Welcome to the summer issue of the AHDB Beef & Lamb bulletin produced specifically for those working in the abattoir and meat processing sectors.

The AHDB Beef & Lamb Supply Chain Development Team supports businesses throughout the beef and lamb supply chains – helping to raise product quality and consumer satisfaction, whilst focusing on cost reduction, managing waste and improving carcass utilisation. This edition contains highlights from the recent AHDB Beef & Lamb processor conference, information on a review of the Collection and Communication of Inspection Results system and an update on the Product Environmental Footprint project.

Dr Phil Hadley
Head of Global Supply Chain Development, AHDB Beef & Lamb

Meat Quality Masterclass

Following the successful launch in 2015 of the two-day training course on ‘Meat quality – getting to grips with the complexities of the beef and lamb supply chain’ - two further courses have been organised for the spring of 2016 and a further course is planned for the autumn. The course is delivered by Dr Peter Sheard who ran the MSc Meat Science Course at the University of Bristol until 2014. AHDB Beef & Lamb staff will also deliver elements of the course.

Bookings are limited to 16 places and the course has proved very popular with many delegates recommending the course to their colleagues. For more information or to join the course mailing list, call 0870 608 6610 or email beeflamb.supplychain@ahdb.org.uk

Meat Processor Conference Highlights 2016


The conference, which was chaired by Dr Phil Hadley, Head of Global Supply Chain Development, was a great success, attracting attendees from across industry.

In line with the top export priorities for the UK industry, Dr Kenneth Petersen, OSI Group’s Senior Vice President, Quality and Regulatory Affairs, gave a presentation on food safety in the US beef sector. He opened by explaining the role of the USDA Food Safety and Inspection Service (FSIS) and the background of the E. coli testing regime. He outlined the collaborative approach taken by major US beef processors towards food safety and gave an overview of interventions used at slaughterhouse level to reduce the load of E. coli, such as hide intervention using water at 72˚C and steam vacuuming after hide removal. The carcase mapping approach to testing, where carcases are sampled at key steps in the process to assess contamination loads was also discussed.

Dr Petersen’s presentation provided delegates a thorough overview of the subject and generated significant interest in how, as an industry, we can overcome the challenge of exporting to the US.

Ouafa also gave an overview of the industry initiatives aimed at improving the collection and communication of information flow going back to producers, generating some good discussions on how to ensure the whole supply chain is on board with this important work.

Completing the subject of information flow, Joseph Keating, AHDB Beef & Lamb Knowledge Exchange Manager, South West, presented on the Data Exchange Hub project. Joseph explained that, with the support of Agri-Tech funding, AHDB has commissioned a feasibility study to develop a data exchange hub prototype, focusing on risk-based trading of cattle, which will be accessible at key transaction points in the food supply chain. If the outcome of the study is successful, the system will then be taken forward by the industry. The potential benefits of this project include the ability to conduct real-time, risk-based trading for important endemic diseases of cattle, to increase efficiency in data handling and provide infrastructure for disease control programmes. This challenging yet exciting project should benefit the whole industry.

(Continued overleaf)
Overview of post mortem data in 2012 vs 2015

In 2012, AHDB carried out an analysis of the most common conditions observed in sheep and cattle and their economic impact.

The outcome of this work was published in Better Returns Programme (BRP) Manual 9, together with a series of advice on how to improve productivity by controlling these conditions. Three years later, a short review exercise was carried out on the conditions identified in 2012. The review aimed to give an indication of the evolution of the level of these conditions over time.

In 2012, the main causes for rejection at meat inspection for cattle were liver fluke, abscess, pneumonia/pleurisy and bruising. One of the key observations was that the level of these conditions between 2012 and 2015 have all had a small increase. The graph below shows that the level of fluke together with bruising and abscesses in terms of percentage saw a small increase while pneumonia/pleurisy has increased by just over 1%. It is interesting to note that liver fluke remained the highest cause of rejection.

