

Brooding is 50% of BROILER

Brooding is the special care & nursing of the newly hatched chicks to provide an artificial environment to maintain the gap between hatchery and outer environment.

In open broiler farming, brooding is necessary during first 5 – 12 days of chick life.

OBJECTIVE OF BROODING:

- To maintain Uniformity in the flock
- To get Good 1st Week Chick body weight.
- To Increase Livability.
- To improve Immunity to make the chicks resistant to environment & disease stress
- To stimulate the intestinal growth early

PREPARATION OF BROODING AREA:

- Brooding should be done in all sheds except in winter when Brooding shall be done in best shed available. Brooding to be done close to the main entrance of the shed.
- Brooding space should be made for 0.25 sq ft/chick for first 2 days followed by 0.3 sq ft for 3rd & 4th day and 0.4 sq ft for 5th to 7th day of chick's life.



- Round brooding is better than whole house brooding.
- Round brooding area should be made for 400 - 600 chicks considering the type of Heating Equipment (Coal Oven/ Bukhari/ Gas brooder/ Electrical brooder) placed at the center.
- Litter material like paddy husk shall be spread @ 3inch (2 inch in Summer) thickness
- Brown paper or Old newspaper shall cover the entire brooding area during first 2 days
- The Heat source should be switch on 3 hours before chick arrival for Pre-heating of the brooding area.
- A hanging Thermometer should be present in the brooding house.
- In winter the brooding area must have double side curtains and cross curtain at both ends.
- Light intensity should be 20 Lux (i.e. One 9 - 12 Watts LED lamp for each round brooding area.



ON ARRIVAL OF CHICKS

- Brooding house Temperature shall be 32 - 35°C
- Unloading from vehicle & housing of chicks shall be done quickly.
- Chick drinker with Sanitized water shall be ready in brooding area after adding scheduled medication (Electrolytes & good Probiotics)



- After 5 - 10 minutes when chicks get accustomed with the brooding environment, Pre-Broiler Starter Feed should be sprinkled over the newspaper from a distance by making gentle sound. This practice will initiate feeding activity of chicks. This feeding should be frequent, 8 -10 times on 1st 2 days.
- Training of 4% of chicks to take water by beak dipping helps growth

GAS BROODING



TEMPERATURE CHART DURING BROODING

DAYS	TEMPERATURE(°F)
1-2	32 – 35 °C
3 - 6	30 – 32 °C
7 to 10	28 – 30 °C
11 to 14	26 – 28°C

CHICK QUALITY ASSESSMENT

- Uniform size & color, clean, dry and fluffy appearance.
- Healthy chicks will have closed, healed navels and clean vents.
- The shank will be bright, pink colored and smooth.
- Chicks shall be bright, alert and active

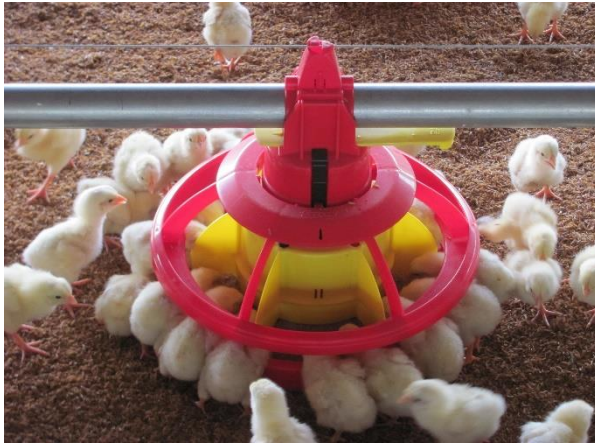


BASIC NEED OF A CHICK

This is most important area which most of us misunderstood. They are

- Clean Disease-free brooding house





- Comfortable Environment with respect of
 - a) Temperature
 - b) Ventilation or Air Circulation
 - c) Light
 - d) Space
 - e) Good quality drinking water
 - f) Fresh Feed for early growth & immunity

CROP FILL AND SCORING

Early feeding of chicks is an important part of broiler husbandry to maintain uniformity in growth & to stimulate immune capacity of chicks to fight against environmental & disease stress. Crop filling (gentle handling of the crop reveals its status; full & rounded but soft) with feed & water is the check list to assess the early feed consumption. Target shall be 80% of chicks started eating in 3 hours, 90% in 10 hours and 100% in 24 hours. Those chicks not started eating in 1st 24 hours become weak and may die in 3 – 5 days. They are potential source of disease entry, especially E coli and need to be identified & culled.

CROP FILL SCORING

Sample Area	<i>1st Day CROP FILLING ASSESSMENT</i>					
	Age (in Hours)	Empty	Only Feed	Only water	Insufficient Fill	IDEAL
1	8					
	24					
2	8					
	24					
3	8					
	24					
4	8					
	24					

Crop scoring should be carried out daily to ensure the feed intake of chicks.

Crop scoring pattern: 0 – 5

- **0 – Empty Crop**
- **1 – Less Feed & Less Water**
- **2 – Crop 25% filled with feed & water**
- **3 – Crop 50% filled with feed & water**
- **4 – Crop 75% filled with feed & water**
- **5 – Crop 100% filled with feed & water**



- A farm score of 5 indicates good brooding environment. The score of 2 or 3 indicates the brooding is not satisfactory.

DO'S AND DONOT'S DURING BROODING

Do's

- Arrange all the necessary materials for brooding 3 days before housing.
- According to the circumstance, open the side curtains from day one itself.
- Monitor the chick's behavior and maintain the temperature accordingly
- Add Acidifier, Sanitizer, Probiotic & Vitamins in water with proper dosage from day one.

Don'ts

- Don't allow to accumulate toxic gases like CO, CO₂ in the brooding house.
- Do not add Sugar in water unnecessarily

BROODING FAILURE happens due to

- Lack of Awareness about the basic need of newly hatched chicks
- Inadequate Infrastructure like Space, Curtain, Heating Equipment, light, Chicks Feeder & drinker, etc.
- Inefficient/Insufficient Heating of Brooding house leads to Cold stress
- Poor Ventilation leading to suffocated environment
- Inadequate Chick Feeding & Drinking arrangement restricting the chicks to necessary early access of feed.

BROODING FAILURE leads to

- **Loss of uniformity**; presence of small, weak & rant chicks which harbor E coli & other infections. They are potential route of disease entry in the flock
- **Early Chick Mortality**; poor livability
- Poor early access to feed & water; Poor immune capacity
- Poor 1st Week Body weight; below target final body weight
- Inadequate Heating facility in winter leads to Chilling, Huddling Mortality and Cold Stress resulting immune-suppression; flock become vulnerable to disease outbreak.
- **Vaccine Failure**; maternal antibody exhausted early and poor development of immune system failed to generate sufficient antibodies after vaccination.
- **Respiratory Diseases** like E coli, Pneumonia & CRD are almost compulsory after poor winter brooding
- **Ascites** is very common following suffocated winter brooding. Misconception about the basic need of the chicks and Poor Temperature Maintenance forced farmer to cover brooding house with packed curtain leaving no space for ventilation leads to hypoxemic condition resulting Ascites after 10 - 15 days age.
- **Viral Outbreak** chances are more in brooding failure farms due to immune-suppression from cold stress, suffocated environment & vaccine failure.

Brooding decides the future of the flock; perfect brooding done means 50% job done. That's why Brooding is said to be 50% of broiler farming