

## Position paper on egg production in the EU

In the EU we have four approved ways of producing eggs:

- Enriched cage
- Barn
- Free range
- Organic

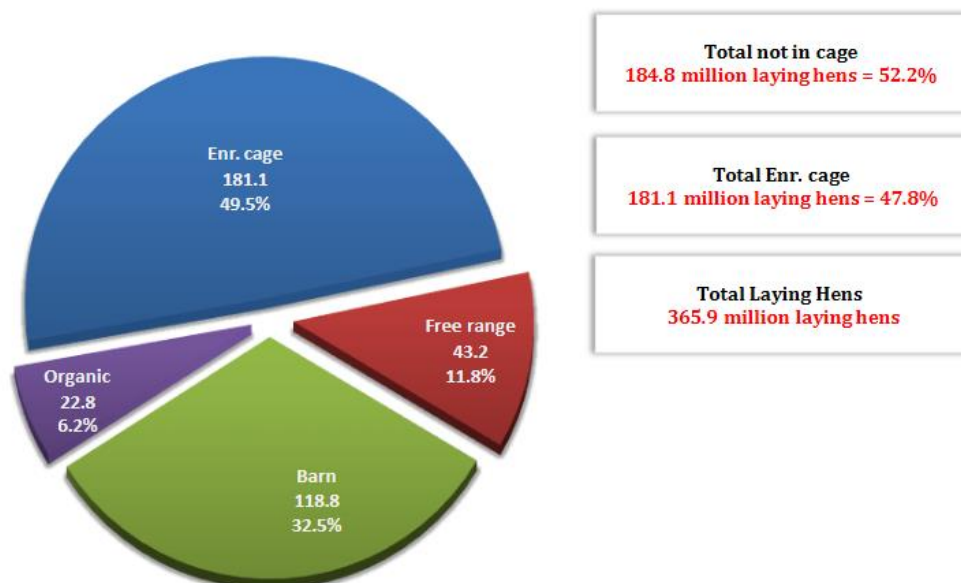
Each farming method has characteristics defined by EU regulation, which influence production costs, and there are pros and cons for all the production systems.

In EEPTA we believe in giving the consumer a choice and we produce in accordance with markets demand. The consumer makes its choices among different aspects: price of eggs, animal welfare, origin of the products, etc.

In EEPTA we know there are huge differences in market demand across Europe – and across the world – and we constantly adapt the production to costumer demands, being everything from e.g. shell color, feed ingrediencies and production methods.

Any attempt to legislate a ban on enriched cages in the EU would be counterproductive:

- It would ignore the constant and gradual adjustment between supply and demand in the egg and egg products sector
- It would question the self-sufficiency of the sector and could lead to imports from countries with lower standards to meet markets demand.



*Number of laying hens by farming method in European Union in 2019*

*Source: EU Member States communicated data*

The EU egg industry is self-sufficient in volume: for example, in 2019, the EU production was 5,984 million tons, import was 0,023 million tons and the export was 0,240 million tons, which gives an EU consumption on 5,768 million tons and a self-sufficiency rate of 104 %.

Today, as the country of origin is an issue in the EU, our self-sufficiency is a key point which is important to preserve, and it has permitted the sector to answer the consumer's demand during the Covid-19 crisis in 2020-2021.

The transition from enriched cages to cage-free systems should not be done at the expense of the self-sufficiency rate of the EU egg sector. The current transition to cage-free systems, which is at different stages depending on the Member States, should maintain current production capacities.

The transition from enriched cages to cage-free systems comes at a cost of 20-25 euros pro hen placed. Moreover, the EU egg sector invested heavily up to 2012 for the transition from conventional cages to enriched cages, which supposedly have a life span of more than 20 years, meaning that these investments have not been depreciated.

### **Production systems**

Below are listed the four different productions methods and their characteristics and the most import aspects an egg producer must consider (national legislation can apply):

#### Cage

The hens are housed in enriched cages where the hens have access to perches, a nest area and an area for dust bathing.

The hens must have at least 750 cm<sup>2</sup> of cage area per hen (max 13,3 hens per m<sup>2</sup>), 600 cm<sup>2</sup> of which shall be usable.

The flock size varies from 8 to over 150 hens depending of the system.

#### Barn

The hens are housed in a barn where the hens have access to perches, a nest and at least 250 cm<sup>2</sup> of littered area per hen, the litter occupying at least one third of the ground surface.

The maximum density is 9 hens per m<sup>2</sup> usable area.

The flock size can exceed 15.000 hens.

#### Free range

The hens are housed in a barn where the hens have access to perches, a nest and at least 250 cm<sup>2</sup> of littered area per hen, the litter occupying at least one third of the ground surface.

