



Flock uniformity is key for maximizing Cobb MV Male fertility
Photo Source: Cobb-Vantress



Guidelines to Maximize the Potential of the Cobb MV Male



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The foundation of flock fertility is dependent on the breeding program that was used during both the growing and laying period. Each customer has specific needs, but an individual program can be optimized with our guidelines. These management guidelines can be used to prepare the Cobb MV to become a highly productive breeder male and to achieve high flock fertility for the duration of the flock.

HERE ARE 6 GENERAL RULES TO MAXIMIZE THE PERFORMANCE POTENTIAL OF THE COBB MV MALE:

1. Update your flock management system to include our latest published bodyweights (BW) and feed specifications.
2. Males must be reared separately from females until combined at approximately 20 to 22 weeks of age.
3. Achieve the target BW at 7 and 28 days. These time points are essential for proper growth and leg and toe development. This will promote early uniformity.
4. Feed may be given ad libitum the first week of life, but it should be monitored to approximate how much is delivered on a daily basis. Feed should be carefully allocated after the first week to avoid over and under feeding and ensure correct BW control throughout the rearing period.

5. Avoid over weight males by achieving a target BW of no more than 1 kg (2.2 lbs) at 6 weeks. BW control is crucial during the first 4 weeks to prevent males from becoming over weight during the growing period.

6. Attain high frame and BW uniformity at 8 to 10 weeks of age in at least 80% of the birds, by focusing on ideal feed distribution, feeder, water and floor space. Cobb MV males should be provided with floor space of 3.6 to 4.3 males/m² or 2.5 to 3.0 ft²/male at 10 weeks.

In addition to the 6 general rules, guidelines for maximizing the Cobb MV Male are given. As always, you can contact your Cobb technical representative for any additional information or questions.

UNIFORMITY - To promote uniformity before 12 weeks of age, conduct a selection program that will reduce the suboptimal males during the rearing period. After reducing the males, feed can then be adjusted at specific ages to sustain uniformity.

- Typically, males are received at 14 to 15% of females (i.e., 14 to 15 males placed for every 100 females placed). When the number of males is sufficient, perform targeted selections at specific ages to remove suboptimal males.



The Cobb MV Male provides a unique balance between breeder and broiler performance
Photo Source: Cobb-Vantress

- At 6 weeks, remove 8 to 10% of males. Remove suboptimal males with phenotypic or physical defects including skeletal deformities, angular limb deformities, crooked toes, or under weight problems.

- At 12 weeks, again remove 8 to 10% of the suboptimal males and with physical defects or under weight problems.

- After 15 weeks, as the development of sexual maturity progresses, a slight increase of feed (weekly feed increase of 2 to 3 g/bird [0.44 to 0.66 lbs/100 birds]) is necessary to prepare the males for photostimulation and support their reproductive development.

- After photostimulation, at approximately 21 weeks of age, a consistent increase of feed and BW is also necessary to support rapid growth of the testes. The objective is to achieve a minimum combined testes weight of 40 g (1.4 ounces) by 28 weeks of age.

- Weekly trends for male BW should be tracked and the flock weight should increase and follow the standard weight curve. Any severe stress or drop in BW, or even stagnation of growth from 16 to 28 weeks of age, may result in underdeveloped and less uniform testes. This impact on testicular development will produce lower initial hatches and males will not achieve fertility levels above 97%.

SEXUAL MATURITY - Controlling sexual maturity can be promoted by photostimulation and increases in feed but is dependent on the type of design you are using.

In the *brood-grow-lay design*, males will be light stimulated together with the females (approximately 147 to 154 days of age). We recommend that feed increases are used to accelerate BW after 16 weeks to enhance maturity, especially if male uniformity is below 70%.

In the *brood-grow-transfer design*, we recommend that males are transferred before the females to allow males to acclimate to the new environment and to optimize training of sex-separate feeding. In this case, it is not necessary to increase feed to achieve increases in BW after 16 weeks. Instead, to promote maturity, males can be light stimulated up to 2 weeks before the females. However, it is imperative that more than 95% of the males have the recommended fleshing and body condition for them to respond to the photostimulation.

- In houses with slats, we recommend that the males are properly trained during rearing to jump, especially if the rearing house is 100 % litter. If males are not trained to jump up onto the slats, consider placing the male drinker line temporarily next to the male feeder line at transfer.

- Monitor and take corrective actions for any males that do not go on the slats to drink water after being transferred. Insufficient water intake in males can result in loss of fertility up to 10%.

SEX-SEPARATE FEEDING - Effective sex-separate feeding and male training will help control more than 90% of the issues in the laying house that are associated with males consuming feed from female feeders.

