Impact of EU and national legislation on production cost for broilermeat and eggs.

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The objective of this study was to gain an insight into the current and future competitive position of the EU broilermeat and egg sector. The calculations were performed by collecting the most important data for each country and determining the production cost for eggs and broilermeat in each country using a uniform calculation method. This was done for the year 2004. The USA and Brazil were selected as examples of the situation outside the EU.

During the coming years, both European and national legislation will come into force which will exert an influence on the production cost. These regulations relate to food safety, animal welfare, and the environment. For all countries the impact on the production cost was calculated for the situation in 2010 (broilers) or 2012 (layers).

The results reveal that the production cost for broilermeat and eggs in the Netherlands in 2004 was comparable with those in Germany and France. The production cost were lower in Poland (eggs and broilermeat), slightly lower in Spain (eggs) and slightly higher in the United Kingdom (broilermeat).

The poultry farmers in the USA and Brazil have 30 to 40% lower production cost. This is due to lower feed price and the favourable conditions. However, also the absence or lower level of legislation and regulations plays a role. Two examples are the absence of legislation on housing requirements for layers and the use of meat-and-bone meal.

As a result of several national and also EU legislation the production cost for layer farmers in the EU will increase with 11 to 13% towards 2012. For broilerfarms in the EU the increase towards 2010 will be 4 to 6%. No cost increases are forecast for countries outside the EU, and consequently the competitive position of EU broiler farmers will deteriorate further in the coming years.

Keywords: production cost, broilers, layers, international competitiveness

Introduction

The objective of this study was to gain an insight into the current and future competitive position of the EU egg and broilermeat sector. Imports from countries outside the EU are growing. Especially the imports of poultry meat from Brazil did increase rapidly from 261,100 tons to 431,000 ton in 2004. At the same European and national legislation will come into force which will exert an influence on the production cost. These regulations relate to food safety, animal welfare, and the environment. In this study the production cost of broilermeat and eggs were calculated for selected EU and two non EU countries. This was done for the year 2004. For all countries the impact of additional legislation on the production cost was calculated for the situation in 2010 (broilers) or 2012 (layers).

Method

For selected EU countries the production cost were calculated on farm level. For egg production this was done for the Netherlands, Germany, France, Spain and Poland. This study's comparison of the production costs relates solely to eggs produced in cages. For broilermeat the selected EU countries
were the Netherlands, Germany, France, the United Kingdom and Poland. The calculations were performed by collecting the most important data for each country (the zootechnical results, the variable and fixed costs, and the input prices) and determining the production cost for eggs and broilermeat in each country using a uniform calculation method. This was done for the year 2004. The USA and Brazil were selected as examples of the situation outside the EU.

**Results**

**Layerfarms**

Figure 1 gives an overview of the total production of eggs at farm level and the different cost components. The results reveal that the average production cost in 2004 in the Netherlands, Germany and France were comparable. The production cost were slightly lower in Spain and Poland. Although the ultimate production cost in some countries are lower than in the Netherlands, there are nevertheless differences in many areas. Dutch farms combine good production results with a relatively low feed price. Conversely, Dutch layer farms are confronted with higher manure-disposal costs, more expensive poultry houses, and higher energy costs.

![Diagram of production cost for eggs (Eurocent per kg) at farm level in the Netherlands, Germany, France, Spain, Poland, USA and Brazil in 2004.](image)

The USA and Brazil were selected as examples of the situation outside the EU. In 2004, the US production cost of eggs were 30% lower than in the Netherlands, whilst in Brazil the production cost were more than 40% lower. Figure 1 gives a breakdown of the cost components. The lower production cost in the USA were largely due to the lower feed price (local supplies of feed raw materials) and the favourable conditions. Much of the production is concentrated at large-scale efficient farms in which hens are kept in relatively simple and cheap poultry houses. In addition, both countries' production cost are lower due to lower levels of legislation and regulations, more specifically relating to:

- the absence of legislation on housing requirements (the floor area per hen is between 350 and 400 cm²)
- permission for the use of meat-and-bone meal;
- the absence of legislation on beak trimming.

This study estimates that the difference in production cost due to the lack of these regulations amounts to between € 0.045 and € 0.05 per kg of eggs.

During the coming years, both European and national legislation will come into force which will exert an influence on the cost price of eggs. The study did focus on the following themes:

- **Housing requirements.** The most important of these is EU Council Directive 1999/74/EC, which lays down minimum housing requirements to be met by 2012 that will increase the production cost by approximately 10% compared to the situation in 2004 (with a minimum of 550 cm² per hen). Pursuant to this Directive, layer farmers in all EU member states shall be required to switch over to 'enriched cages' or to alternative systems.

- **Beak trimming.** The EU permits beak trimming for hens before the age of ten days; however, as from 2011 the Netherlands will prohibit every intervention on hens housed in (enriched) cages.
Similar regulations are in force in Germany. Conversely, France, Spain and Poland base their national legislation on the EU regulations.

c) Environment. Environmental measures constitute the third major factor that will increase the production cost of eggs in the future. At a European level, these requirements are laid down in the IPPC Directive, whilst in the Netherlands they are laid down in the Ammonia and Livestock Farming Act (Wav). The Dutch and German authorities in particular are of the intention to reduce ammonia emissions from poultry houses. To this end, prior to 2012, all Dutch layer farmers shall be required to use types of farming that maintain the ammonia emissions below a specific threshold.

d) Zoonoses. As a result of EU legislation (2160/2003EC) poultry farmers in the EU have to reduce the incidence of Salmonella enteritidis (S.e) and Salmonella typhimurium (S.t). There are targets set for 2009 and 2011. The layer farmers will have additional cost for monitoring, hygiene measures and lower revenues as positive eggs have to go the processing industry.

