

Heat Stress Risk Assessment

Draft Report by the Independent HSRA Technical Reference Panel

Comments by: Dr. Onn Ben-David OAM

1. A logical analysis of the issues raised and very much in-line with basic science of physiological facts and animal behavioral data ,knowledge. Not surprising after all as it reflect how the animal body respond to the various conditions, situations and scenarios that were looked at in this review.
2. The fact that 3 out of the 4 members of the TRP are, scientist /vets of high reputational standing in Australia and worldwide I suspect also contributed to the way this panel addressed the issue and reported them. Assessing very much the science behind this issue and steering well away from the politics or departmental issues.
3. I am not surprise of the similarities between the reports outcomes and basic scientific knowledge some, probably most could be observed in the field and other can be tested in laboratory situations. The theory and the practical outcome dovetail well one into another in most if not all the issues under discussion.
4. I am pleased with the way the TRP addresses the Diurnal variation phenomenon. I believe it is presented correctly in both the detailed discussion pages 21,22 and 33,34 and in Recommendation 5 although in reality I am not sure if the HSRA system can be made to account for the cumulative effects and the individual variations of sheep bodies at the very edge of the heat stress. (WBT28)
5. I would have liked the TRP Report to clearly and categorically state that no amount of improve ventilations or space onboard ship decks can prevent heat stress, suffering and or death and therefore we need to recognize this limitation and seriously consider a seasonal ban on shipping under such likely conditions. (Eg May to October etc). HSRA after all is only a predictive tool in the risk analysis excersis, the regulators and the industry are undertaking to minimize originally death but now also suffering. We need to recognize that In some situations the risk is just too great. (Although WBT 28 at 2% probability if applied methodically and consistently would also lead to similar outcome, seasonal shut down of the trade.)
6. It is extremely disappointing to see that so many scientific facts were well known for well over 12-15 years and where never incorporated into the industry HSRA tool and that the “system” was so biased against animal welfare (or should I say corrupted against welfare). Even with the mortalities that were known and recorded neither the

industry nor the regulator dared to consider these scientific facts and use them to effect the welfare of the animals. What has been clearly and publicly identified by the TRP report together with the Scientific Literature Review, the McCarthy, the Moss and the ASLE reviews of the last 8-12 month was that scientific facts and poor welfare outcomes were known and recognized but no one at the department, the regulator or the industry levels were honest enough to call it for what it is and step in to change the regulations and the conduct of the trade. The Department and the industry were not just innocent bystanders but rather willing and active participants in placing welfare and live of animals ahead of income and profit for the industry and it's players. While it is one thing to have industry behave in such a way it is entirely different issue for government and regulator to so comply, facilitate and protect the offenders and abusers and the industry that govern them.

7. I have looked at the Department response /comments regarding the draft TPR report and I am disappointed to see no commitment to any progress, change or any restrictions at his stage.
8. What also surprises me in the department report is the statement that regardless of the scientific welfare outcome of the current process, in 2019, referred to as the decision year, the proposed changes will have to undergo Regulatory Impact Statement. (RIS). Which to me indicate that the Department is likely to maintain the industry wellness and profitability ahead of the welfare of the animals involved.
9. The notion that Australian Standards and Regulations of animal industries are "based on Up-To-Date science and reflect community expectations" has certainly been given a major blow in recent months with the publications of the various reports including this TRP report. This should certainly raise our concerns with regards to other animal industries and other activities.
10. I support the inclusion of the environmental condition at the destination port and country to the HSRA Risk assessment.
11. I support the deployment of constant measuring and recording processes of environmental conditions onboard as well as monitoring sheep responses to heat and other stressors as an essential process which should be mandated on each voyage.
12. The employment of equipment that record CO₂, Ammonia and other potential noxious gases should commence immediately. The need to measure these gases is very real regardless of the heat situations. Such monitoring should take place at multiple sites /locations on the ship and at different times during the day night cycle throughout the voyage.

Summery

I support the 8 recommendations made by the Panel. In particular:

- Moving the HSRA framework from one that is focused on mortality to one that is focused on animal welfare;
- Acknowledging the Heat Stress Threshold for the standard export sheep and setting a Wet Bulb Temperature (WBT) limit of 28°C;
- Setting the risk limit for voyages at less than 2% probability of exceeding 28°C WBT;
- Incorporating the environmental conditions at the destination in the risk assessment;
- Recording other factors such as CO2 and ammonia and factoring these measures into the risk assessment.

I call on the government to adopt and implement all the 8 recommendations

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