

# Clean Broiler training - Regulatory aspects

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2021



# Talk outline

- General food law requirements along the food chain
- Zoonoses legislation - monitoring & control
- Hygiene legislation, including microbiological criteria



# General Principals of Food Law – Regulation 178/2002



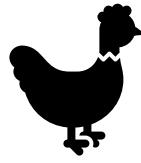
It sets out the basic principles of food law to protect human health and consumer interests.



It applies to all stages of production, processing and distribution of food and feed.



# Zoonoses legislation on monitoring & control



- Regulation (EC) 2160/2003 on the **control** of Salmonella and other specified food-borne zoonotic agents
- Directive 2003/99/EC on the **monitoring** of zoonoses and zoonotic agents



# Annex I of Directive 2003/99/EC on monitoring

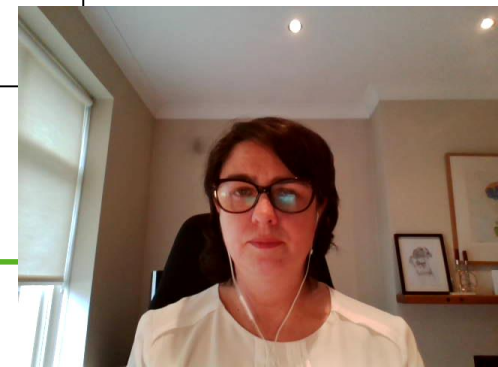
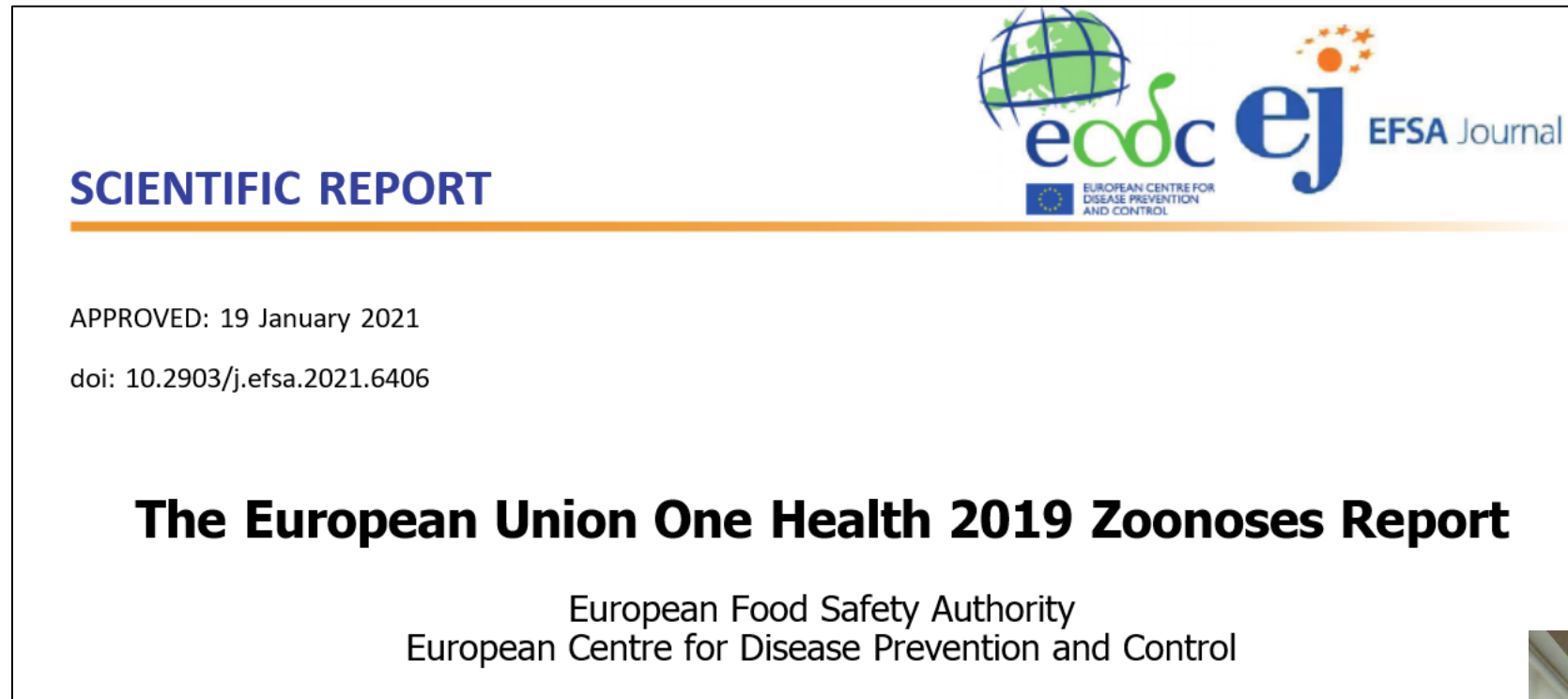
## A. Zoonoses and zoonotic agents to be included in monitoring

