**Department of Agriculture and Water Resources:   
Regulator’s response to the final report on the review of the Australian Standards for the Export of Livestock: Sea Transport**

* The technical advisory committee was appointed by the Department of Agriculture and Water Resources to review the Australian Standards for the Export of Livestock (ASEL) and ensure they remain fit for purpose.
* The final report on the Review of the ASEL: Sea Transport was provided to the Secretary of the Department on 14 December 2018.
* The government’s policy is to continue the live export trade while strongly supporting the development of effective measures to improve animal welfare outcomes in this trade.
* Under the *Export Control Act 1982* and *Australian Meat and Live-stock Industry Act 1997*, the Department of Agriculture and Water Resources, as the regulator, is responsible for setting operating rules for exports and therefore for responding to the recommendations in the final report on the review of the ASEL: sea transport. In doing so, the department has taken animal welfare, the interests of the industry and the government’s policy into account.
* On this basis, the department supports the recommendations from the ASEL review committee and will implement them in a staged approach. The department notes that some recommendations relate to the regulator’s operational policy, and do not require changes to the ASEL.
* A detailed response to each recommendation is attached. Steps will be taken to implement recommendations relating to space allocation as soon as practical.
* The remainder of the recommendations that impact the ASEL will be incorporated into a revised version of the ASEL in mid-2019 in its current format – to be known as ASEL version 3. Introduction of a reformatted standard will be deferred until the review of the air transport standard has been completed. Incorporation of the recommendations into the current format of the ASEL will allow for the changes to be made relatively quickly, with the least administrative burden on industry participants and support continued compliance with the standards.
* The recommendations will impact the regulation of livestock exports and the department acknowledges that some changes will have implications for parties associated with this trade. Notably, this includes recommendations relating to stocking density and the application of a heat stress risk assessment model to additional markets.
  1. On stocking density, recommendations 17 to 26 relate to on-board space allowances with more space required in most cases. The committee has recommended an ‘allometric’ approach be adopted. For example, this will increase the space allowance on board vessels for sheep of 54kg by 25 per cent and cattle of 400kg by 7.9 per cent, compared to the requirements under version 2.3 of the ASEL. The committee has also provided an alternate approach for cattle on shorter voyages based on proven exporter and vessel performance.
  2. On the heat stress risk assessment model, recommendation 27 proposes a heat stress risk assessment be conducted for all voyages that cross the equator. This recommendation will require industry to further develop a model or update the existing model to cover non-Middle East routes for each species. Until then, the department will continue to require a heat stress risk assessment to be undertaken for all voyages to or through Middle East.
* The report recommends a number of other measures including:
  1. reduced notifiable mortality level for all livestock species (already in place for sheep exported by sea);
  2. an increase in the minimum amount of time spent in pre-export premises;
  3. more detailed welfare monitoring and reporting (panting score and heat stress scores are already required for sheep exported by sea);
  4. improved checks on animal weights to assess the accuracy of proposed load plans and heat stress risk assessments;
  5. a minimum number of competent stock handlers per head of livestock on-board vessels;
  6. improved bedding arrangements on voyages (increased bedding requirements for sheep exported to the Middle East were implemented in 2018).

The department’s response to each of the committee’s recommendations is attached.

