

Broiler Feeding Management

There is a wide variation between the eating habits of different birds, fowls tend to eat on about 15-minute intervals through the daylight hours and, to some extent, during darkness. They tend to eat larger portions at first light and in the late evening.

Factors affects feed intake are:

1. Breed
2. Age and Body weight
3. Environmental Temperature
4. Energy content of the food
5. Level of key nutrients
6. Water quality and temperature
7. General health status of the flock
8. Intestinal Health of the flock
9. Feeding Infrastructure

Similar factors affect the rate of movement of the food through the digestive system with a meal of normal food taking approximately 4- 6 hours to pass through. Intact hard grains take longer to digest than the cracked grain and, quite often some whole grain will pass through unchanged.

Feeding Equipment Need:

- a) Chicks Tray 1 per 60 chicks or Tire Feeder 1 per 100 chicks



- b) Big Feeder with Cone & Grill 1 for 50 chicks or Auto Feeder with Silos for growing & adults birds
1 for 40 chicks



c) Aluminum or Plastic bucket for Feed delivering to feeder



d) Feeding Scoop to avoid wastage

FEED MANAGEMENT

Today's broiler feed is formulated & produced scientifically in most efficient factories after minutely selecting each ingredient. This compound feed contains all essential nutritional factors like Carbohydrate, Protein, Fats, Vitamins, Minerals, Enzymes & performance enhancing materials, etc.

Today's broiler has huge genetic potentials of becoming 2 Kg in 33 days if they are being supported by necessary nutrition. Poultry nutritionist may not eat balanced diet at home but makes perfect balanced compound feed for broiler to reach their genetic potential Body Weight.

To extract best performance from best feed, we need to consider the following:

- The concept is FRESH FEED to the broiler.
- Being a bird, broiler like feed in the form of particle (size as per age), they refuse dust.
- Broilers are voracious eaters and go on eating feed continuously. Intermittent gap between feeding (Meal Feeding) helps improving feed efficiency (FCR).
- By nature chicken like dirt and if feed is allowed to drop on to the litter, the birds will pick those first and may catch infections.
- Frequent feeding motivates more feed intake.

- Though feed cost is approximately 70% of broiler production cost, Lowering Feed cost is not the issue but feed efficiency & return on investment are the issue.

To get the best performance from broiler Feeding management is the most important aspect which is mostly neglected. For better knowledge, feeding management may be divided in 3 different stages:

MANUFACTURING:

- **Formulation** as per Breed, Age of lifting (culling), Targeted Body Weight, season, etc.
- **Ingredients** quality; shall be digestible, palatable, nutritionally 100% and free from moulds.
- **Feed Additives** for better utilization of available ingredients & to protect their nutritional value.
- **Feed Form**; Pellet/Crumb or Mash
- **Particle Size** as per age
- **Moisture** - Desired 11.5 to 12%
- **Machine**
- **Manpower** Efficiency
- **Process Control**

STORAGE & DISTRIBUTION:

- **Godown Quality**
- **Storage System**; FIFO (First In First Out) shall be maintained.
- **Storage Quality**; presence of pellets/Racks, stacking density, Gap between stack & walls, etc
- **Storage Time**; Lower the storage time better the feed efficiency.

APPLICATION & USAGE:

- **Health Management of birds**; General and Intestinal especially.



- **Feeding Equipment**: Type, size, No, Height, Distribution, etc.
- **Cleanliness**
- **Frequency** of Feeding

- Intermittent **Withdrawal** Practise
- **Feed Dumping** or regular Emptying

FEED FORM

MASH:

- Mash feed is made by mixing all feed ingredients after grinding.
- Very easy to manufacture with less time & cost involved.
- In mash feed individual particle is rich with specific nutritional elements like broken maize shall contain high energy but will give low Protein.
- Mash feed may pick up moisture from the environment very easily and quality may deteriorate.

PELLET:

- Pellet feed is made first by fine grinding of all ingredients, then mixing them in mixer, passing them through steam at 80 degree Celsius, making them Pellet Form in pellet machine, cutting them as per desired size and finally cooling.



