




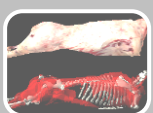


ProSafeBeef Industrial Events

-  **Quality management in slaughterhouses**
-  **Control of beef muscle tenderness**
-  **Processing technologies**
-  **On-line measurement**
-  **Chilling method**



CONTENTS

Prosafebeef Industrial Events list	5
---	---

■ Quality management in slaughterhouses	6 - 7
--	-------

Good practice in slaughterhouses

Reduction and detection of carcass contamination on the slaughterline

■ Control of beef muscle tenderness	8 - 9
--	-------

Muscle profiling

Beef meat technologies, tenderness development and valorisation factors

■ Processing technologies	10 - 11
----------------------------------	---------

Osmotic dehydration of meat

High hydrostatic pressure on beef meat products

■ On-line measurement	12 - 13
------------------------------	---------

Detection of foreign bodies in meat

Quality screening of beef products

■ Chilling method	14
--------------------------	----

Hot boning and restraining system

ProSafeBeef Industrial Events

Quality management in slaughterhouses

Good practice in slaughterhouses

How can you stop or reduce contamination of beef carcasses? Choice of equipment and process presented, risk analysis in the framework of the HACCP concept, workers know-how, cleaning methods and research and methods of carcass decontamination.

Reduction and detection of carcass contamination on the slaughterline

Assessing the interest in real conditions and benefits of different technologies selected for their novelty, originality and complementarities. The technologies are part of preventive actions to limit the risk of cross-contamination of carcasses including dirty hides with remedial actions to control carcass quality and possibly treat soiled areas.

Control of beef muscle tenderness

Muscle profiling

Muscles vary widely in tenderness and other characteristics and some even differ between parts of the same muscle. Learn the technical knowledge to optimise muscle preparation with the aim of increasing the muscle value.

Beef meat technologies, tenderness development and valorisation factors

How can you improve the quality of beef meat products? What are the impacts of the slaughtering process on beef meat tenderness, and the methods and techniques to optimise tenderness of beef muscles?

Processing technologies

Osmotic dehydration of meat

It produces a dried meat roll by combining an exclusive extrusion-laminating system with an osmotic dehydration technique.

High hydrostatic pressure on beef meat products

This technology decontaminates food products and increases their shelf life. It consists of an athermic decontamination process by subjecting packaged food to water pressures from 100 to 900 MPa.

On-line measurement

Detection of foreign bodies in meat

Moving the x-ray systems to new positions in the production plant reveals new levels of information about the production flow and the quality of the products. The metal detectors increase versatility of detection to a wider range of metals.

Quality screening of beef products

Demonstration of new techniques allowing measurement of fat and fatty acid content of muscles and bovine carcasses.

Chilling method

Hot boning and restraining system

The tenderness of beef muscles is improved by applying lateral pressure to the muscles during post mortem rigor. The process increased the tenderness of the LD at either temperature. This means that the muscles could be chilled rapidly without detrimental effects on tenderness. A more attractive shape of cuts from the muscles is an additional benefit of the process.



Prosafefbeef?

This is a European project with 41 partners that advance knowledge about the beef industry and their applications.

Its objective is to increase the safety and the qualities of beef and beef products by the science-based development of novel tools and intervention strategies.

Who is concerned by the ProSafeBeef events?

Beef sector industries and professionals and organisations working with meat and food.

Events organisation

Events are organised by the dissemination team. We can advise you on relevant training-sessions and demonstrations.

The number of participants depends on the location of the organisation and the technical feasibility.

The events vary from a half-day to two days depending on the theme. They may include theoretical and practical parts.

The speakers

They are experts in their field of activity in the meat sector from all over Europe. Most of the speakers are involved in the ProSafeBeef project.

They all have years of experience in the meat industry. Translators can be provided as required.

Events location

We organize these events across Europe in industrial companies or in research and technology centres.

Over 100 participants across Europe have already attended our events.

Contact:

Mr Eric Lemoine
eric.lemoine@adiv.fr
Mrs Catherine Dametto
Catherine.dametto@adiv.fr



+33(0) 4-73-98-53-80



Good practices in slaughterhouse

Objective

We always want to have a life span of meat bacteriological longer reliable. Thus, the contamination control requires attention not only to evaluate solutions to limit the transfer of bacteria on carcasses during processing but also to consider reducing some of this contamination at an early stage.

