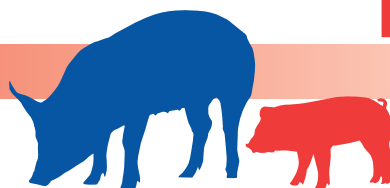


Abattoir Update

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Project commissioned to measure boar taint on line

Boar taint is an important issue in the UK and EU, with up to ten percent of carcasses from uncastrated male pigs being affected by an offensive odour and/or taste.

PhD student, Kelly Westmacott, has recently started a project to investigate how technology can be used in abattoirs to prevent tainted meat from reaching the consumer.

Kelly explains; “My BPEX-funded PhD studentship is being carried out at the Centre for Research in Biosciences, University of the West of England Bristol (UWE), and in partnership with JSR Genetics Ltd.

“It aims to assess a novel technology which we have recently developed and patented and, most importantly, look at how it can be integrated into current abattoir practices.”

Expanding on the science behind the project, she says that the technology is capable of measuring boar taint in pig carcasses and has the potential to be an intrinsic part of the pig processing line.

“Research has found that there are several naturally-occurring compounds within the pig tissue that are responsible for taint. The concentration of these compounds is principally related to the sexual maturity of the boars,” explains Kelly.

She adds that, unlike most European countries and elsewhere, the UK does not routinely castrate boars to prevent taint but instead, slaughters them at a younger age.

“However, this could change across the EU, as animal welfare concerns have led to an initiative on the voluntary ban of the surgical castration of piglets by 2018.

“As a consequence, the prospect of this ban has accentuated the already pressing need to develop a robust analytical system that can simultaneously detect the taint compounds at the point of slaughter.”

This will avoid tainted meat entering vulnerable sectors of the market and creating consumer dissatisfaction.

Consumer confidence is a vital aspect of any food sector, and studies performed across the EU, including the UK, have indicated that around only half of customers who have experienced an abnormal



Kelly Westmacott (front) and her supervisory team (from left to right) Prof. John Hart, Prof. Olena Doran, and Dr. Adrian Crew. They are all employed by UWE and have been setting the ground work for the project for the past five years.

odour would re-purchase pork (European Commission ALCASDE Project Report, 2009).

“These statistics highlight the scale of the issue and, while there are welfare benefits of not castrating, ultimately this matter has a serious impact on the economy of the UK pig industry,” acknowledges Kelly, who adds that at the present time a number of alternatives to surgical castration have been considered to prevent boar taint, such as: genetic selection, vaccination, dietary manipulation, and other management strategies.

However, Kelly maintains that all of these alternative methods still require a rapid, economically viable, boar taint monitoring system to ensure their effectiveness.

“At present no technology exists to provide on-line detection of boar taint in a rapid, cost-effective manner suitable for the industry.

“This four year project will provide information essential to enable the implementation and integration of such a system, to efficiently determine the status of pork before it leaves the abattoir.”

She concludes by saying that, implemented correctly, this system could help to improve customer satisfaction and increase the competitiveness of the UK pig industry by allowing heavier carcasses to be produced.

Kelly Westmacott, Centre for Research in Biosciences, University of the West of England, Bristol.



Georgina Crayford,
BPEX welfare projects coordinator

Georgina Crayford

Georgina Crayford has been with BPEX for the last five months providing maternity cover for the role of welfare projects coordinator, working to support pig producers, hauliers and processors to comply with welfare policy.

Previous to this, Georgina graduated from Liverpool University where she studied Bioveterinary Science.

She has spent the last four years completing a BPEX-funded PhD project investigating the infection biology of Salmonella strains in pigs, with a particular focus on the emerging monophasic variants.

Georgina gained further experience in Salmonella control across the pork supply chain in 2012, when she put her PhD studies on hold for six months to join the BPEX team as maternity cover for the health schemes manager role.

During this time she was responsible for management of the Zoonoses National Control Programme (ZNCP) and had involvement in the BPEX Lorry Wash project and discussions preceding the move to visual-only meat inspection.

Besides welfare, in her current role she has also become involved in projects to improve biosecurity, both on farm and beyond.

Maternity leave

Emma Bailey-Beech commences her maternity leave on 18th September, and will return to BPEX next summer for a rest! In the meantime, Ouafa Doxon will be providing cover. Ouafa is a former Meat Health Inspector who worked primarily in the South East, and more recently, had been working in the meat policy branch at the Food Standards Agency.

