

## JRC TECHNICAL REPORT



# 2014 Annual Report of the Board of Experts in Monitoring Water content in Poultrymeat following Regulation (EC) No 543/2008

Alexander Bernreuther

2015

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**Abstract**

This report describes tasks, activities and achievements in 2014 of the Board of Experts in monitoring water content in poultrymeat following Commission Regulation (EC) No 543/2008, in particular the launch of a survey on methods of homogenisation of poultry carcasses and parts used by the National Reference Laboratories, the revision of Commission Regulation (EC) No 543/2008 and the Special Expert Group Meeting in Uppsala, Sweden.

As every year, the National Reference Laboratories are obliged to provide control data from each slaughterhouse. Similar to previous years, the control data received for 2013 are rather heterogeneous. This time a more detailed evaluation of all submitted data took place with focus on plausibility of the data. Where possible reported numbers were recalculated. Furthermore, the data were sorted and evaluated according to the applied chilling methods, types of poultry cuts as well as on over-the-limit cases and on imports from non-EU countries.

2014 Annual Report of the Board of Experts in Monitoring Water  
Content in Poultrymeat following Regulation (EC) No 543/2008

*Alexander Bernreuther*

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## **EXECUTIVE SUMMARY**

This report describes tasks, activities and achievements in 2014 of the Board of Experts in monitoring water content in poultrymeat following Commission Regulation (EC) No 543/2008, in particular the launch of a survey on methods of homogenisation of poultry carcasses and parts used by the National Reference Laboratories, the revision of Commission Regulation (EC) No 543/2008 and the Special Expert Group Meeting in Uppsala, Sweden.

As every year, the National Reference Laboratories are obliged to provide control data from each slaughterhouse. Similar to previous years, the control data received for 2013 are rather heterogeneous. This time a more detailed evaluation of all submitted data took place with focus on plausibility of the data. Where possible reported numbers were recalculated. Furthermore, the data were sorted and evaluated according to the applied chilling methods, types of poultry cuts as well as on over-the-limit cases and on imports from non-EU countries.

# 1 Events and achievements 2014

## 1.1 Expert Group meeting

On 12 March 2014, the annual meeting of the Experts Group "Monitoring water content in poultrymeat" and the meeting of the Board of the Experts Group, organised by DG AGRI (C4 Animal Products) took place in Brussels (L130). This meeting was chaired according to Annex XII of Regulation (EC) No 543/2008 by Alexander Bernreuther from JRC-IRMM together with Stefania Marrone from DG AGRI. The Experts Group meeting was attended by 22 delegates from 21 NRLs with the following agenda:

- Collection of the national control data for 2012
- Short report about the extraordinary Expert Group Meeting 2013 in Poznań, Poland
- Annual report presented to the management committee in December 2013
- Physiological water content in poultrymeat
- Date and place of the next expert group meeting

### 1.1.1 Collection of the national control data for 2012

Alexander Bernreuther gave an overview on control data obtained by the NRLs for 2012. He reminded the participants that the NRLs are requested by Articles 16 and 20 of Commission Regulation (EC) No 543/2008 to provide the results of regular checks. Per year are at least 6 data sets for whole poultry carcasses requested for each slaughterhouse and at least 4 data sets for poultry cuts for each cutting plant have to be submitted.

Furthermore, he presented a comparison of control data for 2011 and 2012. The percentage of poultry carcasses whose water/protein ratio exceeded the legal limits in 2012 was higher than in 2011, while the percentage of poultry parts whose water/protein ratio exceeded the legal limits in 2012 was lower than in 2011. Furthermore, he showed statistics on chilling methods applied in the different Member States. For poultry carcasses as well as for poultry parts there seemed to be a slight tendency away from the use of air chilling towards the use of air spray and immersion chilling, this tendency was more pronounced for poultry carcasses.

Finally, he proposed some potential improvements such as:

- Survey of eligible slaughter houses (> 10'000 birds per year) in each Member State (working according to a code of good practice to check monitoring of water content)
- Simplification and training for data input using the Information System for Agricultural Market Management and Monitoring (ISAMM)
- Direct support of NRLs by DG AGRI and by DG JRC-IRMM
- Make better use of available data (e.g. statistics on over-the-limit samples, on chilling methods, countries, etc)

### 1.1.2 Short report about the extraordinary Expert Group Meeting 2013 in Poznań, PL

Magdalena Świdorska from the Central Laboratory (GIJHARS, Poznań; Polish NRL) gave a presentation on the Special Expert Group Meeting „Water in poultry” 03-04 October 2013, Poznań, Poland.

### 1.1.3 Annual report presented to the management committee in December 2013

Alexander Bernreuther presented the JRC Technical Report **EUR 26528 EN** titled "2013 Annual Report of the Board of Experts in Monitoring Water Content in Poultrymeat following Regulation (EC) No 543/2008". The electronic version of this report was provided to all participants.