That is what we propose in the presentation mentioned below.

Target audience

Companies from the meat sector
Processing, Quality, Slaughterhouse departments

Duration of the event

2 days (Can be adjusted on request)

Content

Example of programme (Note: it can be adjusted and modified according the thematic and the availability of experts)

DAY 1

First Part	
Morning 1 st part	Introduction <ul style="list-style-type: none">• Presentation of the ProSafeBeef project• Introduction of the participants (activity, interests, expectations, etc.)
	Beef meat quality factors <ul style="list-style-type: none">• Zootechnical factors (type, age, breed, diet, etc.)• Organoleptic qualities• Technological qualities• Safety qualities Roles of the abattoir in beef meat qualities
Morning 2 nd part	Impacts of the slaughtering process on beef meat tenderness <ul style="list-style-type: none">• Transport – last moments before slaughter• Chilling methods
	Methods and techniques to optimize tenderness of beef muscles <ul style="list-style-type: none">• Electrical stimulation• Hot deboning and PIVAC system
Second Part	
Afternoon	Safety and slaughtering process <ul style="list-style-type: none">• Beef meat contamination origins• Types of contaminations (pathogen and non pathogen bacteria)• Contamination location on the carcass• Consequences of contamination

DAY 2

First Part	
Morning	Infrastructure : Equipment and process choices
	Risk analysis in the framework of HACCP concept
	Workers know-how
Second Part	
Afternoon	Cleaning methods
	Carcass decontamination research and methods <ul style="list-style-type: none">• Reduction of the surface contamination (stream, etc.)• Shellac on hide fixation
	Conclusion of the training session and evaluation



The speakers

They are experts in their field of activity in the meat sector from all over Europe.

They have many years experience in the meat industry. Translators can be provided as required.

Participants

Up to 35 attendees.

Key Words

- Tenderness optimised
- Quality factors
- Safety qualities

Events organisation

Events are organised by the dissemination team. We can advise you on relevant training-sessions and demonstrations.

The number of participants depends on the location of the organisation and the technical feasibility.

The events vary from a half-day to two days depending on the theme. They may include theoretical and practical parts.

Events location

We organise these events on the global market, often in research and technology centres.

Previous events

Belgrade, Serbia



Contact:

Mr Eric Lemoine
eric.lemoine@adiv.fr
Mrs Catherine Dametto
Catherine.dametto@adiv.fr



+33(0) 4-73-98-53-80



Reduction and detection of carcass contamination on the slaughterline



Objective

The demand for meat products with longer shelf lives requires a reliable control of microbiological quality at all stages of production chains, in particular at the early stage of slaughter. Indeed, the hygienic quality of carcasses is critical to the safety of processed products.

In addition to the establishment and enforcement of good hygiene practices for operators, some methods and tools available or under development can be a great help for businesses to meet health requirements.

This event aims to assess the interest conditions and benefits of different technologies selected for their novelty, originality and complementarities. The technologies are part of preventive actions to limit the risk of cross contamination from dirty hides to carcasses or corrective actions to control carcasses and possibly treat the soiled areas.

Target audience

Companies from the meat sector: Slaughterhouses
Production, Quality departments

Duration of the event

1 Day (Can be adjusted on request)

Content

Example of programme (Note: it can be adjusted and modified according the theme and the availability of experts)

First part	
Morning	<p>Online demonstrations of different techniques being developed or marketed</p> <p>Methods to prevent contamination from the hides</p> <ul style="list-style-type: none">• Method for removing wet and dried soil from hides• Method for bacteria immobilization on hides by coating the leather with a resin support ("Shellac" process) <p>Methods for reducing contamination on identified carcasses</p> <ul style="list-style-type: none">• Visualization system of contaminated areas on the carcasses by spectral imaging• Decontamination of contaminated areas by localised steam and suction <p>Prosafefbeef presentation and the work of partners</p>
Second Part	
Afternoon	<p>Round table on the control of contamination of carcasses</p> <p>Presentation of the benefits of demonstrated technologies</p>

The speakers

They are experts in their field of activity in the meat sector, from all over Europe.

They have many years experience in the meat industry. Translators can be provided as required.

Participants

Up to 25 attendees.

