

Space for dominance

By Ron Meijerhof

In rearing, we should not exceed maximum densities, especially for males. In different management guides, the advised number of males per square meter is often only half of that of females.

This seems logical, as males are bigger and therefore will need more space. That is true, but that is not the reason why males need so much more space.

Rearing at low density

Males need a good development and strong legs for optimum performance, to be able to carry the heavy weight of their mature body mass. To achieve this, they need to exercise a lot during rearing and a low density will stimulate them to be more active. Also the uniformity will benefit from a low stocking density.

But there is another reason for that space requirement.

In the production period, males need to dominate the females to be able to mate. However, between the males there is a social hierarchy as well. Not all males are dominant, there are males in the flock that are less dominant, less brave. These males can mate, but the presence of dominant males or even dominant females will prevent them from trying. The feeling of dominance is formed already in rearing, and that is where the importance of density comes in.

Understanding the behaviour

If males fight, one of them wins, and consequently the other will lose. These quarrels will often not be complete fights. Much more often they will be just intimidating behaviour from one male to the others.

If a male has lost his quarrels a number of times, he will lose his self-confidence and as a consequence, his feeling of being able to dominate over other birds will go down. If we would have unlimited interactions between all males, in theory only one male will stay dominant, because all other males will have lost the battle with him. The second male will have lost the battle with him, feel not fully dominant but at least dominant to some extent, but the more you go down the line, the less dominant the males will feel.

If males don't quarrel at all, in fact all males will think they are dominant, because they have never lost a battle. Of course when placed in a production house they will soon find out that the real world is a bit different from what they experienced in rearing, but at least they start production still thinking that they are the dominant guy in town. This gives the maximum number of dominant males, but also the maximum development for the individual male, as no one has ever bullied them.

If we increase the males density in rearing, we create a situation where males meet and quarrel each other much more, as they can't escape the confrontation. Although this is positive for a small group of dominant males, as they are confirmed in their belief of being the strongest, all other males will experience a loss of dominance.

The character of the males has an influence on this as well. Some male lines are more aggressive, not so easily intimidated, where others are more relaxed, but at the same time can lose their dominance rapidly. Especially for lines that have the last characteristic a low density is extremely important, as we have to prevent them from fighting too often.

Males and females together

This also explains why rearing males and females together sometimes gives surprisingly good results. We don't recommend rearing the sexes together as we lose control over the body weight of each sex. However, an advantage of the system is that males are separated by the females, so they don't interact with each other so often. It is almost as if the males count the density of the males much more than the density of the total birds. This is easy to explain if we understand the development of the dominance between males.

Conclusion

To develop adequate mating behaviour, we must rear the males at low density. Negative effects of high densities don't show necessarily in body weight, body development or uniformity, but can and will also show in development of the behaviour of the birds.