



FEDERATION OF VETERINARIANS OF EUROPE

The Official Veterinarian's Role in Food Hygiene

An Essential Public Good

Abstract

The veterinary profession in Europe play a pivotal role in the provision and assurance of the safety of foods of animal origin, from healthy animals managed in a manner that does not compromise their welfare, to the consumer. This is especially the case where animals are processed through a slaughterhouse where in addition, *'meat inspection, both ante and post mortem, is a key component of the overall surveillance system for animal health and welfare'*.

This paper details the comprehensive role currently carried out by the veterinary profession, primarily in this case, in the slaughterhouse on behalf of the consumer, and evidences each assertion with brief case histories of actual events that have occurred in the experience of members of the Federation of Veterinarians of Europe, who contributed to its production.

Adding Value for Stakeholders and Global Public Good

The Federation of Veterinarians of Europe is concerned that some Competent Authorities, international and national organisation and specific private sector interests would wish to undermine the role of the Official Veterinarian in food hygiene to the detriment of food safety, animal health, public health and the environment. FVE believes that the main driver for this action is short term financial gain. While recognising that the prudent use of financial resources is extremely important we wish to outline in the following paragraphs the added value and global public good which Official Veterinarians bring in their role, particularly in the slaughterhouse environment.

The **Official Veterinarian's role** in the slaughterhouse supports the interests of many different stakeholders each with their own specific priorities. The Official veterinarian adds value to:

The livestock; *by ensuring proper caring, handling and stunning procedure in respect of the animal welfare legislation*

The consumer; *by providing assurance and reassurance on food safety*

The citizen; *by providing verification that the operator or the slaughterhouse is fulfilling their responsibilities with regard to animal health, public health, animal welfare and the protection of the environment*

The operator of the slaughterhouse; *through technical knowledge and support in development of self control processes*

The farmer; *by providing animal health information specific to their livestock*

The private veterinarian; *by providing information about the health status of livestock from specific holdings and populations, including data on emerging diseases*

The Competent Authority; *by delivering Official Controls through inspection, audit and enforcement*

The economy; *by supporting and facilitating national and international trade*

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One World-One Health-One Medicine

The veterinary profession and Official Veterinarians (OV) in the slaughterhouse in particular, are in a unique position to deliver the 'One World-One Health-One Medicine' concept.

- *This was illustrated in 2008 when the threat of a world-wide epidemic of highly pathogenic Avian Influenza had other health professionals turning to veterinarians within the Food and Agriculture Organization for advice and in 2009, when the pandemic H1N1 2009 (pH1N1), a novel lineage of the influenza A virus, first diagnosed in April 2009 allowed FAO and primary partners such as OIE and the World Health Organization (WHO) to work, to clarify and collect daily information regarding the monitoring and evolution of the pH1N1 situation in animals and in humans¹.*
- *The control of important zoonotic pathogens, such as Campylobacter spp. in chickens, can only be controlled by an integrated approach with serial actions and controls in place from feed, water and vermin control through a veterinary programme on farm, through to processing under independent veterinary control in the slaughterhouse.*
- *It is also vitally important for effective control of the human infection that the 'One Health' principle extends to the animal and human laboratory services with transparent sharing of results.*

Surveillance for Public Health

It is recognised that 75% of emerging human diseases, and 61% of all human infectious disease, originate from the animal populations². Almost all food animals, by definition, pass through a slaughterhouse at the end of their productive lives where all receive an ante-mortem veterinary inspection and a post-mortem inspection under veterinary supervision. The Official Veterinarian is therefore uniquely positioned to identify changes within the food animal population which may indicate the emergence of a potential zoonotic disease.