The maximum density in the barn is 9 hens per m<sup>2</sup> usable area.

The barn must have several pop holes giving direct access to the outdoor area which must be equipped with shelter from inclement weather and predators (the shelter can be trees and bushes).

Each hen must have access to an outdoor area of at least 4 m<sup>2</sup>.

The flock size can exceed 15.000 hens.

#### Organic

The hens are housed in a barn where the hens have access to perches, a nest and at least 250 cm<sup>2</sup> of littered area per hen, the litter occupying at least one third of the ground surface.

The organic hens must be fed an organic diet, and the hens must be fed some silage or the like every day.

The maximum density in the barn is 6 hens per m<sup>2</sup> usable area.

The barn must have several pop holes giving direct access to the outdoor area which must be equipped with shelter from inclement weather and predators (the shelter can be trees and bushes).

Each hen must have access to an outdoor area of at least 4 m<sup>2</sup>.

The flock size cannot exceed 3.000 hens and the pullets should be reared organic.

### **Some of the things you as a producer must consider**

Each production method has its pros and cons, and in a commercial producer you must consider several aspects e.g.:

- Market demand
- Price
- Productivity
- Environmental impact and carbon footprint
- Animal welfare
- Employee welfare
- Affordability
- Social acceptance

#### Market demand

You must produce what the market demands, and you need to adjust your production according to shifts in market demand.

The consumer should have the right to choose among different products.

#### Productivity

The productivity is a measure of how much output you get for what you put in, e.g. amount of feed for a kg of eggs – the lower feed consumption for a kg of egg the higher is the productivity.

The same goes for the amount of labor (wages) for a kg of eggs.

In general, you can say that the more intensive the production the higher the productivity and the most efficient use of the resources.

#### Environmental impact / emissions

Management is important to limit environmental impact / emissions and how the environment and the neighbors see and smell an egg production.

Several technical solutions and several management tools are available to reduce environment impact / emissions from an egg production system, but it can never be reduced to zero.

#### Carbon footprint

At least 70 % of the carbon footprint originates from feed component.

That means that a high feed consumption results in a high carbon footprint, and the more intensive the production the lower the carbon footprint.

#### Animal welfare

Animal welfare for animal under human control are often expressed as the following five freedoms:

- ✓ **Freedom from hunger or thirst** by ready access to fresh water and a diet to maintain full health and vigour
- ✓ **Freedom from discomfort** by providing an appropriate environment including shelter and a comfortable resting area
- ✓ **Freedom from pain, injury or disease** by prevention or rapid diagnosis and treatment
- ✓ **Freedom to express normal behaviour** by providing sufficient space, proper facilities and company of the animal's own kind

- ✓ **Freedom from fear and distress** by ensuring conditions and treatment which avoid mental suffering

In accordance with the Welfare Quality® protocols, the assessment of animal welfare must consider four aspects:

- ✓ Are the animals fed correctly?
- ✓ Are the animals properly housed?
- ✓ Is the health status of the animals adequate?
- ✓ Does the behavior of the animals reflect an appropriate emotional state?

It is important to emphasize that one should look at how the hens react to certain measures to improve animal welfare and not what you think is good animal welfare for the hens.

### Employee welfare

Some employees have to work in the hen house, and you must consider the working conditions for those employees e.g. dust and ammonia in the air, number of eggs on the floor, how the system is built etc.

### Affordability

The European population consists of families in all income brackets and we want to produce affordable and healthy eggs (protein) for all of them.

### Social acceptance

Today most consumers have no real experience about agricultural production.

Therefore, the consumer should be educated about the different production methods to be able to select the right eggs for them.

## **Pros and cons of the four production methods**

Below we have tried to list the pro and cons for the four production systems allowed in the EU:

### Cage eggs

- The hens are housed in cages or more correctly in enriched cages. Flock size ranges from 8-10 and up to over 150 hens. This situation is closest the jungle hen, where the flock size is around 10-15 birds. The limited flock size does not stress the birds as much as in the other production systems.
- The hen's movement is restricted by the cage and the hens have (under European conditions) no access to the outside.
- The hens are protected from predators and many parasites.
- Mortality is very low.
- Productivity is high, and the feed conversion is low resulting in a very low carbon footprint – probably the lowest carbon footprint for any protein from terrestrial animals.
- The level of dust and ammonia in the stable is low – especially if you remove the manure several times a week – and there is a controlled climate in the stable to the benefit of birds and employees.
- Furthermore, as the cage farms normally have a large number of birds the majority of them have also invested in automated egg sorting and packing systems which reduces the heavy lifting from the employees.
- The efficient production of an egg from a cage system makes it most affordable to the consumer.
- The design of the system results in the absence of floor eggs.
- The hens do not have contact with manure; therefore, the risk of parasites is low.
- Eggs from enriched cages are the cheapest.