| **Recommendation** | **Responses** |
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| **Recommendation 1 – Sourcing and Preparation**  That the standards should prevent Bos taurus cattle from an area of Australia south of latitude 26° south being sourced for export on voyages that will cross the equator between 1 May to 31 October (inclusive), unless an agreed livestock HSRA indicates the risk is manageable. Until the heat stress risk assessment model has been further developed to include all destinations across the equator, the provision should continue to apply to the Middle East. | **Support.** This will be implemented through the ASEL version 3.  The current practice of applying the HSRA model to all voyages to, or through, the Middle East will be continued and included in the updated ASEL.  The current HSRA model (Hotstuff v4) can only be applied to voyages going to, or through, the Middle East. A new or updated HSRA model will need to be developed to include the additional markets. The department will commence discussions with industry in March 2019 on the development of the model by industry. |
| **Recommendation 2 – Sourcing and Preparation**  That the standards prevent pregnant Bos taurus cattle from an area of Australia south of latitude 26° south being sourced for export on voyages that cross the equator from 1 May to 31 October (inclusive). | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 3 – Sourcing and Preparation**  That the standard prevent Bos taurus cattle with a body condition score of 4 or more out of 5, or 5.5 or more out of 6 for dairy cattle, being sourced for export from, or exported through, any area of Australia north of latitude 26° south from 1 October to 31 December (inclusive). | **Support.** This will be implemented through the ASEL version 3.  The department also supports the use of the updated body condition scoring system, referenced in Recommendation 3 and recommended as part of the minor amendments to the standard. |
| **Recommendation 4 – Sourcing and Preparation**  That the standards require that all sheep to be exported by sea have no more than 25mm of wool or hair, until sufficient evidence is available to review this approach for specific breeds of hair sheep. | **Support.** This will be implemented through the ASEL version 3.  The department will consider any further evidence that is presented. |
| **Recommendation 5 – Sourcing and Preparation**  That for sheep held in a paddock at the registered premises, the standard continue to require that they be 10 or more days off-shears when sourced. | **Support.** No change required to the standard. |
| **Recommendation 6 – Sourcing and Preparation**  That for sheep held in sheds at the registered premises, the standard require they be given at least two ‘clear days’ between shearing and loading for export (for a definition of ‘clear day’ see Recommendation 8). | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 7 – Sourcing and Preparation**  That the standards require that cattle and buffalo over 500kg may only be exported in accordance with a heavy cattle/buffalo management plan to be agreed with the department. The welfare of cattle and buffalo over 500kg should also be monitored over the coming 12 months to assess whether an absolute upper weight limit is needed in the standard. | **Support.** This will be implemented through the ASEL version 3.  The department will consult with stakeholders on monitoring the welfare of cattle and buffalo over 500kg to assess whether an absolute upper weight limit is needed in the standard. |
| **Recommendation 8 – Sourcing and Preparation**  That the term ‘clear day’ be defined in the standard as a full day (midnight to midnight), not including the day of arrival or load out, during which livestock are not subject to any fodder or water curfew, and are not shorn. Clear days do not have to be consecutive, and apply to the animal, rather than at a whole-of-consignment level. | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 9 – Sourcing and Preparation**  That the standards require sheep and goats to be held at the registered premises for five clear days, irrespective of the location and design of the registered premises, the time of year, or the length of the export voyage. | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 10 – Sourcing and Preparation**  That the standards require all classes of cattle travelling on short and long haul voyages to be held at the registered premises for a minimum of two clear days, irrespective of the location of the premises and the number of loading/discharge ports on the voyage. Three clear days should be required for all classes of cattle travelling on extended long haul voyages. | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 11 – Sourcing and Preparation**  That the standards require buffalo to be held at the registered premises for a minimum of five clear days, irrespective of location of the premises, length of intended voyage or number of loading/discharge ports. | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 12 – Sourcing and Preparation**  That the standards require that, of the five clear days for which sheep and goats are held at the registered premises (see Recommendation 9), they are fed ad libitum on pelletised fodder equivalent to the shipboard ration for at least the final three clear days (for a definition of ‘clear day’ see Recommendation 8). | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 13 – Sourcing and Preparation**  That the standards require pelletised fodder to be fed in troughs at the registered premises, and that feeders/troughs be of a design that prevents spoilage of fodder, particularly during inclement weather. The standards should also state that livestock must have access to fodder that is neither contaminated nor spoiled. | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 14 – Sourcing and Preparation**  That the existing pregnancy–related rejection criteria and pregnancy testing criteria