Overview report
Use of Slaughterhouse Data to Monitor Welfare of Broilers on Farm
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OVERVIEW REPORT OF A SERIES OF AUDITS
OF THE DIRECTORATE-GENERAL FOR HEALTH AND FOOD SAFETY
FROM 2013 TO 2015
TO EVALUATE THE OFFICIAL CONTROLS ON THE WELFARE OF CHICKENS
KEPT FOR MEAT PRODUCTION USING SLAUGHTERHOUSE DATA
TO ESTABLISH FARM CHECKS
Executive Summary

This report provides an overview on the systems established at slaughterhouse level in Member States to monitor broiler farm welfare. The information comes mainly from audits carried out by the Directorate-General for Health and Food Safety between 2013 and 2015.

In the production of broilers, welfare indicators such as contact dermatitis can be monitored during post-mortem inspections. They allow exposing signs of sub-optimal welfare conditions at farm level.

The Member States audited produce over 80% of the annual EU production of chicken meat, and the report concludes that only a small percentage of broilers (around 20%) go through effective and complete monitoring systems.

The report also highlights that complying with the 'letter' of the law does not seem sufficient to guarantee impact of these systems in improving welfare conditions for broilers at farm. Systems that proved effective are standardised and, in general, supported by industry involvement. They also have adequate and clear limits to trigger reporting.

Good communication and coordination between supervisory authorities at slaughterhouse level with those at farm level, and clear follow up procedures are also essential to ensure consistency in the official approach and in obtaining results.
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<thead>
<tr>
<th>Abbreviation</th>
<th>Explanation</th>
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<td>EU</td>
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1 INTRODUCTION AND BACKGROUND

The European Union (EU) is one of the world's top producers in poultry meat and a net exporter of poultry products. Annually, around six billion chickens are raised in the EU (13.1 million tons of poultry meat were produced in 2014).

The EU recognises animals as sentient beings\(^1\). Within the actions to ensure that animals do not endure avoidable pain or suffering, Council Directive 2007/43/EC (‘the Directive’) lays down minimum rules for the protection of chickens kept for meat production. Chickens kept for meat production are known as broilers or broiler chicken.

The Directive sets conditions for chicken farms and, for the first time in animal welfare legislation, included ‘welfare indicators’, requiring monitoring and follow up of some of these indicators at the slaughterhouse to inform the decisions taken at farms.

Farms with more than 5,000 broilers represent barely 1% of the total number of broiler farms in Europe, but they account for 93.5% of broilers. More than three quarters of farms with more than 5,000 broilers are located in Poland, France, United Kingdom, Germany and Spain\(^2\), which are also the leading countries in poultry meat production.

Broiler chickens are generally farmed in intensive indoor systems. In the EU, they are slaughtered at an average age of 42 days at a weight of 2.5kg. One-day old chicks are placed in a shed, on a floor covered with bedding material (e.g. straw, wood chips, peat or paper) known as litter. The litter usually remains in place for the 42 days of the birds' lifetime and is completely removed and replaced by new litter prior to bringing in the next flock of day-old chicks. Depending on several environmental and production factors the litter material can become wet. Wet litter is a major risk factor for contact dermatitis\(^4\) - which can provoke lesions on the breast, hock and feet and therefore affect the welfare of the chicken.

Handling of live broilers at farm is stressful to the birds and it should be avoided. Therefore, animal welfare evaluations at farm level are usually restricted to an overall assessment of the flock. Unless the welfare at farm is extremely poor, these assessments do not detect welfare problems at a medium or low level intensity. At slaughterhouse level post-mortem inspection is mandatory and is included in the normal processing. It is therefore easier to observe and assess all the birds of each flock and to gather data that can point out the situations of medium and low level of welfare. Lesions such as

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1 Article 13 of Title II of Treaty of Lisbon
hematomas, scratches, footpad dermatitis or hock burns are more visible on shackled and plucked carcasses than on live animals.

Footpad dermatitis or pododermatitis can be a significant welfare issue for the broiler industry and rate of footpad dermatitis is widely considered one of the best indicators of poor broiler welfare at farm.

Increasingly, the incidence of footpad dermatitis is being used as an indicator of broiler flock welfare and a number of systems have been developed to try and assess the incidence and severity of footpad dermatitis within individual broiler flocks. The Swedish system (Berg, 1998) - a three tier scoring system - is the most widespread in Europe\(^5\).

