A Guide to Managing Breeder Hens

From Brood to Lay

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Starting Pullets Right

Rearing pullets means growers must be aware of all the management practices that make a healthy, reproductive bird. A productive breeder hen must hit a target weight by a particular age and have proper body conformation in order to be stimulated into egg laying.

Breeder pullets have a propensity for gaining weight in much the same fashion as broilers. When fed a complete diet, at will, breeder pullets will rapidly pack on pounds - so much so that they can easily hit their 20-week target weight at just six weeks of age.

Growers, therefore, are faced with the challenge of controlling how rapidly the pullets gain weight. They meet this challenge by controlling the feed intake, or nutrient intake, of the birds.

This can be done in two ways: using a skip-aday feeding program, or feeding birds a less nutritionally complete feed.

Skip-a-day Feeding

The skip-a-day (SAD) feeding program usually begins around 21 days of age. This program allows 2-days' worth of food to be fed at once. Variations can be made to this program; birds can be feed on a 6/1 schedule, where they are only off feed one day of the week. Similarly, 5/2 and 4/3 programs can also be used.

When beginning a SAD program, slowly introduce days without feed to allow the birds to adjust. Begin with a 6/1 schedule, and add no-feed days slowly until you've achieved a true SAD schedule. Likewise, when ending a SAD program, slowly add feed days back in.

Nutrient Limitation

This program allows birds to eat every day, but they are fed a diet that consists of more empty calories. This program will vary depending on integrator or feed provider, but commonly consists of a standard mash mixed with oat hulls, wheat bran, cottonseed meal, or other



filler. There can also be an appetite suppressor included, such as calcium propionate.

This program allows birds to feed daily, and for a longer period of time, resulting in lowered stress levels. There is inadequate research regarding hen performance on a qualitative feed restriction program, though this may become more popular as concerns with bird welfare continue to increase.

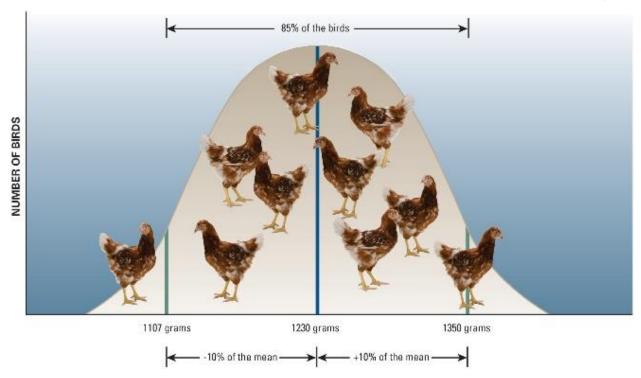
Flock Uniformity

Flock uniformity is crucial to a productive hen house. A flock that's uniform in size comes into production better, peaks higher, and persists better.

There are two main causes of poor uniformity:

- 1. Inadequate feeder space
- 2. Poor feed distribution

Both issues create competition for food. Consequently, more aggressive birds push timid ones aside. Aggressive birds gain too much weight, timid ones don't gain enough.



Make sure there are enough feeders or trough space for every bird to find a place to eat. Fill the feeders as quickly as possible - two minutes should be the maximum amount of time it takes to have food out. Consider filling feeders out of sight from the birds - either while raised or in the dark. This will help discourage piling and crowding at the feeders.

A uniform flock will have 85% of the birds fall within +/-10% of the mean body weight. The greater the percentage near the mean, the more uniform the flock.

Grading

Grading breeder hen pullets will help create a more uniform flock and should be done as early as possible. When grading, group birds of similar size and body frame together. Smaller birds, average birds, and larger birds can be grouped in pens within the house. This grouping allows growers to adjust feed rations so that birds that are behind their target weight can be brought up to the average.

To achieve uniformity early, do the first grading at 7-10 days of age. Grade again at four, eight, and 16 weeks of age if labor is

available. If only one grading can be done, then the best time to grade is between 23 and 28 days of age. Remove 20-25% of the lightest birds and place them in a separate pen where they can be fed according to their needs.

Keeping on Track

Frequent and accurate weighing of a relative sample in the pullet house will help you keep birds on track to hit their target weights. Consistency is key in getting an accurate picture of the birds' weight gain. Weigh birds on the same day(s) of the week at the same time of day.



Weigh chickens when they are placed. Weigh several chick boxes from different parts of the load to get an accurate average body weight. This will act as a baseline for tracking their progress.

