

Managing Breeder Female Weights

It is common knowledge in the industry that growth rate, FCR and breast meat yield have improved in commercial turkeys. These commercial improvements have resulted in a heavier breeder female. While we have seen improved egg production and hatch, weight management during rearing plays a larger role in determining peak egg production and persistency of lay as the female becomes heavier. This technical bulletin outlines important aspects of managing breeder female weights to ensure maximized performance in the lay barn.

Provide Appropriate Diets from Day One

The fundamental development of the skeletal, cardiovascular and immune systems takes place during rearing. The development of these systems will determine how well the hen performs in the breeder barn.

It is important to get the females off to a good start by providing diets that have the correct balance of nutrients at the right time. This does **not** mean feeding high-density commercial starter diets which can make it difficult to hold breeders to target weights at an early age. "Feeding Recommendations for Parent Stock" has the most recent diet recommendations for breeder females.

Follow the Weight Profile

In order to achieve optimum reproductive performance, it is important to follow the weight target. A dynamic system of monitoring and reacting to body weight is crucial to achieving optimum results.

Weigh Birds Weekly from 3 Weeks of Age

Start a weekly weighing program when the birds are 3 weeks of age. It is important to monitor the weekly weights against the target to ensure the birds are on track to hit the 6-week weight, the first of the three key weight targets. By the time the birds leave the brooder house at 6 weeks they should have attained the weights indicated in the weight target.

Key Weights Targets are at 6, 16 and 22 Weeks

From 6 to 22 weeks of age the birds continue to develop their skeletal structure as well as feather coverage and musculature. Achieving the target weights at 6, 16 and 22 weeks of age are key to maintaining the female on target throughout the entire growing stage. If these three weight points are achieved in a smooth line, the female will be set to come into production on target and with the proper body composition.



Maintaining the Target Weight Before 16 Weeks of Age

Do not allow birds to get over weight when moved from the brooder house.

If the females are off of the weight target by more than 5% early in life, consider adjusting the feeding program. Use diets and patience to bring the birds back to the correct line. Move heavy flocks onto the next diet sooner and hold lighter flocks on the higher protein diet longer. If weight gain stalls due to high ambient temperatures, move the hens back to a higher protein diet to maintain desired growth. Rapid weight adjustments should not be attempted, whether the birds are over or under the weight target.

Drawing a New Target after 16 Weeks

After 16 weeks if the birds are heavier than the target draw a new target that runs parallel to the original line. Flocks that are in a positive growth status during growing tend to do better in production. Flocks MUST NOT be forced back to the target line by more severe nutritional controls.

Steady Growth to Light Stimulation

From 22 weeks to lighting the birds should gain at a steady rate. This is a key period in the development of the female. The objective is to keep the bird growing at a steady rate so when the light stimulus is given at 29/30 weeks the metabolism of the bird is able to respond immediately and meet the rapid changes in the reproductive system. Flocks that plateau in weight prior to light stimulation do not respond as well to the rigors of production.

From lighting to first egg, the flocks should increase in weight by 2-3 lbs. (0.8-1.2kg). When weight gain is insufficient, peak egg production can be lower.

Flock Uniformity and Bird Condition

Uniformity should continuously improve over the life of the flock. If the flock is becoming less uniform, factors such as bird health, feed access, feed quality, water availability and lighting should be checked. At point of lay, flock uniformity should be greater than 90% or have a CV of less than 10%.

Bird condition is as important as weight. Avoid exposing the females to dust, molds, ammonia, poor litter conditions, mycotoxins and other factors that will impinge on their health or be detrimental to their future reproductive performance. There are various Aviagen technical bulletins on vaccination, ventilation and litter management meant to assist the breeder in these areas.

Summary

In summary producing a fit breeder is dependent upon following the weight target and meeting the three key weight targets at 6, 16 and 22 weeks. Prior to 16 weeks, staying on the target is best achieved by altering timing of the diet changes. Change the diet sooner if over the target, later if under. After 16 weeks, on heavy flocks it is better to maintain the target gains rather than bring the flock back to the target. This is best accomplished by paralleling the growth target. As always the Aviagen Technical Staff is available to assist in all areas of turkey production. We look forward to working with you.