At English cattle abattoirs in 2015:
- 244,792 livers were rejected because of liver fluke
- 95,266 carcases had abscesses
- 105,230 carcases showed signs of pneumonia/pleurisy
- 22,123 carcases showed signs of bruising

2 The 2015 data used has been extracted from FSA INNOVA dataset from November 2014 to December 2014. To note that CCIR project mentioned in the paper aims to improve the accuracy of data collected at post mortem inspection
Liver fluke (fascioliasis)
In England in 2015, just over 16% of cattle livers (244,792) and 4.5% of sheep livers (430,383) were excluded from the human food chain due to liver fluke infestation. Liver fluke costs the beef and sheep industry millions of pounds each year. The annual loss to the meat trade is quite substantial, due to the impact liver fluke has, for example, on growth rates, feed conversion and mortality. As stated in the BRP Manual 9, the on-farm costs are estimated at £87 for each case in cattle and £5.56 for each sheep case. This means that the overall on-farm cost to English producers is in the region of £24 million per year.

Cysticercus ovis & tenuicollis
Compared to 2012, the level of C. ovis reported in 2015 is broadly the same in terms of percentage. In 2012, C. ovis was estimated to cost to the sheep industry almost £5 million. The assumption is that this estimated cost still remains valid as the level has remained broadly similar. With regard to Cysticercus tenuicollis, the level has decreased by just under 3% to reach a level of 5.81% livers. This decrease is welcome news as in 2012 it was estimated to cost to the sheep industry just over £1 million.

Abscesses
In England in 2015, just over 1% of sheep carcases (112,613) and almost 6.4% of cattle carcases (95,266) contained abscesses. The graph above shows that the level of abscesses recorded for sheep between 2012 and 2015 had a small decrease of just under 1% and, for cattle, a decrease of less than half a percent. In 2012, it was reported that the majority of abscess were the results of poor injection practices. AHDB targeted advice on the issue seems to have been fruitful.

Pneumonia / pleurisy
In 2015, 2.89% of sheep (272,251) and 7.08% of cattle carcases/lungs (105,230) slaughtered in England showed evidence of pneumonia/pleurisy. Animals that have suffered respiratory disease are likely to lead to a poor performance and rejection of infected lungs.

At English sheep slaughterhouses in 2015:
- **548,099** livers were rejected due to Cysticercus tenuicollis
- **430,383** livers were rejected due to liver fluke
- **272,251** carcases showed signs of pneumonia / pleurisy
- **112,613** sheep had abscesses
- **57,339** carcases were rejected due to Cysticercus ovis

Bruising
More than 21,000 cattle carcases slaughtered in England in 2015 showed signs of bruising. As reported in the BRP Manual, bruised carcases can impact on its value and saleable yield, with associated loss in value.

Without further analysis, it is difficult to attribute the cause behind the changes of the levels of the above conditions. However, there is no doubt that some of the positive changes are the result of targeted work AHDB has carried out in educating and promoting disease knowledge transfer across the meat supply chain. The smart use of abattoir data contributes towards minimising losses throughout the supply chain. It can inform producers on what to target in their health plans thus minimising the losses of saleable meat and offal. Many processors are also aware how valuable rejection data is, as these reduce saleable yields and impact the ability to maximise fifth quarter products to meet the increasing demands and opportunities on the export market.
AHDB working towards an improved CCIR

AHDB and the Food Standards Agency (FSA) are working together to deliver a robust and accurate information flow system to add value to the meat supply chain and improve the health of livestock.

The AHDB vision is to have in place a rational Collection and Communication of Inspection Results (CCIR) system in cattle and sheep abattoirs that is based on scientific evidence. The new system should only collect data that is of true importance to animal health, public health and animal welfare, and for which remedial actions can be taken at farm level. It should have the capability to trace conditions back to individual animals where possible or at least to batch level.

On 1st January 2006, the EU Food Hygiene Regulation introduced a farm-to-fork approach to food safety. Food Chain Information (FCI) and CCIR form part of this approach. FCI refers to the information on the health status of the animals consigned for slaughter and the holding of origin. CCIR refers to information that is collected during ante and post-mortem inspection by officials and sent back to farmers to improve animal health and welfare and ultimately food safety.

There are currently over 30 conditions in total for offal and carcass rejection that the FSA has at its disposal. In reality, only a handful of key common conditions are used which result in the rejection of part or the whole carcase or specific affected parts.