### 1.1.4 Physiological water content in poultrymeat

Alexander Bernreuther pointed to the fact that Regulation (EC) No 543/2008 contains several upper limits for water/protein ratios, depending on the chilling method, the method of analysis and whether carcasses or parts have to be controlled. These limits have been established

more than 20 years ago, sometimes in an arbitrary manner. It is now rather difficult not only to retrieve all original data from previous studies on the physiological water content, but also to understand the reasoning for setting these limits depending on the chilling method. Moreover, the evolution of chilling methods applied in the slaughter houses for poultrymeat as well as the introduction of more modern chilling techniques, has to be taken into account. Before any of the limits laid down in Regulation (EC) No 543/2008 will be changed, further scientific data on the influence of chilling methods on the water/protein ratios is required. Therefore, it was proposed to launch a collaborative study to investigate the impact of different chilling methods on the physiological water content, starting with a survey (major slaughterhouses only) on currently applied chilling methods in the Member States. The NRLs will be asked to provide technical details such as:

- chilling method
- air humidity
- chilling temperature
- chilling time
- water exchange rates
- tumbling/stirring
- immersion depth
- dripping time after chilling
- other relevant data

#### *1.1.5 Date and place of the next expert group meeting*

Rasmus Grönholm from the Swedish NRL announced that he is willing to organise the next Special Expert Group Meeting in Uppsala (SE), which will give the delegates the opportunity to visit one of the most modern slaughter houses in the EU. This special Experts Group meeting will take place in October during week 41.

#### *1.1.6 Any other business*

Stefania Marrone asked the delegates their (technical) input for the forthcoming revision of Regulation (EC) No 543/2008.

Martin Alewijn from the Dutch NRL addressed again the need of a collaborative study to assess the impact of the methods used for poultry homogenisation on the water content and the water/protein ratio. He proposed to send a questionnaire to the NRLs requesting their input, before drafting the details of the collaborative study.

#### *1.1.7 Meeting of the Board of the Experts Group*

Currently, the Board of the Experts Group "Monitoring water content in poultrymeat" consists of delegates from the Netherland, Poland and the United Kingdom. The outcome of the discussions is summarised below:

- It was agreed to continue with the current members of the Coordinating Board.
- Further details were discussed regarding the impact of the various homogenisation techniques on water/protein ratios (e.g. detailed documentation of samples and machinery including photographs). The Dutch delegation volunteered to coordinate and summarise the outcome of a dedicated study.
- The potential of a rather new colorimetric method for the determination of the protein content was briefly discussed. This method is based on protein-tagging technology where the sample is mechanically mixed with an anionic dye that binds to cationic groups of the basic amino acid residues and to free amino terminal groups (see: [http://www.cem.com/e107\\_files/public/pdf/aoac\\_method2011\\_04\\_protein\\_meat.pdf](http://www.cem.com/e107_files/public/pdf/aoac_method2011_04_protein_meat.pdf)).
- Furthermore, the use of near infrared spectrometry (NIRS) or Raman spectrometry for the control of water and protein in poultrymeat as additional methods were proposed. NIRS is a widely spread methodology, delivering reliable results within very short time. The only

drawback is that it requires thorough calibration based on reference methods such as Kjeldahl and drying oven, which needs to be established first on a larger number of samples, representing typical variation of poultrymeat.

- The newly approved method on the detection of previously frozen poultry will be considered for the revision of Regulation (EC) No 543/2008, but the text will be kept short as reference can be made to the publicly available detailed report on this method.
- It was concluded that only established methods, which are recognised as international standards (e.g. ISO, CEN, AOAC) should be considered for the revision of Regulation (EC) No 543/2008.

## **1.2 Submission of control data**

By 30 June each year, the National Reference Laboratories (NRLs) shall notify the Commission on the results of checks as laid down in Article 18 of Commission Regulation (EC) No 543/2008). These checks and their frequency are described in Articles 16 (poultry carcasses) and 20 (poultry cuts) of this regulation.

## **1.3 Routine meeting**

On 02 July 2014, Alexander Bernreuther participated in a routine meeting organised by DG AGRI (Unit C.3; Animal Products) in Brussels (L130) with the following agenda:

- Control data (access to ISAMM and structure of data; list of affected slaughterhouses)  
Most of the NRLs sent their control data for 2013 respecting the dead line (= 30 June 2014). Some still reported difficulties with ISAMM, which is the only accepted interface for online submission of control data. DG AGRI is taking care of the follow-up.
- Collection of information from NRLs regarding the code of practice within slaughterhouses  
Some NRLs have already sent the requested information, but many did not. DG AGRI is taking care of the follow-up.
- Planned collaborative study (influence of homogenisation techniques on water/protein ratios)  
The Dutch NRL provided a questionnaire on currently applied methods for sample homogenisation in the NRLs. The Board members (PL, UK, NL, Stefania Marrone and Alexander Bernreuther) provided feedback. The questionnaire will be distributed to the NRLs after the summer break. The outcome of this survey will be used to propose a collaborative study. At the moment, it has not been decided by DG AGRI how and when such a study will be financed.
- Planned collaborative study (influence of water intake from scalding to chilling on water/protein ratios)  
During the last Expert Group Meeting in March 2014, it was proposed to collect data on chilling methods currently applied in the EU slaughterhouses. Based on a survey, a collaborative study might be launched. Details have not yet been decided. This topic will be further discussed during the Special Expert Group Meeting in October 2014.
- Special expert meeting in Sweden, 8 and 9 October 2014  
A draft agenda was prepared and sent to the NRLs.

