

# RESPONSIBLE SOURCING



## Production process

LAYER HENS

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### Animal welfare considerations

- Cage systems
  - Husbandry procedures such as beak trimming and induced moulting
  - Lack of nest boxes, perching and litter
  - Male chick culling
  - Where given outdoor access, poor quality ranges
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### Definitions

**Breeder bird** – the male or female chicken who are mated for the hen to produce fertilised eggs to then hatch into the chick (pullet) who will be reared for egg production. Female breeder birds are referred to as 'hens', and males 'roosters'.

**Chick** – a young chicken who has recently hatched. If female the chick will be reared for egg production, if male the chick is not required in the egg production cycle.

**Pullet** – a young female chicken who has not yet begun commercial egg production.

**Layer hen** – a female chicken who lays eggs for commercial production.

**Spent hen** – a layer hen that has reached an age where she is no longer classed as commercially productive.



Hens are smart, quirky and inquisitive creatures. Descended from jungle fowl, they still possess instincts strongly aligned with seeking shelter in vegetation and roosting up high at night to keep away from predators. A hen's natural lifespan can be up to 10 years, however in commercial egg production a hen will likely only live for 72 weeks.

Layer hens and meat chickens are two different breeds of bird – grown for two different purposes.

Meat chickens by name and nature are bred to produce meat and lots of it. Layer hens have been bred to produce eggs.

In Australia, the most common breeds of layer hens used in commercial egg production are the Hy-Line Brown, ISA Brown and Hi-Sex Brown. These birds regardless of breed, are brown in colour with a red comb and have been genetically selected to lay as many eggs as possible over their relatively short life. Internationally other breeds of layer hens are used and these may have white feathers. Hens with white feathers lay white eggs, whereas hens with brown feathers lay brown eggs. Australians are accustomed to purchasing brown eggs, however if travelling overseas they may see more white eggs. These eggs are laid by a white feathered breed of layer hen.

To begin, fertilised eggs are imported into Australia under strict quarantine arrangements and are hatched as breeding birds (male and female lines). These breeding birds eventually produce offspring who will lay the eggs that are handled by commercial hatcheries. Once eggs are laid, they are then transferred to incubators at these hatcheries.

These incubators may hold tens of thousands of eggs at a time. They keep the eggs at the correct temperature, humidity, and ventilation until hatching. Incubation normally takes around 21 days.

It is only the female chicks who become the commercial layers producing the eggs we eat. Female chicks are transferred to a 'rearing' facility, where they are grown to a certain age before being moved again to a laying facility. Before being transferred, day-old chicks may be vaccinated and have their beak trimmed. The male chicks are considered a by-product of egg production and culled (killed).

From the hatchery, female chicks are transferred to rearing farms.

During the rearing phase, pullets (young hens) are housed in cage or cage-free facilities. The chicks remain here until they are about 17 weeks old when they are ready to be transferred to a laying facility.

Pullets who will be housed in furnished cages, barn, aviary or free-range laying facilities require training so that they can better adapt to complex laying environments. They may be provided perches, water platforms or a multi-tiered environment to teach them jumping and exploratory behaviours. Nest training also occurs to encourage pullets to explore and use nests. Nest training can involve the use of hot-wires (electrified wires) to train and deter pullets/hens from laying eggs on the floor of the shed instead of in their nests.

Once they have reached appropriate body weight, hens are exposed to increasing lengths of light in the sheds (typically 16 hours) in order to stimulate egg production. Altering light affects activity levels, sleep levels, and behaviour of chickens.

Induced moulting is routinely done on some farms at the end of a hen's first laying cycle to improve the productivity and quality of eggs in the following laying cycle. The practice involves artificially forcing hens to moult through environmental and dietary manipulation to replicate the natural process of moulting that occurs seasonally in wild birds.

The majority of hens in Australia are still kept in 'conventional' battery cages.

Battery cages are small barren wire cages. Each hen is given the space of less than a piece of A4 paper, with three to seven hens in each cage. Modern cage facilities have automated feed and watering systems, ventilation, lighting, with manure and egg collection via conveyor belt systems.

Basic behavioural needs including perching, nesting, foraging, dust bathing, scratching the ground, stretching and flapping wings are not possible for hens in battery cages.

Furnished cages (also called 'enriched cages' or 'colony reared') are similar to conventional cages. Furnished cages may house 10 to 60 birds in each cage. They were developed as an alternative to battery cages with the aim of providing more space and height, as well as additional provisions such as a nest area, scratching pad (to help shorten claws), more space, and a perch. Furnished cages offer advantages over battery cages since more normal behaviours may be expressed, which contributes to stronger bones and muscles. However, there is still limited environmental complexity and not enough space to allow for some natural behaviours like dust bathing, foraging and scratching the ground.

In a barn system (also known as cage-free systems), hens aren't kept in cages but instead can move on the floor in large sheds, or up and down the shed via different levels (aviary or multi-tier systems). Flock size varies between thousands and tens of thousands of birds in each shed. Hens in barn systems can carry out more natural behaviours such as stretching and flapping their wings. All barns have nest boxes where hens can lay their eggs, but not all barns have perches or litter which are key to catering to hens' behavioural needs. Some barns have slats or wire-mesh flooring which do not allow hens to forage, scratch the ground, dustbathe or perch. The expression of normal behaviours also depends on appropriate stocking densities inside the shed. Sheds are normally equipped with an automated feeding and watering system, and eggs are collected mechanically.

In a free-range system, hens should have access to an outdoor area with shade and protection during the day. At night, hens are usually kept in sheds or barns to keep them safe from predators, while smaller flocks may be kept in smaller, possibly moveable sheds. Free-range hens can dustbathe, scratch and forage, and lay their eggs in a nest. Some free-range systems provide perches for hens to roost when they are inside at night.

Layer hens kept in commercial operations are highly susceptible to feather pecking and cannibalism, which is a serious welfare problem. One of the more common methods to control the impacts of feather pecking is to partially remove the tip of the beak, otherwise known as beak trimming. In Australia, beak trimming is commonly performed when chicks are one day of age. For layer hens, a follow-up beak trim may also occur later in life, between 8 and 12 weeks of age. Beak trimming can cause both acute and chronic pain, and can lead to difficulty feeding. Whilst relatively effective in controlling severe feather pecking, it is an invasive procedure and other management strategies should be investigated to allow a move away from its use.

Hens will lay about 300 eggs each year and will produce eggs up until around a year and a half of age. From here, egg production gradually declines and hens are considered 'spent' because they are no longer profitable. Hens considered 'spent' are then removed from production which is a process known as depopulation.

After 'spent' hens are removed from the production facility, they are either culled and buried on-site, or transported to a processing (slaughter) facility.

At the processing plant, hens are slaughtered the same way as meat chickens.

Unlike meat chickens, the meat from spent hens is less desirable for human consumption due to a difference in taste and texture, so is used for manure and fertiliser, pet food, or lower-quality processing meat for human consumption such as in soups and stocks.

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