If official control systems get this information from the slaughterhouse, authorities can focus their actions on broiler farms with welfare problems to be addressed by the farmer. Otherwise, their selection of farms is less effective and focussed.

The Directive aims to prevent poor welfare caused by extreme overcrowding and poor conditions. It outlines the minimum required environmental conditions in relation to maximum broiler production stocking densities. It sets a maximum stocking density of 33kg/m\(^2\) but includes the possibility of going up to 42 kg/m\(^2\) if additional specific requirements are met. Some Member States and industry's private schemes have chosen to go beyond these requirements by implementing more stringent legislation or standards. As examples, maximum stocking densities have been set at:

- 30 kg/m\(^2\) - Austria;
- 36 kg/m\(^2\) – Sweden;
- 38 kg/m\(^2\) - British schemes Red Tractor Farm Assurance Scheme and Genesis GAP;
- 39 kg/m\(^2\) - Germany, United Kingdom and the Irish scheme Board Bia.

2 OBJECTIVES AND METHODOLOGY

The objective of this report is to provide an overview on the systems established at slaughterhouse level by Member States to monitor on-farm welfare of broilers and on their effectiveness in improving chicken welfare. The report is mainly based on information gathered in a series of audits on animal welfare at slaughter carried out by the Directorate-General for Health and Food Safety of the European Commission between 2013 and 2015. Other sources of information are quoted as footnotes in the report.

Ten out of thirteen audits of the mentioned series were used as a basis for this overview (three audits from the series were excluded as they did not assess monitoring of broilers at slaughterhouse).

Another three audit reports of 2013 from the same Directorate - on animal welfare at farm - which included information on monitoring of broilers at slaughterhouse were also used for this overview report.

Information contained in reports of audits carried out in 2012 or earlier was considered outdated and was excluded.

A full list of the audit reports used is available in Annex 2.

The thirteen Member States audited and considered for this overview report produce more than 80% of the EU production of poultry meat (mainly broilers).

The findings and conclusions in this report reflect the situation at the time of the audits.

Legal acts quoted in this report refer, where applicable, to the last amended version. Full legal references are provided in Annex 1.

3 MONITORING AND FOLLOW-UP AT THE SLAUGHTERHOUSE

3.1 DETECTION OF POOR WELFARE AT SLAUGHTERHOUSE

The recent evolution of the assessment of animal welfare towards the monitoring of animal-based welfare indicators gives a new dimension to post-mortem inspection. Some outcomes of the conditions how broilers were reared can be more easily and more accurately monitored during post-mortem than on-farm. Several studies have demonstrated, for instance, that the regulation of broiler density during rearing, based on the prevalence of footpad dermatitis observed during post-mortem, can reduce the incidence of this problem.

The severity and intensity of footpad dermatitis is evaluated and scored in around one third of the Member States audited, responsible for 32% of the EU production of broilers. Others were in the process of planning or implementing this practice.

Most Member States have implemented at least some components required by the Directive to detect indications of poor broiler welfare conditions at slaughterhouse level. The situation within the EU is highly variable and can be summarised in three levels:

- Detection systems in line with the requirements. In general, they include in their evaluation all the post-mortem inspection indicators: abnormal levels of contact dermatitis, parasitism and systemic illness;

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6 Annex III, 1. and 2. to the Directive
8 Article 3 (1) of the Directive
9 Indicators identified in Annex III, 2 to the Directive
• Detection systems that do not include all the elements. In their large majority, the gap concerns not providing the complete mortality data; and

• Absence of detection system or partial implementation.

In general, there is a delay in implementing the provisions in the Directive, which entered into force three to four years before the audits were performed. On the other hand, the Directive details post-mortem inspection indicators, but it does not include references to setting up trigger levels, which proved to be a key to system effectiveness. Thus, pure compliance with the 'letter' of the law- i.e. systems assessing all post-mortem parameters indicated in Annex III, 2 to the Directive- does not necessarily ensure the effectiveness of the system. For instance:

• The absence of clear "trigger" levels for all the welfare indicators - i.e. the limit or cutting-point that sets in motion reporting to communicate the results of the inspection - favours subjective interpretation of the post-mortem findings and, frequently, it results in absence of reporting;

• The level at which reporting is triggered also influences the effectiveness of the system. In one case, the high level set resulted in absence of reporting from any slaughterhouse for years. Setting a low level can generate many more reports than predicted\(^{10}\), which could render the system ineffective by overloading authorities with information and tasks when animal welfare at farm might have not been compromised.

