

Best Practice

in the Breeder House



Preventing Floor Eggs





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Why are floor eggs a problem?

1 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 - 3% 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.



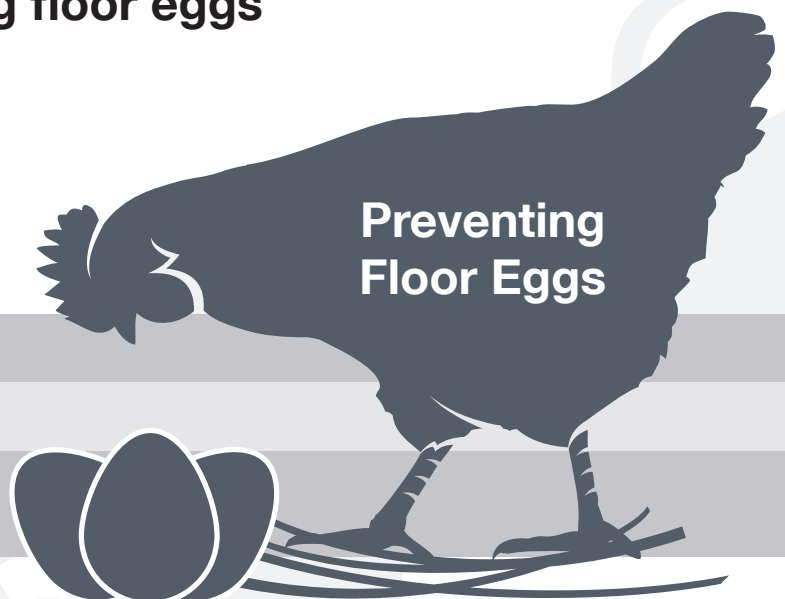
Best practice for preventing floor eggs

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

Prevention is better than cure.

Three key management tasks for preventing floor eggs:

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



Rear

- 1 **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 / 1.2 in per bird or 1 m² / 10.8 ft² per 500 birds. Or be in line with local legislation.
- 3 **Place drinker lines above slats.** 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 (1 - 2 fc) 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.





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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.** 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 closed until the anticipated arrival of the first egg.**
- 2 **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.
- 3 **Close nests an hour before lights off, open nests an hour before lights on.** This will prevent birds from roosting in them at night. Nests may need to be opened up earlier (2 - 4 hrs before lights on) if high levels of floor eggs are being laid.
- 4 **The entrance to the nest must be large enough for the hen to enter, turn around and exit comfortably.**
- 5 **Nests must have a firm entrance, solid bottoms and be securely fixed in place.**
- 6 **Slat height should be a maximum of 25 - 30 cm (10 - 12 in) from the floor.**
- 7 **Slats should have a slope no greater than 5%.**
- 8 **For manual nest boxes the alighting rail of the lowest tier should not be more than 55 cm (22 in) from the floor. The bottom tier alighting rail should extend to a minimum of 10 cm (4 in) beyond the second tier rail.**
- 9 **Allow 3 - 4 hens per nest for manual nest and maximum of 40 females per linear metre (12 per linear foot) for mechanical nests.**