be retained in the standards, other than:   * 1. the testing criteria relating to ‘maximum days pregnant’ for all livestock exported by sea, which should be amended to apply at the scheduled date of discharge, rather than the scheduled date of departure, to ensure that livestock cannot be exported in the third trimester; and   2. the provision relating to Damara female sheep, which should be extended to apply to all female fat-tailed sheep. | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 15 – Sourcing and Preparation**  That the definition of a competent pregnancy tester be amended to cover persons permitted to undertake pregnancy testing by law in any state or territory jurisdiction, rather than just persons in the Northern Territory and Western Australia. For clarity, the circumstances in which competent pregnancy testers are permitted remains unchanged. | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 16 – Sourcing and Preparation**  That the standards allow the department to extend the validity of a pregnancy test beyond 30 days only where necessitated by circumstances outside the exporter’s control and where the exporter can demonstrate that the extension will not impact on animal welfare outcomes. That decision should be delegated to regional veterinarians, rather than requiring a formal dispensation from the Canberra office. | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 17 – Stocking Density**  That the standards require that sheep and goats held at a registered premises be given a minimum space allocation of:   * 1. 0.33m2 per head, where they are held at the premises for less than 10 days, with an additional 0.006m2 for each 1kg increase in bodyweight above 54kg.  1. 0.5m2 per head, where they are held at the premises for 10 days or more, with an additional 0.006m2 for each 1kg increase in bodyweight above 54kg | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 18 – Stocking Density**  That the standards for stocking density in registered premises remain unchanged for cattle and buffalo. | **Support.** No change required to the standard. |
| **Recommendation 19 – Stocking Density**  That the standards require that a mortality report be provided for each consignment at the time it leaves the registered premises. | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 20 – Stocking Density**  That the standard adopt an allometric approach to calculating default base space allowances, using a k-value of 0.03, or current ASEL, whichever is the greater. | **Support.** The proposed minimum pen area tables in the committee’s report will be implemented as soon as practical, and not later than 1 May 2019. |
| **Recommendation 21 – Stocking Density**  That, for sheep voyages between 1 May and 31 October, the standards require the space allowance to be calculated using a k-value of 0.033 until a new HSRA model is in place based on heat stress welfare indicators rather than mortality (noting that this is subject to a separate review process). Once such an HSRA model is in place, the standard should be revised to adopt the default space allowance for sheep using a k-value of 0.030. | **Support.** Space allowances for sheep calculated using a k-value of 0.033 is currently in place through *the Australian Meat and Live-Stock Industry (Export of Sheep to the Middle East) Order 2018*.  The May 2018 McCarthy Review recommended the use of allometrics, with a k value of 0.033, in calculating on board space allowance for sheep exported to the Middle East during the northern hemisphere summer. The department accepted the McCarthy review recommendation and it was implemented through *the Australian Meat and Live-Stock Industry (Export of Sheep to the Middle East) Order 2018*.  The current HSRA review is focused on sheep exported to the Middle East during the northern hemisphere summer. Once the HSRA review report is finalised, the department will consult with stakeholders on implementing those recommendations relating to the HSRA model. |
| **Recommendation 22 – Stocking Density**  That, for cattle voyages of less than 10 days, the standards allow the department to approve a space allowance based on a k-value of 0.027 based on proven past and continuing high performance of the exporter and export vessel for such voyages. For those voyages, the standards must require daily reports to be provided. The regulations should also enable penalties to be imposed on an exporter when a voyage is claimed to be less than 10 days, and access to the alternate stocking rate (k=0.027) is approved, but the voyage exceeds 10 days.  *(Cont.)* | **Support.** The proposed alternate stocking density table in the committee’s report, using a k-value of 0.027 for cattle voyages of less than 10 days, will be implemented as soon as practical, and not later than 1 May 2019.  Alternate stocking density will apply on a case by case basis, when the department has determined the ongoing high performance of an exporter that applies to export cattle using the alternate stocking density.  The department will implement the requirement for daily reports through directions on exporters using the alternate stocking densities as soon as practical.  The department will use penalties currently available in the legislation. The Export Legislation Amendment (Live-stock) Bill 2018 has been introduced before the House of Representatives. Legislative amendments proposed by the Government will strengthen available penalties for non-compliant exporters and improve powers available to address non-compliance. |
| **Recommendation 23 – Stocking Density**  That in relation to other special categories of livestock, the following approach should apply to space allowances:   1. Buffalo: on all voyages, 10 per cent more space than that required for cattle on voyages of more than 10 days. 2. Cattle and buffalo with long horns: 30 per cent more space than otherwise required for cattle and buffalo. 3. Cattle and buffalo from 500kg and above: additional space as determined by an approved heavy cattle/buffalo management plan. 4. All pregnant cattle and buffalo: a minimum of 15 per cent more space than otherwise required for cattle and buffalo for a given liveweight and voyage. 5. Rams and goats with horns: 10 per cent more space than otherwise required for sheep and goats. | **Support.** This will be implemented as soon as practical, and not later than 1 May 2019. |