- brucellosis and agents thereof
- campylobacteriosis and agents thereof
- echinococcosis and agents thereof
- listeriosis and agents thereof
- salmonellosis and agents thereof
- trichinellosis and agents thereof
- tuberculosis due to *Mycobacterium bovis*
- verotoxigenic *Escherichia coli*

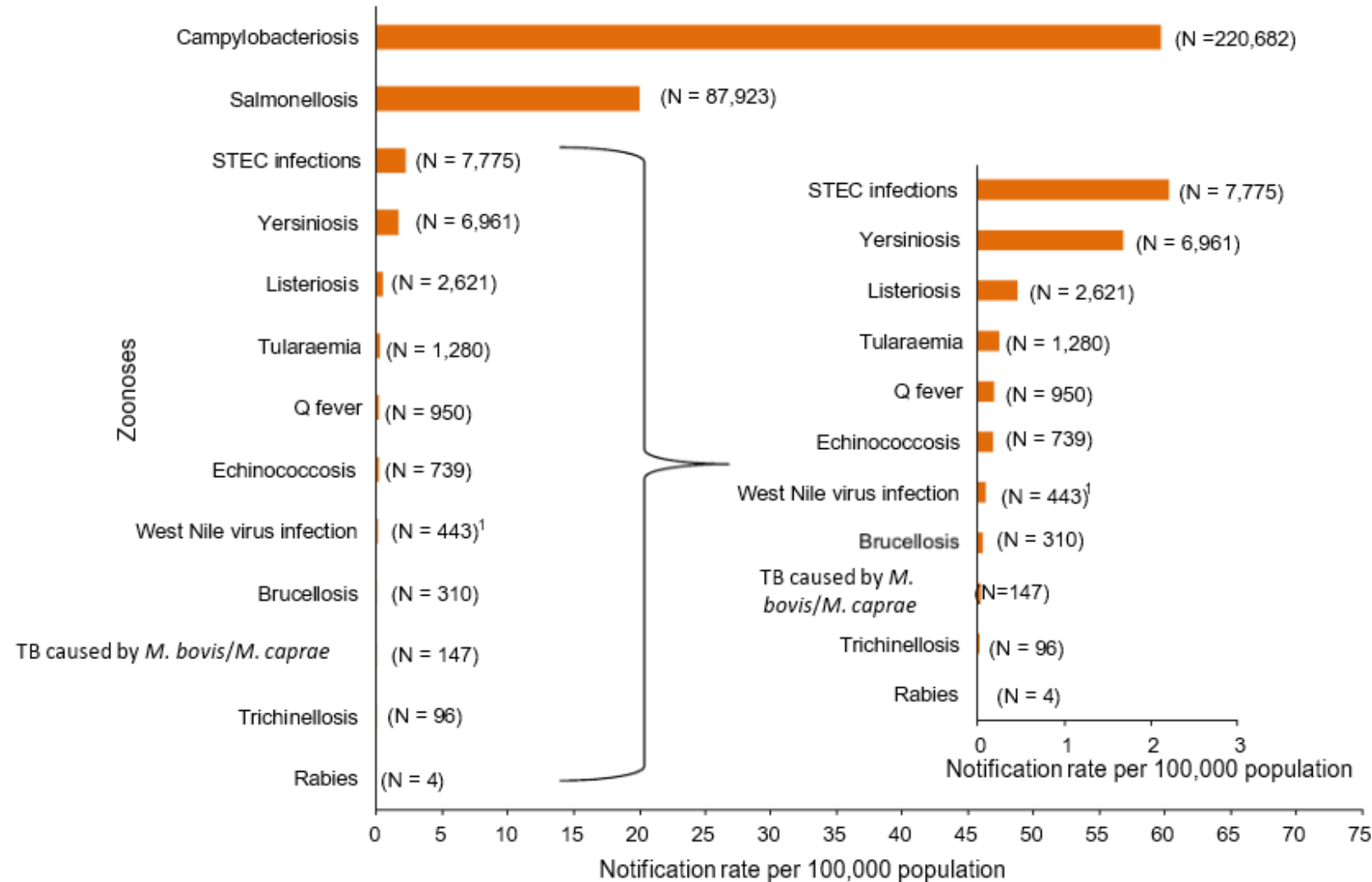
## B. List of zoonoses and zoonotic agents to be monitored according to the epidemiology