Figure 2 gives an overview of the total cost increase with a split up for the different cost components. As a result, the production cost of Dutch eggs will increase by almost €0.09 per kg of eggs in 2012. The production cost in Germany will also exhibit a substantial increase in the period until 2012. In France, Spain and Poland, the production cost will increase by approximately €0.075 per kg of eggs. These increases will largely be due to the transition to enriched cages.

Broilerfarms

Figure 3 give an overview of the total production of broilers at farmlevel and the different cost components. The results reveal that the average cost production cost in the Netherlands in 2004 were comparable with those in Germany and France. The production cost were slightly higher in the United Kingdom, and slightly lower in Poland. Although the ultimate cost price is lower in countries such as Poland there are nevertheless differences in many areas. Dutch farms combine good production results with a relatively low feed price. Conversely, Dutch broiler farms are confronted with higher manure-disposal costs, more expensive poultry houses, and higher energy costs. The Dutch manure-disposal costs in particular constitute a high cost item that is not incurred by broiler farmers in France, the United Kingdom, or Poland.

Figure 2  Expected increase in production cost (eurocent per kg eggs) between 2004 and 2012 in the Netherlands, Germany, France, Spain and Poland.

Figure 3  Production cost for broilermeat (eurocent per kg live weight) at farm level in the Netherlands, Germany, France, United Kingdom, Poland, USA and Brazil in 2004.
The USA and Brazil were selected as examples of the situation outside the EU. In 2004, the US producers’ cost price of broiler meat was 36% lower than in the Netherlands, whilst in Brazil the production cost was more than 40% lower. The lower production cost in the USA was largely due to the lower feed price (local supplies of feed raw materials) and the favourable conditions. The production is carried out by means of efficiently-organised integrations. The broilers are kept in relatively simple and cheap poultry houses. In addition, both countries’ production cost are lower due to lower levels of legislation and regulations. One example is the use of meat-and-bone meal, which is permitted in both countries.

During the coming years, both European and national legislation will come into force which will exert an influence on the cost price of broiler meat. These regulations relate to food safety, animal welfare, and the environment. In all these areas, both society and the public in the Netherlands – and in other European member states – impose conditions that are interpreted in terms of legislation and regulations. In this study the focus was on the following themes:

a) Growth promoters. In 2006, the EU will prohibit the use of anti-microbial growth promoters. This will result in a slight increase in feed prices and feed intake.

b) Animal welfare. The EU is currently of the intention to impose an animal welfare measure that imposes a maximum on the bird density in broiler houses. Although this is a European measure, it will have particularly major economic consequences for the Netherlands.

c) Environment. Broiler farmers will also be confronted with national and EU environmental measures designed to reduce the level of ammonia emissions. Pursuant to the current regulations (IPPC), all broiler houses will need to achieve low-emission standards by 2010.

d) Zoonoses. Lastly, the Zoonoses Directive is an additional measure at EU level. Although this will also increase the costs incurred by Dutch farms, it is nevertheless expected that the resultant cost increases will be greater in other EU member states; the Netherlands has already implemented a pioneering ‘Salmonella and Campylobacter’ plan of action that will result in restricted additional costs in the reduction of Salmonellae infections.

Figure 4 gives an overview of the total cost increase with a split up for the different cost components. The total increase in costs in the years to 2010 for the Netherlands is calculated to amount to €0.042 per kg live weight; the respective cost increases for Germany, the United Kingdom, France and Poland are calculated as amounting to €0.041, €0.029, €0.035 and €0.043 per kg live weight.

Conclusions

In general it can be concluded that there are just minor differences in production cost of eggs in between the EU countries the Netherlands, Germany, France, Spain and Poland. However, the production cost in those EU countries are significantly higher than that in some non EU countries, such as in the USA and Brazil. For the coming years legislation on national or EU level will come into effect. Within the EU, the Netherlands and Germany are ahead of France, Spain and Poland in the introduction of supplementary legislation relating to animal welfare (such as the prohibition of beak trimming) and the environment (such as energy tax and lowering ammonia emissions). The total cost increase for the EU countries from 2004 towards 2012 will be 11 to 13%.

Also for broilermeat it can be concluded that there are just small differences in production cost in between the EU countries the Netherlands, Germany, France, United Kingdom and Poland. The
difference in production cost with the United States and Brazil were in 2004 respectively 36% and 44%. New legislation is already in force (ban on growth promoters from January 2006) or will be in force the coming years (animal welfare, lowering ammonia emission and salmonella control). The cost increase for the EU countries from 2004 towards 2010 will be 4 to 6%.

It is important to note that this study makes use of averages; it is known that the production cost vary greatly between individual farms, and the differences between the farms in a given country are probably greater that the differences observed between countries like the Netherlands, Germany and France.

In general the EU poultry farmers will need to compensate for these additional costs by the achievement of good technical results based on professionalism (good stockmanship). The opportunities available to the sector lie, in particular, in the adoption of a market-oriented strategy towards the European markets. European consumer demand high-quality and safe products produced under sustainable conditions.

No significant cost increases are forecast for countries outside the EU, and consequently the competitive position of EU broiler and layer farmers will be weaker. In a situation with lower EU import levies on poultry products, as a possible result of an agreement within the WTO Doha round, there will be more supply from non EU countries on the European market and the poultry industry will weaken and deteriorate further in the coming years.