Key Words

- Bacteria immobilization
- Reducing contamination
- Technologies

Events organisation

Events are organised by the dissemination team. We can advise you on relevant training-sessions and demonstrations.

The number of participants depends on the location of the organisation and the technical feasibility.

The events vary from a half-day to two days depending on the theme. They may include theoretical and practical parts.

Events location

We organise these events across Europe in industrial companies or in research and technology centres.

Previous events



Clermont-Ferrand,
France



Contact:

Mr Eric Lemoine
eric.lemoine@adiv.fr
Mrs Catherine Dametto
Catherine.dametto@adiv.fr



+33(0) 4-73-98-53-80



Muscle Profiling

Objective

Muscles vary widely in tenderness and other characteristics and some even differ between parts of the same muscle. It therefore makes sense to separate muscles and sell them according to their tenderness.

Some muscles of the forequarter are tender than hindquarter muscles. Maximised value can be extracted from a carcass by separating out these muscles and selling them as steaks.

Muscle profiling involves determining the important characteristics of individual muscles and matching them to consumer expectations for different types of cooking.

The objectives of the demonstration/training day is:

- To identify muscles characteristics in order to adapt your cutting methods
- To isolate muscles in order to maximise carcass value, identifying the different parts inside muscles and capitalise on them by separating the tender and tough
- To identify new possibilities in cutting and preparing beef

Target audience

Companies from the meat sector
Production, Processing, Cutting workshop, Sales departments

Duration of the event

1 Day (Can be adjusted on request)

Content

Example of programme (Note: it can be adjusted and modified according the theme and the availability of experts)

First part

Morning	<p>How to add value to the carcasses?</p> <ul style="list-style-type: none">• Factors controlling the tenderness of muscles• The management of ageing• Increasing the amount of tender beef cuts• The Norwegian experience• The French practices• Proposal of strategies to increase value for industry (depending on carcass type and commercial practice) <p>Practical session : primal cutting</p> <ul style="list-style-type: none">• Cut lines to separate forequarter to hindquarter• Muscles identified on the beef hindquarter for their tenderness qualities• Muscle cutting and commercial interest <p>Tasting of the products and sensorial evaluation</p>
---------	---

Second Part

Afternoon	<p>Practical session : part two</p> <ul style="list-style-type: none">• Muscles identified on the beef hindquarter for their tenderness qualities• Muscle cutting and commercial interest <p>Conclusions of the session</p> <ul style="list-style-type: none">• Comparison of the cutting methods and estimation of the added value with the alternative method proposed• Evaluation of the training session <p>Speakers: All participants</p>
-----------	---



The speakers

They are experts in their field of activity in the meat sector, from all over Europe.

They have many years of experience in the meat industry. Translators can be provided as required.

Participants

Up to 25 attendees.

Key Words

- Tenderness
- Increase value
- Primal cutting

Events organisation

Events are organised by the dissemination team. We can advise you on relevant training-sessions and demonstrations.

The number of participants depends on the location of the organisation and the technical feasibility.

The events vary from a half-day to two days depending on the theme. They may include theoretical and practical parts.

Events location

We organise these events across Europe in industrial companies or in research and technology centres.

Previous events

Clermont-Ferrand, France
Dublin, Ireland
Oslo, Norway
Belgrade, Serbia
Bristol, United Kingdom
Aberystwyth, Wales



Contact:

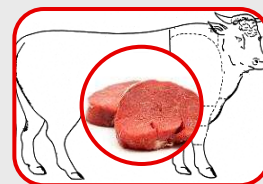
Mr Eric Lemoine
eric.lemoine@adiv.fr
Mrs Catherine Dامتو
Catherine.dامتو@adiv.fr



+33(0) 4-73-98-53-80



Beef meat technologies, tenderness development and valorisation factors



Objective

To demonstrate techniques and methods to improve the quality of beef meat products through developing tenderness and valorising the beef. The degree of tenderness of muscles varies widely, as well as other characteristics, and some differences in tenderness occur between parts of the same muscle.

It therefore makes sense to separate out muscles and sell it, adding more value to the carcass. Separation of muscles involves determining the important characteristics of individual muscles and matching them to consumer expectations for different types of cooking.

Target audience

Quality, Production, Processing, Slaughterline, Cutting workshop departments.