- Pellet is the best form of poultry feed which is relatively free from infection due to boiling at 85 degree Celsius.
- Pellet is the artificially made particle which contains all necessary nutrition elements because of fine grinding, mixing & boiling. Any pellet therefore contains all nutritional elements and feeding such feed will give more balanced growth in a broiler flock.
- Particle size can be adjusted as per age of the birds and feed intake can be stimulated positively.
- Moisture contain is controlled in pellet and can be stored longer duration than mash.

CRUMBLE:

- Crumble feed is made by grinding big size pellets.



Crumb



Pellet

- The crumble feed has the advantages of pellet but size is small for young chicks & grower.

BROILER FEEDING METHOD:

- 0 – 2 days: Frequent Paper Feeding with Feeder Tray or Tyre with sufficient feed placed on it.



- 3 – 4 days: Plate Feeder 1 for 50 OR tyre feeder 1 for 100 Chicks with frequent feeding.



Feeder Drinker Distribution

- 5 – 8 days: Two auto feeders will be placed in each brooding everyday replacing 2 tray feeders or 1 tyre feeder. Feeder cone shall be placed at the bottom to elevate the feed level so that chicks can eat the small particle below. Grill shall be placed upside down. From 9th day there will be no tray or tyre feeder but only auto feeder.
- 9th day: Place the feeder grill in normal position but cone shall remain at bottom till 17th day.
- 14th day: Hanging of all feeders with grill normal position.
- 18th day: Feeder cone at normal position on top with grill till lifting day.

FEEDING TIPS:

- Aluminium bucket required to transfer feed from feed bag to feeder.
- Use of feeding scoop shall minimize feed wastage while pouring feed to feeder.
- Feed shall be given minimum 3 times, preferable 4 times.
- Never fill the feeder fully. Give feed up to 1/3 of the feeder at a time. Better to give 1/3 of daily standard feed quantity at a time.
- Feeder should be made empty in the morning which has many benefits like wastage reduction, No fungus in feeder, intake of bottom dusty portion of feed.



- Feeder cone should be cleaned every time after pouring feed.
- Cleaning of parts after dismantling helps preventing fungus infestation leading to better feed efficiency.

FEED STORAGE:

- Feed Bag shall be stacked leaving 1 feet gap from the wall
- Feed Bag shall be stacked with a gap of minimum 2.5 feet from floor using Wooden Pellets or Bamboo platform.
- To avoid heat generation & cake formation, especially in monsoon feed bags should not stacked more than 6 bags in a column.
- First In First Out (FIFO) system must be followed in all types of feed godown.
- To get best productivity feed should never be stored more than 7 days. In monsoon feed should not be stored more than 4 days.



Proper Storing of Feed

- Time gap between Feed production & Consumption should be as less as possible in all cases. It should be 12 days except in monsoon when it should be 8 days
- Nutrient values as given by the nutritionist and as prepared in the factory get reduced with age of feed.

FEED GODOWN HYGIENE:

- Ensure adequate Ventilation and light
- Floor & walls shall be damp proof
- Godown should be made Rat & Insects proof



Faulty Feed Godown



Proper Feed Godown

- When the farm is empty; the feed godown should be cleaned & disinfected like shed cleaning.
- Spray of insecticides during empty situation helps preventing feed wastage.

POOR FEED STORAGE Results:

- Quantitative loss of feed due to rats & mice entry.
- Quantitative loss of feed due to dampness leads to cake formation.
- Quantitative loss due to Insect Infestation
- Nutrient destruction due to heat generation.
- Nutrient loss due to oxidation.
- Nutrient loss due to fungal or bacterial infection.





CONTROL of FEED WASTAGE:

- Good quality modern feeding equipments either manual or automatic should only be used.
- No of feeders must be as per standard i e 1 per 50 chicks. Compulsory use grill till last day.
- Rodent & Insect control help minimizing feed wastage.
- Use aluminium or plastic bucket for transferring feed from bag to feeder.
- Use feeding scoop to put feed into feeder.
- Filling of feeders fully results feed wastage. It is preferred not to give feed more than 1/3 of the feeder at a time.
- Frequent feeding reduces feed wastage markedly. It is suggested to divide the daily standard feed requirement in to 3 parts and put them in to the feeders in 3 different times.
- Clean Feeder cone every day. In monsoon it should be cleaned every time after putting feed. Feeder Bucket should be cleaned every week after dismantling the parts.

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