

### **30. Poultry Nutrition-Feed formulation-composition of chick mash grower, layer, broiler starter and finisher mashes .**

#### Feeding Management

Poultry being simple stomached species, cannot synthesise most of the nutrients required for them and so the nutrients become dietary essentials chicken has to be fed adequate quantities of balanced diet for its growth, livability and to exhibit its genetic potential to the full extent. Poultry differ from other species of livestock in body temperature and digestion

Biological activity and maturity.

Poultry feed is composed of

60-65% Energy giving materials

30-35% of Protein source

2-8% Minerals source.

And above all water. Which is considered as the Principal nutrient should be pure, whole some, free from physical impurities, toxic substances and Bacterial contamination.

Water : feed ratio 2.2 : 1

It is variable with age, climate, feed and physiological activity. Excess energy is stored as body fat.

Yellow maize

cumbu

cholam

Rice polish.

This energy materials constitute 50% of the ration.

Protein : Protein is required by the bird for

1. Growth 2. Maintenance of body tissues 3. Production.

Both vegetable and animal proteins are used in the feed.

Vegetable Protein :

Ground nut oil cake

Soyabean oil cake

Gingelly oil cake

Sunflower oil cake

Mustard oil cake

This is added at 15-25% in the ration. It is always advisable to add two or more for better balancing.

Animal Protein: Fish meal, meat meal, Blood meal

silk worm pupa meal

out of this fish meal is ideal

this forms -5-10% of the ration.

Grain bye products like bran in included from 10-30% for fibre, bowl movement and minerals.

if molasses available it can also be added for energy at 5-7% levels, which is a cheap source of energy, reduces dustiness, improves palatability.

Mineral mixture for poultry :

Included at 2.3% It is advisable to use salt free mineral mixture because fish meal available in our country is salted. Calcium supplements such as shell grit, calcite, limestone, etc. are used at 4-5% levels.

Standard requirement of nutrients:

	Chick	Grower	layer mash	Broiler starter	Broiler Finisher
Crude Protein % min.	22	16	18	23	20
Crude fibre % max.	7	8	10	6	6
Calcium % min.	1	0.8	2.75	1	1
Total phosphorus % min	0.7	0.6	0.75	0.7	0.7
Metabolizable Energy K/ca/kg.	2800	2600	2700- 2750	2800	2900
Lysine (%min.)	1.0	0.7	0.5	1.0	1.0

Methionine (% min)	0.35	0.25	0.25	0.35	0.35
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#### Approximate feed intake by commercial chicken in tropics

	Egg type (gm.)	Broiler (G.)
1 <sup>st</sup> week	10	15
2 <sup>nd</sup> week	15	25
3 <sup>rd</sup> week	20	35
4 <sup>th</sup> week	25	50
5 <sup>th</sup> week	30	65
6 <sup>th</sup> week	35	85
7 <sup>th</sup> week	45	105
8 <sup>th</sup> week	50	120

9-12 weeks – 40

13-16 weeks – 50 Restricted feeding

17-20 weeks – 60

During laying

0% Egg Production	80 gm.	70 %	115
25% Egg Production	95 gm.	80 %	120
50% Egg Production	105gm.	Over 80%	12
60% Egg Production	110 gm.		

#### Guide lines for feed management

1. Purchase quality ingredients / feed. with least moisture and devoid of adulteration.
2. If own feed is mixed formula may be modified depending upon the cost and availability of ingredients
3. If agricultural farm is attached farm grown grain can be used
4. Purchase one month or two months requirements.
5. Screen the feed store room against rodents, sparrows other vermins.
6. Observe the feed intake by the birds during summer, winter.

7. If moisture level exceeds 15% (except molasses) during hot season it may cause growth of fungus and precipitate problems like aflatoxicosis.

The feeder should not to filled to full to minimize the feed wastage..