# Reporting on Zoonoses Monitoring - Annual



# Reported human cases and notification rates of confirmed human cases in the EU, 2019



Note: The total number of confirmed cases is indicated between parentheses at the end of each bar.

<sup>1</sup> Exception: West Nile virus infection for which the total number of cases was used.



# Reporting on Zoonoses Monitoring – Baseline studies



EFSA Journal 2010; 8(03):1503

## SCIENTIFIC REPORT OF EFSA

Analysis of the baseline survey on the prevalence of *Campylobacter* in broiler batches and of *Campylobacter* and *Salmonella* on broiler carcasses in the EU, 2008<sup>1</sup>

**Part A:** *Campylobacter* and *Salmonella* prevalence estimates

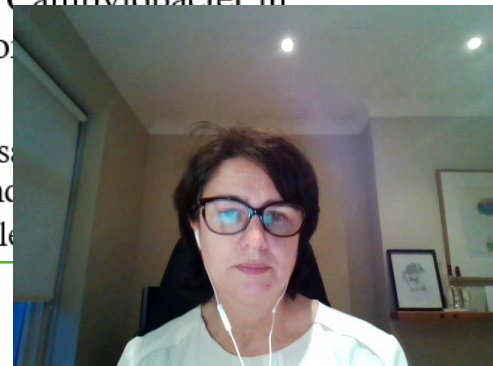


EFSA Journal 2010; 8(8):1522

## SCIENTIFIC REPORT OF EFSA

Analysis of the baseline survey on the prevalence of *Campylobacter* in broiler batches and of *Campylobacter* and *Salmonella* on broiler carcasses in the EU, 2008<sup>1</sup>

**Part B:** Analysis of factors associated with *Campylobacter* colonisation and with *Campylobacter* contamination of broiler carcasses; and culture method diagnostic characteristics used to analyse broiler



# The change in 10 years in Ireland

Sample	Percentage Positive	
	2008 EU Baseline	2018 DAFM FIRM Funded*
Ceaca (colonised broiler batches)	83%	66%
Neck skin (contaminated broiler carcasses)	98%	53%

**\*2018 data courtesy of Helen Lynch**

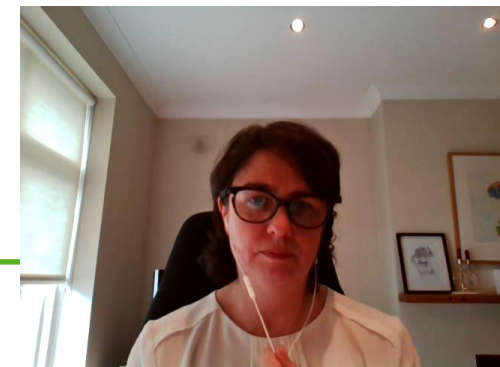


# First versus final thin

(2018 DAFM FIRM Funded\* )

Sample	Percentage Positive	
	First thin	Final thin
Ceaca (colonised broiler batches)	52%	81%
Neck skin (contaminated broiler carcasses)	38%	67%

**\*2018 data courtesy of Helen Lynch**



# Monitoring of Antimicrobial Resistance

Directive 2003/99/EC requires Member States to ensure that monitoring provides comparable data on the occurrence of antimicrobial resistance ('AMR') in zoonotic agents and, in so far they present a threat to public health, other agents.

Commission Implementing Decision 2013/652/EU <sup>(2)</sup> lays down detailed rules for the harmonised monitoring and reporting of AMR in zoonotic and commensal bacteria. These rules are applicable until 31 December 2020.