## **1.4 Special Expert Group Meeting**

On 8 and 9 October 2014, a special meeting of the "Experts in monitoring water content in poultrymeat" was organised by Rasmus Grönholm from the Swedish NRL. In total 13



delegates from 13 NRLs and two delegates from the European Commission (one from DG AGRI and one from DG JRC-IRMM) participated in this meeting.

On 08 October, a one-day visit to poultry-related establishments, organised by the Swedish Poultry Meat Association (Svensk Fågel), took place:

- Poultry farm for chicken (Röhls gård, Malmköping)
- New slaughterhouse for chicken (Kronfågel, Valla)

The second day (09 October) began with a visit of the National Food Agency (NFA; Livsmedelsverket) in Uppsala. The following presentations were given:

- Rasmus Grönholm (NFA)            Organizational structure of the NFA
- Karin Bäckström (NFA)           Marketing standards for poultrymeat
- Helena Höök (NFA)                Swedish controls of poultrymeat production
- Pontus Elvingsson (NFA)        Food fraud

After the presentations several food control laboratories were visited and after the lunch an open discussion on several topics took place.

#### *1.4.1 Physiological water content in poultrymeat*

- Status of the planned study on the impact of sample preparation and homogenisation  
Survey documents, prepared by the Dutch NRL are ready to be sent to the NRLs.
- Experiences of the NRLs regarding illegal additives to manipulate water/protein ratios  
As already known, there are Brazilian "salted" chicken fillets entering the market. Furthermore, it seems that partially hydrolysed gelatine is added. A hydroxyproline content of more than 0.06 % is considered as an indication of gelatine addition.
- Factual water and protein contents in addition to water/protein ratios  
It is important to look at water and protein contents apart and not only at the water/protein ratios. As water and protein contents are anyway reported (control data), upper limits for water and lower limits for protein could also be established. In case of doubtful samples, the laboratory should check for nitrogen containing exogenous substances.
- Alternative methods for water and protein determinations (e.g. Karl Fischer titration for water; Dumas, dye binding and near infra-red spectrometry for protein)  
Alternative methods are welcome, but one should bear in mind that only results obtained with official (reference) methods can be used in case of doubts (court case). Alternative methods have to prove to deliver the same results as the official methods, otherwise they are not fit for purpose (see Commission Regulation (EC) No 543/2008).
- Manual of good practice for checking the water intake in the slaughterhouses  
The Swedish NRL offered to provide corresponding documents. The NRLs are asked to provide such information. Only establishments with more than 10'000 birds per year should be considered. A distinction needs to be made between fresh and frozen poultry produced by the establishments.

#### *1.4.2 Status of on-going surveys*

- Number of slaughterhouses in the EU account for Regulation (EC) No 543/2008 (impact on control data)  
Not all NRLs have yet replied. It is aimed for larger slaughterhouses and chicken only.
- Currently applied chilling method in EU slaughterhouses  
Not all NRLs have yet replied. It is aimed for main important chilling methods only.
- Study on technically unavoidable water intake during poultry processing

DG AGRI is planning to organise a study already in 2015. The study set-up needs to be defined in a timely manner and should involve the Board members, but also the NRLs.

#### 1.4.3 New rules for poultrymeat preparations

- Requirements by Annex VI (part A) of Commission Regulation (EU) No 1169/2011

The Regulation establishes obligatory labelling for added water higher than 5 % of the weight (to come into force on 13 Dec 14):

"6. *In the case of meat products and meat preparations which have the appearance of a cut, joint, slice, portion or carcass of meat, the name of the food shall include an indication of the presence of added water if the added water makes up more than 5 % of the weight of the finished product. The same rules shall apply in the case of fishery products and prepared fishery products which have the appearance of a cut, joint, slice, portion, filet or of a whole fishery product.*"

- Required sampling methods and their impact for slaughterhouses, manufacturers and NRs

So far, the "*Procedure to determine chicken or added water content and collagen-based proteins in chicken breast products*" (Annex V of Commission Recommendation 2005/175/EC of 1 March 2005) recommended to use a nitrogen factor of 3.85 to calculate the apparent fat-free chicken content.

In a recent study, undertaken as part of the programme of work of the Royal Society of Chemistry, Analytical Methods Committee – Nitrogen Factors Sub-Committee this nitrogen factor has been revised to 3.75 (*Anal. Methods, 2014, 6, 1998*). Therefore, it was proposed to use the revised nitrogen factor for the calculation of the apparent fat-free chicken content in chicken preparations.

