

## Egg consumption

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The system in which these birds live to produce eggs in Spain is mostly intensive, in cages. Only 7% are bred in alternative systems (barn, free range and organic). Only Lithuania, with 4.5%, and Portugal 6.5%, have a lower percentage of alternative exploitations. On the other hand, in Holland, Germany or Austria between 84 and 96% of production is carried out in alternative systems, which in Luxembourg occupies 100% of the sector.

In Spain in 2015 there were 19,071 registered poultry farms, of which 1,500 farmed laying hens (the others farmed chickens, partridges, pigeons, quails and turkeys). The autonomous communities with most laying farms were Catalonia (344 with 3.6 million hens), Canary Islands (233 with 1.3 million hens) and Andalusia (161 with 2.9 million). Nevertheless, the communities with the highest number of hens are Castilla La Mancha (12 million hens on 131 farms), Castilla y León (8 million on 124 farms) and Aragon (5 million on 81 farms). In 2017 1,096,931 thousands of dozens of eggs were produced and 134 eggs per person were consumed (of these 85% were from battery caged hens)

In Spain each hen produces about 300 eggs per year. The average size is 64 grams and has a brown shell. In other countries, were they use different breeds, that may vary.

We must not forget that eggs are a possible channel of the disease zoonotic salmonella, the reason for a regulation by [MAPAMA](#) about hygiene during the breeding and manipulation of eggs: [Regulation CE n° 1260/2003 on the control of salmonella and others](#).

## NATURAL BEHAVIOUR AND PROBLEMS ARISING FROM FARMING

Hens, *Gallus domesticus*, come from the red jungle chicken (*Gallus gallus*) and originally laid about 20 eggs per year, for 10 or 12 years. Over time, with the goal of maximising production, they have been genetically selected in order to get to the current laying hen breeds, capable of producing almost an egg a day (approximately every 25 hours). This large-scale production means that the birds have a tendency to suffer osteoporosis and bone fractures, due to a lack of calcium. Calcium is indispensable for the production of bones, making calcium supplements the norm.

Hens are active during daylight hours, they spend between 50 and 90% of their time searching for food and pecking, preparing their nest for laying and resting. They rest at night in high places (to protect themselves against predators). They have a dust bath every two days and spend half an hour rolling around on the ground, this is how they eliminate parasites and dirt.

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If hens do not have material available to “nest” on the farms, they end up pulling out their feathers or attacking the other hens. This is a serious problem which underlines a fundamental lack of wellbeing. Pecking or cannibalism (the reason they are debeaked) may also take place because of a battle for resources, high density of groups or too much light.

On the farms they play with the amount of artificial light, by increasing it (up to 15 hours per day) they manage to get the hens to produce higher quantities of eggs. They have to add vitamin D to their diet because they never get sunlight, its natural source.

Hens have a hierarchical and territorial social structure of which access to food and a place to sleep are the main competitive factors. These factors are of great importance because hundreds of thousands of hens live together in a continuous competition of territory and hierarchy.

When they reach 18 months of age they enter into a period of rest known as moulting (in nature it coincides with decreasing photoperiod), after which they lay larger eggs, but less frequently. In general this is when they are taken to the slaughterhouse as they stop being profitable. For this reason hens currently do not live for more than 2 years. In some farms they starve the hen for a few days so that she gets through the moulting faster and then she is able to produce more eggs for a few days before going to slaughter.

## EGG PRODUCTION SYSTEM

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In order to get these laying hens there are farms which breed female chicks, following the sexing. These mothers live in warehouses, usually on the floor, in turn, they come from other warehouses called “selection warehouses” and are transported from other countries when these “grandmothers” are just one day old. The male chicks which come from these farms have no commercial interest and are ground to obtain sub-products with low market value.

The female chicks are debeaked before they are 10 days old and they are nurtured until they are 4-5 months old. In order to control weight and food consumption they sometimes use a technique known as skip-a-day, in which once every two to four days no food is given to the animals. Once they are fully mature, and when 5% of the batch is laying, the hens are transported to the final laying enclosure, which is usually in cages but varies depending on the type of farm.