L 387/8

EN

Official Journal of the European Union

19.11.2020

**COMMISSION IMPLEMENTING DECISION (EU) 2020/1729**

**of 17 November 2020**

**on the monitoring and reporting of antimicrobial resistance in zoonotic and commensal bacteria and  
repealing Implementing Decision 2013/652/EU**



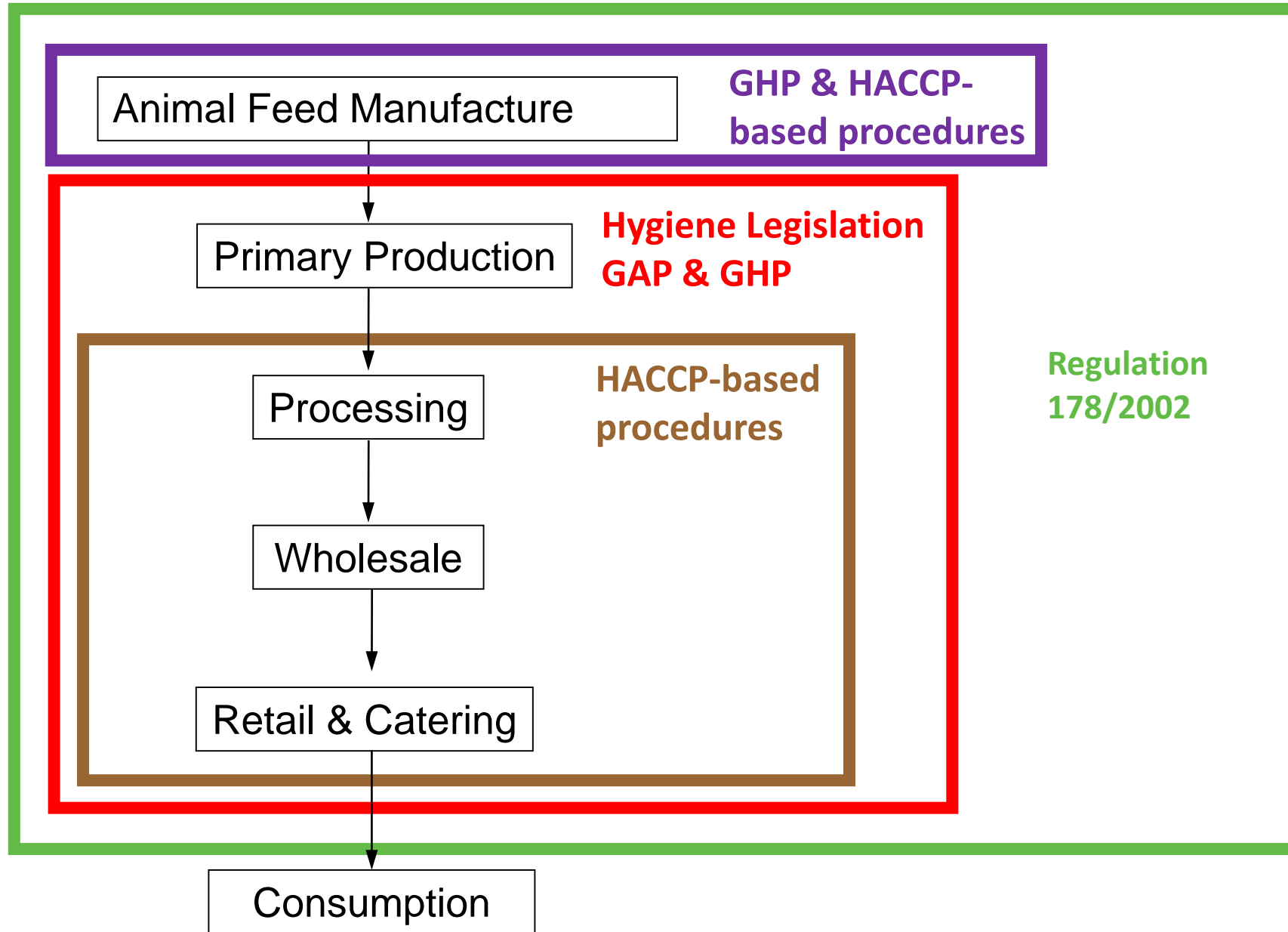
# Talk outline

- General food law requirements along the food chain
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- **Hygiene legislation, including microbiological criteria**



## How we control food safety along the food chain

- \***GAP** - Good agricultural practice
- \***GHP** - Good hygiene practice
- \***HACCP** - Hazard Analysis and Critical Control Point