#### 1.4.4 Revision of Commission Regulation (EC) No 543/2008

- The revision has to be started in October 2014 with a first brainstorming workshop, where experts appointed by the Member States will meet to discuss this issue. The experts and not the European Commission will chair this workshop.

#### 1.4.5 Enquiry of German NRL regarding a recommendation from the Expert Group on Commission Regulation (EU) No 543/2008

Art. 20 (1): *The following fresh, frozen and quick-frozen poultry cuts may be marketed by way of business or trade within the Community only if the water content does not exceed the technically unavoidable values determined by the method of analysis described in Annex VIII (chemical method) ...*

⇒ Frequency of checks is only fixed for frozen and quick frozen cuts!

- There is a need for checks of fresh cuts. The frequency should be based on a risk assessment. For counter analyses fresh samples have first to be frozen before shipping to the laboratories to ensure stability of the samples.
- Storage of entire carcasses versus ground carcasses

Some Member States are very strict (e.g. Italy) and do not allow grinding before storage, therefore, it is advisable to store whole carcasses only (deep-frozen).

#### 1.4.6 Board meeting

In the afternoon on 09 October, the meeting of the Board of Experts in Monitoring Water Content in Poultrymeat took place. The Board comprises three delegates from NRLs (currently from NL, PL and UK), one delegate from DG AGRI and one from the IRMM (chair). Several topics were discussed:

- Need of a clear definition of control data, which have to be submitted by the NRLs on a yearly basis to the Commission
- Planning and technical specifications of a study on the impact of sample homogenisation: The homogenisation survey will be sent on behalf of DG-AGRI to the NRLs. As a deadline, it is requested to return the survey within 4 weeks to Yannick Weesepeel from the Dutch NRL. There are 27 replies to be expected. The draft report should be finished by the Dutch NRL before 31 January 2015. Funding for further research needs to be established.
- Forthcoming Expert Group meeting in Brussels (DG AGRI) and rotation of Board members on 12 March 2015
- Special Expert Group meeting in autumn 2015

### ***1.5 Workshop on simplification and reduction of administrative burden for poultrymeat marketing standards***

On 23 October 2014 (Brussels), DG AGRI (C.3 Animal Products) organised a workshop on simplification and reduction of administrative burden for poultrymeat marketing standards. The aim of the workshop was to discuss and identify the possibilities to simplify the standards and reduce the administrative burden connected with them, which then can be taken into account in the subsequent phase of redrafting the current Commission Regulation in line with the Lisbon Treaty.

Article 75 of the CMO Regulation (EU) No 1308/2013 provides for the establishment of marketing standards for a number of different sectors, including poultrymeat. The detailed rules are currently laid down in Commission Regulation (EC) No 543/2008, which in a later step will be redrafted into delegated and implementing acts.

The poultrymeat marketing standards include a considerable number of very technical rules, which have been amended several times, making their current reading difficult. Moreover, some provisions have become obsolete. Furthermore, in 2009, the legal basis for the poultry sector in the former sCMO Regulation (1234/2007) was extended to processed poultry (preparations and products), which still requires a corresponding adjustment of the implementing rules. Therefore, comprehensive redrafting of the Regulation is necessary.

As part of this exercise and in line with the working method introduced by the CMO Task Force, the Commission organised this workshop on the marketing standards. By sharing the experience of the experts, the Commission is confident that it will be possible to simplify and streamline rules and procedures, reduce the overall administrative burden for farmers, operators and administrations, improve clarity and adjust provisions according to the changed market situation and technical progress. The end goal is better regulation.

The following questions were discussed in 2 sub-groups:

- Q1:** What in your view is the main purpose of the marketing standards for poultrymeat? What are the most important provisions? Are there provisions currently regulated that could be discarded?
- Q2:** If Regulation remains necessary, to what extent could the current legal framework be simplified, clarified and/or updated?
- Q3:** Is there a need for MS to issue guidelines? If yes, please enumerate in which cases exactly.
- Q4:** Are there possibilities to streamline procedures and/or modify the current system to reduce administrative burden for MS and operators?  
If yes, please enumerate them.

- Q5:** Do MS consider necessary to improve or simplify the current system of communication on controls on quality characteristics of poultrymeat? What possibilities exist to streamline current arrangements?
- Q6:** It is necessary to have detailed rules and related methods of controls for the processed poultry?  
If yes, are the experts aware that this will not be a simplification exercise?
- Q7:** What other general aspect of rules and procedures might need to be adapted in order to reduce the administrative burden for producers, MS and operators?
- Q8:** Should a different approach be considered to marketing standards in the future e.g. organisation on a subject, rather than sector, basis?

Questions and outcome of the discussions were summarised and sent to the delegates of the Member States. Each Member State was invited to send an official reply within four weeks, to be shared at the follow-up workshop on "Alignment to Lisbon Treaty, simplification and reduction of administration burden for poultry marketing standards", organised by DG AGRI in Brussels on 20 November 2014.

