Brown laying hen rearing guide

From chick to end of lay: pullet rearing, point of lay, lighting, water, heat

Benchmarks: Novogen Brown, ISA Brown



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1. The NEXTEKCI brown laying hen

The brown laying hen lays brown-shelled eggs for about a year and a half of production. NEXTEKCI layer chicks follow the same growth and laying curves as the Novogen Brown reference strain. They are vaccinated against Marek's disease at the hatchery (certificate on request).



NEXTEKCI brown layer chick on its first day.

The main stages

Age	Stage
0 to 5 weeks	Brooding and chick house
6 to 16 weeks	Pullet growth
17 to 20 weeks	Preparation for lay, transfer to the laying house
20 to 22 weeks	Point of lay
22 to 72-80 weeks	Production, then depletion (end of lay)

> Tip: A good laying hen is made during rearing: a pullet at the right weight and in a uniform flock at 18 weeks will lay for longer and more consistently.

2. Brooding the layer chicks

- Pre-heat the house 30 to 40 hours before arrival: about 35 °C in the brooding area, litter at 29-30 °C.
- On the floor, no more than 20 chicks per m² in the heated area during brooding.
- Water between 20 and 25 °C on arrival, crumbled starter feed on paper or trays.
- A chick kept properly warm has a body temperature of 40 to 41 °C: warm feet, active chicks, evenly spread out.

Source: Novogen Brown, management guide (2024)

Diagram: Read where the chicks sit under the heat. (see it in colour at www.nextekci.com/en/school/guides/brown-laying-hens) — Adapted from Cobb (Broiler Management Guide)

Full details on brooding (temperatures by age, crop checks) in the broiler guide: www.nextekci.com/en/school/guides/broiler-chicken#demarrage

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3. Rearing the pullets

Weigh around a hundred pullets every week and compare with the table. If weight is behind, do not reduce the lighting too quickly, and check the water, feeder space and feed quality.

Pullet body weight and feed

Age	Feed per day	Target weight
1 week	11 g	65 to 70 g
2 weeks	17 g	110 to 120 g
4 weeks	35 g	270 to 285 g
6 weeks	47 g	470 to 495 g
8 weeks	55 g	660 to 695 g
10 weeks	60 g	840 to 900 g
12 weeks	65 g	1,020 to 1,090 g
14 weeks	72 g	1,190 to 1,255 g
16 weeks	78 g	1,350 to 1,425 g
18 weeks	85 g	1,480 to 1,580 g

Source: Novogen Brown, management guide (2024), p. 38

Hot-climate guidelines

- Floor density: about 20 pullets per m² up to 4 weeks, then 10 per m² up to 17 weeks.
- Enough feeders for all the pullets to eat at the same time: this is the key to uniformity.
- During rearing, feed moves from starter to grower, then pullet feed and pre-lay feed before the first eggs.

Ref. Lohmann, hot climate

4. Lighting in a hot climate

Light controls the hen's sexual maturity: it is reduced during rearing, then increased to bring the birds into lay. Never increase day length before the pullets have reached the right weight, and never reduce it during lay.

Lighting programme for hot countries (between 20° North and 20° South)

Age	Hours of light per day	Target weight
Week 1	22 h then 20 h	—
3 weeks	18 h	—
5 weeks	16 h	—
8 weeks	14 h 30	—
12 weeks	12 h 30	—
13 to 18 weeks	12 h (or natural day length from 14 weeks)	1,480 to 1,580 g at 18 weeks
19 weeks	+ 1 h	1,560 to 1,660 g
20 weeks	+ 1 h	1,625 to 1,730 g
21 weeks	+ 1 h	1,675 to 1,780 g
22 and 23 weeks	+ 30 min each week	1,715 to 1,840 g
24 weeks and over	16 h	1,765 to 1,860 g

Source: Novogen Brown, management guide (2024), p. 13

Tip: In an open-sided house, daylight counts: the total day length is natural daylight plus supplementary lighting (before sunrise or after sunset).

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5. Point of lay

- Move the pullets into the laying house at around 16 to 17 weeks, before the first eggs.
- Switch to pre-lay feed, then to layer feed (rich in calcium) as soon as the first eggs appear.
- Nest boxes in place, clean and lined, before lay begins.
- Increase the lighting only once the target weight is reached (see the table in chapter 4).

The first eggs arrive at around 19 to 20 weeks; half the hens are laying at around 20 to 21 weeks.

6. Egg production

The table gives the strain's targets under very good conditions. In an open-sided house, in strong heat, the average laying rate over the year is often lower (around 75%): follow your curve every week so you can react quickly if production drops.

Production targets

Age	Laying rate (% of hens)	Average egg weight	Cumulative eggs per hen
20 weeks	15%	48 g	1
22 weeks	69%	53 g	9
25 weeks	94.5%	57.6 g	28
30 weeks	96.5%	60.5 g	61
40 weeks	95.7%	62.9 g	127
50 weeks	93.8%	63.9 g	192
60 weeks	90.4%	64.5 g	254
72 weeks	84.7%	65 g	318
80 weeks	80.9%	65.4 g	362

Source: Novogen Brown, management guide (2024), p. 39-42

- Layer feed: about 111 to 119 g per hen per day at peak production.
- Collect eggs at least 2 to 3 times a day, more often when it is hot.
- Set aside broken, cracked or dirty eggs; store eggs in a cool, shaded place.

Source: Novogen Brown, management guide (2024)

Work out the cost price of an egg with your own prices: www.nextekci.com/en/poultry-profit-calculator

7. Water and heat

A hen drinks about 1.8 times what she eats, and almost double that when it is very hot. In strong heat, cool water (below 20 °C if possible) helps the hen maintain her laying rate and eggshell strength.

Water drunk by a laying hen in production

Temperature	Litres of water per 1 kg of feed	Water per hen per day
20 °C	1.8	205 ml
25 °C	2.1	230 ml
30 °C	3.1	320 ml

Source: Novogen Brown, management guide (2024) (after ITAVI 2012), p. 18

Against the heat

- On the floor, about 4 to 5 hens per m² when it is 30 °C.
- More drinkers when it is hot: about 1 nipple per 10 hens at 30 °C (1 per 20 at 25 °C).

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- East-west orientated house, light-coloured roof, good roof overhang, moving air.
- Give part of the feed during the cool hours.

Ref. Lohmann, hot climate

Diagram: The improved open-sided house keeps the heat under the roof and moves air at hen level. (see it in colour at www.nextekci.com/en/school/guides/brown-laying-hens) — Adapted from Cobb (Broiler Management Guide)

8. Health, biosecurity and end of lay

NEXTEKCI layer chicks are vaccinated against Marek's disease at the hatchery. The other vaccines are given on the farm during pullet rearing, following the protocol of the vet in your area: ask for it before the chicks arrive.

- A single age group per house; footbath, dedicated clothing, few visitors.
- Control of rodents and insects; no backyard poultry nearby.
- Record every day: eggs collected, mortality, feed and water consumed.
- End of lay at around 72 to 80 weeks: spent hens are sold, which is part of the flock's income.

Order your layer chicks: today's price on WhatsApp: https://wa.me/2250707727867

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