

Different interpretations of legislation in European countries

The example of evisceration of sheep carcasses

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Legislation

REGULATION (EC) No 853/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 April 2004 laying down specific hygiene rules for the hygiene of foodstuffs

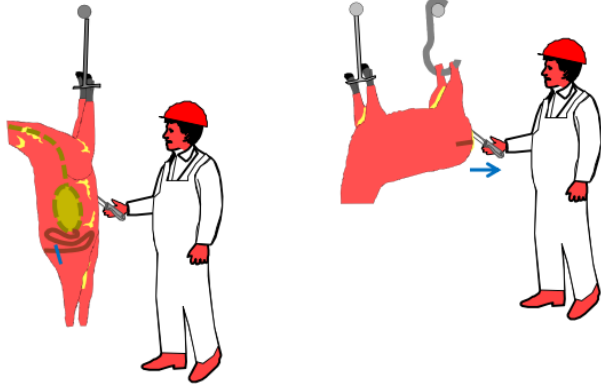
Annex III Section I Chapter IV SLAUGHTER HYGIENE

7. Stunning, bleeding, skinning, evisceration and other dressing must be carried out without undue delay and **in a manner that avoids contaminating the meat**. In particular:

c) **measures must be taken to prevent the spillage of digestive tract content during and after evisceration** and to ensure that evisceration is completed as soon as possible after stunning

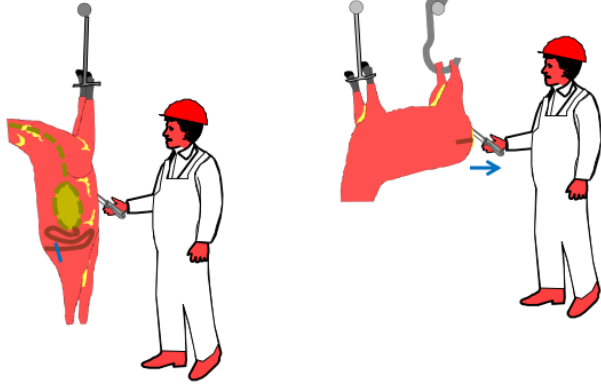
Two different methods

Cutting

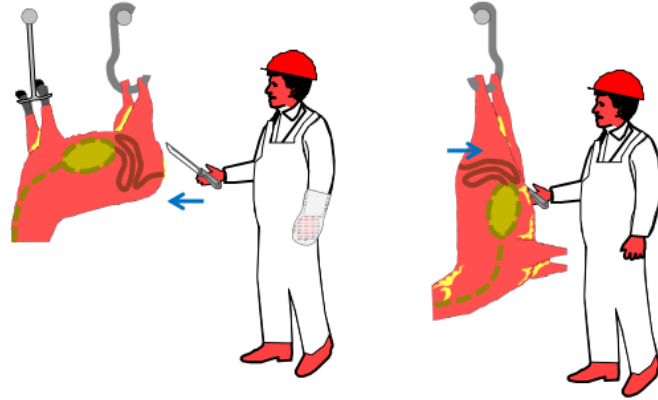


Two different methods

Cutting



Bagging/bunging with plastic bag



Timeline

Early 1990s – new
slaughter line



1998 – 2001 –
modern meat
inspection

Timeline



Early 1990s – new
slaughter line

2006 - E.coli outbreak

Industry Guidelines for
Hygienic Quality of Raw
Material

1990 - 2000

2006

2012

2015

2018

2022

1998 – 2001 –
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2003 – current –
Hygiene
Performance
Rating

Timeline

Early 1990s – new slaughter line

2006 - E.coli outbreak
Industry Guidelines for Hygienic Quality of Raw Material

2012 - CAs first notice of non-compliance (administrative decision)
2015 - CAs second notice of non-compliance (administrative decision)

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1998 – 2001 – modern meat inspection

2003 – current – Hygiene Performance Rating

2011 – 2012 - Report from Scientific Committee for Food Safety

CA national inspection campaign

Timeline

Early 1990s – new slaughter line

2006 - E.coli outbreak
Industry Guidelines for Hygienic Quality of Raw Material

2012 - CAs first notice of non-compliance (administrative decision)
2015 - CAs second notice of non-compliance (administrative decision)

2018 - CA maintains notice of non-compliance and gives notice of enforcement fines