Continue to weigh the birds every three to four days, or at least once a week. Track their progress in relation to their target weights, specified in their breed manual. Look at the weight gained since previous weighing compared to where they need to be. This can tell you if they are behind, ahead, or right on target. Birds that are behind should be given special treatment to bring them up to speed. Birds that are on target, or slightly ahead, should be maintained so they continue at their current trajectory.

How to weigh:

- 1. Gather a representative sample size, usually about 2% of the flock or at least 50 birds, whichever is greater.
- Weigh and record each bird in the sample. The last birds weighed in a group are almost always the lightest, so it's imperative that all birds are weighed, even if that means recording more birds than is required.
- 3. Average the weights and compare to past progress and future goals.

To the Hen House!

Once in the hen house, growers still need to be aware of body condition and bird weight so they can be effectively brought into lay. Without these being on target, birds cannot respond to light stimulation.

The first 21 days post-transfer to the hen house are crucial to their performance. They must learn and adjust to their new surroundings and this can create a stressful environment.

To mitigate some of the stress, managers from the rearing and laying complexes should communicate a plan. A copy of rearing records should accompany the flock at transfer. Records should detail disease challenges, body



weights, fleshing scores, lighting program, feeding details, and any medications or vaccinations. This will help the receiving farm better accommodate the flock.

It's imperative that the hens find food and water right away. Make sure feeder and drinker lines are cleaned and full and ready to go. Be present at feeding time and make sure all hens have been able to find feed. If necessary place them on the slats near the feeders.

Make sure there is adequate feeder space to chaos and competition is reduced. Feeder space recommendations vary by breed and integrator, but ranges from 4"-7" of trough space per hen.

Sometimes birds can become heat stressed during feeding. The volume of birds close together paired with the consumption and digestion of food can create a warmer environment around the feeders, compared to the rest of the house. Run a little extra ventilation during feeding times to offset the stress.

Fleshing

As birds come closer to the reproductive maturity, it's important to make sure their body condition is at the appropriate fleshing

level. Fleshing is an indication of how much muscle in developed on the breast and wings. The frame, or bone structure, of the hens is nearly complete at about 12 weeks of age, so fleshing should gradually increase from there.

Flesh the birds at 12, 16, 19, and 21 weeks of age, and adjust feed as needed.



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Coming into Lay

Now that the hens have reached the right age, and are the right weight with the appropriate body conformation, we can bring them into lay using light stimulation.

Birds directly respond to the length and intensity of light that they are exposed to. They have extra photoreceptors in their brains which stimulate the hypothalamus. This small section of the brain is responsible for producing reproductive hormones such as estrogen and progesterone.

To bring hens into lay, the perceived day length needs to increase to between 12 and 16 hours of daylight. Pullets are commonly reared on about 8 hours of daylight; increase the day length incrementally until a full day is reached, and maintain this lighting schedule through production. Intensity will vary depending on light source, but strive to reach 8-10 foot candles (80-100 lux).

Be careful of your feeding regimen even after birds begin production. Over feeding as birds

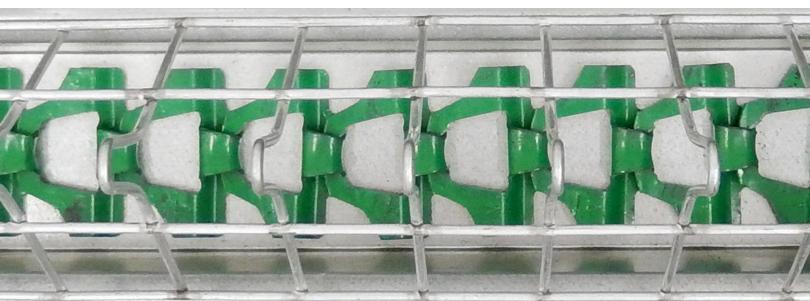
come into production is linked to reproductive disorders and poor persistency of lay. Using a conservative feeding program post-light stimulation will reduce the percent of double yolk eggs, floor eggs, egg peritonitis and other complications as birds move into peak production. This will also reduce other common mortality challenges such as vent prolapse and heart attacks.

In Conclusion

Rearing breeding pullets and hens can be an ongoing challenge. Be sure to spend time in the barn, observe the flock dynamic, handle them regularly, and weigh them often. The best way to achieve great production is to practice great animal husbandry.

Always be sure to consult the breed management guide for specific guidelines towards rearing breeder pullets and hens. Follow their suggestions closely for optimal performance.





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