The cage system is the most common due to its efficiency in space management, maximising the number of animals being exploited. However, the European Union established a ruling focussed on improving the conditions for the hens in these cages, which took effect in Spain from 2012. They are still living in cages, with a space of 750 cm<sup>2</sup> per hen (although in reality there is only 600 cm<sup>2</sup> available). With the ruling of the new cages, called “conditioned” or “enriched”, a hen must have 20 cm of space above its head and must have a nest, a litter for pecking, a perch (to sleep up high), easy access to food (they need about 2.1kg of food to produce 1kg of eggs) and water.

In alternative systems the ruling states the minimum dimensions of the drinking troughs and feeding troughs and also the levels that there may be on the farm. In these systems there are no cages, the hens may be all together in the same space, without access to the outdoors (also known as “barn eggs” and offers 1100 cm<sup>2</sup> per hen), or they may have access to an exit to an outdoor patio, which should have a maximum density of 9 hens per m<sup>2</sup> (known as “free range”, and offers 1 hectare of space for 2,500 hens). The systems known as “organic” also offer a daytime outdoor area for the hens while they are living on the farm and their feed comes from organic agriculture.

## Quail's eggs

The quail (*Coturnix coturnix Japonica*) is a species which originally came from Asia and now has a census of half a million birds in Spain, producing between 9 and 11 million dozens of eggs per year. They are small flecked eggs, weighing about 10 grams. They follow a similar farming method, mostly in cages of 60-80 in intensive systems (with a density of 120-160 birds/m<sup>2</sup>). They produce about 300 eggs per year, starting from as early as 2 months of age.

## TRANSPORT AND SLAUGHTER

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When their period of "productivity" or profitability comes to an end hens are taken to slaughter. In order to do this, they have to be transported in modular transportation trucks. This is a highly sensitive moment as it is possible to fracture their bones and produce hematomas. Generally, the hens are handled one by one, or even three at a time, by taking hold of their legs in order to load them on the truck.

There are about 15 birds per cage, each truck may carry up to 5,000 birds. Temperature and humidity conditions in the truck are key factors when it comes to defining the stress and mortality suffered during transportation. The length of the journey is greater than that of the chickens selected for meat as not all slaughter houses accept such hens, which are considered "waste".

In the slaughter house a vet carries out an inspection of the meat with the aim of preventing eventual consumers from contracting diseases. In order to avoid their confiscation for fecal contamination hens are subjected to 6-9 hours of fasting before slaughter.

Once in the slaughter house they go to a "waiting room", then they are stunned (loss of consciousness in order not to feel all the pain when they are slaughtered) and then slaughtered. The stunning process is carried out via electric shock, hung upside down by their legs and having their head dipped into a bath of electrified water for over 4 seconds. This whole process causes stress to hens and occasionally pain is added to the stress when this procedure is not carried out perfectly. This may be due to lack of attention or lack of training of the staff, or because the system is automated and is insufficiently supervised.

Slaughter, by means of slitting their throats, should be carried out within 15 seconds following the stunning to ensure that the animals do not regain consciousness.

## Labelling the eggs

In accordance with [Royal Decree 226/2008, 15th February, which regulates the conditions of application of the community ruling of egg commercialisation](#), the first number which appears on the label of the eggs indicates the farming system that has been used (3 for cages, 2 for barn, 1 for free range and 0 for organic), then comes the country code, the province, the municipality and the farm identification.

## Presence of eggs in other products

The best known way of consuming eggs is the most direct way, buying the egg. However, a large quantity of eggs are also consumed in processed products such as pastries, mayonnaise, deserts (custard, flans, etc), biscuits, sauces and pastas or in pre-prepared food such as omelettes, croquettes, etc.

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In these products there is no way of labelling the different types of breeding system used for the hens. However, if the food product does contain egg in any way, it must be labelled as such. In many cases egg is labelled as "egg product", having been through a process of transformation. This may be pasteurisation, dehydration or cooking and is used for its adhesive, foaming, emulsifying or thickening properties, to manufacture new unessential foods.

20-25% of egg production is set aside for "egg products" for the food industry and the pharmaceutical industry.

## Complementary information

FAADA Report – Information on the egg industry sector.

[Royal Decree 3/2002, January 11th, laying down the minimum standards for the protection of laying hens.](#)

[Ruling \(CE\) n° 1099/2009 relative to the protection of animals at the time of slaughter.](#)

[It is compulsory for restaurants to use "egg products" to prepare their dishes, in accordance with the Royal Decree 1254/91.](#)