

BROODING MANAGEMENT

Day-old to Day 14 | Key brooding figures from the Ross 2025 and Cobb 2021 broiler guides



1. PRE-PLACEMENT SET-UP



- Preheat and stabilize the house at least 24 hours before chick delivery
- Whole-house brooding air temp: 30°C (86°F)
- Spot brooding: 32°C (89.6°F) at the brooder edge
- Relative humidity: 60–70%
- Floor temp before litter distribution: 28–30°C (82.4–86°F)
- Litter temp: 28–32°C (82.4–89.6°F)
- Water to chicks: 18–21°C (64.4–69.8°F)
- Litter depth: 2–4 cm (0.8–1.6 in)
- Air speed at floor for young chicks: <0.15 m/s

2. FIRST-DAYS LIGHTING



- First days after placement: 23 h light/1 h dark
- Whole-house light intensity: 30–40 lux
- Spot brooding light intensity: 80–100 lux
- Cobb minimum during brooding: 25 lux in the darkest part of the house
- Gradually reach 4–6 h darkness by day 7

3. BROOD-CHAMBER STOCKING DENSITY



0–3 days	55–60 birds/m ²
4–6 days	40–45 birds/m ²
7–9 days	30–35 birds/m ²
10–12 days	20–25 birds/m ²
13–15 days	transition to full house

Full-house access is generally by 14–16 days if house conditions are correct.

4. FEEDER & DRINKER LAYOUT PER 1,000 CHICKS

Typical Ross whole-house layout (1,000 chicks)
• 70% paper cover • 10 feeder trays • 12 mini-drinkers • 8 bell drinkers • Automatic feeder line + nipple line

Guide figures
• Ross drinking space: 8 bell drinkers / 1,000 chicks • Ross drinking space: 12 mini-drinkers / 1,000 chicks • Ross nipple space: 10–12 birds per nipple • Cobb supplemental drinkers: 6–8 / 1,000 chicks • Cobb supplementary feeders: minimum 75 chicks per feeder • Cobb supplementary paper feed: 75–100 g feed per chick

5. CHICK BEHAVIOUR CHECKS



- Check chicks 1–2 h after placement; monitor closely for the first 24–48 h
- **Comfort signs:** evenly spread, active, some eating, some drinking, some resting, quiet contented noise
- **Too cold:** huddled, noisy distress calling, inactive
- **Too hot:** panting, head and wings droop, spread to the perimeter / away from the brooder
- **Draft or bright light/noise:** chicks crowd to one side or huddle away from the draft
- **Ideal chick internal / vent temperature:** 39.4–40.5°C (103–105°F)

6. CROP FILL & EARLY START CHECKS

Time after placement	Target crop fill
2 h	75%
4 h	80%
8 h	>80%
12 h	>85%
24 h	>95%



- **Cobb 8 h check:** at least 85% of sampled chicks should have feed and water present
- If many crops are hard, check water availability, temperature, and flow
- If many crops are soft, check feed availability, feed presentation, and floor / ambient temperature

DAY 4–14 PRACTICAL ACTIONS



Transition smoothly to automated feeders



Remove feed from paper and supplementary feeders once chicks find main feeders



Expand the brooding area gradually to full house from day 7



Adjust feeder and drinker height as chicks grow



After day 7, provide at least 4 h darkness in one continuous period

Preheat the floor, not just the air

Chicks can't hold their own temperature — a cold floor pulls heat out through their feet

TARGET	FIGURE	
Litter — forced-air heating	30-32 °C	Cobb
Litter — under radiant stove	40.5 °C	Cobb
Concrete below the litter	28-30 °C	Cobb
Whole-house air at chick height	30 °C	Ross
Spot brooding — brooder edge	32 °C	Ross
Relative humidity	60-70 %	Ross
CO ₂ before placement	< 3,000 ppm	Cobb

Start heating 24-48 hours ahead

Ross: stabilise house temperature 24 h before arrival — longer for cold seasons, long empty periods or a first flock in a new house.
Cobb: radiant pre-heating commences at least 48 h before placement.