- *In the slaughterhouse, zoonotic food animal diseases of the central nervous system, such as Bovine Spongiform Encephalopathy (BSE), rabies or tetanus can only be identified by Official Veterinarian ante-mortem inspection.*
- *In south Wales, the presence of hydatid cysts in sheep viscera is utilised by the public health agencies to identify farm dogs which require treatment for worms.*
- *In Sweden, cattle tapeworm cysts, Cysticercus bovis, are very rare. Detection at post-mortem inspection at the slaughterhouse was traced back to a pasture contaminated by campers, allowing preventative measures to be implemented.*

Both undergraduate training and professional development and experience give the OV a unique understanding of food animal management and the processing of products of animal origin, from breeding and feeding through to further processing.

This knowledge permits informed feedback of ante-mortem and post-mortem findings for an individual animal, or group of animals, to the farmer and assists the producers and the

¹ EMPRES Transboundary Animal Diseases Bulletin n. 35, 2010. <http://www.fao.org/docrep/012/i1648e/i1648e00.pdf>

² L. H. Taylor et Al. Risk factors for human diseases emergency. Phil.Trans. R. Soc. Lond. B 2001.

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private practitioner with advice on herd or flock health problems.

- *For example, salmonellosis outbreaks in pig herds which become evident at the inspection at the slaughterhouse due to transport stress.*

Veterinarians, through their training and experience, have a knowledge of disease control systems, epidemiology and risk assessment. They are therefore ideally positioned to audit the industries hazard analysis based risk control systems.

Through their understanding of the use and controls required for the use of animal remedies, the Official Veterinarian in the slaughterhouse is ideally placed to direct active surveillance for residues of authorised animal remedies or illegal or unauthorised products. This may be through the interrogation of Food Chain Information or from evidence gained through ante-mortem inspection or post-mortem findings.

- *During ante-mortem inspection of cull dairy cows, the Official Veterinarian may see signs of infections, e.g. mastitis in dairy cows, which may give reason to suspect that the animal has been treated with antibiotics close to slaughter. Similarly, the altered conformation of an animal having been treated with illegal growth promoters, be they hormonal or other, for example beta-agonists may be identified by the Official Veterinarian at ante-mortem inspection or through the identification of injection sites at post-mortem inspection. These suspects' animals and carcasses will be detained pending the outcome of confirmatory laboratory tests.*

The EFSA Scientific Opinion on the public health hazards to be covered by inspection of meat (swine)³, recognised *“that certain non-authorised substances exert specific pathophysiological alterations in the animal”* and recommended that *“forthcoming meat inspection protocols should include appropriate ante-post mortem inspection criteria indicative of the illicit use of non-authorised substances”*.

Surveillance for Animal Health

Similarly to public health surveillance, and again in line with the *“One Health”* concept, the Official Veterinarian is uniquely positioned to identify known animal health threats within an animal population, diseases exotic to a given animal population or changes to the clinical and post-mortem signs within the population that indicate that a novel condition, disease or syndrome may be emerging. The EFSA Scientific Opinion on the public health hazards to be covered by inspection of meat (swine) concluded that *“the role of meat inspection for early detection of endemic diseases of pigs is well recognised. Its potential role in surveillance of welfare and endemic disease of pigs (with case-finding and estimated prevalence) is equally important”*.

- *The presence of diseases such as sheep scab, *Psoroptes comminis ovis*, is increasingly common in the UK. The finding is reported to the farmer and his private veterinary practitioner in order that this significant animal health and welfare issue can be addressed.*
- *In Denmark, specific incidences of pneumonia identified at post-mortem in pigs, can be investigated on the spot by the Official Veterinarian, and the correct samples for laboratory investigation collected. This essential data is fed back to the farmer and his*

³ <http://www.efsa.europa.eu/en/efsajournal/doc/2351.pdf>

private practitioner, for specific treatment at herd level and potentially significant financial saving to the producer.

