recent  
Photograph  
(Attested) of the  
Applicant

To  
Director General  
Department of Livestock,  
Bangladesh, Dhaka.

Subject: - Regarding the Application for License as Animal Feed Importer/ Exporter Company  
(Category- 2).

1. Name of Proprietor :  
Name of Father/ Husband :  
Name of Mother :  
Detailed Address :
2. Name and Address of Company :
3. Address of Goods Warehouse :
4. Description of Original Import or Export License (Attested copy must be attached).
5. Receipt of Application Fee Payment (Original Copy) :
6. Certificate of Income Tax Return (Update) :
7. Trade License (Updated) :
8. Other Information (if available) :

I hereby declare that, all the information mentioned above is correct. I also declare that, I shall maintain the nutritional value of animal feed produced according to the described standards in Fish Feed and Animal Feed Act, 2010 and Animal Feed Rules- 2013 and shall be obliged to properly follow all the rules and regulations.

Signature of  
Proprietor

Date-

(Seal)



Form- 3  
[See Rule- 3 (1)]

To

Director General  
Department of Livestock,  
Bangladesh, Dhaka.

Recent  
Photograph  
(Attested) of the  
Applicant

Subject: - Regarding the Application for License as Animal Feed Seller (Category- 2).

1. Name of Proprietor :  
Name of Father/ Husband :  
Name of Mother :  
Detailed Address :
2. Name and Address of Company
3. Address of Goods Warehouse :
4. Description of Trade License (Updated) :
5. Receipt of Application Fee Payment (Original Copy) :
6. Certificate of Income Tax Return (Update) :
7. Other Information (if available) :

I hereby declare that, all the information mentioned above is correct. I also declare that, I shall be obliged to properly follow all the rules and regulations described in Fish Feed and Animal Feed Act, 2010 and Animal Feed Rules- 2013.

Signature of  
Proprietor

Date-

(Seal)

Government of the Peoples' Republic of Bangladesh

Memo No. -

Date –

Registration No.

Subject: - Regarding the grant of License as Animal Feed Producer/ Processing/ Preserver/ Marketer (Category – 1).

\_\_\_\_\_ has been granted a license as an Animal Feed Producer/ Processing/ Preserver/ Marketer (Category – 1) for the Fiscal Year \_\_\_\_\_ numbered \_\_\_\_\_. If the licensed id not cancelled by the Department of Livestock, then the validity of this license shall remain till 30 June \_\_\_\_\_.

General

On behalf of the Director

Signature

Date –

(Seal)

Form- 5  
[See Rule- 3 (3)]

Government of the Peoples' Republic of Bangladesh

Memo No. -

Date –

Registration No.

Subject: - Regarding the grant of License as Animal Feed Importer and Exporter (Category – 2).

\_\_\_\_\_ has been granted a license as an Animal Feed Importer and Exporter (Category – 2) for the Fiscal Year \_\_\_\_\_ numbered \_\_\_\_\_. If the licensed id not cancelled by the Department of Livestock, then the validity of this license shall remain till 30 June \_\_\_\_\_.

General

On behalf of the Director

Signature

Date –

(Seal)

Government of the Peoples' Republic of Bangladesh

Memo No. -

Date –

Registration No.

Subject: - Regarding the grant of License as Animal Feed Seller (Category – 3).

\_\_\_\_\_ has been granted a license as an Animal  
Feed Seller (Category – 3) for the Fiscal Year \_\_\_\_\_ numbered \_\_\_\_\_  
\_\_\_\_\_. If the licensed id not cancelled by the Department of Livestock, then the validity  
of this license shall remain till 30 June \_\_\_\_\_.

General

On behalf of the Director

Signature

Date –

(Seal)

Form- 7  
[See Rule- 3 (3)]

Government of the Peoples' Republic of Bangladesh

Memo No. -

Date –

To

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Subject: - Regarding payment of License Fee

In light of the above- mentioned matter it is notified that, for the purpose of license you/ your company are instructed to submit the invoice along with the CTR of Taka \_ \_ \_ \_ \_ within \_ \_ \_ \_ \_.

