Animal welfare in poultry production systems: Impact of EU standards on world trade

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Global diffusion of welfare
Standards in broiler production
Standards for layers
Conclusions
Discussion
Global comparison of standards

Animal welfare level

- Organic standard
- Private standards (not regulated)
- EU standard
- Third countries standard

- Private voluntary standards by retailers, processors vary widely (e.g., France)
- EU rules are above international levels.
- Non EU countries can comply with EU standards.
Broilers

- Housing systems
- Welfare
- Trade
- Economics
- Conclusions
Housing systems for broilers

Europe:
Closed housing
Medium – high density

South america:
Open housing
Low – medium density
Welfare regulations broilers

At this moment:

- Switzerland  max 30 kg/m²
- Sweden / Denmark  36 – 40 kg/m²
- Germany / UK  35 kg/m² (voluntary)

Future:

- All EU countries in 2010 maximum 39 – 42 kg/m²

- Other welfare points: high growth rate, leg disorders, ‘litter quality’, respiratory problems.
Economics of welfare broilers

- In Europe high cost for housing → high density to maximize income per poultry house.
- In South America and Asia lower density due to lower housing standard and climate.
- Density is minor factor explaining difference in production cost (cost of feed, labour).
Main trade flows poultry meat (source: PVE, data 2004)
Production cost at farm level 2004, euro/ kg LW

- EU: 70 cent/kg LG
- US: 50 cent/kg LG
- BR: 40 cent/kg LG

Cost breakdown:
- General
- Housing
- Labour
- Other
- Energy
- Feed
- Chick
Conclusions broilers

- EU: welfare is density (birds/m\(^2\)) and mortality
- Outside EU no regulations. Open housing with low to medium density.
- Large trade flows in broiler meat worldwide
- Welfare regulations will not have a large impact on future development in trade flows.
Layers

- Housing systems
- Welfare
- Trade
- Economics
- Conclusions
Housing systems for layers

Europe:
- Closed housing
- Cages: high density

South america and Asia:
- Open housing
- Cages: high density
Welfare regulations layers

At this moment:
- Switzerland: ban on all cages
- Sweden / Austria / Germany: early ban traditional cages

EU in 2012:
- Ban on traditional cages and housing in enriched cages (area 750 cm² per hen) or alternative systems (deep litter or free range).
- EU: proper beak trimming on birds younger than 10 days.
Overview enriched cage (example)
<table>
<thead>
<tr>
<th>Country</th>
<th>System / Space (cm² per hen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>ban on cages</td>
</tr>
<tr>
<td>EU standard till 2003</td>
<td>cage / 450 cm²</td>
</tr>
<tr>
<td>EU standard from 2003</td>
<td>cage / 550 cm²</td>
</tr>
<tr>
<td>EU standards from 2012</td>
<td>cage / 750 cm²</td>
</tr>
<tr>
<td>Germany</td>
<td>enriched cages / 800 cm²</td>
</tr>
<tr>
<td>USA/Canada</td>
<td>cage / 430 cm²</td>
</tr>
<tr>
<td>Brazil, India, Ukraine</td>
<td>cage / 350 to 400 cm²</td>
</tr>
</tbody>
</table>
Economics of housing systems worldwide

- USA
- EU-2003
- EU-2012
- Germany
- Netherlands

- Cost index (EU 2003 = 100)
- Space (cm² per hen)
- Cage
- Enriched cage
- German enriched cage
- Deep litter
Trade

- Worldwide trade in eggs is limited
- 2% of the eggs reach the world market
- Mainly regional trade.
- Future:
  - more trade in egg products: egg powder
  - Egg powder: long storage, low transportation cost
  - Changes for low cost countries: Brazil, India, Ukraine
Production cost Eggs in 2003 outside EU, Farm level (Ect/kg)
Conclusions

- EU: welfare is density (cm² per birds/m²), enrichment and beak-trimming
- Outside EU no regulations. In general high density in traditional cages.
- Small trade flows in eggs world wide
- Trade flows in egg powder will increase
- Welfare regulations will have a large impact on future development in trade flows.
Discussion

- Relation with income
- EU policy
Relation welfare legislation and income worldwide

![Graph showing the relationship between welfare level and income per person for selected countries. The graph includes points for Swit, East EU, N-W EU, South EU, USA, Japan, Asia & South America, and includes a regression line with $R^2 = 0.4288$.](image-url)
EU policy

- Focus on animal welfare
- Discussion on world wide standards through World Organization for Animal Health (OIE)
- Animal welfare on WTO agenda
- Labeling to provide consumers with information
- Differentiated Import Tariffs or Taxes.
Offer price of breastmeat 2004 in EU (euro/kg)
Offerprice of whole egg powder in Germany, 2012, scenario 1

EU  | 426  cent per kg
UKR | 320  cent per kg
USA | 330  cent per kg
BR  | 263  cent per kg
INDIA | 276 cent per kg

Legend:
- Red: Production cost (excl EU-Directive)
- Green: Cost of EU-Directive
- Yellow: Transport
- Blue: Levy on imports
Who will follow.....
Thanks for your attention

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