- *The 2001 foot and Mouth epidemic in the UK in 2001 was first detected by an Official Veterinarian carrying out ante-mortem inspection¹. It is recognised that the early detection of any epizootic disease has a significant financial implication for its eventual control or eradication.*

Food Security

As OIE states⁴, “Veterinarians play a pivotal role in all stages of the food chain namely safe production, processing, transport, and distribution of products of animal origin, but their low numbers in both the private and public sectors of many countries represent a major constraint to world food security and safety”. Commonly, the concept of food security is defined as including both physical and economic access to food that meets people's dietary needs as well as their food preferences⁵. The role of the profession on farm is continues through the food chain into the food processing establishment where, as described above, the Official Veterinarian is ideally placed to detect and act upon early signs of disease in food animal populations. Food security and animal health and welfare are closely linked.

- *Having a unique and pivotal position in the food production chain, Official Veterinarians were key in providing traceability controls and certification on products of animal origin for supermarket chains and cold stores during the 2001 UK FMD outbreak, thus ensuring that only products, treated in a manner which would eliminate the virus, were exported.*

Veterinarians ensure continuity of food production by ensuring the health of food producing animals as well as looking for continued productivity enhancement through breeding and modern and sustainable reproductive techniques.

The veterinarian's role is essential in establishing sustainable food production programmes in third world countries through the application of their specialist skills and knowledge in agrarian communities.

Surveillance for Animal Welfare

The Official Veterinarian in the slaughterhouse has the opportunity to identify animal welfare issues from the farm, through transport, unloading, handling and holding, to the point of slaughter whereas proper and efficient stunning procedures are applied and monitored. The EFSA Scientific Opinion on the public health hazards to be covered by inspection of meat (swine), emphasised that in particular, “*transport-related welfare cases would not be detected if abattoir based ante-mortem inspection was removed*”.

- *The identification of evidence of animal welfare issues on farm is a key part of the Official Veterinarians role e.g. pododermatitis (bumble foot) in chickens may indicate a problem with damp litter on farm bite marks on pig skin indicates fighting and therefore a problem with conditions stick marks on a bovine carcass indicating inappropriate handling cattle with docked tails, poor livestock condition – high levels of foot-rot, sheep scab, emaciation, etc. can indicate poor on farm practices*

⁴ OIE press release. Paris, 23 May 2010. <http://www.oie.int/for-the-media/press-releases/detail/article/shortage-in-number-of-veterinarians-is-a-major-constraint-to-world-food-security-and-safety/>

⁵ WHO, Projects and Programmes. Food security. <http://www.who.int/trade/glossary/story028/en/>

Official Veterinarians in the slaughterhouse are ideally placed to monitor the suitability of animal transportation methods and animals' fitness to travel.

Independence of enforcement

The status of an Official Veterinarian, as a Regulated professional⁶ with a professional code of ethics and professional responsibilities, guards against the potential for concerns relating to independence or “*conflicts of interest*”. This is particularly important if the controls within the establishment are delivered by a part public, part private arrangement.

- *The European Consumers representational body, BEUC stated clearly at the first European round table conference on modernisation of meat inspection⁷ that independent oversight of slaughterhouse Official Controls would always be necessary.*

The regulated professional status of the Official Veterinarian, whose professional assessment is usually completed by a regulatory body, provides the consumers and the whole of society with confidence in food safety and effective enforcement of animal health and animal welfare controls.

- *The independence of the Official Veterinarian is often appreciated by industry whenever they play host to third part audits, potential customers or politically important visitors. Industry recognises that these visitors appreciate the professional status of the Official Veterinarian who can demonstrate the Official Controls from the perspective of the Competent Authority.*

The independence and integrity of the veterinary certification process provides quality assurance guarantees for industry, consumers and Competent Authorities alike.

- *The proliferation of assurance schemes required by the food retail sector demonstrates the desire of the consumer for independent reassurance of food safety and welfare standards throughout the food production chain. The Official Veterinarian is ideally placed to deliver this reassurance.*

Prevention of food fraud

Veterinary training provides the Official Veterinarian with the knowledge of food and animal by-products production, processing and storage which facilitates the identification of potential incidents of fraud – that is the substitution of low quality food or animal by-product for higher quality product.