Welfare standard changes to lairage

Abattoirs are being alerted to changing welfare standards which will affect livestock arriving at abattoirs and being held in lairage.

Although the implementation of Welfare of Animals at the Time of Killing (England), (WATOK) has been postponed for the time being, it will be introduced once Ministers have further considered the legislation.

Replacing the existing domestic legislation, Welfare of Animals (Slaughter or Killing), WATOK will make it a legal requirement for any person involved in the handling of livestock animals at the time of killing to have a certificate of competence.

This includes individuals handling or caring for animals before restraint, through to those shackling or hoisting unconscious animals, to, finally, the individual stunning or slaughtering.

To be awarded the competency certificate, each person will be assessed for their ability to perform the appropriate tasks humanely and efficiently.

BPEX is closely following the developments of WATOK and will offer guidance once Defra has issued more information.



To discuss anything WATOK or welfare-related, please contact either Katja Stoddart or Georgina Crayford, at BPEX.

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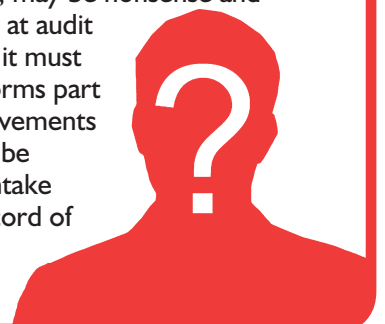
Georgina.Crayford@bpex.ahdb.org.uk

Undercover auditor

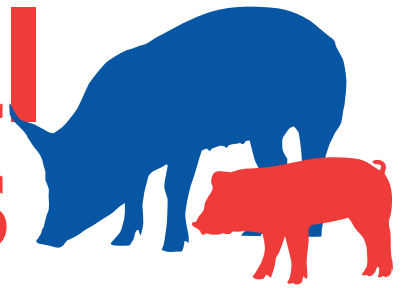
Avoid eAML2 errors

Errors and omissions in eAML2 paperwork are an all too frequent occurrence and an easy target for auditors.

Common problems, apart from documents that are obviously incomplete, include confusion over times (am versus pm) or where anticipated loading times have been recorded in advance but subsequently changed in practice. 'Time-travelling' pigs that have apparently arrived before being loaded, or transit times more consistent with pan European journeys, may be nonsense and non-conformances subsequently raised at audit will inevitably be frustrating. However, it must be remembered that the paperwork forms part of the legal framework for licensed movements and disease control so all aspects must be accurate. Double check the detail on intake and advise any offenders, keeping a record of feedback to producers as evidence of your own system controls.



Effective Visual Inspection tips



Post mortem Visual Inspection (VI) of pig carcasses and offal is now the default official inspection procedure and is already being carried out at approximately 85% of premises licensed to kill pigs. Defra is currently seeking clarification from key third countries on their acceptance of pigmeat that has undergone VI rather than traditional inspection. Once this is gained, plants that supply these countries will also carry out VI.

As routine, officials should no longer be palpating or incising organs or lymph nodes. If certain abnormalities are found, further dressing and inspection procedures can be carried out using agreed procedures for detaining meat.

Evidence has proven that visual inspection can help reduce microbiological contamination, and the EU legislation that introduces visual inspection is directly applicable across all Member States.

BPEX has developed eight effective tips to help plants improve and enhance visual inspection at their facilities.

Visual Inspection top tips:

- 1** Always involve the Meat Hygiene Inspectors and Official Veterinary in training of the Food Business Operator. Utilising both experts will be vital to ensure valuable data is recorded.
- 2** Install effective lighting, including directional spotlights. Use low 'heat' bulbs of about 1000 lux and avoid shadows where possible.
- 3** Remember that highly polished stainless steel is better than mirrors, enable the steel to be tilted to allow whole carcass to be viewed, but make sure the carcass never touches the surface. What's more, use non-fogging and anti-condensation chemicals to ensure visibility.
- 4** Implement effective ventilation throughout the production line: it will minimise condensation and keep operators cool.
- 5** Good hygiene is still a must. Without fail, wash hands regularly and maintain cleanliness around the plant.
- 6** Make sure good communication networks are in place for carcass rework and detained lines.
- 7** Prepare to spend more time recording. The recording and analysis of data will identify problem areas, for example poor Food Chain Information completion, faulty evisceration, machinery faults etc.
- 8** Implement a procedure which involves regular staff rotation to avoid 'inspection fatigue'.

For more advice about visual inspection please contact your local FSA team.

BPEX contact For any queries please contact:

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