



PREVENTING FLOOR EGGS



AVIAGEN MANAGEMENT ESSENTIALS



WHY ARE FLOOR EGGS A PROBLEM?

Eggs laid on the floor (floor eggs) have a significantly higher risk of contamination and will reduce hatch and chick quality.

The ideal number of floor eggs is zero but it is reasonable to expect some eggs to be laid on the floor in every flock. If levels of floor eggs exceed 2% across the life of flock there is a problem. Floor eggs will be much higher at the start of production but by peak production should be down to a level of 1 - 2%. The reasons for high floor eggs should be investigated and action taken to resolve the issue.



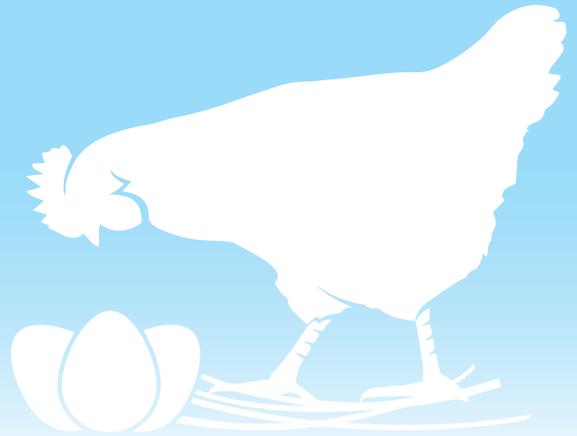
BEST PRACTICE FOR PREVENTING FLOOR EGGS

PREVENTION IS BETTER THAN CURE

The key to preventing floor eggs is early training of birds to use the nests.

Three key management tasks for preventing floor eggs:

- Training – to get birds to use the nests
- Environment – to keep birds in the nest
- Remove alternative nesting sites – to prevent birds laying on the floor



REAR

1. Ideally have the same feeding and drinking systems in lay as in rear.
2. Introduce perches or platforms at 28 days of age. Use the same type of perches in rear as in lay. Provide 3 cm per bird or 1 m² per 500 birds. Or be in line with local legislation.
3. Place drinker lines above slats where applicable. This will encourage birds to jump up on to the slats.
4. Light intensity during rear should adhere to local legislation but a minimum intensity of 10 - 20 lux should be used. This will encourage birds to move and use the perches / platforms.
5. Do not use electrical wire over feeding and drinking systems. This will discourage birds from jumping up to use the nests.

Alternative systems to electric wires are double non-electrified wires and roller bars



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TRANSFER

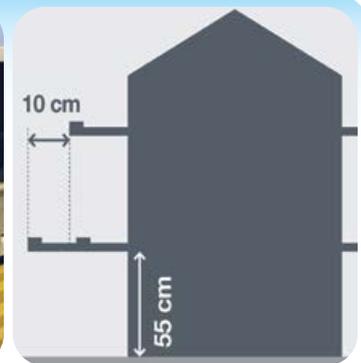
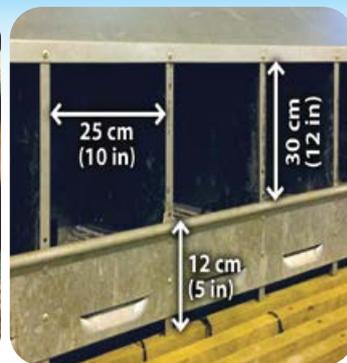
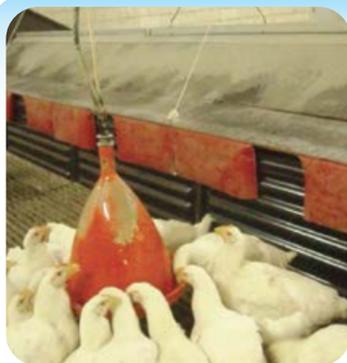
1. Ensure all equipment is installed in the lay house and operational prior to transfer. In day old to death facilities production equipment must be in place by 20 / 21 weeks.
2. Transfer the birds directly on to the slats where applicable. This will encourage birds to use the slats and find water.
3. When transferring birds from the crates to the slats do so gently.



PRODUCTION

NESTS

1. Keep nests and perches clean and in good repair. Nest boxes must be attractive to females. In manual nest boxes frequent attention to nesting material quality is needed.
2. The entrance to the nest must be large enough for the hen to enter, turn around and exit comfortably.
3. Nests must have a firm entrance, solid bottoms and be securely fixed in place.
4. Slat height should be a maximum of 25 - 30 cm from the floor.
5. Slats should have a slope no greater than 5%.
6. For manual nest boxes the alighting rail of the lowest tier should not be more than 55 cm from the floor. The bottom tier alighting rail should extend to a minimum of 10 cm beyond the second tier rail.
7. Allow 3 - 4 hens per nest for manual nest and maximum of 40 females per linear metre for mechanical nests.



FEED AND WATER MANAGEMENT

1. Birds should have access to water at all times.
2. Do not have electric wires above feeder / drinker lines.
3. Visit the flock at feeding time to monitor feeding behaviour. This is a good time to identify any potential problems which may lead to increased floor eggs (for example not enough feeder space, feeders being barriers to the nests).
4. Lift feeder lines when they are not in use, if possible. This will prevent them from being a barrier to the nests.
5. General feeder management points
 - Distance between feeders should be a minimum of 100 - 120 cm.
 - Feeding and drinking systems placed on the slatted area should be a minimum of 60 cm from the edge of the slatted area.