3.2 Reporting of post-mortem results\(^{11}\)

All EU countries envisage reporting results of slaughterhouse findings back to the farm of origin, but the systems can be divided in:

• Well-functioning reporting systems (in occasions, even these had some difficulties concerning coordination/exchange of information between competent authorities when the slaughterhouse was located in a Member State/region other than that of the supplying farm(s));

• Inadequate reporting systems (there were several reasons for their unsuitability, e.g. absence of a detection system, ineffective/incorrect triggers, not all necessary actors are informed).

There is a positive and direct impact in the quality and number of issues that are reported back to the farm when the systems are effective in detecting welfare problems at slaughterhouse level and when they are harmonised at national level.


\(^{11}\) Annex III, 2. and 3. to the Directive
The existence of harmonised instructions on how to report and follow up the indications of poor welfare detected at slaughterhouse increases the effectiveness of the actions taken by both the farmer and the local competent authority.

3.3 Follow up and actions taken

The audits identified common elements in the procedure or methodology applied in countries where actions taken are proving effective to improve the welfare of broilers at farm level. These are:

- Farmers that rear the animals, as well as the slaughterhouse operator, receive an official notification that measures made at slaughterhouse level indicate a potential on-farm welfare problem;
- The competent authority responsible to supervise the farm is also informed about this potential on-farm welfare problem. In some cases, the issuing authority requests them to perform a welfare inspection at the farm;
- When more serious issues are detected (i.e. high mortality, very high level of footpad dermatitis), stronger administrative or legal measures are taken, e.g. legal notifications which could result in subsequent fines, other sanctions, or even court prosecution.

In some Member States evaluating footpad dermatitis, there were particular additional actions which contributed to the improvement of broiler welfare at farm. They included actions such as:

- Mandatory reduction of stocking density when stocking density was up to 42 kg/m$^2$ and the annual average level of dermatitis exceeded the trigger level;
- Incentives paid by slaughterhouse operators to farmers ('premiums') for low levels of footpad dermatitis;
- Requests for information from farmers if levels of footpad dermatitis reached specific trigger levels, with escalation of action if subsequent flock from the same farm also exceeded triggers.

Denmark performs footpad dermatitis evaluation since 2002 (together with enforcement actions and, more recently, slaughterhouse incentives for low footpad dermatitis levels). It managed to achieve a drop in the prevalence of serious footpad dermatitis scores from approximately 60% in 2002 to about 10% in 2012. Danish data indicate big improvement in the first three years - there was a correlated increase in the number of flocks judged to have low footpad dermatitis scores from approximately 10% in 2002 to 65% in 2005 - but not much change in these parameters after those first three years. The database where all these data are gathered is maintained and used by the Danish poultry industry\textsuperscript{13} and the competent authorities.

\textsuperscript{12} Annex III, 3 to the Directive
There is a common weak link in the systems audited. It relates to cases where the farm rearing the animals and the slaughterhouse processing them and detecting welfare problems are under different authorities. Frequently in those cases, the competent authority supervising welfare at the slaughterhouse does not receive any feedback about the action taken at farm level. This break in the communication between authorities complicates the continuous improvement cycle as it prevents the authority collecting information to be aware of how those data were used in practice.

4 **OVERALL CONCLUSION**

<table>
<thead>
<tr>
<th>Number of Member states (% of total EU production)</th>
<th>audited with</th>
</tr>
</thead>
<tbody>
<tr>
<td>detection systems in line with the requirements</td>
<td>detection systems that do not include all the elements</td>
</tr>
<tr>
<td>5 (35%)</td>
<td>4 (38%)</td>
</tr>
<tr>
<td>and that evaluated and scored footpad dermatitis</td>
<td>-</td>
</tr>
<tr>
<td>4 (32%)</td>
<td>-</td>
</tr>
<tr>
<td>well-functioning reporting systems</td>
<td>inadequate reporting systems</td>
</tr>
<tr>
<td>4 (33%)</td>
<td>9 (55%)</td>
</tr>
<tr>
<td>effective monitoring for assessing on-farm welfare at post-mortem</td>
<td></td>
</tr>
<tr>
<td>Denmark, Netherlands and the United Kingdom (20%)</td>
<td></td>
</tr>
</tbody>
</table>

In the production of broilers, welfare indicators such as contact dermatitis can be monitored during post-mortem inspection. They allow exposing signs of sub-optimal welfare conditions at farm level.

