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HATCHERY/BREEDER TIP...

MANAGING ROOSTERS FOR HATCHABILITY

Achieving good life-long fertility in broiler breeder flocks is not as easy as it was 10 to 15 years ago. Here are some pointers that will help optimize flock performance.

1. Most companies are placing 12-15 cockerels per 100 pullet chicks depending on expected mortality. It is important to manage this initial placement of males for good skeletal growth, conservative body weight gains, and maximum exclusion from the female feeder. Remember, no matter what the management plan is, the initial placement of males will do a majority of the mating throughout the life of the flock. Optimum male management is a must to achieve good mating.
   a. To grow tall roosters with few skeletal abnormalities, feed them a good quality starter diet (18-19% crude protein, 1320-1340 kcal/lb of metabolizable energy) for the first 3-4 weeks.
   b. Manage the growth of the roosters for a 1.5 to 1.75 pound four week weight, followed by consistent but conservative body weight gains throughout life. Prevent excessive fleshing of the males, as it reduces the ability of the adult roosters to complete matings. Assess the body weight program by weekly weighing and handling of a minimum of 50 males per house. If labor is not available to weigh this number of males, weigh 50 males every other week. Fewer weighings with a larger sample size will give more accurate estimates of body weight than weighing the 15-20 males you can easily pick-up while in the house.
   c. Partially dub or leave full combs on the roosters to help exclude them from the hen feeder. Other measures might also be needed to assure that the roosters do not steal feed from the hen feeder. Using NOZ BONZ on the roosters or PVC pipe (½ or 3/4 inch) in the top of the exclusion grill may be necessary to get good rooster exclusion.
2. To assure good quality roosters, evaluate rearing and laying house management for potential problems.
   a. Good quality litter material that is nonabrasive in both the rearing and laying houses is essential in preventing foot pad problems. The best litter materials are planer shavings, and the least desirable materials have a high percentage of sticks and bark, or have a high moisture content
   b. The slats in the laying facility must be kept in good condition with an even surface, no missing pieces or sharp edges. This will reduce foot and leg problems.
   c. In addition, request that no more than two toe nails be trimmed at hatch, and insist that males be

handled by both legs at weighing, vaccination and moving times. Number of males placed with the females in the laying facility depends on how aggressive the males are at sexual maturity.

3. Number of males placed with the females in the laying facility depends on how aggressive the males are at sexual maturity.
    a. If males are under the primary breeder target body weight at 20 weeks of age, they will initially be less aggressive toward females and other males. In this case, placing 9-10 males per 100 females should not cause more than a 0.25-1.0% weekly mortality as they mature. However, aggression and mortality should be assessed with each placement, and males removed from the flock as needed to control hen mortality.
    b. If males are at or above target weight at 20 weeks of age, they will mature quickly (within 10-14 days) after birds are provided long day length in the laying house. Placing fewer males initially will reduce injury and mortality in both males and females. If additional males will be available to replace mortality, place only 6-8 males per 100 females at 20-21 weeks of age. Release males from a pen or bring additional males from a stud farm to keep the bird ratio at 6-8 males per 100 females. One additional bonus of this type of rooster management is that hens are not exposed to excessive aggression so that they become fearful of the roosters.
    c. If hens are exposed to aggressive behavior, they run from the roosters making completed matings more difficult or less efficient. When this problem develops, the hens will stay on the slats in the later afternoon resulting in less opportunity for mating and a potential decrease in fertility. If this behavior lasts only a few days with little mortality, flock fertility should be close to normal. However, if hen mortality is high and the hens continue to avoid the roosters, 1-2 males per 100 hens should be removed as quickly as possible to prevent an established pattern of avoidance behavior. After the roosters are removed, have the grower walk the scratch area and spread large particle limestone or cracked corn in the late afternoon to encourage the hens to come into the scratch area and promote mating activity.
4. Active body weight management of the males is essential to achieving good fertility. As mentioned earlier, males need to make slight gains throughout their life to keep a majority of the roosters in semen production. Weigh males weekly and assess fleshing. It is pointless to limit male feeding levels if roosters can freely steal feed from the hen trough. Do whatever is necessary on a house to house basis to prevent males from eating from the hen feeder. One particularly important time is just after placement in the laying house before a majority of the flock begins to mate. Maturing roosters should not be allowed to gain large amounts of weight during this time. When roosters gain 0.3 - 0.6 pounds per week during the first 4-6 weeks in the laying house, they often add excessive breast fleshing that impedes effective mating and encourages aggressive behavior. However, be aware that once the roosters start to mate, feeding levels should increase (increased activity equals increased energy requirement) or many roosters will lose body weight and mating activity will decline. Again, this is why frequent weighing and handling is necessary to achieve moderate gains and limited breast fleshing.
5. Establish a spiking program to add 26-28 week males to 40-45 week old flocks. The addition of these young males will increase the frequency of mating activity of the older males and slightly increase flock fertility (1-3%) or help maintain fertility until the termination of the flock.

These management suggestions should help improve flock fertility by getting the most from the initial placement of males. Watch for an upcoming Poultry Tip on spiking programs.

Joanna L. Wilson
Extension Poultry Scientist

County Extension Coordinator/Agent

Consult with your poultry company representative before making management changes.

"Your local County Extension Agent is a source of more information on this subject."