- *The Irish dioxin scandals demonstrated how the veterinarian provides the enforcement link from farm to fork having a direct input throughout the food and feed chain.*

⁶ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2005L0036:20110324:EN:PDF>

⁷ R. Remy. *Expert Food Policy. Beuc/test achats*. Brussels 25.10.2010.

<http://www.google.be/url?sa=t&rct=j&q=evenium.com%2Fuploads%2F...%2Ffile%2F...%2Fmrobertremymeatinspectionconference.ppt&source=web&cd=1&ved=0CEIQFjAA&url=http%3A%2F%2Fevenium.com%2Fuploads%2Fcontents%2F72206%2Ffile%2F61496%2Fmrobertremymeatinspectionconference.ppt&ei=mS6gTt6sLI3XsgaCtNWOAw&usq=AFOiCNGiXcGzvLaDIM63ji5C xglCgXUBsQ&sig2=zrVw5PcRbzt4dPBFVMc4lg>

Veterinarians provide a surveillance net-work through their activities on farm, with animals at all points of production and through to further processing.

Facilitation of International Trade

As a member of a unique worldwide fraternity of professionals, sharing a similar professional code of ethics, similar undergraduate training and a similar understanding of complex trade issues, the Official Veterinarian is in a unique and quite special position to facilitate trade between international partners. Through OIE, the Official Veterinarian has direct access to the professional network of colleagues worldwide when trade problems or misunderstandings occur and so may facilitate trade as an economic driver to the national interest. In addition, through OIE, the Official Veterinarian has access to those veterinarians directly involved in the setting of the animal health and welfare standards through which trade in foods of animal origin is regulated by the World Trade Organisation (WTO).

- *Technical difficulties apparent with the exportation and importation of Products of Animal Origin (PAO) are often resolved by veterinarians speaking directly to their international colleagues on a basis of equality and common understanding transcending any language or political barrier.*

Crisis management

All veterinarians receive training in ‘evidence based problem solving’ as the very basis of their undergraduate training. In addition their training in the management of outbreaks of epizootic disease at undergraduate level is built upon by their experience and further professional development as Official Veterinarians. These skills and knowledge, and their familiarity with working in multi-disciplinary teams, places Official Veterinarians ideally at the centre of dealing with crises, be these in animal or public health.

- *The successful handling of numerous exotic disease outbreaks such as Bluetongue, Foot and Mouth Disease, Avian Influenza and contamination incidents such as the dioxin scares (Belgian, Irish); demonstrate veterinarians’ ability to be the essential link in crisis management.*

The veterinary training provides graduates with an ability to operate successfully in many different non-traditional roles - to analyse, rationalise and deliver solutions - and this is evidenced by the numbers of veterinarians across the world working in all types of “non-traditional” roles e.g. management, environmental protection, human health, international development, and industry amongst many. The training ensures that a veterinary trained individual is equipped with a set of core skills that are transferrable and applicable across a wide spectrum of activities.

Conclusion

The Official Veterinarian in the slaughterhouse, through his lifelong learning and experience, has a key role to play on behalf of society, but particularly in the assurance of the provision of safe food which is recognized as a public good⁸; the Official Veterinarian is of primarily importance in the provision of such a public good associated with the protection of public health, animal health and animal welfare. The international recognition of their contribution

⁸ Universal Declaration of Human Rights. Art 25. <http://www.un.org/en/documents/udhr/>

makes it essential that their involvement is both recognised by all stakeholders and jealously guarded. It is hoped that the above explanation and examples will assist with that aim.

Background Reading

FVE position papers

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3. ["Role of the practitioner", 2007](#)
4. ["Can your food kill? A view on acceptable risk", 2007](#)
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7. [Modernising Inspections in Slaughterhouses - FVE Position Paper, Sept 2009](#)
8. UEVH - Food safety: the farm to the fork approach (Revised version 2010)
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