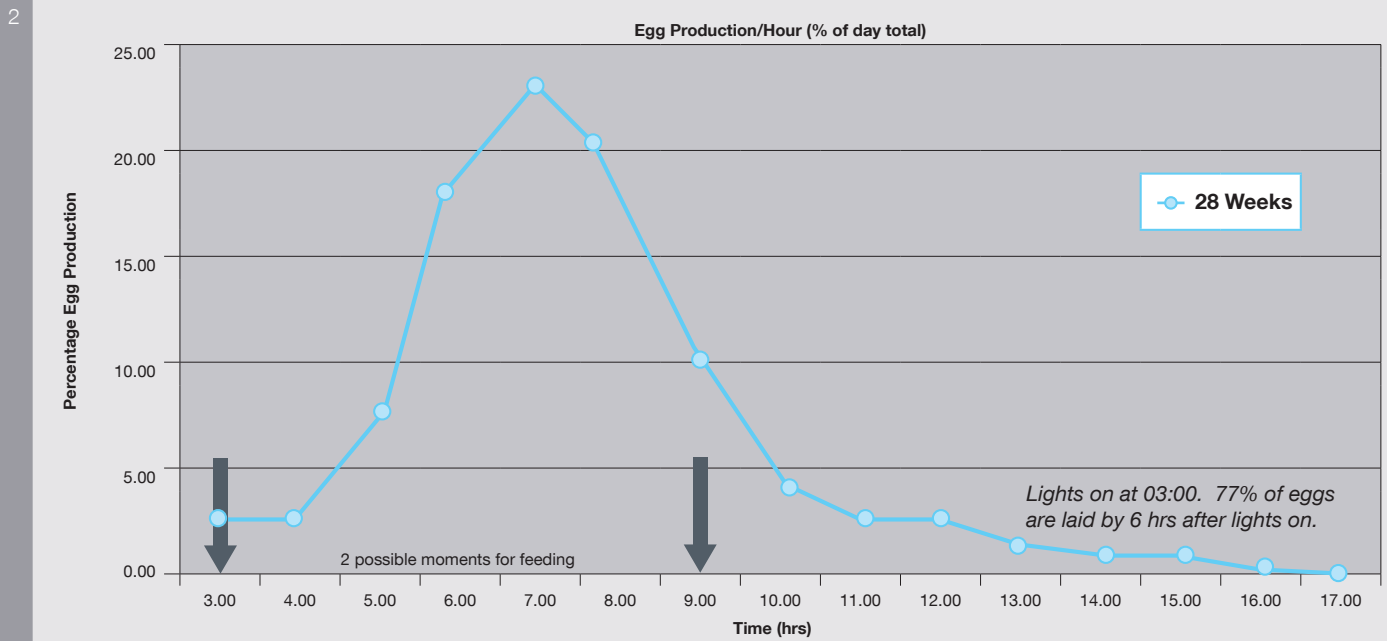


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Feed and Water Management

1 Feed birds within 30 minutes of lights on, or 6 hours after lights on. Avoid feeding birds in the period when most eggs are laid. Note that in day old to death facilities timing of feeding between rear and lay should not be different.



3 Birds should have access to water at all times.

4 Do not have electric wires above feeder / drinker lines.

5 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).

6 Lift feeder lines when they are not in use, if possible. This will prevent them from being a barrier to the nests.

7 General feeder management points

- Distance between feeders should be a minimum of 100 - 120 cm (47 in).
- Feeding and drinking systems placed on the slatted area should be a minimum of 60 cm (24 in) from the edge of the slatted area.



Feeding Space in Lay			
Male		Female	
Track feeder cm (in)	Pan Feeder cm (in)	Track feeder cm (in)	Pan Feeder cm (in)
20 (8)	13 (5)	15 (6)	10 (4)

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 / 2 fc).
- 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 (64 and 75°F).
- 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.



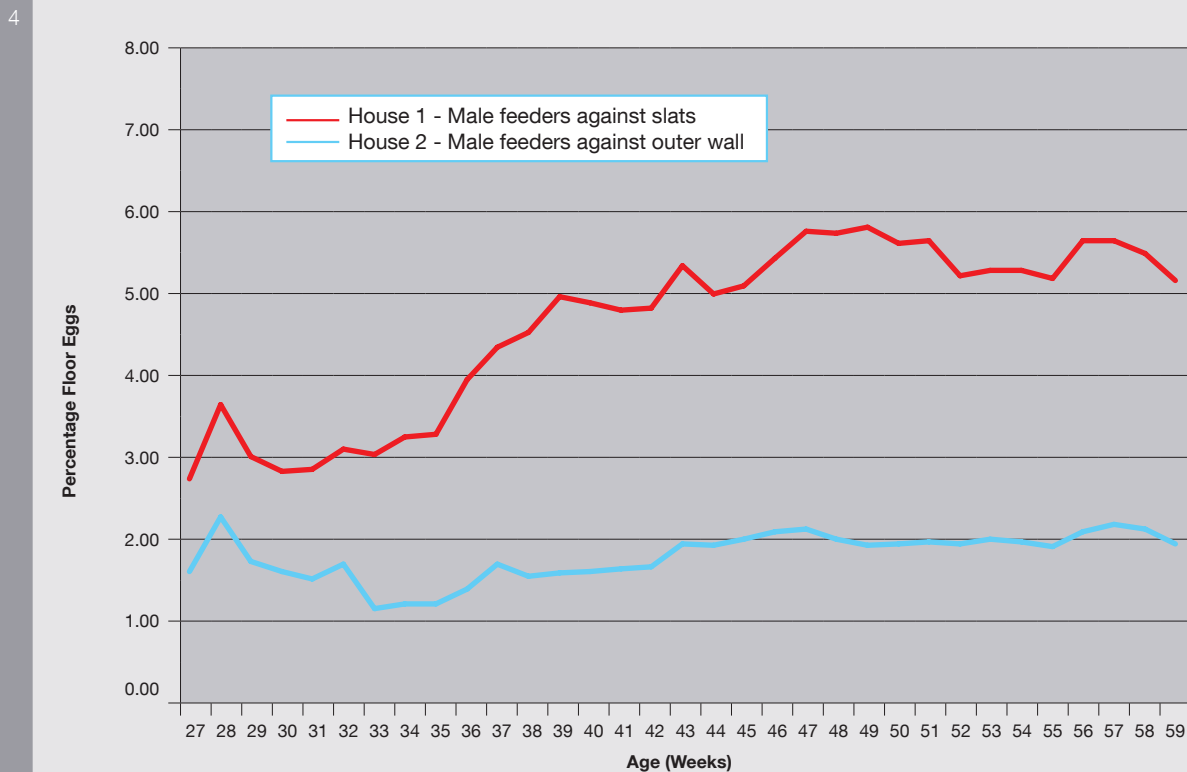


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The Male Effect

- 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.**



Stocking Density

- 1 **Avoid high stocking densities (> 5.5 birds per m² / 3.1 ft² per bird).** 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.

Every attempt has been made to ensure the accuracy and relevance of the information presented. However, Aviagen accepts no liability for the consequences of using the information for the management of chickens.

For further information on the management of Ross stock, please contact your local Technical Service Manager or the Technical Services Department.

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