| **Recommendation 24 – Stocking Density**  That a weight gain factor should not be a requirement when determining stocking densities, but that where a curfew has been applied to livestock for more than 12 hours off fodder and water, a curfew factor of 5 per cent should be applied in calculating stocking densities. | **Support.** This will be implemented as soon as practical, and not later than 1 May 2019. |
| **Recommendation 25 – Stocking Density**  That daily reports be required for buffalo consignments, regardless of voyage length. | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 26 – Stocking Density**  That departmental officers should ensure a check of animal weights is undertaken through a sample inspection and review process at registered premises prior to and during loading to ensure accurate liveweights are being applied in load plans. | **Support in principle.** This is a regulatory policy decision and no change is required to ASEL. The department will consider the processes and methods available to verify that load plans accurately reflect liveweights of livestock. |
| **Recommendation 27 – Heat Stress Risk Assessment**  That the standards be revised over time to require the application of an agreed Heat Stress Risk Assessment to all livestock voyages that cross the equator, at all times of the year, from all Australian ports. This requirement will require significant model development and a staged implementation approach. | **Support.** The current practice of applying the HSRA model to all voyages to, or through, the Middle East will be continued and included in the updated ASEL. The requirement of a HSRA for other markets will be updated in ASEL as a heat stress model becomes available for each market.    This will require further consultation with and development of the model/s by industry and implementation will be staged. |
| **Recommendation 28 – Heat Stress Risk Assessment**  That once the (separate) review of the heat stress risk assessment model for sheep exports to the Middle East is completed, the criteria in the standards should be revised to support the new model. | **Support in principle.** This will be implemented as soon as practical once the HSRA review has been completed.  The current HSRA review is focused on the transport of sheep to the Middle East during the northern hemisphere summer. Once finalised, the department will consider recommendations made by the HSRA panel, once the regulation impact statement has been undertaken, and how they impact the ASEL. |
| **Recommendation 29 – Heat Stress Risk Assessment**  That the period 1 May to 31 October continue to be applied as defining the ‘northern summer’ in the relevant sections of the revised standard. | **Support.** No change required to the standard. |
| **Recommendation 30 – terminology**  That the term ‘reportable mortality level’ be replaced with the term ‘notifiable mortality level’ in the standards. | **Support in principle.** The department will consider the process and broader implications of changing the terminology e.g. interaction with broader reporting requirements and processes. |
| **Recommendation 31 – reporting**  That the notifiable mortality level for sheep, goats, camelids and deer should be set at 1 per cent, or three animals, whichever is the greater; and that an average daily mortality rate of equal to, or greater than, 0.05 per cent, calculated at the end of voyage, be added to the list of events that would qualify as a ‘notifiable incident’. | **Support.** This will be implemented through the ASEL version 3.  The May 2018 McCarthy Review recommended the reportable level for sheep exported by sea be reduced to 1 per cent. The department accepted the McCarthy review recommendation and it was implemented through the *Australian Meat and Live-Stock Industry (Standards) Amendment (Reportable Sheep Mortality Level) Order* 2018. This order is currently in force. |
| **Recommendation 32 – reporting**  That the notifiable mortality level for cattle and buffalo should be set at 0.5 per cent, or three animals, whichever is the greater; and that an average daily mortality rate of equal to, or greater than, 0.025 per cent, calculated at the end of voyage, be added to the list of events that would qualify as a ‘notifiable incident’. | **Support.** This will be implemented through the ASEL version 3 for livestock exported by sea. |
| **Recommendation 33 – reporting**  That the requirements for daily reports and end of voyage reports be updated as per Appendix A and Appendix B in the report including:  a. Inclusion of more detailed welfare monitoring in daily reports based on an assessment of at least two pens of sheep, cattle, buffalo and goats representative of each class or line, per deck, as well as a welfare assessment for any ‘at high risk pens’ or ‘pens of concern’. | **Support.** This will be implemented through the ASEL version 3.  The proposed templates included in the committee’s report will be adopted into the ASEL updates. |
| **Recommendation 34 – On-board resources and management**  That the standard require that on all voyages, a sufficient quantity of bedding is carried, applied and managed in a manner that ensures good animal welfare outcomes for livestock; in particular, to minimise slipping (including during loading and unloading), injuries, abrasions, lameness, pugging, faecal coating. | **Support.** This will be implemented through the ASEL version 3.  The Livestock Export Program is conducting a research project to determine the bedding requirements for both sheep and cattle and its effect on welfare outcomes. The department will consider the outcomes of this project and its possible impacts on ASEL bedding requirements as part of future ASEL reviews. |
