

SCOOP from the COOP



ANIMAL NUTRITION

POULTRY NEWS & UPDATES



CHICK MANAGEMENT

By: Ray Delbridge, Poultry Specialist

Good chick management is critical for the health of the flock. Throughout the first ten days of life, the chick's surroundings change from the hatcher to the broiler barn.

An important step to maintain chick health is barn preparation. Biosecurity protocols should always be in use. Control diseases by minimizing the spread of broiler ages across the farm. Using the all in/ all out procedure is best. In saying that, farmers should have an entry protocol where there is a dirty area and a clean area for people to enter and leave the barn, also known as a Danish entry system. Producers should have a separate set of barn clothes and boots for when entering each barn. Chicks should be provided with a clean barn through out the life of the flock. Barns should be preheated to stabilize temperature and humidity at least twenty-four hours prior to the birds' arrival. Temperature should be set around thirty to thirty-two degrees Celsius. Litter should be spread evenly throughout the barn at a suitable depth. Two to five centimeters deep litter will allow birds optimal comfort. We also don't want to forget about litter temperature, which should sit around twenty-eight to thirty degrees Celsius. If the environment is insufficient it can lead to poor uniformity, lack of growth, poor meat quality, and compromised bird welfare.

There are serious changes of how and where the chick receives nutrients. During the final moments of incubation and as a fresh hatchling the chick receives all of its nutrients from the yolk sac. Once the chick reaches the farm, it begins to switch its source of energy from the remaining yolk sac to feed and water. We recommend putting down 40-50 grams of feed per chick down on feed paper. The early habitat must make the transition as quick and as easy as possible, so the chicks can create proper feeding and drinking habits. It is important that chicks receive feed and water instantly upon being placed.

For chicks to have better access to feed and water, provide supplementary feed and ensure waterlines are low enough for chicks to find them. Water lines, located so the nipples are in the chicks' direct line of sight should be filled prior to chicks' arrival. To ensure the lines are filled, trigger every nipple in the water line. Ensure that the density is no more than twelve birds per nipple in brooding area. Extra bell drinkers can be added to ensure birds have adequate access to water.

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A good way to ensure birds are getting to the feed and water is by checking crop fill every few hours after placement. When checking for crop fill, take a sample of thirty to forty birds from different parts of the front, middle, and back of the barn.

Here is a chart to show you what good crop fill is each hour after placement:

Time after Placement	Cropfill (% of chicks with full crops)
2 hours	75%
4 hours	80%
8 hours	> 80%
12 hours	> 85%
24 hours	> 95%
48 hours	100%

A good way to monitor performance is by weighing a sample of birds when they are placed, and then taking another weight at day seven. The seven-day weight should be four times the placement weight. The birds weighed should be from multiple areas of the barn to determine flock uniformity.

Environmental control is an important aspect of chick management to promote bird welfare and meet performance targets. For the first three days in the barn a humidity level of 60 to 70 % is recommended. After three days, a relative humidity level above 50% should be maintained for the rest of brooding period. Temperature and humidity are important to promote activity and appetite. If the humidity is high check the air quality (ammonia and CO2 levels) and minimum ventilation rate before lowering temperature. A good way to know if the barn's humidity or temperature is too high is by looking at the chicks' behaviour. If chicks are spread evenly through out the brooding area it indicates that birds are comfortable, and no adjustments need to be made. If the chicks are huddled together under the source of heat or in the brooding area it usually means the birds are too cold and the temperature needs to be increased. If chicks are crowding along the wall and panting the birds are too hot and the humidity and/or temperature needs to be lowered.

The aspects of chick management reviewed in this article include barn preparation, feed, water, air quality and temperature. As the chicks transition from the hatchery to a barn, it is important to have optimal barn conditions. Good chick management is necessary to reach top performance, earning growers top dollars.