### ***1.6 Workshop on alignment to Lisbon Treaty, simplification and reduction of administrative burden for poultrymeat marketing standards***

On 20 November 2014 (Brussels), DG AGRI (C.3 Animal Products) organised a follow-up of the workshop on simplification and reduction of administrative burden for poultrymeat marketing standards organised on 23 October 2014 (see Section 1.5). The Commission further discussed with the Member States the output of the discussions on alignment to the Lisbon Treaty, simplification and reduction of administration burden for poultry marketing standards.

Written and oral contributions of the delegates from the Member States Questions were streamlined. Deadline for last comments by the Member States was mid of January 2015. Based on this input the Commission will then fully revise Commission Regulation (EC) No 543/2008.

### ***1.7 Presentation of the 2014 annual report***

On 11 December 2014, Alexander Bernreuther presented this annual report of the "Board of Experts in monitoring water content in poultrymeat" following Regulation (EC) No 543/2008 at the 65<sup>th</sup> Committee for the Common Organisation of the Agricultural Markets – sector Animal Products in Brussels (DG AGRI, C.3 Animal Products).

## **2 Board of Experts and Experts Group**

The Board of Experts consists of 5 representatives:

1 EC-JRC-IRMM (chair)

1 DG AGRI (Unit C.3; Animal Products)

3 NRLs (NL, PL, UK)

The Expert Group consists of 25 representatives of the NRLs:

BE, BG, CZ, DK, DE, EE, IE, GR, ES, FR,  
HR, IT, CY, LV, LT, LU, HU, MT, AT, PT,  
RO, SI, SK, FI, SE

### 3 Control data

Following Articles 16 and 20 of Commission Regulation (EC) No 543/2008 the NRLs are requested to provide the results of regular checks. For each eligible slaughterhouse at least 6 data sets for whole poultry carcasses are requested per year and for each eligible cutting plant at least 4 data sets for poultry cuts are requested per year.

As can be seen in Table 1, the number of reported data sets is very different depending on the NRL. Some NRLs just reported nil data sets, i.e. confirming that no data sets were available for the 2013. While other NRLs did not send data sets at all. As the submission of control data is a legal requirement, this issue will be addressed again at the next annual meeting of the "Experts in monitoring water content in poultrymeat" on 12 March 2015 in Brussels.

Some NRLs were still reporting difficulties with ISAMM, a system supporting the management and monitoring of the processes linked to the implementation of the Common Agricultural Policy and the Common Market Organisations. Similar to previous years some NRLs sent control data as Excel sheets. The NRLs have been asked to contact the ISAMM Helpdesk, in case of any problems.

Table 1: Overview on control data from 2011-2013 for poultry carcasses and poultry parts

	Carcasses			Parts				Carcasses			Parts		
	2013	2012	2011	2013	2012	2011		2013	2012	2011	2013	2012	2011
<b>BE</b>	0	1	5	41	49	45	<b>LT</b>	7	9	10	14	1	1
<b>BG</b>	56	22	38	201	30	111	<b>LU</b>	-	0	-	-	0	-
<b>CZ</b>	5	2	5	58	28	104	<b>HU</b>	6	2	4	12	12	2
<b>DK</b>	0	2	0	0	-	0	<b>MT</b>	0	0	0	0	0	0
<b>DE</b>	43	65	56	98	112	115	<b>NL</b>	39	-	33	232	35	26
<b>EE</b>	-	-	1	-	-	2	<b>AT</b>	0	-	-	10	-	8
<b>IE</b>	-	-	-	25	-	-	<b>PL</b>	0	-	-	63	83	36
<b>GR</b>	-	-	-	-	-	-	<b>PT</b>	-	-	-	-	-	-
<b>ES</b>	0	-	6	41	-	42	<b>RO</b>	105	82	104	78	63	38
<b>FR</b>	7	3	13	25	1	26	<b>SI</b>	0	0	-	0	0	-
<b>HR</b>	0			0			<b>SK</b>	12	9	15	40	39	65
<b>IT</b>	0	-	-	35	34	32	<b>FI</b>	2	0	0	4	0	0
<b>CY</b>	0	2	0	2	2	0	<b>SE</b>	6	16	15	6	5	5
<b>LV</b>	0	-	-	30	41	33	<b>UK</b>	6	-	0	4	14	0

Note: "0" = nil communication; "-" = no data sets received

Statistics on chilling methods applied in the different Member States are shown in Fig. 1 and summarised in Table 2. The 2013 control data seem to confirm a trend towards air spray chilling for poultry carcasses. At the same time, the use of air chilling decreased, while no clear trend can be given for the use of immersion chilling.