Duration of the event

2 days (Can be adjusted on request)

Content

Example of programme (Note: it can be adjusted and modified according to the theme and the availability of experts)

1st day: theoretical part

Morning	Introduction: <ul style="list-style-type: none"> • Presentation of the <i>ProSafeBeef</i> project • Introduction of the participants (activity, interests, expectations, etc.)
	Basic meat technologies explanations <ul style="list-style-type: none"> • Muscles: <ul style="list-style-type: none"> ○ Structure ○ Composition ○ Differences between muscles and within muscles • Organoleptic qualities development • Transformation of muscles in meat: ageing • Impact of some zootechnical factors (type, age, breed, diet, etc.)

Afternoon	Impact of the slaughtering process on meat tenderness of beef <ul style="list-style-type: none"> • Transport –Time before slaughter • Chilling methods • Different techniques in slaughterhouses
	Methods and techniques to optimize tenderness of beef muscles <ul style="list-style-type: none"> • Electrical stimulation • Pelvic hanging • Hot deboning and PIVAC system • Tender cut system • Management of ageing
	Introduction to muscle profiling

2nd day: practical part

All day	Valorisation of a selection of muscles
---------	---

The speakers

They are experts in their field of activity in the meat sector from all over Europe.

They have many years of experience in the meat industry. Translators can be provided as required.

Participants

Up to 25 attendees.

Key Words

- Electrical stimulation of carcasses
- Meat aging
- Muscle profiling

Events organisation

Events are organised by the dissemination team. We can advise you on relevant training-sessions and demonstrations.

The number of participants depends on the location of the organisation and the technical feasibility.

The events vary from a half-day to two days depending on the theme. They may include theoretical and practical parts.

Events location

We organise these events across Europe in industrial companies or in research and technology centres.

Previous events



Warsow, Poland

Contact:

Mr Eric Lemoine
eric.lemoine@adiv.fr
Mrs Catherine Dametto
Catherine.dametto@adiv.fr



+33(0) 4-73-98-53-80



Osmotic dehydration of meat



Objective

The OSMOFOOD® process combines an exclusive extrusion–laminating system with osmotic dehydration effect.

In the OSMOFOOD® process, the extruded meat band 500 mm wide, 2.5 mm thick is processed into a textured and dried meat band of 500 mm wide and 1.5 mm thick, while water is permanently evacuated from the osmotic solution by the built-in vac evaporator.

Target audience

Companies from the meat sector
Processing, Production, R&D departments

Duration of the event

1 Day (Can be adjusted on request)

Content

Example of programme (Note: it can be adjusted and modified according the thematic and the availability of experts)

First Part

Morning	Technology presentation and description Practical demonstration at ADIV's pilot line (First part) <ul style="list-style-type: none">• Equipment• Raw materials preparation• Osmotic solution• Manufacturing process Benefits of the technology Tasting session & OSMOFOOD® products
---------	--

Second Part

Afternoon	Practical demonstration at ADIV's pilot line (last part) <ul style="list-style-type: none">• Resulting product (meat roll)• OSMOFOOD® System line – technical specifications• Various possible further processes and packaging• Preservation and shelf live
-----------	---

The speakers

They are experts in their field of activity in the meat sector from all over Europe.

They have many years of experience in the meat industry. Translators can be provided as requested.

Participants

Up to 15 attendees.

Key Words

- Osmotic
- Process
- Dry meat

Events organisation

Events are organised by the dissemination team. We can advise you on relevant training-sessions and demonstrations.

The number of participants depends on the location of the organization and the technical feasibility.

The events vary from a half-day to two days depending on the theme. They may include theoretical and practical parts.

Events location

We organise these events across Europe in industrial companies or in research and technology centres.

Previous events

Clermont-Ferrand, France



Contact:

Mr Eric Lemoine
eric.lemoine@adiv.fr
Mrs Catherine Dametto
Catherine.dametto@adiv.fr



+33(0) 4-73-98-53-80



High hydrostatic pressure on beef meat products



Objective

In high hydrostatic pressure (HHP) treatment, the food is submitted to pressures between 200-600 MPa. The pressure applied is isostatically transmitted inside the pressure vessel. The food is compressed independently of the product size and geometry.

The treatment is considered to be a non-thermal process as there is only a 3°C increase for each 100 MPa thus representing an increase of 15°C for a 600 MPa treatment.