1990 - 2000

2006

2012

2015

2018

2022

1998 – 2001 – modern meat inspection

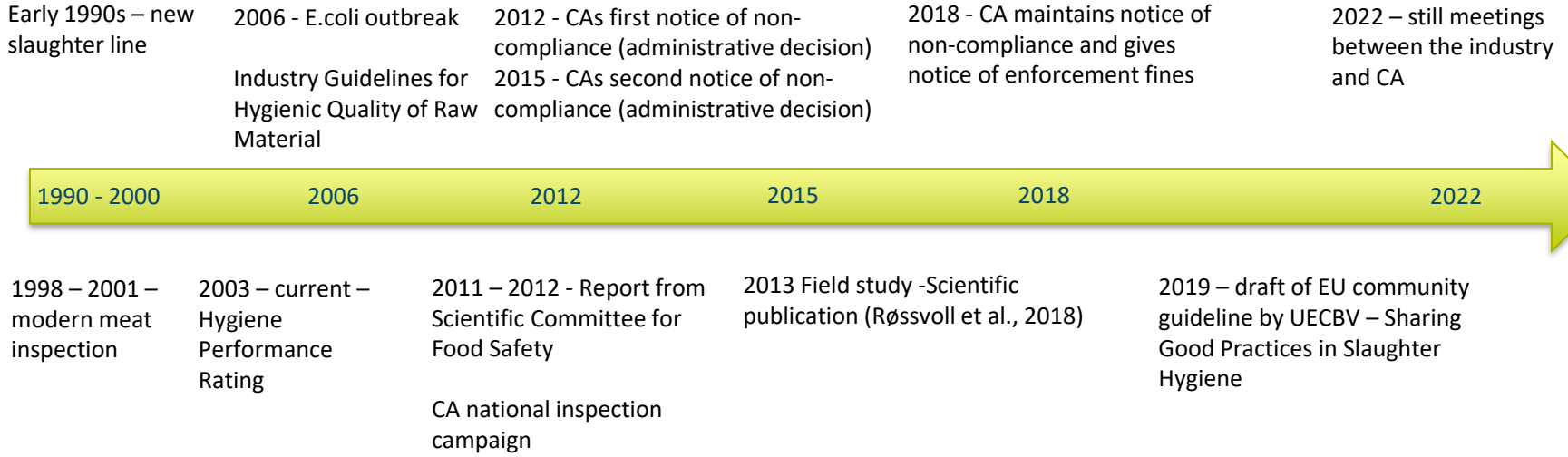
2003 – current – Hygiene Performance Rating

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2013 Field study -Scientific publication (Røssvoll et al., 2018)

Timeline



Field study

- Aim: compare the effects of two evisceration methods under operational conditions, on the pelvic hygiene of sheep carcasses
- 18 largest sheep abattoirs in Norway participated (slaughtering 98% of volume). 8 using the method «cutting» and 10 using «bagging/bunging».

Field study

- Aim: compare the effects of two evisceration methods under operational conditions, on the pelvic hygiene of sheep carcasses
- 18 largest sheep abattoirs in Norway participated (slaughtering 98% of volume). 8 using the method «cutting» and 10 using «bagging/bunging».
- Samples were taken from two sample areas:
 - 400 cm² inside the pelvic cavity
 - 100 cm² outside the circumanal incision
- Samples were pooled by swabbing the same area of five carcasses. Total number of swabbed carcasses 3115.
- Abattoirs' quality managers performed standardised sampling. Video developed to instruct in sampling method.

Results

Method	Pooled samples (n)	Mean E.coli log ₁₀ CFU/cm ² inside (95% CI)	Mean E.coli log ₁₀ CFU/cm ² outside (95% CI)	Mean E.coli log ₁₀ CFU/cm ² inside and outside (95% CI)
Bagging/bunging	278	-1.61 (-3.72-0.49)	-0.25 (-2.58-2.09)	-0.93 (-3.54-1.67)
Cutting	333	-1.56 (-3.48-0.35)	-0.42 (-2.61-1.76)	-0.99 (-3.34-1.35)

m = log 0.4 cfu/cm² and M = log 1.4 cfu/cm² for E.coli on cold carcasses - Industry Guidelines

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- Not able to detect a significant difference between the two methods.
- Significant difference detected between sample sites irrespective of evisceration method.
- Significant difference detected between the samples taken from inside the pelvic cavity in the smallest abattoirs and the larger abattoirs.

Results cont.

- Microbiologically acceptable results (microbiological criteria) were achieved with both methods.
- There are challenges with both methods, and both require skilled and experienced operators to minimise the contamination.

A comparison of two evisceration methods on hygienic quality in the pelvic area of sheep carcasses (Røssvoll et al., 2018), was published in Meat Science

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CA in Norway still claims that the method of cutting cannot be used as a method of evisceration in Norway.

Challenges

- Legislative texts
 - Functional demands i.e., “what should objectively and measurably be achieved (aim)” vs. prescriptive demands i.e., “how an operation should be performed”
 - Need to be obtainable e.g., use of minimise vs optimise to meet objective functional demands
- Common understanding and calibrated interpretation of legislation
 - Focus on the important aspect; to fulfill objective functional demands (e.g microbiological criteria, visual contaminations)
 - Use of scientific research materials
- Risk of taking cases to court

Conclusion

- Legislation and its interpretation should focus on functional demands i.e., “what should objectively and measurably be achieved (aim)”
- Demands need to be obtainable
- Community or industry guidelines based on scientific research

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Acknowledgment of co-writers: Sigrun J. Hauge and Ole Alvseike at Animalia



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Thank you for your attention!



Foto: Animalia/Grethe Ringdal