| **Recommendation 35 – On-board resources and management**  That the standard require the consistency and depth of bedding material to be routinely monitored. | **Support.** This will be implemented through the ASEL version 3.  See recommendation 34. |
| **Recommendation 36 – On-board resources and management**  That in relation to recommendation 34, the manure pad is an appropriate form of bedding for sheep, but that a sufficient amount of material such as sawdust, wood shavings or rice hulls, must still be carried to manage moisture in the sheep manure pad, avoid slippage during loading and unloading, and manage incidents such as pen flooding. | **Support.** This will be implemented through the ASEL version 3.  See recommendation 34. |
| **Recommendation 37 – On-board resources and management**  That, in addition to the requirement in recommendation 34, the standards continue to require that for cattle and buffalo on all voyages of ten days or more be provided with sawdust, rice hulls or similar material to be used exclusively for bedding at a rate of at least 7 tonnes or 25m3 for every 1000m2 of cattle/buffalo pen space (no exception). | **Support.** This will be implemented through the ASEL version 3.  See recommendation 34. |
| **Recommendation 38 – On-board resources and management**  That bedding requirements for voyages of 31 days or more be agreed in the extended long-haul management plan. | **Support.** This will be implemented through approved arrangements or on a consignment specific basis.  Extended long haul management plans are agreed as part of an exporters approved arrangement or on a consignment specific basis. |
| **Recommendation 39 – On-board resources and management**  That the standard require that ammonia levels in livestock spaces not exceed 25ppm and that reduction measures be implemented if that level is exceeded in any given area of the vessel. The department should allow a 12 month transition period with respect to compliance whilst industry tests the use of currently available devices on ships. | **Support.** This will be implemented through the ASEL version 3 with a 12 month transition period for compliance.  Further work is required to investigate the feasibility and practicality of currently available or new/upcoming technology to monitor and report on environmental conditions. |
| **Recommendation 40 – On-board resources and management**  That the standards require:   1. That all livestock be offered fodder and water as soon as possible after being loaded on the vessel, and at the very least within 12 hours, 2. That water be provided *ad libitum* throughout the voyage (including days of loading and discharge). The standards should also prevent any water curfew prior to unloading in the northern hemisphere summer in Middle East ports. 3. That adequate trough space be provided per animal to ensure free access to feed during the voyage. | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 41 – On-board resources and management**  That the department require the use of automated watering systems on all livestock export voyages. | **Support in principle.** The department will consult with the Australian Maritime Safety Authority (AMSA) and other stakeholders on the implementation of this recommendation. |
| **Recommendation 42 – On-board resources and management**  That the standards require that, on voyages of 30 days or less, at least 1 per cent of the fodder for cattle and buffalo be chaff and/or hay. For voyages of 31 days or more, at least 2 per cent of the required fodder must be chaff and/or hay. | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 43 – On-board resources and management**  That the standards require vessels to hold sufficient fodder to meet the needs of livestock throughout the voyage, including days of loading and discharge (noting livestock will be progressively loaded and unloaded during those periods). | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 44 – On-board resources and management**  That, in addition to Recommendations 42 and 43, the standards require that vessels carry adequate fodder reserves to ensure livestock can continue to be fed in accordance with specified allowances even if voyage delays occur. At a minimum, this must include 3 days of fodder and water, aside from voyages through the Suez Canal, Cape of Good Hope, the Panama Canal and Cape Horn, and any other voyage that is expected to take longer than 30 days, which must carry 7 days of reserves. | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 45 – On-board resources and management**  That the standards are further reviewed without delay once current studies into fodder quality, quantity and pellet specifications are completed. In addition, the department should regularly inspect vessels at loading to verify that fodder requirements in the standards are being met. | **Support in principle.** The department will consider how best to incorporate outcomes of research into future review processes.  **Support in principle**. The department will consider an approach to regularly verify fodder loaded on-board vessels. |
| **Recommendation 46 – On-board personnel**  That the standards continue to require an accredited stockperson to accompany each consignment of livestock. | **Support.** No change required to the standard. |
| **Recommendation 47 – On-board personnel**  That the standards require one competent stock handler (as defined in the working draft standards) per 3,000 (or part thereof) cattle and buffalo, and/or one per 30,000 (or part thereof) sheep. The standards should allow the accredited stockperson to count towards this requirement. Crew can also contribute to this requirement, provided they have the required skills/competencies. | **Support.** This will be implemented through the ASEL version 3. |