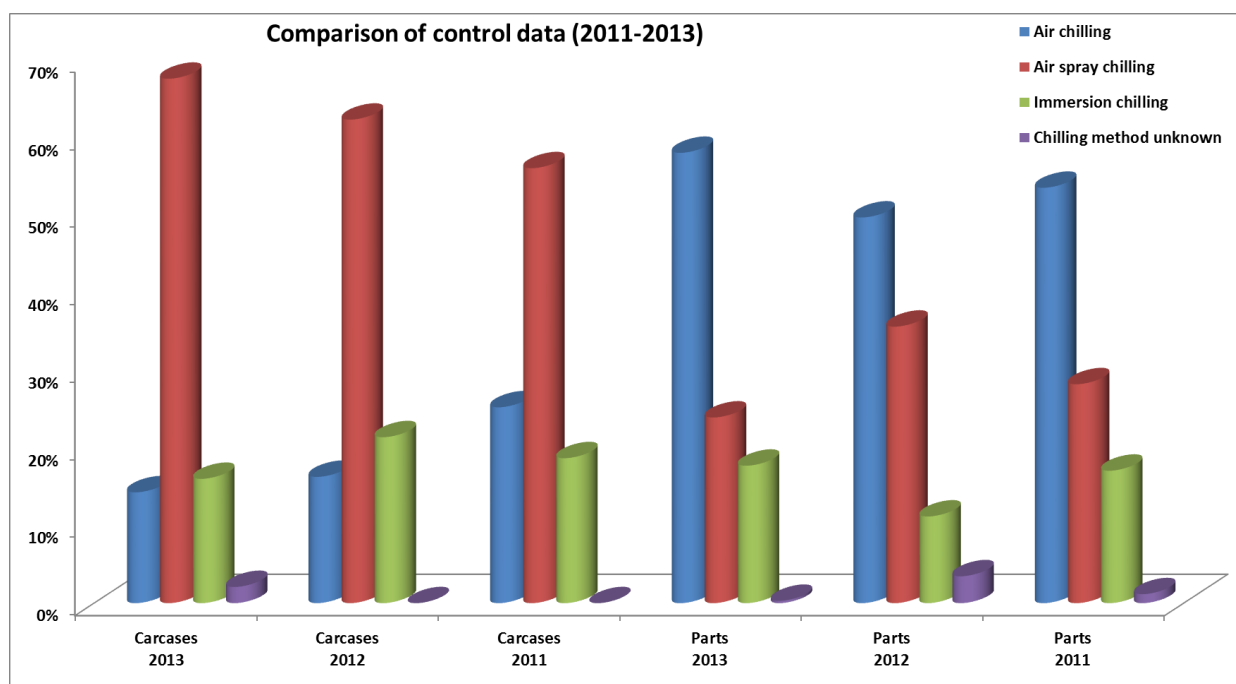


Figure 1: Comparison of 2011-2013 control data regarding chilling methods

For poultry parts there seems to be a slight tendency towards the use of air chilling, while the use of air spray chilling decreased. The use of immersion chilling in 2013 was at a similar level compared to 2011, while in 2012 it was used at significantly lower level.

Table 2: Comparison of 2011-2013 control data regarding chilling methods

	Carcasses			Parts		
	2013	2012	2011	2013	2012	2011
Member States	12	12	13	20	16	17
Data sets	294	215	305	1013	519	691
Air chilling	42 (14.3 %)	35 (16.3 %)	77 (25.2 %)	580 (57.3 %)	258 (49.7 %)	370 (53.5 %)
Air spray chilling	203 (69.0 %)	134 (62.3 %)	171 (56.1 %)	241 (23.8 %)	185 (35.6 %)	195 (28.2 %)
Immersion chilling	43 (14.6 %)	46 (21.4 %)	57 (18.7 %)	174 (17.2 %)	58 (11.2 %)	118 (17.1 %)
Chilling method unknown	6	-	-	18 (1.8 %)	18 (3.5 %)	8 (1.2 %)

Note: Nil communications are not considered under "Member States"

In addition to the previous year, the evaluation of the control data was extended. The data provided by the NRLs were checked for correctness, i.e. where possible all reported water/protein ratio data were recalculated from the reported water and protein content. In most of the cases, the calculations did not differ from the submitted data, but in few cases, wrong data entries could be identified. Moreover, the statements provided by the NRLs

whether data sets are over the limit or not, were verified applying the current legal limits according to Commission Regulation (EC) No 543/2008. Details can be seen in Table 3. The percentage of poultry carcasses whose water/protein ratio exceeded the legal limits in 2013 was comparable to 2011; the highest exceedance rate was reported for 2012. The percentage of poultry parts whose water/protein ratio exceeded the legal limits in 2013 increased compared to 2012, even exceeding the level of 2011.

Table 3: Comparison of 2011-2013 control data regarding acceptance limit exceedances

	Carcases			Parts		
	2013	2012	2011	2013	2012	2011
Member States	12	12	13	20	16	17
Data sets	294	215	305	1013	519	691
Over limit; reported (calculated)	13 (19)	20	16	99 (142)	36	70
Not evaluated	0	0	0	0	3	0
Below limit; reported (calculated)	281 (275)	195	289	914 (871)	480	621
% over limit; reported (calculated)	4.4 (6.5)	10.3	5.5	9.8 (14.0)	7.5	11.3

Note: Nil communications are not considered under "Member States"

It has to be noted that in some over-the-limit cases no action was taken, arguing that, if the measurement uncertainty is taken into account, these cases are not any longer over the limit. This assumption is not correct, as previously discussed during the annual meeting as well as the special expert meeting. The legal limits are set in a way that the uncertainty of the measurements in the laboratory is already taken into account.