Animal Feed Manufacture

**GHP & HACCP-  
based procedures**

**Regulation 178/2002**

Primary Production

**Hygiene Legislation  
GAP/GHP**

Processing

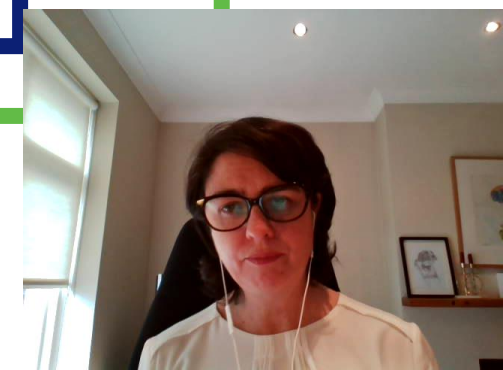
**HACCP-based  
procedures**

Wholesale

Retail & Catering

Consumption

**Regulation  
2073/2005 on  
microbiological  
criteria**



# Microbiological Criteria – Regulation 2073/2005

Two types of microbiological criteria:

When to test against the criteria?

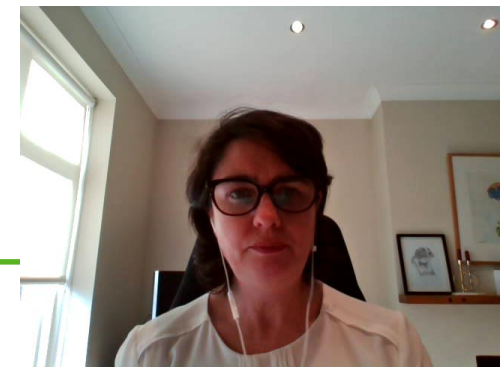
## Process hygiene

a criterion indicating the acceptable functioning of the production process

## Food safety

a criterion defining the acceptability of a product or a batch

....as appropriate, when validating and verifying the correct functioning of procedures based on GHP & HACCP principles



# Campylobacter amendment to Reg. 2073/2005

COMMISSION REGULATION (EU) 2017/1495

of 23 August 2017

amending Regulation (EC) No 2073/2005 as regards *Campylobacter* in broiler carcasses

(Text with EEA relevance)

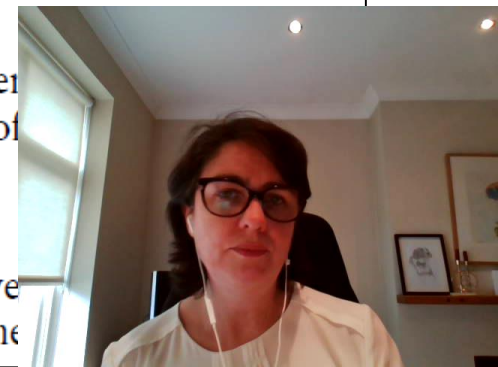
THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs <sup>(1)</sup>, and in particular Article 4(4) thereof,

Whereas:

- (1) Commission Regulation (EC) No 2073/2005 <sup>(2)</sup> lays down the microbiological criteria for certain organisms and the implementing rules to be complied with by food business operators in respect of and specific hygiene requirements referred to in Article 4 of Regulation (EC) No 852/2004.
- (2) In particular, Regulation (EC) No 2073/2005 lays down process hygiene criteria which set indicative



# Process hygiene criterion 2.1.9 on *Campylobacter* in carcasses of broilers

Food category	Micro-organ-isms	Sampling plan		Limits		Analytical reference method	Stage where the criterion applies	Action in case of unsatisfactory results
		n	c	m	M			
'2.1.9 Carcasses of broilers	<i>Campylobacter</i> spp.	50 <sup>(5)</sup>	c = 20 From 1.1.2020 c = 15; From 1.1.2025 c = 10	1 000 cfu/g		EN ISO 10272-2	Carcasses after chilling	Improvements in slaughter hygiene, review of process controls, of animals' origin and of the biosecurity measures in the farms of origin'

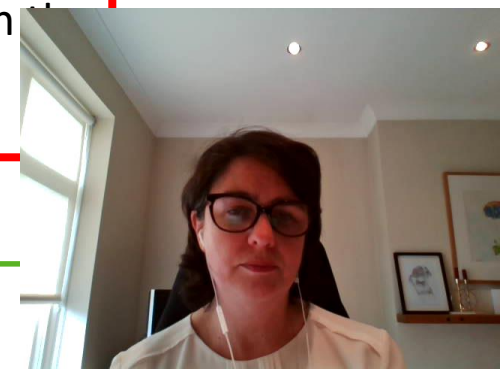
(5) The 50 samples shall be derived from 10 consecutive sampling sessions in accordance with sampling rules and frequencies laid down in this Regulation.