Target audience

Companies from the meat sector
R&D, Production, Processing, Quality departments

Duration of the event

A half-day (*Can be adjusted on request*)

Content

Example of programme (Note: it can be adjusted and modified according the theme and the availability of experts)

A half-day programme

A Morning or an Afternoon	<ul style="list-style-type: none">• Introduction to the HHP technology• Processing of beef and different beef products• Benefits and obstacles for implementation of high pressure processing with beef.
---------------------------	---

The speakers

They are experts in their field of activity in the meat sector from all over Europe.

They have many years of experience in the meat industry. Translators can be provided as required.

Participants

Up to 20 attendees.

Key Words

- High hydrostratic pressure
- Shelf life
- Décontaminating

Events organisation

Events are organised by the dissemination team. We can advise you on relevant training-sessions and demonstrations.

The number of participants depends on the location of the organisation and the technical feasibility.

The events vary from a half-day to two days depending on the theme. They may include theoretical and practical parts.

Events location

We organise these events across Europe in industrial companies or in research and technology centres.

Previous events

Monells, Spain



Contact:

Mr Eric Lemoine
eric.lemoine@adiv.fr
Mrs Catherine Dametto
catherine.dametto@adiv.fr



+33(0) 4-73-98-53-80

Detection of foreign bodies in meat



Objective

The emergence of new technologies and the ever increasing level of computing power have led to improved performance in detection of foreign and unwanted material in meat and meat products. Moving the x-ray systems to new locations in the production plant reveals new levels of information about the production flow and the quality of the products.

Metal detectors in the production plant increase the detection of a wider range of metals by applying multi frequency schemes, resulting in optimising the performance with different metals simultaneously.

Target audience

Production, Processing, Quality departments

Duration of the event

1 Day (*Can be adjusted on request*)

Content

Example of programme (Note: it can be adjusted and modified according the theme and the availability of experts)

First part	
Morning	Introduction <ul style="list-style-type: none">• Presentation of the <i>ProSafeBeef</i> project
	Detection of foreign bodies in meat
	X-ray as a hazard control
	Multifrequency metal detection
	Low energy x-ray
Second Part	
Afternoon	Practical demonstrations

The speakers

They are experts in their field of activity in the meat sector, from all over Europe.

They have many years experience in the meat industry. Translators can be provided as required.

Participants

Up to 30 attendees.

Key Words

- Foreign bodies
- X-ray
- Metal detection

Events organisation

Events are organised by the dissemination team. We can advise you on relevant training-sessions and demonstrations.

The number of participants depends on the location of the organisation and the technical feasibility.

The events vary from a half-day to two days depending on the theme. They may include theoretical and practical parts.

Events location

We organise these events across Europe in industrial companies or in research and technology centres.

Previous events

Roskilde, Denmark



Contact:

Mr Eric Lemoine
eric.lemoine@adiv.fr
Mrs Catherine Dametto
Catherine.dametto@adiv.fr



+33(0) 4-73-98-53-80



Quality screening of beef products



Objective

Over the last few decades, spectroscopic techniques have proven to be reliable and versatile tools used in industrial food applications.

A major challenge for the food industry is to increase efficiency and sustainability, while simultaneously maintaining and improving product quality. Consequently, rapid sensors, in particular spectroscopic techniques, are being increasingly applied in production lines for quality control and process optimization.

The industrial demands for such methods are growing, and current needs span a broad range of applications. The recent rapid developments in spectroscopic techniques, fast sensors and data processing have resulted in sophisticated efficient sensor systems for the characterisation of food quality.

This event will present and demonstrate novel measurement techniques for some important quality parameters for the food and meat industry.

Target audience

Companies from the meat sector
Quality, R&D departments

Duration of the event

1 day *(Can be adjusted on request)*

Content

Example of programme (Note: it can be adjusted and modified according the theme and the availability of experts)

First part

Morning	<ul style="list-style-type: none">• Probing fatty acid features in muscle foods using Raman spectroscopy• On-line measurements of meat by NIR spectroscopy and imaging• Rapid screening of beef carcasses for fecal contamination based on fluorescence imaging• An infrared approach for high-throughput screening of liquids
---------	---

Second Part

Afternoon	<ul style="list-style-type: none">• Demonstration activities• Summary of the day / Evaluation
-----------	--

The speakers

They are experts in their field of activity in the meat sector, from all over Europe.

