

Feedback of slaughterhouse information (part 1)

In the first part of this article, Pat Kirwan MVB Cert Pig Medicine will focus on the feedback of slaughterhouse information and its significance from the perspective of the pig practitioner and the pig farmer

The first part of this article in this edition of the *Veterinary Ireland Journal* discusses the background to the feedback of slaughterhouse information across all species. The article in the next issue of the *Veterinary Ireland Journal* will focus on the specifics as they apply to the pig industry.

The feedback of slaughterhouse information on conditions observed at slaughter is acknowledged widely as one of the missing links in the all animal production systems and especially in the pig industry (*Report of Pig Industry Stakeholder Group 2016* – recommendation 21). Many farms have privately contracted their vets to carry out post-mortem inspections because they have long held the belief that slaughterhouse information can complete the production picture and allow the farmer and his vet to focus interventions that lead to a better post-mortem picture and better performance.

As far back as 2005 this author had been advocating this 'missing link' in the entire animal-production sector. While there has been progress in bridging the information gap in some beef-production facilities, the project is not complete and needs a push to get it over the line and have it in place in all beef slaughter facilities. There have been numerous proposals to have it in place in the pig sector. It has long been in place in Northern Ireland via trained auxiliaries in the meat-inspection service. There is no reason to believe that, with a few adjustments, it could not be very rapidly put in place in the pig sector in the Republic of Ireland.

The feedback of slaughterhouse information on conditions observed at slaughter is an essential element of EU legislation (EU Reg: 854 of 2004) that has not been fully implemented heretofore. It also formed part of Veterinary Ireland's submission to the Department of Agriculture, Food and the Marine (DAFM) as part of the temporary veterinary inspectors (TVI) dispute of 2012 – we, as TVIs, would facilitate the introduction of systems that would allow for recording and feedback of slaughterhouse information.

A distinction must be made at the outset between the conditions that would be mandatorily required to be reported upon by the EU and the local competent authority and those conditions that could be reported upon by the TVI and would provide some very useful information to the farmer producer. This feedback would also facilitate the instigation of on-farm procedures that might lead to significant improvements in husbandry, management and overall health, ultimately having the desired effect of improving the performance of the pig on farm and leading to a lower slaughterhouse incidence of a range of observable lesions. There are five large pig processors in Ireland and a number of smaller processors, accounting for approximately

Regulation (EC) No 854, Annex I, Section II, Chapter I
Section II: Action following controls

Chapter I: Communication of inspection results

1. The official veterinarian is to record and to evaluate the results of inspection activities.
2. (a) If inspections reveal the presence of any disease or condition that might affect public or animal health, or compromise animal welfare, the official veterinarian is to inform the food business operator. (b) When the problem identified arose during primary production, the official veterinarian is to inform the veterinarian attending the holding of provenance, the food business operator responsible for the holding of provenance (provided that such information would not prejudice subsequent legal proceedings) and, where appropriate, the competent authority responsible for supervising the holding of provenance or the hunting area. (c) If the animals concerned were raised in another Member State or in a third country, the official veterinarian is to inform to the competent authority of the Member State where the establishment is located. That competent authority is to take appropriate measures in accordance with applicable community legislation.

80,000 pigs per week. Depending on currency fluctuations, a significant but variable number is also exported live for slaughter in Northern Ireland. On a weekly basis, this figure can reach 10,000 pigs. The larger processors have four or five TVIs per shift on post-mortem inspection. Line speeds range from 200 to 420 pigs per hour (one pig passes final inspection every eight to 15 seconds) plus additional TVIs on ante-mortem duties. This doesn't give much time for not alone inspecting but also recording the pathology observed. Up to 100 TVIs perform meat-inspection duties in pig-processing plants on a weekly basis. The commercial pig industry in Ireland is now concentrated on approximately 350 farms. While there are some small producers remaining, in excess of 99% of production is focused on these 350 farms. Consignments are usually in excess of 200 pigs, giving the TVI ample opportunity to select a representative sample from the load to record his/her findings. It is generally agreed that 50 pigs from a consignment would accurately reflect what is going on in the farm at a point in time. Those involved in meat inspection over a long period of time would suggest that successive

