

Cage Free Pullet Management

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The use of alternative or cage free systems is increasing across the world and management practices for raising cage free and alternative systems must be adapted to the system. There are a variety of configurations of cage free systems so consulting your equipment and genetic company for management recommendations is suggested. Rearing pullets in a system that is similar to the layer house is also recommended for best welfare and performance.

Pullet management requires many different strategies to produce a uniform flock that attains the correct weight at sexual maturity in preparation for egg production. Raising a pullet that has the proper body frame, immune system, properly developed digestive and reproductive system is very important for that bird to meet it's genetic potential in the lay house. Cage Free systems add a unique dimension in management that requires more attention to bird behavior than typical cage systems. The importance of pullet rearing often is underestimated, but careful attention to detail in the pullet house can make a big difference to the overall performance, welfare and to the bottom line at the end of the flock.

House preparation begins with cleaning and disinfecting the pullet house to reduce potential pathogens in the building as well as cleaning and sanitizing water lines. Using chick paper to cover the cage/slatted floor or on the litter under water/feed lines, is important to allow for easy access to chicks by feeding on the paper and to keep drafts from coming up from under the system and chilling the birds. Begin to preheat the barn 24-48 hours prior to chick arrival to allow the system and floor to warm. Be sure to adjust light hours and light intensity recommended by the genetic company and adjust water line, feed line and perch height above the feeder as well as water pressure as appropriate levels. Fill feeders and put feed on the paper just prior to chick arrival. Preparation of the pullet house prior to chick arrival will give the chicks the best start from the first moment in the house.

Chick delivery and placement into a house that is properly prepared will help chicks get off to a good start. Temperature recommendations, in general, are to start white birds at approximately 90 degrees F and brown birds at approximately 92 degrees F. Relative humidity should be approximately 55-60 percent. Temperatures can be reduced about 3-5 degrees per week until temperatures get to about 68-70 degrees F. Follow brood temperatures and humidity as outlined by your chick supplier and pay attention to the chick behavior and make adjustments as necessary. Trigger nipple or cup drinkers as chicks are placed. Nipple drinker water pressure should be adjusted so that a hanging drop of water is present will attract chicks to water the right away. Height at placement should be at about 3" and can be raised slightly starting after 2-3 days of age. Make sure that feeders are filled and trough feeders overflowed onto the papers or pan feeders flooded and feed placed on papers for easy access by chicks upon placement. For chicks placed on the floor, use brooder guard to make rings that will help keep chicks close to heat, feed, water, and help them get off to a good start.

Lighting is also key to not only chick starts but for preparing birds for sexual maturity and controlling unwanted behavior. Intermittent lighting during the first week, utilizing 4 hours on and 2 hours off, the first week can be beneficial. It can give chicks needed rest and stimulate them to eat and drink as well as synchronize chicks during this time. A decreasing light hour program in the pullet house, following breed recommendations, should be followed and should take outside light influence (sunlight and light

leakage) into consideration. Not all light programs are appropriate for every breed or housing system, so it is advised to work with your genetic company to set a program that is best for your flock, housing, desired case weight and production curve in the lay house. Adjusting the lighting program to allow to simulate sunrise and sunset is also important to training birds to go into the system at night which is important after transfer to the layer house and to assist in controlling floor eggs. Make sure to observe the dimming process to assure it dims smoothly and without flickering, which could interfere with birds going into the system.

Feed & Water should be easily accessible and not restricted in the pullet growing phase. After the first couple days, drinkers can be raised slightly and slowly raised during the grow so that birds learn to reach up for water. Be sure to watch pressure as you raise waterlines to control litter conditions. Feeding chicks on paper for 3-5 days or 5-7 days on the floor on paper or in feeder trays, can greatly help improve chick starts and transition them to the feeder. The ultimate goal is to attain a uniform flock with a gain in body weight along the target standard curve. Before making feed changes birds should be at target body weights. Feed consumption can be stimulated by reducing temperatures slightly, adding feedings or stimulations. Lighting programs that have slower stepdown can also give birds more time to consume feed and other factors such as disease, heat stress, overcrowding and other environmental factors should be evaluated if body weights and uniformities are not hitting targets. Uniformity should be monitored along with body weights by weighing individual birds, 60 at minimum and preferably 100, then calculating the average, then calculating the percentage of birds that fall within +/- 10 % of the average weight. The goal would be at 85-90% uniformity when birds are moved from the pullet to layer house.

Training birds to use perches and move throughout the system is important to start from a young age of about 2-3 weeks. Depending on the system and the birds, birds will start to use perches within the first couple weeks. They will also be able to start maneuvering different levels and in and out of the system by 5-6 weeks of age depending on the breed and system itself. When releasing birds from the aviary system it is important to make sure they are big enough to get back in the system and bridges and/or ramps may be necessary to help birds get back into the system. When possible, it is recommended to let a test pen out for a short period to assure birds can easily maneuver in and out of the system and start to go into the system when the lights go out. Birds that do not go back into the system after the first night should be put back in the system on a nightly basis until birds are trained. Letting birds out of the bottom tier first for a couple days then opening the next tier is a good way to ease into the training process. Utilizing dimming features of modern lighting systems also greatly influence training and drawing birds off the floor and into/onto the system. It is recommended to have under system lights go off first followed by quick dim down of the aisle lights and a longer dim down in the system to encourage birds to go up into the system at lights out. Where floor heat is used, be aware of the influence that this can play on training birds. Observe birds to make sure they can easily maneuver the system and place additional ramps/bridges as needed.

Bird Health in cage free present some challenges that are more common to occur in cage free than cage production. Consideration to vaccination programs must be considered with varying types of cage free systems as to ensure good coverage to the birds. Coccidiosis, E.coli., internal and external parasites all pose additional challenges to cage free birds due to their exposure to litter.

Cage Free management requires additional animal husbandry skills and the ability to observe behaviors and needs of the birds. When properly managed, birds will be able to perform to their genetic potential. Clear and concise focus on details during the growing process is very important to allowing birds to meet their genetic potential in the lay house.