

The 5 Brooding Principles

Brooding has to be faultless to unlock full genetic potential!



Optimum Whole House Brooding

F Feed Intake: Maximise

- Cover 50% of brooding area with good quality paper (lasting 5 days)
- Place a line of paper either side of each drinker line
- Place 75g of feed on paper pre-placement
- Feed on paper to last at least 4 days
- Achieve at least 95% crop fill the morning after placement (sample 100 chicks)
- Achieve consumption of 25% of chicks' bodyweight in first 24 hours



A Air Quality: Ventilation

- Activate Minimum Ventilation 48-hours pre-placement
- These fans should be fixed volume rather than variable speed
- 20% run time (ideally a 5 minute programme of 60 seconds on, 240 seconds off)
- Capacity of minimum ventilation fans should be able to provide a total air exchange every 8 minutes
- Number of fans required: house volume (width x length x average height) (m³)/8/available fan capacity (m³/min)

Good quality air	
Oxygen	Minimum 19.6%
Carbon Dioxide	Maximum 3,000 ppm
Relative Humidity	Maximum 70%
Carbon Monoxide	Maximum 10 ppm
Ammonia	Maximum 10 ppm
Inspirable Dust	Maximum 3.4 mg/m ³ of air

W Water Quality: H₂O = Hygiene and <20 °C

- Maximum temperature of 20 °C if vaccinating orally
- Flush as often as needed to control water temperature and prevent biofilm build-up
- Achieve consumption of at least 1ml/hour/chick in first 24 hours
- 40ml/minute nipple flow rate in first week (always refer to manufacturers' recommendations)
- Provide comfortable nipple height, adjusting height regularly
- Chicks need to stretch to activate nipple, with feet flat on the floor



L Light Intensity: Promote Activity

- Provide a uniformly bright brooding area
- Minimum 25 lux at floor level, ideally 40 lux
- Maximum variation of 20% at floor level between brightest and darkest area
- Attraction light above each control pan to encourage activation of feed line



T Temperature Control: Thermal Neutral Zone

- Concrete: 28 - 30 °C
- Litter: 30 - 32 °C, depending on cloaca temperature
- Ambient: 32 - 34 °C, depending on RH%, parent age, and cloaca temperature
- Chicks from young parents need + 0.5 - 1 °C higher ambient temperature
- Cloaca: first 4 days 40 - 40.6 °C, thereafter 41 - 42 °C
- Heating capacity of at least 0.075Kw/m³ of house air volume
- Temperature probes free hanging at chick height, not too close to heater or inlet
- All sensors should be calibrated prior to chick placement



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