| **Recommendation 48 – On-board personnel**  That the standards require an AAV to accompany any export consignment where required by the department. Notwithstanding that, an AAV must accompany each consignment on long haul voyages, extended long haul voyages and voyages with pregnant livestock, unless otherwise agreed by the department. | **Support in principle.** This will be implemented as soon as practical.  The department will consult further on this recommendation given limited accommodation on some livestock vessels. |
| **Recommendation 49 – On-board personnel**  That the standard not allow the same person to be both the AAV and the accredited stockperson on any given voyage. | **Support in principle.** This will be implemented as soon as practicable.  The department will consult further on this recommendation given limited accommodation on some livestock vessels. Separately, the department is taking steps to increase the independence of AAVs. |

| **Other amendments** | **Response** |
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| **Export of deer and camelids**  Remove specific requirements relating to the export of deer and camels by sea and replace a requirement for consignment specific management plans. The department will need appropriate expertise to assess these plans, with the requirements in ASEL v2.3 available as a reference point. | **Support.** This will be implemented through the ASEL version 3. |
| **Export of goats**  Retain requirements in relation to the export of goats by sea, given that whilst exports are not occurring, they are technically possible under the terms outlined in Export Advisory Notice 2016–10.  Amend paragraph 2.A.1.1(b) to require that for export of goats by sea, a secondary inspection be conducted at the registered premises – excluding the day of arrival and final inspection prior to loading – to confirm that the goats have been held in the registered premises for five (5) days and fed appropriately. | **Support.** This recommendation will be implemented in the reformatted ASEL.  There are current requirements in place that will continue until such time as the reformatted ASEL is enforced. If an exporter wishes to export goats by sea they need an approved standard export plan for the export of goats by sea as part of their approved arrangement. For exporters without an approved arrangement, a consignment risk management plan that specifically addresses the risks is required. |
| **Definitions**  Update definitions, including for pastoral and station sheep, and considering definitions used in the Australian Animal Welfare Standards and Guidelines. | **Support.** This will be implemented through the ASEL version 3. |
| **Body scoring**  Update as outlined in the Issues Paper. | **Support.** This will be implemented through the ASEL version 3. |
| **On-board veterinary medicines**  Apply requirements in Table 13 (of the reformatted standard) to all cattle and buffalo exported by sea.  Agree that ‘Mandatory veterinary medicines and equipment’ be updated following completion of the LiveCorp project on shipboard drug use, which will have findings for broader veterinary requirements. In the interim, add the following requirements for pregnant cattle:   * 5 litres of obstetrical lubricant per 2,000 cattle * Calving ropes (1 set per ship) * Obstetrical gloves (1 box per ship) * Oxytocin (50ml per 1,000 cattle) * Additional chlorohexidine (or equivalent) of 5 litres per ship * 1 litre iodine per ship (umbilical testing) * Uterine pessaries (10 per 2,000 cattle)   Surgical equipment adequate to conduct a caesarean section. | **Support.** This will be implemented through the ASEL version 3. |
| **Minimum liveweights**  Increase the minimum liveweight of sheep and goats for export by sea to 32kg and 24kg respectively, to address higher mortality risk of lighter livestock. | **Support.** This will be implemented through the ASEL version 3. The department will consider how this recommendation could be implemented for voyages in the interim. |
| **Sourcing sheep**  Remove references to sourcing through ports of Darwin, Weipa and Wyndham, and instead prohibit sourcing from all ports north of 26° south. | **Support.** This will be implemented through the ASEL version 3. |
| **Water engorgement**  Remove provisions relating to water engorgement. | **Support.** This recommendation will be implemented in the reformatted ASEL. |
| **Land transport standards**  Retain requirements aimed at minimising the amount of time for which access to fodder and water is restricted.  Retain curfew and rest requirements at set out in the draft standard – aimed at addressing cumulative stress of transport through the supply chain. | **Support.** This recommendation will be implemented in the reformatted ASEL. |
| **Horn requirements**  Require that horned cattle have the nonvascular tip removed to a diameter of 3cm.  Retain the requirement that if horned, buffalo must have horns no longer than the spread of the ears. However, industry should quickly commission research to establish the impact of a longer horn for on board management of buffalo, including assessing the impact on access to fodder and water. A more informed decision can then be made on horn length. In the meantime, producers and exporters must not implement inappropriate management practices to achieve a particular horn length and avoid a long horn management plan.  De–horning should be conducted earlier.  Retain requirements for a long horn management plan. | **Support.** This will be implemented through the ASEL version 3.  The department supports the recommendation of further research being undertaken by industry. |
| **Extension of long haul voyage requirements**  Require that all sea voyages via the Suez Canal, the Cape of Good Hope, the Panama Canal and Cape Horn, as well as any other route where the voyage is expected to be longer than 30 days, have at least seven days reserve of additional fodder. | **Support.** This will be implemented through the ASEL version 3.  See recommendation 44. |