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(5) The 50 samples shall be derived from 10 consecutive sampling sessions in accordance with sampling rules and frequencies laid down in this Regulation.



# Campylobacter process hygiene criterion:

## Sampling rules

- **How to sample**
  - Slaughterhouses shall sample whole poultry carcasses with **neck skin**
- **Frequency of sampling**
  - Sample **at least once a week**
  - The **day of sampling shall be changed each week** to ensure that each day of the week is covered



Sampling plan		Limits	
n	c	m	M
50 ( <sup>5</sup> )	c = 20 From 1.1.2020 c = 15; From 1.1.2025 c = 10	1 000 cfu/g	



Sampling plan		Limits	
n	c	m	M
50 ( <sup>5</sup> )	c = 20 From 1.1.2020 c = 15; From 1.1.2025 c = 10	1 000 cfu/g	

### Interpretation of results:

- satisfactory, if a **maximum** of c/n results are > m
- unsatisfactory, if **more** than c/n results are > m

### Since 1.1.2020 until 1.1.2025:

- satisfactory, if a **maximum** of 15/50 results are > 1,000 cfu/g
- unsatisfactory, if **more** than 15/50 results are > 1,000 cfu/g



# How to assess compliance with n=50, c=15

Week (No of samples)	No >1,000 cfu/g (total)
1 (n=5)	2 (2)
2 (n=5)	2 (4)
3 (n=5)	2 (6)
4 (n=5)	3 (9)
5 (n=5)	4 (13)
6 (n=5)	2 (15)
7 (n=5)	1 (16)
8 (n=5)	0 (16)
9 (n=5)	0 (16)
10 (n=5)	1 (17)
<b>n = 50 over the 10 weeks</b>	<b>c = 17</b> <b>Unsatisfactory</b>



# How to assess compliance with n=50, c=15

Week (No of samples)	No >1,000 cfu/g (total)
1 (n=5)	2 (2)
2 (n=5)	2 (4)
3 (n=5)	2 (6)
4 (n=5)	3 (9)
5 (n=5)	4 (13)
6 (n=5)	2 (15)
7 (n=5)	1 (16)
8 (n=5)	0 (16)
9 (n=5)	0 (16)
10 (n=5)	1 (17)
n = 50 over the 10 weeks	c = 17 Unsatisfactory



Week	No >1,000 (total)
1	2 (2)
2	2 (4)
3	3 (7)
4	4 (11)
5	2 (13)
6	1 (14)
7	0 (14)
8	0 (14)
9	1 (15)
10	0 (15)
	c = 15 Satisfactory



Week	No >1,000 (total)
1	2 (2)
2	3 (5)
3	4 (9)
4	2 (11)
5	1 (12)
6	0 (12)
7	0 (12)
8	1 (12)
9	0 (12)
10	0 (12)
	c = 15 Satisfactory



# Possibilities for reduced sampling frequency

- May be reduced to fortnightly if satisfactory results have been obtained for 52 consecutive weeks.




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- May be reduced to fortnightly if satisfactory results have been obtained for 52 consecutive weeks.
- May be reduced, after authorisation by the competent authority, if there is an official or officially recognised national or regional *Campylobacter* control programme in place and if this programme includes sampling and testing equivalent to ....
- However, when justified on the basis of a risk analysis and consequently authorised by the competent authority, small slaughterhouses may be exempted from these sampling frequencies.




# Risk Analysis in FSAI Guidance Note 35

	 <b>Food Safety</b> AUTHORITY OF IRELAND
<b>35</b>	<b>GUIDANCE NOTE</b>
	Guidance on Establishing Appropriate Microbiological Sampling Frequencies in Low Throughput Slaughterhouses and Meat Processing Plants



**Table 2** Sampling requirements for poultry slaughterhouses<sup>1</sup> based on throughput and risk assessment

Throughput Number of birds per annum <sup>2</sup>	Risk assessment score (see Appendix 2)	Minimum sampling requirement <sup>3</sup>
<50 000	≤1000	An approach involving no sampling may be applied
	>1000	Five samples (taken representatively from the same batch <sup>4</sup> ) every four months
50 000–150 000	≤1000	Five samples (taken representatively from the same batch) every four months
	>1000	Five samples (taken representatively from the same batch) every two months
>150 000	Not applicable	Sampling frequency as per Chapter 3.2 in Regulation (EC) No 2073/2005

