



Inadequate ventilation and the resulting poor air quality can cause increased levels of Ammonia, Carbon monoxide, and moisture levels and an increase in production related syndromes such as ascites.

### Brooding: The 5 Essentials

By providing chicks with the right environment and nutrition during the brooding period — the first 14 days of a bird's life — hatcheries can optimize the flock's overall performance, and maximize profit. The top five management best practices are equally weighted in importance:



- Temperature Management**  
Because of their high surface-to-body mass ratio, chicks lose heat very quickly. Maintaining the proper ambient temperature ensures chicks stay healthy and reach their full weight potential.
- Clean Water**  
Water is an essential nutrient that impacts virtually all functions. Providing enough clean water during brooding directly affects the chick's long-term growth.
- Fresh Air**  
Modern broilers require high levels of oxygen. Proper ventilation is key to maintaining good air quality throughout the house and distributing heat.
- High Light Intensity**  
Bright light during the first 5-7 days helps stimulate activity in chicks, which encourages feed consumption and overall system development.
- Access to Feed**  
Immediate access to clean, fresh feed is essential – chicks should never have to search for their next meal.



## Water and Feed Management

Water is an essential nutrient that impacts virtually all physiological functions. Water restriction decreases feed intake resulting in poor growth.

Correct stimulation of activity during the first 5-7 days of age is necessary for optimal feed consumption, digestive and immune system development.

Add newspaper under feed trays, and not tissue paper, to stimulate feed intake before the paper breaks down. It should be good enough to last five days.

**PRODUCED BY;**  
**MINISTRY OF AGRICULTURE**  
**Department of Veterinary and Livestock Services**  
(Animal Production Division– Poultry Section)

**CONTACTS:**

**MANZINI– 25059147**  
**PIGG'S PEAK -24371756**  
**NHLANGANO– 22078326/455**  
**MANKAYANE–25301024**  
**HHOHHO – 24048848**  
**SITEKI– 23435630**



**MINISTRY OF AGRICULTURE**

# CHICK BROODING



***A guide on chick brooding  
for poultry farmers***

## CHICK BROODING

The brooding period – is the most important period of the chick s life, the first week is the most important week of the chick s life, day one is the most important day of the chicks life.

Good brooding management will always result in better flock uniformity which is the key to good and consistent results.

The critical factors are temperature, ventilation, water and feed. When these are correct, 80% of your success will be ensured.

### Temperature

Litter temperature is the most important because day-old chicks are extremely dependent on floor contact to help regulate the changing temperatures.

The poultry house and litter should be preheated and stabilized 12 hours before placement of chicks depending on outside temperature. Use bird behavior and thermometer as the ultimate guide to determine the correct temperature for the birds.

Always remember never to sacrifice temperature for ventilation and never to sacrifice ventilation for temperature.

**Too High Temperatures** – cause chicks to disperse away from the brooder, breath rapidly with open beaks and have poor appetite.

**Table 1: Brooding temperature**

<u>Days</u>	<u>Temperature</u>
Day old	32-33°C
7	29-30°C
14	27-28°C
21	24-26°C
28	21-23°C
35	19-21°C
42	18°C

**Too Low Temperatures** – chicks will try to keep warm and make heat by huddling together which may lead to death or by eating more without significant growth. This is the most expensive way.

**Satisfactory or Just right** – chicks are evenly distributed around and under the brooder. Quieter, running around, eating and drinking in a normal manner

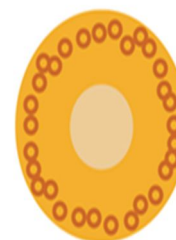
**Too draughty** – cause chicken to disperse to one side, away from the brooder .

### Clean and repair brooders on a regular basis.

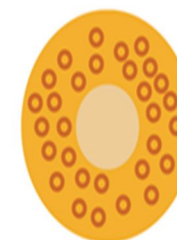
Proper brooder maintenance will reduce carbon monoxide and will burn fuel more efficiently.

Brooders should have the dust blown off in between each flock .

Sources of brooder fuel: gas, electricity, solar energy, wood and coal.



**Temperature too high**  
Chicks make no noise  
Chicks pant, head and wings droop  
Chicks away from brooder



**Temperature correct**  
Chicks evenly spread  
Noise level signifies contentment



**Temperature too low**  
Chicks crowd to brooder  
Chicks noisy, distress-calling



**Draft**  
This distribution requires investigation influenced by draft, uneven light distribution, external noises

### Ventilation

Ventilation is needed to distribute heat throughout the house and remove carbon dioxide, ammonia, other gases, moisture, dust and odors in the brooding area. Fresh air must be introduced uniformly, mixed well with house air, and circulated properly throughout the house.