



Food Act 2008 (WA) Fact Sheet 18

Australian Standard Alternative Equivalent Procedure: Risk-based Review of Post-mortem Inspection of Spleens of Sheep & Goats

Version 2 – March 2019

Rationale and description of the alternative technique

Industry concerns have been raised over the need to Palpate spleens of sheep and goats, irrespective of whether or not they are intended for human consumption.

This is seen to be out of step with practices in similar industries overseas where it is well established that the spleen of sheep and goats plays no practical assistance in reaching a disposition for other viscera or the carcase.

Current and approved alternative post-mortem inspection procedures for Schedule 2 AS4696 (Anon 2007) for sheep and goat spleens

Current (AS4696:2007 Schedule 2)	Revised (AS4696:2007 Schedule 2 Guideine)
Spleen – palpate	Spleen - observe

No changes to Schedule 3 are recommended.

This recommendation updates inspection procedures for sheep and goat spleens on a risk-basis and would make them equivalent with practices overseas.

Background and supporting information

The project aimed to “quantify the effect on food safety and wholesomeness of changing from Palpation to Observe for the detection of gross abnormalities of spleens of sheep and goats”, and in particular to:

1. Determining the foodborne Hazard significance of gross abnormalities of spleens;
2. Quantifying the industry prevalence of gross abnormalities of spleens;
3. Determining the role of gross abnormalities of the spleen in informing carcase disposition judgment;
4. Quantify the effectiveness of the detection of gross abnormalities using Observation by comparing with the combined rate of gross abnormalities detected by Observation and Palpation
5. Quantifying the effect on food safety of gross abnormalities undetected by Observation;
6. Reviewing the potential for cross-contamination of spleens that might result from Palpation;
7. Recommend alternative inspection arrangements for spleens of sheep and goats that provide equivalent food safety and wholesomeness outcomes.

Key Findings

1. Gross abnormalities of spleens of public health significance most likely to occur include Anthrax and enlargement due to Salmonellosis.
2. The prevalence of gross abnormalities of spleens detected by Observation and Palpation combined was 0.0528% (n=29) in 54,915 sheep inspected and 0.0432% (n=21) in 48,577 goats examined across the main production zones nationally.
3. The most commonly occurring gross abnormality in both species was abscessation due to Caseous Lymphadenitis (CLA) accounting for 83% of detected gross abnormalities in sheep spleens and 81% in goats.
4. The sensitivity of detection of gross abnormalities by Observation for sheep was 83% (=24/29) and 90% (=19/21) for goats.
5. Five abnormalities in sheep and two in goats were detected via by palpation alone, and all of these abnormalities were consistent with CLA infection.
6. In terms of increase in non-detection of gross abnormalities on a throughput basis the reduced sensitivity of inspection by 'Observation only' leads to an increase in the non-detection rate of 0.91/10,000 sheep spleens and 0.41/10,000 goat spleens.

Assessments of any adverse effects of the alternative technique

Post-mortem inspection and/or disposition

It is evident that inspection of sheep and goat spleens has negligible significance for determining final carcass disposition.

Food safety

The prevalence of gross abnormalities of spleens of food safety significance is negligible. Palpation of spleens may lead to contamination of edible tissues.

Product wholesomeness (including non-detection rates)

Any increase in non-detection of gross abnormalities resulting from omission of palpation is negligible.

Product integrity

Not applicable.

Animal health surveillance (including zoonoses)

The occurrence of gross abnormalities of spleens provide little information for final carcass disposition, which is likely to be evident elsewhere (e.g. cachexia).

Animal welfare surveillance

Gross abnormalities detected in the spleen do not inform animal welfare judgements.

Useful Resources

Anon (2007) Australian Standard for the Hygienic Production and Transportation of Meat and Meat Products for Human Consumption. FRSC Technical Report 3, AS 4696:2007.

CAC (Codex Alimentarius Commission) (2005) Code of Hygienic Practice for Meat. CAC/RCP 58-2005.

Pointon, A.M., Hamilton, D.H and Kiermeier, A. (2018) Assessment of the post-mortem inspection of beef, sheep, goats and pigs in Australia: Approach and qualitative risk-based results. *Food Control* Volume 90, Pages 222-232 August 2018, <https://doi.org/10.1016/j.foodcont.2018.02.037> (including Supplementary Material)

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The information contained in this Fact Sheet was provided to the Australian Meat Regulators Group in support of this change to the meat inspection procedures content in the Australian Standard for the Hygienic Production and Transportation of Meat & Meat Products for Human Consumption (AS 4696:2007).

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