Between 2010 and 2013, the FSA commissioned three research projects that looked at FCI and CCIR. The project results promote the benefits post-mortem data could have to industry and government in developing animal health and animal welfare strategies, but also conclude that to be useful the conditions lists need to be rationalised.

From April 2016, the system known as INNOVA that currently collects post-mortem data in UK approved slaughterhouses were decommissioned and replaced with a new system called IRIS. The FSA has used this as an opportunity to improve its information flow for all species for CCIR.

At the beginning of 2016 as a first step towards an improved CCIR, AHDB and the FSA met with producers, processors and other key stakeholders to review the post-mortem conditions lists for cattle and sheep. The primary focus of the revised draft lists is to highlight endemic conditions in herds and flocks with the aim of improving animal health and welfare, an approach which has led to the number of conditions that are available to meat inspectors to record being halved.

The revised lists should provide a more robust system for collecting data and communicating it back to producers, who can in turn act on this data and ultimately reduce production losses.

In March the FSA trialled the draft list of conditions in a number of cattle and sheep abattoirs across England and Wales. The lists were also subject to an FSA consultation which closed on 7 March. The outcome of the cattle trials validated the draft conditions list. However, the outcome of the sheep trials highlighted the need to adjust the list of conditions with regard to lung conditions.

The FSA has announced to industry a staggered roll out for the launch of the rationalised conditions in sheep and cattle abattoirs:

- North West of England w/c 23rd May
- North East of England w/c 6th June
- South East of England w/c 20th June
- South West of England w/c 4th July
- Wales w/c 18th July

To support the delivery of the FSA CCIR project, AHDB has developed a programme of work which relies on collaborative work with processors and producers. Two of the work streams within this programme aim to introduce a common approach across the sheep and cattle industry through the use of standardised veterinary screen layout and reports to producers. To incentivise producers to take action based on the data, the CCIR report will give an indication of how much money a condition is costing.

The work stream on training recognises the Better Return Programme (BRP) as key to ensuring producers understand the conditions and make use of the data contained in the reports. Through BRP the aim is to help producers identify causes of carcass rejection and what remedial steps can be taken to avoid problems recurring.

AHDB Beef & Lamb will continue to work with Farmers and abattoirs for the delivery of a CCIR system that adds value to the meat supply chain. For further information on this work please contact Ouafa.doxon@ahdb.org.uk
Siobhan Slayven joins AHDB Supply Chain Development Team

Siobhan Slayven has been appointed to the role of Supply Chain Development Manager for AHDB Beef & Lamb and took up her post in May.

For the last year Siobhan has worked as an Animal Welfare Inspector, predominantly on behalf of a large food retailer.

Whilst her work has been throughout Europe (mostly Poland, The Netherlands and Germany) she has also carried out work in the UK which has given her the opportunity to work with all species and across the supply chain, from farms to abattoirs.

Prior to this role, Siobhan studied for an MSc in Meat Science and Technology at Bristol University. As well as covering subjects such as Animal Production and Meat Biochemistry, the course helped to develop an in-depth understanding of the ways in which meat quality can be manipulated and improved. This has resulted in a keen interest to further explore the ability of animal nutrition, welfare and ante-mortem handling to change the quality of meat.

Commenting on her appointment Siobhan said “I am very much looking forward to undertaking my new role as Supply Chain Development Manager with AHDB and developing my skills and knowledge within the UK beef and lamb industry”.

Red Meat - Product Environmental Footprint

AHDB is a part of the PEF (Product Environmental Footprint) RED MEAT project being undertaken for the European Commission by a meat industry consortium coordinated by UECBV consisting of: Celene (France), Danish Agriculture and Food Council, Bord Bia (Irish Republic) Cov (Netherlands), Beef and Lamb New Zealand, Meat and Livestock Australia and AHDB plus three companies that have agreed to host pilot studies, Danish Crown, Dawn Meats and Dunbia. The European feed industry association, FEFAC, is also cooperating and the life cycle assessment consultant is Blonk Consultants.