- Make sure the female feeder grill size is 50 to 55 mm x 45 mm (1.97 to 2.16 inches x 1.77 inches). If the vertical grill height is 60 to 65 mm (2.36 to 2.56 inches), a 26 mm (1 inch) PVC pipe can be used to reduce the vertical grill height to 50 to 55 mm (1.97 to 2.16 inches).

- For additional assistance with male training and best practice tips for transfer of males from rearing to laying, please consult your Cobb technical representative.

MATING RATIOS - To optimize uniformity, synchronization of sexual maturation and mating success, we recommend mixing the average male population with the average weight females. Mix the larger, heavier males with heavier females and pair light-weight males with light-weight females.

- When males and females are synchronized well, a ratio of 8 to 8.5% males to females is acceptable for houses with slats. Houses without slats can utilize a ratio of 8.5 to 9% males to females.
- In some cases, male maturity may be ahead of the female if males are over weight and/or more sexually mature in their appearance and behavior. For this situation, we recommend the use of a stepwise mixing program by initially mixing 5 to 6% at 22 weeks and then increasing gradually to achieve a ratio of 8 to 8.5% males at 28 weeks in slat houses or a maximum of 9% males in houses without slats.

OVER WEIGHT MALES - Over weight males are the most common problem in operations after the males are moved to a production house. The following guidelines may be used to help control male BW during the transition period at the laying farm:

- Maintain consistent feed amounts for several weeks while monitoring male BW increases. If male BWs are increasing quickly or are above the expected weight targets after transitioning to the laying house, investigate the reason and initiate corrective actions.

- At 28 weeks, determine the weight gain of the males per week. If weekly gains continue to exceed the standard, then alternative feeding might be required. This might include less frequent feed increases, or even reducing the weekly feed allocation by 5g/bird (1.1 lbs/100 birds). Consult your Cobb technical advisor to help evaluate this situation and build an alternate feeding plan.

- Males that are 27 to 28 weeks old may be able to eat from the female feeders. Be present at feeding time and estimate the percentage of males that are consuming feed from the female feeders. Use this estimation to temporarily reduce the quantity of feed in the male feeders and increase the amount in female feeders. In addition, catch males that are consuming feed from the female feeders and put them back to the male feeders.

- Utilize a specific male feed with lower density compared to female feed. This will allow you to increase the feed volume for males and help control rapid increase in male BW.

- Check the uniformity of feed intake in males after feeding by palpating the crops to determine if they are full.

FEEDING COBB MV MALE IN PRODUCTION - The two parameters that are important to follow when determining how to feed males are BW and body condition (see table). If these parameters are out of range according to the table, use fleshing scores rather than BW to determine how to feed the males.

SAMPLE FLOCK DISTRIBUTION OF BW AND FLESH SCORE FOR COBB MV MALES

Age Weeks	MV BW STD (g)	1	2	2.5	3	4	5	Fleshing Score (Weighted Av.)
20	2765		25%	50%	25%			2.50
25	3600		15%	55%	30%			2.60
30	4020		5%	60%	35%			2.65
35	4155		3%	60%	35%	2%		2.70
40	4270		1%	53%	40%	6%		2.80
45	4380		1%	50%	40%	9%		2.85
50	4495			45%	43%	12%		2.90
55	4610			40%	45%	15%		2.95
60	4720			30%	55%	15%		3.00

- When evaluating the level of fleshing for males in production, we recommend considering the amount and shape of the breast muscle on each male as well as the wing resistance. Males that are in good condition, actively breeding, and healthy should be strong and should have good wing resistance.
- The average weighted score of fleshing should increase from 2.5 at 20 weeks to 3.0 at 60 weeks of age.
- The actual feed amounts in the pan or trough feeders should be checked daily to ensure uniform distribution to promote male uniformity.
- The daily energy needs, as measured in kilocalories (kcal) intake should be proportional to BW and BW gain for males in production. An adult male requires about 80 to 90 kcal/kg BW and an intake of 16 g of crude protein per male per day.

FACTORS TO CONSIDER WHEN ADDRESSING FERTILITY ISSUES:

LOW HATCHABILITY DUE TO *EARLY* FERTILITY ISSUES

- The density during rearing period may have been too high, creating a lack of floor and feeder space which causes poor uniformity.
- Weight loss of males during rearing caused poor testes development.
- An inadequate feed increase from 16 to 20 weeks delayed sexual maturity or not properly matured birds.
- Males and females that are not sexually synchronized resulted in challenges with mating behavior and socialization of the females and males.
- An improper feed distribution created low uniformity.

LOW HATCHABILITY DUE TO *LATE* FERTILITY ISSUES

- The mating ratio was too low and left an insufficient number of males to mate with females.
- Poor feed distribution caused over or under fed birds

resulting in over or under weight males.

- Males were not able to drink properly.
- Disease issues delayed fertility.
- Poor uniformity and inadequate feed increases before photostimulation delayed male development and maturity at 18 to 29 weeks of age.