## Barn

- The hens are housed in barns or sections of a barn where they can roam freely in three dimensions. The flock consists up of several thousands of birds which can stress the hens, but management tools can reduce the stress.
- The hens are protected from predators and some parasites.
- The mortality is pretty low – around 1,5 to 2 times the mortality in cage systems.
- The productivity is pretty high – around 90-95 % of a cage hen. The feed conversion is pretty low – around 5-10 % higher than a cage hen - giving a low carbon footprint.
- The level of dust in the stable can be high but technical solutions and management tools can reduce the amount.
- The level of ammonia in the stable can be high – especially if you do not remove the manure several times a week – but technical solutions and management tools can reduce the amount.
- There is a controlled climate in the stable to the benefit of birds and employees.
- Furthermore, many of the barn farms have a large number of birds therefore the majority of them have also invested in automated egg sorting and packing systems which reduces the heavy lifting from the employees.
- The eggs produced in a barn system are produced quite efficiently making them quite affordable for the consumer.
- System design does result in a number of floor-eggs in a barn system but management tools – also in the rearing of pullets – can reduce this.
- The birds do have contact with the manure so the risk of parasites – e.g. intestinal worms – is medium but management tools can reduce this.
- Eggs from barn production are more expensive than cage eggs.

## Free-range

- The hens are housed in barns or sections of a barn where they can roam freely in three dimensions, and they have access to a large outdoor area. The flock size of several thousands of birds can stress the birds, but management tools and access to the outdoor area can reduce stress levels.
- The mortality rate is medium – around 2 to 4 times the mortality rate in cage systems – and some hens are lost to predators.
- The productivity is pretty high – around 85-90 % of a cage hen – but the time in production is shorter.
- The feed conversion rate is medium – around 10-20 % higher than a cage hen – giving a medium carbon food print for the egg category.
- The level of dust in the stable can be medium but technical solutions and management tools can reduce the amount.
- The level of ammonia in the stable can be high because it is open to the outdoor area – especially if you do not remove the manure several times a week – but technical solutions and management tools can reduce the amount.
- There is not a controlled climate in the stable because it is open to the outdoor area.
- Many of the free-range farms have a low to medium number of birds therefore you often will not see the same level of automated egg sorting and packing systems as in cage and barn systems which gives more manual labor to the employees.
- The maximum number of hens in a free-range barn is app. 36.000 the limiting factors being the max distance from the barn and the density on the outdoor area.
- The eggs produced in a free-range system are produced quite efficiently but the higher feed conversion and the cost for having an outdoor area are making them less affordable to the consumer.

- Due to the nature of the system you do have some floor-eggs in a free-range system but management tools – also in the rearing of pullets – can reduce this.
- As the birds do have contact with the manure the risk of parasites – e.g. intestinal worms - are medium but management tools can reduce this.
- Eggs from free range production are more expensive than barn eggs.

### Organic

- The hens are housed in barns or sections of a barn where they can roam freely in three dimensions, and they have access to a large outdoor area. The flock size is max 3.000 birds can stress the birds, but management tools and the outdoor area can reduce the stress.
- The mortality is medium – around 2 to 4 times the mortality in cage systems – and some hens are lost to predators.
- The productivity is pretty high – around 85-90 % of a cage hen – but the time in production is shorter.
- The feed conversion is medium – around 10-20 % higher than a cage hen – giving a high carbon footprint for this egg category because the hens are fed an organic diet.
- The level of dust in the stable can be medium but technical solutions and management tools can reduce the amount.
- The level of ammonia in the stable can be high because it is open to the outdoor area – especially if you do not remove the manure several times a week – but technical solutions and management tools can reduce the amount.
- There is not a controlled climate in the stable because it is open to the outdoor area.
- Many of the organic farms have a low to medium number of birds therefore you often will not see the same level of automated egg sorting and packing systems as in cage and barn systems which requires employees to do more manual labor.
- The maximum number of hens in an organic barn divided in several sections is 36.000 the limiting factors being the max distance from the barn and the density on the outdoor area.
- The eggs produced in an organic system are produced quite efficiently but the higher feed conversion, the organic feed and the cost for having an outdoor area are making them far less affordable to the consumer.
- Due to the nature of the system you do have some floor-eggs in an organic system but management tools – also in the rearing of pullets – can reduce this.
- As the birds do have contact with the manure the risk of parasites – e.g. intestinal worms - are medium but management tools can reduce this.
- Eggs from organic production are the most expensive.