General

On behalf of the Director

Signature

Date –

(Seal)

Government of the Peoples' Republic of Bangladesh

Memo No. -

Date –

To

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Subject: - Regarding the Rejection of the Application for License.

1. Name and Address of the Applicant Person/ Company :
2. Date of Application- :
3. Subject of Applied License :
4. Reason (s) for the rejection of License Application :

On behalf of the Director  
General

Signature

Date –

(Seal)

Government of the Peoples' Republic of Bangladesh

Memo No. -

Date –

To

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Subject: - Regarding the grant of additional time for fulfilling conditions.

It is notified regarding the above- mentioned subject that, you/ your company has been granted additional time till \_ \_ \_ \_ \_ in order to fulfill the prescribed conditions for getting a license.

On behalf of the Director  
General

Signature

Date –

(Seal)

Government of the Peoples' Republic of Bangladesh

Memo No. -

Date –

To  
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Subject: - Regarding the issuance of show- cause notice due to breach of conditions.

It is notified regarding the above- mentioned subject that, you are hereby instructed to, within \_\_\_\_\_, state the reasons as to why the license issued to you shall not be suspended or cancelled due to the breach of the below- mentioned conditions of your company's license which is License No. \_\_\_\_\_.

Conditions: -

- 1. ....
- 2. ....
- 3. ....

On behalf of the Director  
General

Signature

Date –

(Seal)



Form- 11  
[See Rule- 5 (2)]

Government of the Peoples' Republic of Bangladesh

Memo No. -

Date –

To

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Subject: - Regarding the suspension/ cancellation of license because of no reasoning/  
reasoning not being satisfactory.

In regard to the above- mentioned subject, you are notified that due to not stating any reasons/ reasoning not being satisfactory, your/ your company's license, which is License No. \_\_\_\_\_, is hereby suspended or cancelled.

On behalf of the Director  
General

Signature

Date –

(Seal)

Form- 12  
[See Rule- 6 (1)]

Government of the Peoples' Republic of Bangladesh

Memo No. -

Date –

To

Secretary  
Ministry of Fisheries and Livestock  
Bangladesh Secretariat, Dhaka.

Subject: - Regarding the file of an appeal against the suspension/ cancellation of license by the Licensing Authority on ----- AD.

1. Name of Proprietor :
2. Name of Father/ Husband :
3. Name of Mother :
4. Detailed Address :
5. Condition Compliance Information :
6. Other Information :

I hereby declare that all the above information has been filled correctly. Therefore, I request to accept my appeal.

On behalf of the Director  
General

Signature

Date –

(Seal)

Memo No. - Application letter for reconsideration of Appeal Order

Date –

To

Secretary  
Ministry of Fisheries and Livestock  
Bangladesh Secretariat, Dhaka.

Subject: - Regarding the application for reconsideration of the Government's Appeal Order dated on ----- AD.

7. Name of Proprietor :  
8. Name of Father/ Husband :  
9. Name of Mother :  
10. Detailed Address :  
11. Condition Compliance Information :  
12. Other Information :

I hereby declare that all the above information has been filled correctly. Therefore, I request to accept my application for reconsideration of Appeal Order.

Signature of the  
Proprietor

Date –

(Seal)

Schedule- 12  
[See Rule 4 (2)]  
Fee

List of the Application Fee, License Fee, Renewal Fee and Appeal Fee of different categories:

Sequential No.	Category	Application Fee (Taka)	License Fee (Taka)	Renewal Fee (Taka)	Appeal Fee (Taka)	Validity
1	Category – 1	1000/-	10, 000/-	5, 000/-	6, 000/-	One year from the date of License Issuance
2	Category – 2	1000/-	10, 000/-	5, 000/-	5, 000/-	One year from the date of License Issuance
3	Category – 3					One year from the date of License Issuance
	A) 51 Ton or more daily	500/-	5, 000/-	6000/-	3000/-	
	B) 11 Ton to 50 Ton daily	300/-	1000/-	500/-	1000/-	
	C) Up to 10 Ton daily	200/-	500/-	300/-	500/-	

By Order of The President  
Md. Muhibuzzaman  
Senior Assistant Secretary

**Attachments:**

No Attachments.