Section 2.8.	Suidae
Chapter 2.8.1.	African swine fever (NB: Version adopted in May 2012)
Chapter 2.8.2.	Atrophic rhinitis of swine (NB: Version adopted in May 2012)
Chapter 2.8.3.	Classical swine fever (hog cholera) (infection with classical swine fever virus) (NB: Version adopted in May 2014)
Chapter 2.8.4.	Nipah virus encephalitis
Chapter 2.8.5.	Porcine cysticercosis (infection with <i>Taenia solium</i>)
Chapter 2.8.6.	Porcine reproductive and respiratory syndrome (NB: Version adopted in May 2015)
Chapter 2.8.7.	Influenza A virus of swine (NB: Version adopted in May 2015)
Chapter 2.8.8.	Swine vesicular disease (NB: Version adopted in May 2013)
Chapter 2.8.9.	Teschovirus encephalomyelitis (NB: Version adopted in May 2017)
Chapter 2.8.10.	Transmissible gastroenteritis

Table 1: Class A notifiable diseases listed on the World Organisation of Animal Health (OIE).

batches of pigs can be identified without referring to the slap mark of the pig just by appearance alone, so taking a representative sample of the pigs from a consignment would appear to be a reasonable and effective approach.

us to plot trends in disease incidence over time. The system of recording should also be versatile enough to be able to record one-off catastrophic events or unusual observations outside of the period when normal recording is occurring.



SHOULD IT BE NECESSARY TO RECORD EVERY BATCH OF PIGS FROM EVERY FARM EACH WEEK OR WOULD IT BE BETTER TO RECORD SLAUGHTERHOUSE CONDITIONS ON A MONTHLY OR QUARTERLY BASIS?

Notwithstanding on-farm variation that may occur, the numbers of pigs involved, on-farm housing variations and the number of consignments in a given week, it is likely that there will be minimum variation between batches of pigs from a single farm. I would personally hold that monthly recording would account for seasonal variation and allow

WHAT CONDITIONS ARE THE DAFM AND THE EU INTERESTED IN?

The DAFM and the EU are interested in diseases and conditions that would interfere with our ability to trade, including the detection of erysipelas lesions at ante- or post-mortem inspections. Tail-biting would also be considered on the DAFM list of remarkable conditions since it would have welfare implications at farm level. Class A notifiable diseases listed on the OIE website are critically important from the perspective of the official controlling authorities.

WHAT CONDITIONS ARE THE FARMERS AND THEIR VETS INTERESTED IN?

Farmers and their vets are interested in conditions that cost them money in terms of lost production, poorer performance or condemnation at slaughter. The respiratory and digestive systems are the key systems in the pig. Pigs are intensively farmed with a view to maximising production and, ultimately, the return on investment. Any condition that interferes with these objectives has a negative impact on these two key objectives of pig production.

IS IT POSSIBLE FOR THE PROPOSED SYSTEM OF FEEDBACK OF SLAUGHTERHOUSE INFORMATION TO DELIVER ON THE DAFM REQUIREMENTS AND ALSO THOSE OF THE FARMER AND HIS VET?

There are numerous proprietary systems in place in meat inspection services around the world. It isn't necessary to reinvent the wheel in relation to a system that will accommodate the needs of the official controls plus the needs of the pig farmer and his vet. These systems already in place in other jurisdictions, accommodate the needs of all parties seamlessly and without impediment.

CONCLUSION

This article outlines the issue of feedback of slaughterhouse information and some of the questions that arise in relation to the process and its merits. Part 2 in the next issue of the *Veterinary Ireland Journal* will deal with some of the specific conditions identifiable at slaughter.