Measure it like Cobb does

One quick reading at placement is not uniformity. Read litter and concrete every 6 m along the house, in three rows across its width.

The layout for 1,000 chicks

Ross Broiler Management Handbook 2025 — equipment per 1,000 birds placed

ITEM	QTY / TARGET
Paper cover	70% of brooding area
Bell drinkers	8 (125 chicks/drinker)
Feeder trays	10 (1 per 100 chicks)
Mini-drinkers	12
Nipple drinkers	10-12 birds/nipple

Feed goes where the chicks land

Sieved crumble on trays (1 per 100 chicks) and on paper covering at least 70% of the brooding area. ~40 g per chick measured onto the paper just before placement, topped up through the first 3-4 days. Transition to automated feeders at 4-6 days. Remove paper by end of day 4 if vaccinating for cocci.

Brooding rings are temporary

Expand the ring from day 3. Remove it entirely from day 7 in closed houses; open-sided houses may need it until day 10-12.

Light for the first week

23 h light + 1 h dark (under 0.4 lux) at a minimum of 30-40 lux for the first days, gradually reaching 4-6 hours of darkness by day 7. Ross gives 23 h light for the first 7 days to encourage feed and water intake.

Water temperature changes intake

Ross — effect of water temperature on water consumption

Below 5 °C

Too cold — reduced intake

18-21 °C

IDEAL

Above 30 °C

Too warm — reduced intake

Above 44 °C

Birds refuse to drink

Why it is worth a thermometer

Ross: in hot climates the water should be cooler than the house. Keep tanks and pipes out of direct sunlight and insulated, and flush nipple lines at least twice daily for the first 3-4 days to hold flow up and water temperature down.

Nipple check before placement

Flush lines 1-2 h before arrival and remove any airlocks; tap or shake the line until every nipple carries a visible drop of water.

Give them room on a schedule

Cobb Broiler Management Guide 2021 — brood chamber stocking density

AGE (DAYS)	DENSITY (BIRDS/M ²)
0-3	 55-60
4-6	 40-45
7-9	 30-35
10-12	 20-25
13-15	Transition to full house

Season sets the starting cap

Initial stocking should not exceed 50-60 birds/m² in winter and 40-50 in summer. Ensure adequate drinking space, especially in summer placements. Never exceed 20-25 birds per nipple while the house is partitioned.

Full house by day 14-16

Heat and ventilate the new area to target at least 24 h before releasing birds into it. Full-house access by 14-16 days, depending on density. In poorly insulated houses, a mini-tent (false ceiling) holds the heat.

Two breeders, one direction: down

Whole-house target at ~50% RH — behaviour overrides the thermometer

AGE	ROSS (whole-house)	COBB (50% RH column)
Day 0	30 °C	32 °C
Day 7	27 °C	30 °C
Day 14	25 °C	27 °C

Why the two columns differ

They index differently, not disagree. Ross states whole-house air targets by body weight (44 g ≈ day 0, down to 20 °C from ~1.5 kg). Cobb states air temperature against house humidity — drier air needs a warmer set point.

Cobb: small chicks get +1 °C

Chicks from young, pre-peak breeder flocks lose heat faster — raise the set point 1 °C for the first week.

Both guides say the same last word

The set point is a starting value. Chick behaviour is the correct sensor — adjust to the birds, not the display. That is page 7.

Read the chicks, not the display

Both guides judge brooding by distribution and sound

Too hot

Chicks scatter to the edges, away from the brooder. Panting, head and wings drooping, little noise.

Just right

Chicks spread evenly, constant cheeping. Eating, drinking, playing, resting — all at once, everywhere.

Too cold

Chicks crowd to the brooder. Chicks are noisy, distress-calling.

Draft

Chicks huddle in one area of the surround. Drafts create wind-chill and must be avoided during brooding.

The air the chicks sit in

CO₂ below 3,000 ppm. Ammonia ideally below 10 ppm; Cobb's 25 ppm is the ceiling for reused litter before placement, not a running target.

Both gases are heaviest at chick height — measure there, not at your own.

Based on the Ross Broiler Management Handbook 2025 (Aviagen) and Cobb Broiler Management Guide 2021.