

## Costs and Benefits of Alternative Systems for Egg Production

### Problem

Animal welfare organizations, social concerns and consumers are not in favour of cage-like production, e.g. in Germany and The Netherlands. In these countries, egg production has evolved towards non-cage systems (see Figure 1). In other countries this process did not take place yet and enriched cages are still the predominant production system. In the coming years, the transition to cage-free production will become more and more important. The switch to another production system has consequences, for example with respect to costs and revenues. Farmers are concerned about the cost increase and the consequences for their farm operations. The last depreciation for the investment (based on 15 years) made in 2011/2012 will take place in 2026. This is followed by a choice moment for buying new equipment.

#### APPLICABILITY BOX

##### Theme

Farm economics and market

##### Keywords

Investment decisions, production systems

##### Context

Transition to alternative housing systems

##### Organization

Individual farm and integration

##### Best in

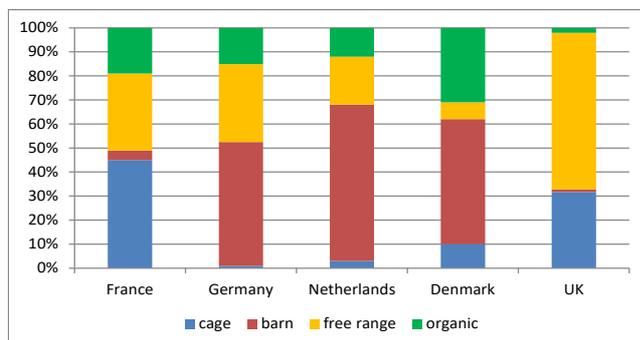
Aviary/barn systems

##### Target audience

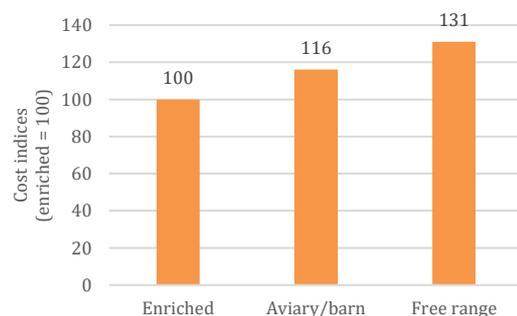
Farmers, farm advisors and policy makers

### Solution

Wageningen Economic Research made a comparison of the production costs of eggs produced in enriched cages, aviary systems and free range systems, based on the situation in North West Europe with prices of spring 2020. Based on the cost calculations as presented in Figure 2, it can be concluded that the aviary system is the least cost-increasing alternative system. In addition, higher prices are paid for barn eggs (produced in aviary systems). Based on Figure 3, it can be concluded that in the Dutch situation, the selling price compensates for the extra costs of producing barn eggs



**Figure 1: Retail shell egg market segmentation in 2019 in five countries**



**Figure 2: Cost comparison between production systems**

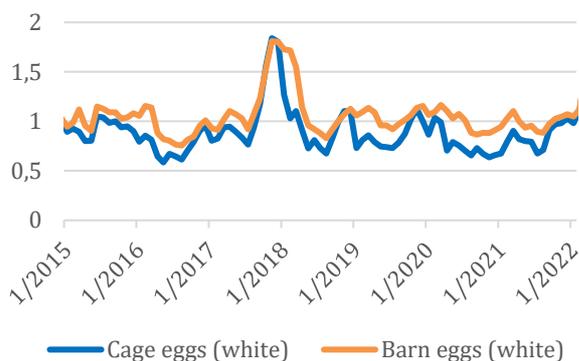


Figure 3: Price comparison cage and barn eggs (euro per kg) at farm level



Figure 4: Logos of companies who want 'cage free eggs' before 2025 (situation 2017, to be updated)

## Benefits

In many EU countries the market of eggs will change in the coming years. Insights into the differences between production systems can facilitate farmers in making choices with respect to making a potential switch towards cage-free alternative systems. Many companies and organisations announced to change to cage free eggs by 2025/2026. These companies are supermarkets, catering, restaurants or hotel. Figure 4 shows an overview of some companies who want to go cage free in the coming years. This is just a general overview that needs to be specified for the target countries Poland, Spain, Portugal and Belgium.

## Practical recommendations

A new investment decision for most farmers will take place mid-2026 (after 15 years of depreciation). Farmers then have to make a decision about the new facility for the next 15 years. It is important for farmers to take a good look at the developments and changes in the market. In that case, barn/aviary systems are systems with the lowest cost as a non-cage system. Smaller market segments are free range and organic systems. Depending on market possibilities, this may be a choice for smaller farms.

## About this practice abstract and Best Practice Hens

### Publishers:

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**Best Practice Hens:** To support egg production in non-cage systems and improve animal welfare, a consortium consisting of 7 partners will develop Best Practices for Non-cage Egg Production Systems as a European Commission, DG SANTE pilot project. These Best Practices will provide practical support to egg producers to encourage them to convert from cage to non-cage systems, including organic production.

**Project website:** [www.bestpracticehens.eu/](http://www.bestpracticehens.eu/)

**Social media:** Facebook and LinkedIn(@bestpracticehens) & Twitter (@BestHens)

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