

Feeding and management recommendations for the Hubbard Yield breeder pullet from day one trough peak production

Continued selection for improved broiler growth rate, breast meat yield and feed conversion produces a breeder pullet that grows faster and deposits breast muscle more readily on less feed than previously. The key points of pullet rearing have not changed; i.e., control the rate and pattern of body weight gain and maintain body weight uniformity.

4 Week Body Weights

Achieving target body weights at four weeks is critical. The target body weight of 0.90 pounds (410 grams) is an essential component of the pullet rearing program. Pullets that are underweight at four weeks (0.85 pounds or 385 grams) and slightly heavy at 20 weeks (4.50 pounds or 2.04 kilos) tend to peak around 78 percent rather than 82 percent for flocks reared on standard. It is essential to get pullets started well with appropriate brooding temperatures and ventilation and easy access to feed and water. Body weight recommendations are summarized in Table 2.

Suggested nutrient profiles are outlined in Table 1. Typical feeding rates for young pullets are 5.5 pounds per hundred (25 grams) at 7 days, 6.25 pounds per hundred (28 grams) at 14 days, 6.75 pounds per hundred (31 grams) at 21 days and 7.5 pounds per hundred (34 grams) at 28 days. Skip-a-day or a four-three feeding schedule should begin no later than 28 days depending on the feeding system.

8 Week Body Weights

The target weight at eight weeks is 1.70 pounds (770 grams) with a feeding rate of 10.25 pounds per hundred (47 grams). The key point at this stage is to maintain consistent weight gains.

12 Week Body Weights

The target weight at twelve weeks is 2.49 pounds (1130 grams) with a feeding rate of 13.25 pounds per hundred (600 grams). We need to evaluate the body weight, uniformity and general condition at twelve weeks as we have time to adjust the growth curve before housing.

16 Week Body Weights

The target weight at sixteen weeks is 3.37 pounds (1530 grams) with a feeding rate of 16.25 pounds per hundred (74 grams). From fifteen to twenty weeks we need to control body weight and fleshing. Feed increases will range from 0.5 to 1.5 pounds per hundred per week (2-7 grams). At this critical time we need to be conservative with feed increases. Fleshing must be monitored and controlled. It is important not to use high density pre-breeder diets too early as this will promote excessive fleshing.

20 Week Body Weights

The twenty week body weight remains a key point in pullet rearing programs. The target body weight at twenty weeks is 4.25 pounds (1930 grams) with a feeding rate of 20.0 pounds per hundred (90 grams). It is critical not to have pullets too heavy or too fleshy at this stage. If pullets are slightly below standard weight at this age it is best to delay lighting/moving by one week to allow the pullets to “catch up”. Do not give extra feed increases to

pullets at twenty weeks of age as this will stimulate fleshing as well as weight gain. Pullets that are slightly heavy at twenty weeks are a greater challenge. We do not want to bring them back to the target curve too quickly. Remember that pullets must gain

1.75 pounds (800 grams) from twenty to twenty-five weeks to allow for development of the reproductive tract. Rearing to 20 weeks on Option I and going to Option II or III in the breeder house achieves that gain. Feed distribution is critical to controlling body weight and uniformity from twenty to twenty-five weeks of age. Do not go to daily feeding until feed cleanup time is a minimum of one hour and preferably one and one-half hours.

High density pre-breeder diets are not needed for most pullet flocks and will stimulate excessive fleshing in normal flocks.

25 Week Body Weights

The target body weight at 25 weeks is 6.0 pounds (2720 grams) with a feeding rate of 25 pounds per hundred (114 grams). It is important not to have the pullets on too much feed at twenty-five weeks. Feeding rates of more than twenty-six pounds per hundred (118 grams) will often result in pullets that are too heavy relative to the rate of production at twenty-eight weeks. If pullets were slightly heavy at twenty weeks they will be slightly heavy at twenty-five weeks.

The nutrient profiles and feeding schedules outlined in Table 1 are based on a 6.0 pound pullet (2720 grams) at twenty-five weeks with a cumulative feed intake of 28 to 30 pounds per pullet (136 grams). Yield strain breeders do not need high lysine breeder diets. High lysine breeder diets promote excessive fleshing and will adversely impact fertility and hatchability later in production.

Body weights and feeding schedules and lighting programs are all part of successful pullet programs. Pullets are typically moved from the pullet house to the breeder house at twenty-two weeks of age. When moved to open-sided breeder houses pullets should be given a light period equivalent to natural day length in the summer or fourteen hours out of season. Yield strain pullets such as the HUBBARD YIELD should not be given all their light with a single increase. The yield strain pullets become light refractive if light is given too soon and in a single increase.

Feeding From 5 Percent Production to Peak

Pullets should be fed to control body weight until 5 percent production. The HUBBARD YIELD pullet should be put on peak feed no earlier than 60 percent production. As a starting point for calculating peak feed we can use 425 to 440 kilo calories per hen peaking in the summer, 435 to 450 kilo calories per hen peaking in the spring and fall, and 445 to 460 kilo calories per hen peaking in the winter. With a breeder diet containing 1325 kilo calories per pound (2915 kilocalories/kg), a peak feed rate of 33.2 pounds per hundred (151 grams) results in 440 kilocalories per hen per day.

Pullets housed at 22 weeks will typically have the first egg at 24 weeks. The normal progression in egg production is 7 to 10 days from first egg to 5 percent, 8 to 10 days from 5 to 50 percent, 5 to 7 days

from 50 to 70 percent production, 3 to 5 days from 70 to 80 percent, and 5 to 6 days from 80 percent to peak.

With this information it is possible to develop a very simple feeding program from 5 percent to peak feed. First we calculate the estimated peak feed amount usually 32.0 (145 grams) to 34.5 pounds per hundred (157 grams). Feed can then be increased by 0.5 pounds per hundred per day (2 grams) or

0.75 pound (3 grams) to 1.0 pound per hundred (4 grams) every other day until peak feed is reached. If the flock is not uniform and not coming up in production as rapidly as expected we can “hold” one pound of feed to give at 75 percent production rather than put the hens on peak feed too early.

Hens that receive peak feed too early will often have higher mortality related to peritonitis.

Hens need to gain 1.0 pound (450 grams) to 1.25 pounds (570 grams) from 25 to 32 weeks of age. During this period we need to remember that hens laying 80 percent or more do not gain weight. We do not want to reduce feed for these hens while they are laying over 80percent.

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