



A Very Cool Way to Feed Chickens

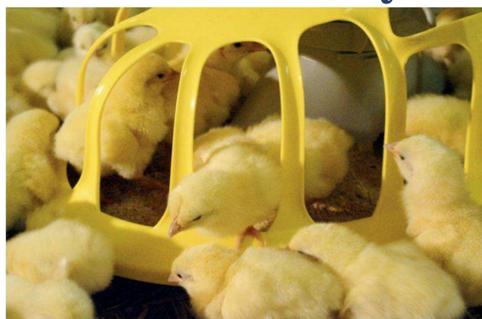
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Why Is Flock BW Uniformity Important?

Nowadays the main purpose of broiler breeder producers is to produce a high quantity of high quality chicks. Feeding management and body weight (BW) uniformity are the two major management's issues of hatching egg producers. Improved BW uniformity of a flock will improve reproductive performance by matching nutrient supply with individual nutrient requirements.

Which Factors Contribute to Poor BW Uniformity?

- ❖ High stocking densities
- ❖ Shortage of feeders and drinkers
- ❖ Feed distribution
- ❖ Genetic variability of parent stocks
- ❖ Amount, or quality of feed, or both
- ❖ Bird density and access to feeders and drinkers
- ❖ Feed intake speed and competition during feed consuming
- ❖ Diseases and housing conditions (temperatures and ventilation)



How Feeding Management Can Control BW Uniformity?

Feed restriction programs are used as feeding management approach. It assists to grow broiler breeder pullets to maturity to get better performance during the laying cycle. Feed restriction helps keep breeders (male and female) from growing excessively large, control BW and increase uniformity.

What Are the Results of Feed Restriction?

-  ✓ Reduce health problems that are consequences of genetic selections for rapid growth
-  ✓ Improve feed efficiency
-  ✓ Increase egg production
-  ✓ Feather pecking
-  ✓ Feeding frustration
-  ✓ Aggressive behaviours
-  ✓ Poor food distribution and flock uniformity

Precision Broiler Breeder Feeding System

This pre-commercial system will be designed to manage BW by controlling feed intake in breeder flocks. The system will provide the right amount of feed to the right bird at the right time. We will develop an innovative method for feeding broiler breeder flocks to address performance and welfare concerns of feed restricted broiler breeders at a commercial level. The system will improve uniformity to 100% of birds within 5% of the average BW. For research purposes (development and validation) we will use RFID (radio frequency identification) technology for each bird. RFID tags will be used to understand individual performance and feeding behaviour, and ensure all birds receive feed.

Benefits for Commercial Broiler Breeder Flocks

➤ BW Uniformity

The system can practically perfect uniformity by matching feed allocation to feed requirements in laying and non-laying birds. The BW information will be used as a decision for feed allocation to individual birds to improve chick production.

➤ Fertility and Hatchability

Recent research has found that carefully managing BW can increase chick production by 10% in commercial broiler breeders flocks. This system will keep male and female broiler breeders in prime BW condition by feeding the right amount of feed to grow precisely on their target BW curve.

➤ Chick Production

Uniform birds can respond uniformly to photostimulation. This is currently a major limitation to achieving a high rate of egg production. We expect that precision feeding will improve chick production by 10 to 12 chicks per hen.

➤ Improve Birds Welfare

The system will likely reduce feed and water wastage and aggression and stress associated with frenzy feeding. This system may reduce feeding frustration, aggressive behaviour in restricted-fed birds, over-drinking (polydipsia) and feather pecking (cannibalism).