FEEDING SPACE IN LAY

MALE		FEMALE	
TRACK FEEDER cm	PAN FEEDER cm	TRACK FEEDER cm	PAN FEEDER cm
20	13	15	10

LIGHTING

1. Follow the recommended lighting programme.
2. Light should be evenly distributed throughout the whole house at the correct light intensity (a minimum of 20 lux).
3. Poorly lit areas or shadows should be eliminated. Additional lights may need to be provided over the slats, in front of the air inlet pad areas in evaporative pad cooling equipped houses and under manual nests.
4. For mechanical nests, if possible, ensure that the light intensity in front of the nest is not higher than the lowest light intensity in the litter area.



VENTILATION

1. Ventilation systems should maintain temperatures between 18° and 24° C.
2. Avoid draughts in the nests.
3. Ventilation must be distributed evenly throughout the house. Uneven ventilation may cause birds to move to more comfortable areas of the house creating an artificial shortage of nest space.

GOOD BIRD DISTRIBUTION DUE TO GOOD VENTILATION



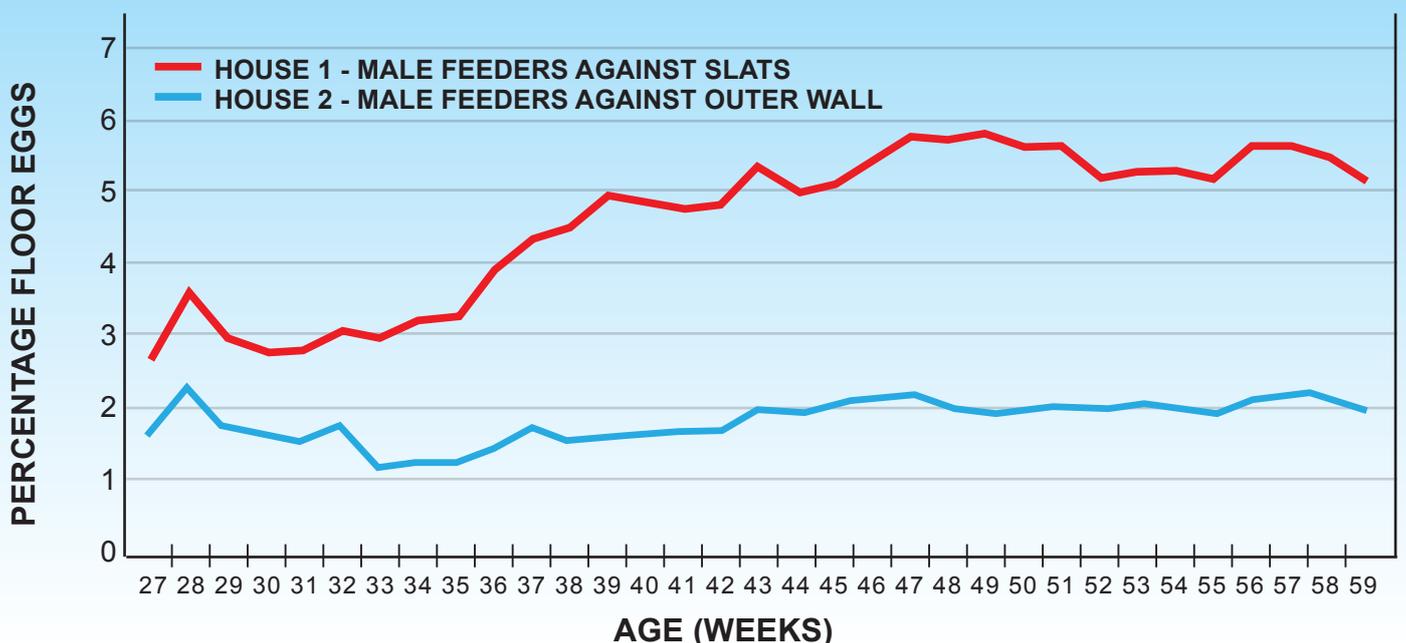
POOR BIRD DISTRIBUTION DUE TO POOR VENTILATION



THE MALE EFFECT

1. Male and female maturity must be synchronised.
2. Avoid over-mating; follow recommended mating ratios. Too many males can be a barrier to females accessing nests.
3. Position male feeders away from nesting area if possible.

EGG PRODUCTION / HOUR (% OF DAY TOTAL)



PLACING MALE FEEDERS AWAY FROM THE NESTING AREA PREVENTS MALES FROM BEING A BARRIER TO THE NESTS



STOCKING DENSITY

Avoid high stocking densities (> 5.5 birds per m^2). They will put pressure on nest space and create increased barriers to bird movement.

GENERAL MANAGEMENT POINTS

1. Walk the house regularly during the laying period.
 - This encourages birds off the floor and on to the slats and is particularly important in the pre-peak period.
 - The house should be walked 10 - 12 times a day during the first 3 weeks of lay. Thereafter, the house should be walked a minimum of 6 times a day to collect any floor eggs and move birds found attempting to nest on the floor.
 - Gently pick up birds attempting to nest on the floor and place in to a nest.
2. Where mechanical egg gathering is in place run the egg collection belts several times a day even before the first egg is laid. This will allow birds to get used to the noise.
3. Collect non-nest eggs frequently.
4. Bird health. Sick birds or birds that are hot are less active and so less likely to go to the nests to lay their eggs.



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