

## **Feeding Females**

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In feeding pullets and hens, the ultimate goal of chicks per hen must not be forgotten. The two female related factors that primarily determine the number of chicks per hen are egg production and mating activity. (Spermatazoal storage is also involved but will not be addressed in this discussion). While egg production peaks or number of eggs per life of flock are useful numbers for evaluating hen performance, if that production quickly falls after a high peak or the hen is not receptive to mating (thereby laying what are essentially table eggs) then the number of chicks per hen will be less than acceptable.

There are many inputs that affect egg production and mating activity, but nutrient intake is a clearly a factor that must be considered when experiencing difficulties with either production or receptivity. This discussion will focus not so much on specific nutrient levels or feeding programs that are to be applied to all bird strains under all environmental conditions, but rather on a few principles to be remembered when confronted with either of these problems related to female performance:

- 1) **An unredeemable feed is an unredeemable feed.** At times a feed is delivered to the breeder farm that is so far from what is intended that the only sensible option is the removal of the feed. These type of feed problems can range from far too much or too little of a legitimate ingredient (e.g. salt) to the presence of illegitimate ingredients in any amounts (e.g. Nicarbazin). Feeds that contain ingredients that are rancid or contain contaminants may also fall under the category of unredeemable.
- 2) **Very few feeds are unredeemable.** Because truly unredeemable feeds usually have a sudden and major impact on hen performance, most situations involving these feeds receive a lot of attention and as a result get rectified relatively quickly. A more common feed concern involves the small percentage of manufactured feed that may be quite variable in nutrient content, often outside of the comfort zone of the nutritionist, but without the negative effects that one would anticipate. One can only speculate that the reason for a lack of negative impact from these feeds is either related to the

breeder rep modifying the feeding program in response to feedback from the hens receiving these feeds or is related to hens that are not totally unforgiving.

- 3) **There are a variety of workable feeds/feeding programs.** While they may not all be optimal, there are many nutrient packages and feeding programs that can lead to respectable results. It is important however that the feeding program be aligned to the nutrient package to ensure that the pullet/hen receive sufficient nutrient intake for reproductive development and positive energy balance going into production, but not excessive nutrition that can lead to production and fertility problems later.
- 4) **The individual that determines feed allocation is the individual that is primarily determining the nutrient intake of the pullet/hen.** This statement assumes that a number of criteria have been met which may or may not be the case. It assumes 1) that the allocated amount of feed to be consumed is close to the actual amount that is being consumed, 2) that the nutrient package that has been formulated is sufficient to meet the nutrient requirements of the bird for reproductive performance and mating receptivity, 3) that these formulas are being accurately manufactured at the feed mill and 4) that ingredient suppliers are providing quality inputs that make up these feeds. It is crucial that integrators have in place systems that can quickly determine that all four of these assumptions are correct and that corrective measures that can be taken if they are not. When all four of these criteria are taking place then feed allocation determines nutrient intake which, in turn, plays a major role in hen performance.
- 5) **A consistently poor feed is better than an inconsistently good feed. A gradually changing feeding program is better than a knee-jerk reactionary program.** Because the goal in feeding females is to gradually guide the pullet/hen towards a physiological position where performance goals are attainable, anything that hinders or interrupts a smooth acceleration (through peak) or deceleration (post-peak) of nutrient intake should be avoided. Wide swings in nutrient density or feed/ingredient quality inhibit the predictability of how the feeds will affect the pullet/hen and therefore make proper feed allocation much more difficult. In the same way, sudden shifts in feed allocation that occur because birds have responded differently than anticipated can also be disruptive. Where mid-course corrections are necessary, they should be done gradually and with patience.