



Heat Stress Risk Assessment Draft Report

VALE Submission February 2019

VETS AGAINST LIVE EXPORT

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Technical Advisory Committee
C/- Department of Agriculture and Water Resources
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Thank you for the opportunity to make a submission regarding the **Heat stress Risk Assessment Draft Report**.

Vets Against Live Export (VALE) was established in 2011. VALE currently has over 200 members and is widely recognised as providing expert independent analysis on veterinary and animal welfare matters in live export.

In 2014, VALE published a significant peer-reviewed scientific review on heat stress in live export (Caulfield et al. Heat stress: A major contributor to poor animal welfare associated with long haul live export voyages. *The Veterinary Journal* 2014;199:223-228). With more voyage reports being available since that publication, VALE's understanding of the science and its correlation with shipboard conditions has continued to advance. VALE made a submission to the HSRA in 2018.

Yours sincerely

A handwritten signature in black ink, appearing to read 'S Foster', written in a cursive style.

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1. VALE'S ANALYSIS OF THE DRAFT REPORT

VALE commends the Technical Reference Panel (“TRP”) for their careful and diligent scientific analysis of the HSRA model.

Recommendation 1: Industry and government have always claimed that the mortality rates indicate good animal welfare. In addition, the Government has always claimed that the standards reflected scientific evidence and community expectations. The analysis done by the TRP shows definitively that this is not the case (Section 5.1.1). The TRP, like the McCarthy Review¹ identified that the HSRA framework has wrongly focused on mortality and not on animal welfare. The TRP states that in isolation, mortality is an insufficient indicator of animal health and welfare. VALE agrees with Recommendation 1.

Recommendation 2. VALE agrees with the wet bulb temperature (WBT) limit established by the TRP. VALE notes from analysis of shipboard data that the WBT on the decks is, on average, likely to be about 2-3 degrees Celsius higher than that ambient conditions due to wet bulb rise. As such, when examining port WBTs (Section 5.5), it is important to also highlight the effect of wet bulb rise (p24). VALE notes that data from live export voyages (rather than meteorological data from importing country ports) demonstrates that the highest risk of significant heat stress during voyages is from April to November. Consequently, voyages carrying sheep to the Middle East should not be allowed during this period.

Recommendation 3: VALE agrees.

Recommendation 4: VALE has commented extensively on the issue of stocking rates in its submission to the ASEL Review. VALE agrees with the TRP statement *“Once a loaded ship is enroute and meets conditions where the ambient WBT exceeds the threshold at which mortality increases, apart from changing route to seek cooler conditions, there is relatively little that can be done to alleviate heat stress to the sheep on board.”* VALE is disappointed that the TRP Report did not specifically state that no amount of space can prevent heat stress once ambient WBT on a deck exceeds the heat stress threshold.

Recommendation 5: VALE agrees that the data obtained on future live export voyages should be used to refine the HSRA model, particularly in respect to the heat stress threshold.

Recommendation 6: VALE agrees that conditions likely to be experienced by sheep in the importing country after unloading from the ship should be considered as part of the risk assessment process. This is a critical and important assessment. It indicates a commendable approach to reducing heat stress risk throughout the export process.

Recommendation 7: VALE agrees. Video-monitoring equipment has reportedly been available since 2008 (Barnes 2008) but has not been utilised by government or industry. The recommendation to use monitoring equipment is practical and important in assessing conditions onboard the ships. It should be straightforward to implement video surveillance

¹ McCarthy (2018) *Independent review of conditions for the export of sheep to the Middle East during the northern hemisphere summer.*

and monitoring of WBT at multiple locations on all decks of all ships as matter of urgent priority.

Recommendation 8: VALE agrees that other environmental factors which can negatively impact animal welfare should be routinely measured and reported.

P31: Repeated Exposure to Heat.

A key piece of missing information regarding the likely effects of high heat and humidity on sheep welfare during live export voyages is the role of duration of exposure (Caulfield et al 2014). Similarly, there is no information on the time required for acclimatisation. The TRP suggest that a 2-3 week voyage may provide time for acclimatisation but there is no available data to support that speculation. Even if this were the case, it is unlikely that there is adequate time for sheep to acclimatise by the time they reach the Equator, a location where heat stress can occur.

2. VALE'S ANALYSIS OF THE RESPONSE OF THE DEPARTMENT OF AGRICULTURE AND WATER²

Regulation Impact Statement

It is most concerning that despite engaging a TRP to analyse the HSRA model, the Department has stated *"The panel's final recommendations on HSRA in the live sheep export trade are subject to a regulation impact statement (RIS), which should be finalised in 2019."* VALE supports the TRP recommendations and regards them as consistent with modern animal welfare science. VALE strongly recommends that these recommendations should not be diluted, delayed or modified in response to any commercial considerations raised by the RIS.

DAWR limiting response to the northern summer.

The Department has stated: *"As a result of the panel's recommendations the department will announce in early 2019 additional arrangements to be put in place to ensure the welfare of any sheep that may be exported during the next northern summer."*

Unlike the McCarthy review, the HSRA Draft is not confined to the northern summer and it is most concerning that the Department already appears to be ignoring the report and recommendations of the TRP (referred to by the Department as "the panel"). It is evident from Figure 2 in the Draft Report (98th percentile WBTs that may be experienced on voyages to the Middle East from southern Australia) that periods of risk extend from April to November. The defined "northern summer" period is only from May to October.

CONCLUSION

VALE supports the HSRA draft recommendations but has little confidence that the Government will implement these recommendations based on science and animal welfare.

² See: What HSRA Review Recommendations Mean. <http://www.agriculture.gov.au/.../export/.../what-hsra-review-recommendations-mean.docx> (accessed 21 January 2019)

REFERENCES

Barnes A. Impact of sea transport on animal welfare: Australian case studies (sea transport of sheep and cattle). RSCPCA Conference 2008

Caulfield MP, Cambridge H, Foster SF, McGreevy P. Heat stress: A major contributor to poor animal welfare associated with long haul live export voyages. *The Veterinary Journal* 2014;199:223-228