#### Poultry carcasses:

Only 1 out of 294 data sets reported is related to turkey, all others are related to chicken. About 50 % more over-the-limit cases were identified compared to exceedance rate reported directly by the NRLs (19 versus 13), but in 14 cases the limit was exceeded only slightly (< 1 %). In one case an over-the-limit situation was reported, while according to calculations it was below the limit. Most over-the-limit cases could be detected when air chilling or immersion chilling was applied, while only 2 % of the air spray chilled carcasses were over the limit.

#### Poultry parts:

About 9 % of all 1013 reported data sets were related to turkey cuts, mainly breast fillets and thighs, the rest of the data sets were related to chicken, again mainly breast fillets and thighs. In total, only 12 chicken breast fillets with skin and 3 turkey breast fillets with skin were reported. Regarding the over-the-limit cases, a trend similar to carcasses was obtained, thus about 50 % more cases could be identified (142 versus 97), but in more than 50 % the water/protein ratio limit was exceeded only slightly (< 0.1) and only in 28 cases to a greater extent (> 0.2). In 6 cases an over-the-limit situation was reported, while according to calculations they were below the limit. Most over-the-limit cases could be detected, when air chilling or immersion chilling was applied, while only 5 % of the air spray chilled carcasses were over the limit.



For the first time, statistics were presented on the distribution of species (chicken and turkey) which is outlined in Fig. 2 showing that the majority of poultry parts are either chicken breast fillets or chicken thighs (legs, drumsticks).

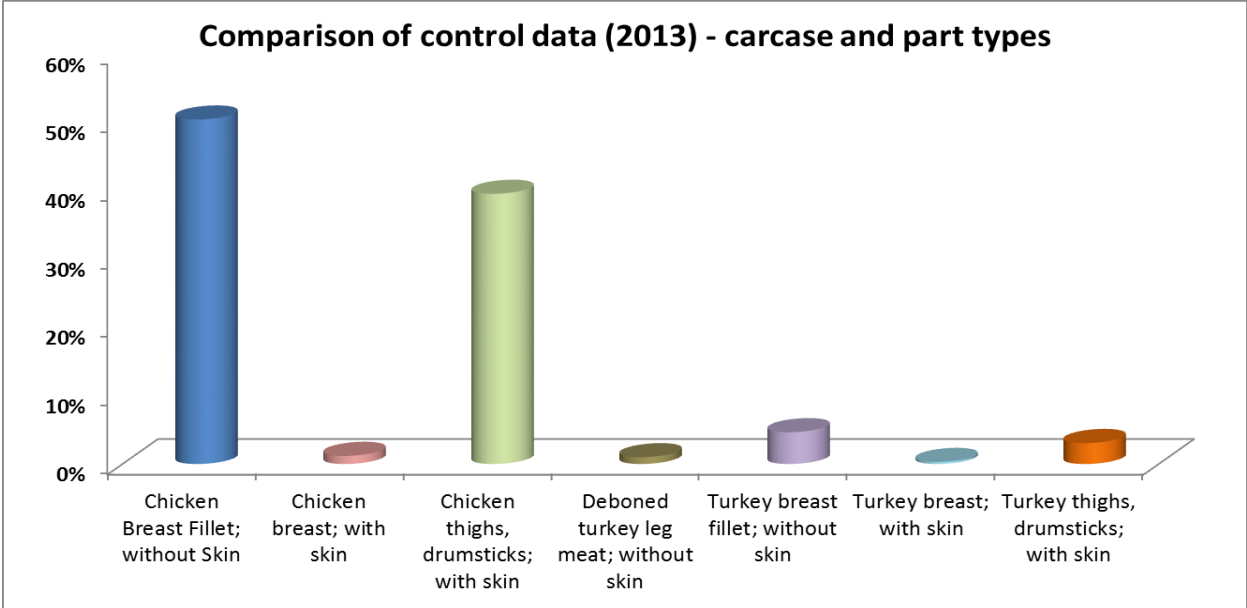


Figure 2: Comparison of 2011-2013 control data regarding species and part types (100 % = sum of all)

Also for the first time control data were evaluated regarding imports from non-EU countries (see also Fig. 3). The latter showed that about 21.5 % of control data for poultry parts were related to imports, thereof 61 (about 28 %) were over the limit. With one exception (turkey from Brazil), all imported parts derive from chicken. But so far, in only few cases the country of origin was indicated and in some cases it was simply stated "unknown producer", therefore more detailed statistics cannot be given here.