The Member States included in the audits used for this report produce over 80% of the annual EU production of chicken meat. Most of them do not have effective and complete systems to monitor, collect and assess information regarding on-farm welfare for broilers at slaughterhouse level. Only approximately 20% of the EU total broiler production (DK, NL, UK) undergo effective monitoring for assessing on-farm welfare at post-mortem.

As 80% of the chicken-meat production is not monitored for this, there is a lost opportunity for competent authorities for better targeting their resources, for improving bird welfare and for measuring the improvement in the welfare of chickens kept for meat by comparing data collected at slaughterhouse level.

To have impact in improving welfare conditions for broilers at farm, the system needs to go beyond the 'letter' of the legal requirements. The detection system set at

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13 The report quotes only Danish data as other Member States audited did not have similar data available at national level at the time of the audits.
slaughterhouse level needs to be standardised - and, ideally, supported by industry involvement- and have adequate and clear limits to trigger reporting. Good communication and coordination between supervisory authorities at slaughterhouse level with those at farm level, and clear follow up procedures are also essential to ensure consistency in the official approach and in obtaining results.

5 Actions taken or planned by the Commission services

For each individual audit, a report was sent to the competent authorities of the Member States visited with a request for a proposal of actions aimed at addressing the report’s recommendations. The actions proposed by the competent authorities have been subjected to regular Directorate-General for Health and Food Safety follow-up. The individual audit reports are available at: http://ec.europa.eu/food/audits-analysis/audit_reports/index.cfm

Directorate-General for Health and Food Safety has scheduled a workshop under the Better Training for Safer Food framework with representatives of the 28 Member States to discuss the results indicated in this overview report for January 2017.

The Commission has commissioned a study on the application of the Directive and to define the welfare indicators to be scored and recorded at slaughterhouses, based on Member States experiences, to improve the welfare of broilers reared. The final report from this study is expected to be completed by middle 2017.
## ANNEX 1 – LEGAL REFERENCES

<table>
<thead>
<tr>
<th>Legal Reference</th>
<th>Official Journal</th>
<th>Title</th>
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ANNEX 2 - DETAILS OF INDIVIDUAL AUDITS CONSIDERED FOR THIS OVERVIEW REPORT

<table>
<thead>
<tr>
<th>Country (% of total EU production)</th>
<th>Date of Audit</th>
<th>SANTE ref. no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom (13%)</td>
<td>25 February to 1 March 2013</td>
<td>2013-6822</td>
</tr>
<tr>
<td>Denmark (1%)</td>
<td>7 to 11 October 2013</td>
<td>2013-6807</td>
</tr>
<tr>
<td>Austria (1%)</td>
<td>25 to 29 November 2013</td>
<td>2013-6805</td>
</tr>
<tr>
<td>Latvia (0.2%)</td>
<td>24 to 28 February 2014</td>
<td>2014-7077</td>
</tr>
<tr>
<td>Italy (10%)</td>
<td>3 to 14 March 2014</td>
<td>2014-7075</td>
</tr>
<tr>
<td>Spain (11%)</td>
<td>1 to 10 April 2014</td>
<td>2014-7079</td>
</tr>
<tr>
<td>Germany (12%)</td>
<td>10 to 20 June 2014</td>
<td>2014-7073</td>
</tr>
<tr>
<td>Czech Republic (1%)</td>
<td>16 to 20 June 2014</td>
<td>2014-7060</td>
</tr>
<tr>
<td>Hungary (3%)</td>
<td>24 June to 4 July 2014</td>
<td>2014-7072</td>
</tr>
<tr>
<td>Belgium (3%)</td>
<td>24 November to 3 December 2014</td>
<td>2014-7059</td>
</tr>
<tr>
<td>The Netherlands (6%)</td>
<td>16 to 26 September 2014</td>
<td>2014-7078</td>
</tr>
<tr>
<td>Poland (14%)</td>
<td>9 to 13 March 2015</td>
<td>2015-7420</td>
</tr>
<tr>
<td>France (13%)</td>
<td>8 to 17 April 2015</td>
<td>2015-7427</td>
</tr>
</tbody>
</table>

*Total poultry slaughtered data (in tonnes) taken from Eurostat for 2014 other than for The Netherlands which is from 2007. The indicator covers mainly the production of gallinaceae including broilers. Conversion of data in tonnes into percentage values quoted in the report was not done by Eurostat.

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