The European Commission (DG Environment) launched a call in February 2014 for volunteers to suggest Product Environment Footprint Category Rules, dedicated to food, feed, drinks, packaging for foods, fertilisers, catering services and drink products. Eleven projects were selected including that for meat prepared by the UECBV consortium that was developed amongst other things to prevent third parties from settling the basis for assessment of the sustainability of livestock-meat production and consumption.

The project is a life cycle assessment approach, looking at the environmental footprint in the production of packed fresh meat from beef, pork and lamb. The aim is to develop Product Environmental Footprint Category Rules (PEFCR) that will become product rules valid under the PEF, to be used by all stakeholders in the sector in the EU or internationally, who decide to measure the performance of their products based on PEF.

To date the project has progressed to producing a draft PEFCR, drafted according to the EC PEF Guide requirements, the information in which will now be tested by three supporting pilot studies involving Dawn (beef), Danish Crown (pork) and Dunbia (lamb). The draft PEFCR will then be revised on the basis of the comments received during a virtual consultation and of the results from the supporting studies.

New BREF document

The DG Envi have said that they will launch a project to update the new Best Available Techniques Reference Documents (BREF) in 2017. The new BREF will have a lot more regulatory burden around odours and their control. To this end the slaughtering industry (beef, lamb, pork and poultry) came together on the 14 April near Hull to discuss and develop their position.

For further information please contact
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TV showcase for opportunities in the Halal sector.

AHDB Beef & Lamb is to launch a programme of activity to highlight the importance of the Halal sector to the industry.

AHDB has commissioned a cookery show called Healthy Kitchen on British Muslim TV to show the quality of home-produced beef and lamb, as well as new and innovative recipes. The series will run for seven episodes and is due to start airing in July. It will also look at production on farm and illustrate how the Halal sector adds value throughout the supply chain.

The programme is one of a number of activities planned by AHDB Beef & Lamb over the next few months. This follows on from a stand at the Muslim Lifestyle Show at London Olympia from April 30 to May 1, hosting a cookery and butchery demonstration theatre to highlight different cuts for consumers to look for when shopping and suggest exciting recipes for lamb and beef.

Consumer research has also been commissioned to examine attitudes and decision making among Muslim customers when purchasing meat. It is aimed at helping AHDB Beef & Lamb decide where to focus activity on supporting the sector, maximising opportunities for the entire supply chain.

Dr Phil Hadley, AHDB Beef & Lamb head of global supply chain development, said:

"The Halal sector has a significant role to play in supporting the sheep meat industry, in particular, and increasingly the beef industry."

"For example, the Muslim community consumes around 20 per cent of all the sheep meat sold in England."

"We have a vibrant and growing domestic market for Halal sheep meat. It is important that we work with the sector to maximise the opportunities presented."

Last year AHDB Beef & Lamb produced a Halal Meat Facts booklet with information on the size of the market in the UK and overseas, and what products the Muslim community looks for. It also highlights support materials AHDB Beef & Lamb has developed for the industry to maximise carcase utilisation, such as the Lamb Cutting Guide for the Halal market, which has also been translated into French.

It is part of AHDB Beef and Lamb’s wider activity to highlight the role the Halal sector has to play in supporting the sheep meat and beef industry. Other work has included the production of a Halal farm to fork infomercial which has subsequently been translated into Arabic, French and German to support export work.

Phil added:

“We undertook a significant amount of work in 2015 and our forthcoming activities underline our ongoing commitment to supporting the Halal sector.”

US market access and STEC testing.

As part of seeking approval of UK beef for export to the US, there is a requirement for a microbiological testing regime that is currently not required for EU production.

This requirement relates specifically to beef that is anticipated to be used for manufacturing, particularly burger production. The US requirement is for each and every load of manufacturing beef to have been tested and proven to be absent from a number of specific E. coli strains.

As such, a laboratory test method has had to be developed and externally validated to be able to meet this new requirement. While this has taken several months, the test is now commercially available. The next steps in the process are for a number of plants seeking approval to collect a series of samples over a set time period to establish the base line prevalence of these particular strain in UK beef, with the US requiring this information in advance of an inspection visit. It is hoped that a formal inspection by FSIS officials will take place in the second half of 2016 with a view to achieving approval.