

Signal Light Feeding Program



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The main objective of the Signal Light Feeding Program is to provide uniform feed distribution during the rearing period. The program basis is to train birds to associate the Signal Light with feed distribution.

The Signal Light Feeding Program contrasts to the “traditional method” of feed distribution using chains and troughs¹ where birds associate either the grower or the sound of the feed motor as an indication of feeding time. The “traditional method” method often creates a frenzy where birds rush the center of the house² increasing the potential for piling and mortality due to injury. The frantic dash to the hoppers is often followed by birds racing around the house before finally finding space to eat. Under these conditions, timid eaters are disadvantaged and often do not satisfy their nutrient requirement to sustain adequate growth.

Signal Light feeding benefits over traditional feeding

Improved uniformity

Birds tend to eat slower causing a longer feed clean-up time.

Improved feed efficiency

Birds consume less feed per pullet due to less energy expenditure used during the feeding process (*birds approach feeder more calmly).

Improved livability

In general, pullets reared under the Signal Light program are calmer in nature. The Signal Light program makes them less prone to piling under stressful conditions. They also eat more slowly and are less prone to choking. There is reduced potential to suffer mechanical injury from moving feeding equipment.

Farm management

Since birds do not generally associate eating with the grower, it is easier for the grower to move around the house during the course of normal husbandry chores (i.e. refilling hoppers, collecting mortality, fixing equipment, etc.).

Improved feed distribution

Birds do not congregate at hoppers waiting to be fed and spread evenly throughout the house during feeding.

¹ This program has primarily been used in housing with chain and trough feeders. However, flocks reared on a pan feeding system have also shown benefits in terms of improved bird behavior.

² Location of the feed hoppers in most houses.

Signal Light Installation

Installations of Signal Lights systems are usually easy and present minimal shadow issues.

- Install the Signal Light approximately 5 to 10 ft. from the end wall of the house approximately 2 to 4 ft. from the floor. Ideally, the end 1/3 of the house should be illuminated with a low light intensity.
- The Signal Light should be wired with the main house lights. Wiring to the main house ensures all lights are off when the main house light timer goes off each afternoon.
- Feed and light switches should be in the house entry room for easy grower access without having to enter the bird area. It is more difficult to train a flock to a Signal Light program if the grower must physically enter the house to turn on the Signal Light. If growers must enter the bird area, the birds may continue to associate the grower as the signal for feeding.
- Use a bulb type and wattage that will only illuminate the area of the house around the Signal Light for good results. Use a low wattage bulb (5 to 10 watts/ night light bulb/etc.) to prevent too many birds moving toward the Signal Light.
- It is also necessary to use a low wattage/lumen bulb to prevent illuminating the area around the feed hopper/source of feed. The area around the feed source needs to be totally dark so the birds will not hang around and wait for feed to exit the hopper. If the birds can see the track/feed they will stay there, and Signal Light will be less affective.

Recommendation of signal light installation in breeder house (see illustration below).



Procedure

Training Period (2 to 4 weeks)

- The purpose of the “Training Period” is to teach the birds to associate the Signal Light with feeding. Birds learn to move in the direction of the Signal Light and position themselves at the trough. Feeding in the dark, in the absence of a Signal Light, does not guarantee there will be an even distribution of birds around the entire feed trough.
- The Signal Light feeding program should commence once the flock is placed on a skip day feeding program (i.e. every-other-day; 5 and 2; 4 and 3). If restricted everyday feeding is prolonged, begin using Signal Light feeding no later than 3 to 4 weeks of age.



Protocol (It is recommended that the grower is present during the feeding process).

1. Turn the main house lights “on” for 10 to 30 minutes.
2. Turn the main house lights “off” for 1 minute (*the house should be in blackout conditions).
3. After 1 minute of darkness, turn the Signal Light “on” for 45 to 60 seconds (or enough time for the birds to begin to move toward the light and away from the feed source).
4. Once the Signal Light has been on long enough, start the feeding system with only the Signal Light on.
5. Ideally, all feed should run out in one complete loop. The feed level gate on the hopper must be managed for feed to run out in one complete loop and be appropriately distributed.
6. After the feed has made a complete loop, immediately turn the main house lights back on and let the flock eat.
7. If feed cannot be distributed in one loop, run the feeding system constantly until all the feed is out of the hoppers and into the trough.
8. If running all the feed out is not possible or desirable and on/off cycles are used, make sure the feed amount in the track does not get too low prior to running another round. Also, do not allow the last run cycle to only refill the track partially. Partial track refill will not provide good, even feed distribution.
9. While it is optimal to run all the feed out in one loop, increasing feed amounts as flocks age makes this challenging.

Troubleshooting

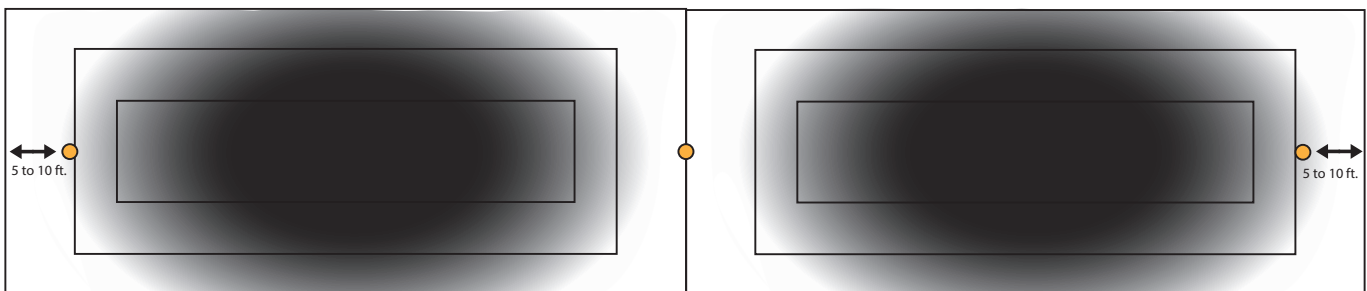
Birds move but seem to congregate at the hoppers:

- Birds that congregate at the hoppers can happen in houses that have split feed systems with two sets of hoppers at the $\frac{1}{4}$ and $\frac{3}{4}$ positions of the house. A 3rd Signal Light is recommended at the middle of the house to draw birds away from the hopper areas and prevent congregating around the feed source/hoppers. With three Signal Lights, there will be a Signal Light at each end wall and one in the middle. Three Signal Lights may require an even lower wattage/lumen bulb to prevent illuminating the area around the hoppers.

Birds do not move away from the feed hoppers:

- Depending on house set-up and length, it may be necessary to use a lower (or higher) wattage bulb to properly illuminate the end 1/3 of the house.
- Painting the bulb with black paint can also help reduce the illumination.
- The height of the Signal Light off the floor may also have to be adjusted to ensure the correct pattern of light dispersion on the floor.

Recommendation of signal light installation in breeder house if birds are congregating at hoppers (see illustration below).



Summary

A Signal Light Feeding Program is a proven method to help manage feeding and has potential advantages for improved performance during the production period. Flocks that have been reared on this program have improved in uniformity and livability. Uniformity and livability are essential to produce flocks capable of high peak production and persistence and low hen mortality.