	 Food Safety AUTHORITY OF IRELAND
<b>35</b>	<b>GUIDANCE NOTE</b>
	Guidance on Establishing Appropriate Microbiological Sampling Frequencies in Low Throughput Slaughterhouses and Meat Processing Plants



# Appendix 2 Risk assessment checklist

Risk factor	High risk Frequently unsatisfactory results <i>(Circle score that applies)</i>	Medium risk Occasional unsatisfactory results <i>(Circle score that applies)</i>	Low risk Seldom or rarely unsatisfactory <i>(Circle score that applies)</i>
<b>1. Structural hygiene - Design and maintenance of premises and equipment</b> Have any minor or serious issues been identified and if so, have they been resolved satisfactorily?	200	100	0
<b>2. Operational hygiene - Sanitation of premises and equipment</b> Have any lapses in operational hygiene been identified, and if so, has the FBO responded in a timely and satisfactory manner?	200	100	0
<b>3. Intake of raw material:</b> <b>a. Slaughterhouses</b> – <i>e.g. have issues arisen with cleanliness of animals, food chain information, animal health and <b>welfare</b> (including relevant control programmes)?</i> <b>b. Meat processing plants</b> – <i>e.g. have issues arisen with the use of approved suppliers, product specifications and intake controls such as temperature &amp; traceability checks?</i>	200	100	0
<b>4. Food safety management system (FSMS) – Overall design and implementation</b> Has an appropriate HACCP plan been established and is it being effectively implemented?	200	100	0
<b>5. Results of previous microbiological or other hygiene checks, e.g. rapid tests</b> (e.g. have any minor or serious non-compliances been identified and corrective actions carried out?)	200	100	0





# Official Control - Regulation (EU) 2019/627

## Article 36

### Practical arrangements for official controls for *Campylobacter*

1. The competent authorities shall verify the correct implementation by food business operators of point 2.1.9 (process hygiene criterion for *Campylobacter* on carcasses of broilers) of Chapter 2 of Annex I of Regulation (EC) No 2073/2005 by applying the following measures:
  - (a) official sampling using the same method and sampling area as food business operators. At least 49 random samples shall be taken in each slaughterhouse each year. This number of samples may be reduced in small slaughterhouses based on a risk evaluation; **or**
  - (b) collecting all information on the total number and the number of *Campylobacter* samples with more than 1 000 cfu/g taken by food business operators in accordance with Article 5 of Regulation (EC) No 2073/2005, in the framework of point 2.1.9 of Chapter 2 of Annex I thereto.





## Official Control - Regulation (EU) 2019/627 contd.

2. Where the food business operator fails on several occasions to comply with the process hygiene criterion, the competent authorities shall require it to submit an action plan and shall strictly supervise its outcome.
3. The total number and the number of *Campylobacter* samples with more than 1 000 cfu/g, differentiating between samples taken under points (a) and (b) in paragraph 1, when applied, shall be reported in accordance with Article 9(1) of Directive 2003/99/EC.





## Official Control - Regulation (EU) 2019/627 contd.

2. Where the food business operator fails on several occasions to comply with the process hygiene criterion, the competent authorities shall require it to submit an action plan and shall strictly supervise its outcome.
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# EU Campylobacter process hygiene criterion data (2019) – official control & business

- 7 member states (Bulgaria, Croatia, Cyprus, Estonia, Latvia, Romania and Spain) reported 2019 ad hoc **official** sampling results. Of the 3,346 neck skin samples:
  - 1,365 (41%) tested positive and **506 (15%) exceeded the limit of 1,000 cfu/g.**
  - The MS-specific percentage of quantified results exceeding 1,000 cfu/g varied widely and **ranged from zero to 34%.**
- 7 member states (Denmark, Estonia, Germany, **Ireland**, Latvia, Romania and Sweden) reported 2019 Campylobacter process hygiene control monitoring results collected from **businesses**. Of the 15,323 neck skin samples:
  - 2,038 (13%) tested positive and **1,033 (7%) exceeded the limit of 1,000 cfu/g.**
  - The MS-specific percentage of quantified results exceeding 1,000 cfu/g **varied from 0% to 14%**



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