They have many years experience in the meat industry. Translators can be provided as required.

Participants

Up to 30 attendees.

Key Words

- Raman
- Fatty acid measure
- Rapid screening

Events organisation

Events are organised by the dissemination team. We can advise you on relevant training-sessions and demonstrations.

The number of participants depends on the location of the organisation and the technical feasibility.

The events vary from a half-day to two days depending on the theme. They may include theoretical and practical parts.

Events location

We organise these events across Europe in industrial companies or in research and technology centres.



Previous events

Oslo, Norway



Contact:

Mr Eric Lemoine
eric.lemoine@adiv.fr
Mrs Catherine Dametto
Catherine.dametto@adiv.fr

  +33(0) 4-73-98-53-80



Hot boning and restraining system

Objective

By the use of a wrapping technique, the Pi-Vac Elasto-Pack system, the tenderness of beef muscles is improved by applying lateral pressure to the muscles during *post mortem* rigor. The system operates by stretching tubes of highly elastic films to the inside walls of the packaging chamber. The muscle is then inserted into the chamber, and the pressure released. The film contracts to its original dimensions, exerting strong forces on the muscles and hindering longitudinal muscle contraction.

A study of the system applied on beef longissimus dorsi (LD) muscles chilled at air temperatures of 4 or 12°C demonstrated that the process increased the tenderness of the LD at either temperature.

This means that the muscles could be chilled rapidly without detrimental effects on tenderness. An additional benefit of the process is obtaining a more attractive shape of cuts from the muscles.

Target audience

Companies from the meat sector
Slaughterline, Cutting Workshop, Production, Processing departments

Duration of the event

1 day (*Can be adjusted on request*)

Content

Example of programme (Note: it can be adjusted and modified according to the theme and the availability of experts)

First part

Practical demonstration of Pi-Vac

- Morning
- Equipment
 - Raw material preparation
 - Manufacturing process

Second Part

Technology presentation of Pi-Vac

- Afternoon
- System line-technical specifications
 - Resulting products
 - Benefit of the technology



The speakers

They are experts in their field of activity in the meat sector, from all over Europe.

They have many years of experience in the meat industry. Translators can be provided as required.

Participants

Up to 15 attendees.

Key Words

- Beef packaging
- Hot boning
- Chilling method

Events organisation

Events are organised by the dissemination team. We can advise you on relevant training-sessions and demonstrations.

The number of participants depends on the location of the organization and the technical feasibility.

The events vary from a half-day to two days depending on the theme. They may include theoretical and practical parts.

Events location

We organize these events across Europe in industrial companies or in research and technology centres.

Previous events

Oslo, Norway



Contact:

Mr Eric Lemoine
eric.lemoine@adiv.fr
Mrs Catherine Dametto
catherine.dametto@adiv.fr



+33(0) 4-73-98-53-80



ProSafeBeef is an Integrated Project supported under the 6th Framework Programme of the European Union.

This Project involves 41 leading research and industrial organisations working in 18 different countries. ProSafeBeef is a 5 year project which commenced on March 1st 2007.

This Project provides a strong imperative for innovative research and development to permit the European beef chain to operate at competitive and sustainable levels while at the same time delivering safe, high quality products to its many consumers.

For more information and advice on our events, please contact your Prosafebeef representative or visit www.prosafebeef.eu.



Belgium

Wim Verbeke
Ghent University
Wim.verbeke@ugent.be



France

Eric Lemoine
ADIV
Eric.lemoine@adiv.fr



Greece

George Nychas
Agricultural University of Athens
gjn@aua.gr



Ireland

Robert Mooney
Teagasc
Robert.mooney@teagasc.ie



Norway

Bjørg Narum
NOFIMA
Bjorg.narum@nofima.no



Poland

Ryszard Kowalski
Agricultural University of Poznan
Kowalski@owl.au.poznan.pl



Serbia and Montenegro

Sava Buncic
University of Novi Sad
Buncic_sava@hotmail.com



Spain

Pierre Picouet
Institute of Agro-Food Research
and Technology (IRTA)
Pierre.picouet@irta.es



United Kingdom

Nigel Scollan
Institute of Grassland and Environmental
Research (IGER)
Nigel.scollan@bbsrc.ac.uk