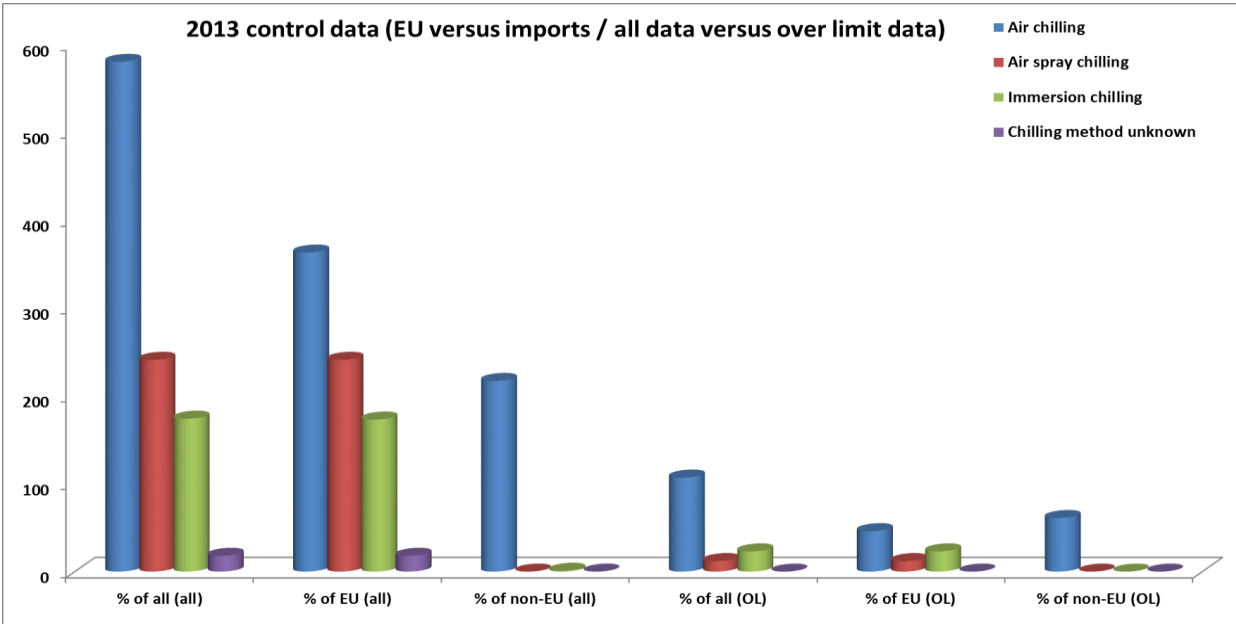


Figure 3: 2013 control data displayed according to chilling methods with focus on EU and non-EU data as well as on over limit data (OL)

As a last point, all over-the-limit cases were evaluated regarding their extent of exceedance (summarised in Table 4). The majority of all cases exceeded the legal limits for water/protein ratios only slightly, i.e. less than 0.1, but in about 20 % of all cases the limit was largely exceeded, i.e. more than 0.2.

Table 4: Comparison of 2011-2013 control data regarding acceptance limit exceedances

	Over limit (all)		Over limit (EU)		Over limit (non-EU)	
	142	100.0%	81	100.0%	61	100.0%
slightly (< 0.1)	77	54.2%	42	51.9%	35	57.4%
moderately (0.1 - 0.2)	37	26.1%	22	27.2%	15	24.6%
largely (> 0.2)	28	19.7%	17	21.0%	11	18.0%

An even better use of control data could be achieved, if the following proposals would be followed:

- **Check data consistency**  
Being cautious during data entry using the ISAMM online system  
*(in case of questions/problems DG AGRI should be contacted directly)*
- **Apply correct legal limits**  
Care should be taken to apply the correct water/protein limits for poultry parts  
*(currently, there are 7 definitions of poultry parts foreseen in ISAMM, which should be sufficient to classify according to the appropriate water/protein limits)*
- **Report country of origin**  
Sample origin is essential, in particular, when imported from non-EU countries  
*(it would be more useful to indicate the country instead of stating "non-EU")*

## **4 Tasks and events in 2015**

### **4.1 Tasks in 2015**

- Finalisation of simplification of Regulation (EC) No 543/2008 (taking particular input of all NRLs into account)
- Finalise evaluation of a survey on methods used by the NRLs to homogenise samples (conducted by the Dutch NRL)
- Launch study on the impact of sample homogenisation on water/protein ratios
- Launch survey on eligible slaughter houses in the Member States (> 10'000 birds per year)
- Launch survey on chilling methods applied in the Member States (with focus on latest technological developments)
- Planning and technical specifications of a study on the impact of chilling methods on water/protein ratios

### **4.2 Events in 2015**

- Expert Group Meeting (12 March 2015 in Brussels)
- Board Meeting
- Special Expert Group Meeting (October 2015 in Madrid)
- Collection of control data for 2014 and evaluation
- Steering Committee Meeting
- 66<sup>th</sup> Committee for the Common Organisation of the Agricultural Markets (Brussels); presentation of the annual report 2015



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European Commission

**EUR 27452 – Joint Research Centre – Institute for Reference Materials and Measurements**

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