Australian Standards for the Export of Livestock

Stage 1 Submission
to the ASEL Review Technical Advisory Committee

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OVERVIEW

The Australian Livestock Exporters' Council (ALEC) is a member-based, peak industry body representing Australia's livestock export sector. It sets industry policy, provides strategic direction to the industry and represents Australia's livestock export trade in Australia and internationally.

ALEC members account for more than 96 per cent of Australia's annual livestock exports, by volume and value. ALEC's membership also extends to supply chain participants including registered premise operators, ship owners, feed suppliers and other service providers to the trade.

The *Australian Standards for the Export of Livestock* (ASEL) provide a foundation for the live export trade to operate at international best practice standards of animal welfare. ASEL v2.3 is basically very sound and has served the Australian live export industry, Australian government and Australian community well.

ALEC acknowledges that changes to ASEL agreed by consensus in 2012 and EAN directions since have been incorporated into the Reformatted ASEL v3.0. These changes, together with a more outcome oriented approach, are significant enhancements. However, there is scope for additional fine-tuning, to achieve small but incremental improvements in animal welfare and/or a reduction in regulatory burden.

Further changes to ASEL must be evidence-based and include a consideration of practical application and commercial impact, animal welfare outcomes and regulatory best practice.

This submission to Stage 1 of the ASEL Review contains a raft of proposed changes. They fit into four broad categories:

- *Changes to the scope and strategic direction of ASEL.* The issues in this category include how ASEL interfaces with MARPOL 73/78 and the *IATA Live Animal Regulations*. Also the best approach to regulation of deer and camelids exports, as there is relatively little live export experience with these species and best practice procedures are not well defined.

- *Low hanging fruit.* Most of changes proposed by ALEC fit into this category. They are fine-tuning, to remove duplication, bring ASEL into harmony with domestic welfare standards, reflect current best practice procedures, enhance animal welfare and/or reduce regulatory burden. They are mostly minor changes that should not be contentious and could be adopted early in the ASEL Review process.

- *Changes that require short to medium term R&D.* The issues in this category include a review of air freight requirements, as the regulatory requirements in ASEL, best practice guidelines in the *IATA Live Animal Regulations* and findings from existing research need to be collated and aligned. Another issue in this category relates to the shipboard veterinary kit, where consultation with shipboard AAVs and stockpersons is needed to establish appropriate requirements. These issues could be addressed in a relatively short time frame (4-6 months) and considered in Stage 3 or 4 of this ASEL Review.

- *Long-term R&D.* The issues in this category include bedding for cattle on long-haul voyages and shipboard pellet specifications. The existing ASEL Standards should remain in place until the findings from research projects in progress become available.

ALEC welcomes the ASEL Review and the opportunity it provides to ensure Australia continues as a world leader in this significant international trade.

Table 1. Suggested approach to updating ASEL v3.0

		Approach to updating ASEL			
		Strategic direction	Low hanging fruit	Short-medium term R&D	Long-term R&D
ASEL scope and strategic direction					
1	MARPOL 73/78	●			
2	IATA Live Animal Regulations	●		●	
3	Deer	●			
4	Camelids	●		●	
5	ASEL requirements that are not best animal welfare practice	●			
6	Contingency plans	●		●	
ASEL technical issues					
7	ASEL Definitions		●		
8	Inspection of goats exported by sea		●		
9	Animal inspection at approved premises		●		
10	Compliance with Australian food safety standards		●		
11	Cattle horn length		●		
12	Export of southern *Bos taurus* cattle		●		
13	Maximum stage of pregnancy for cattle exported by air		●		
14	Buffalo horns		●		
15	Pregnancy testing feeder and slaughter sheep		●		
16	Minimum weight for sheep exported by sea		●		
17	Wool length		●		
18	Time off shears		●		
19	Sheep exported from Darwin, Weipa or Wyndham		●		
20	Minimum weight for sheep exported by air		●		
21	Goat horns		●		
22	Minimum weight for goats exported by sea		●		
23	Minimum weight for goats exported by air		●		
24	Fodder only in troughs		●		
25	Water engorgement		●		
26	Safe loading and unloading		●		
27	Use of dogs		●		
28	Grain content in shipboard rations		●		
29	Chaff and hay for cattle on long-haul voyages		●		
30	Ship fodder tanks		●		

		Approach to updating ASEL			
		Strategic direction	Low hanging fruit	Short-medium term R&D	Long-term R&D
31	Extended long-haul voyages		●		
32	Bedding for cattle and buffalo exported by sea				●
33	Heat stress risk assessment		●		
34	Feed and water in transit to livestock exported by air		●		
35	Stockpersons experienced with pregnant livestock		●		
36	Inspection of livestock exported by air		●		
37	Segregation of sheep with scabby mouth		●		
38	Prohibition of export by sea to the Middle East		●		
39	Pregnancy testing small breeder cattle or buffalo		●		
40	Pregnancy testing time limits		●		
41	Body condition scores – cattle		●		
42	Maximum water deprivation and minimum rest times		●		
43	Registered premises holding times – cattle and buffalo		●		
44	Registered premises holding times and feed requirements – sheep and goats		●		
45	Veterinary kit – cattle and buffalo			●	
46	Restraint of cattle and buffalo at sea		●		
47	Water requirements for livestock exported by sea		●		
48	Shipboard pellet specifications				●
49	Horned cattle management plan		●		
50	Deer, alpacas, camels and llamas		●		

ASEL SCOPE AND STRATEGIC DIRECTION

1. MARPOL 73/78

ASEL v3.0 lists the *International Convention for the Prevention of Pollution from Vessels, 1973, as modified by the Protocol of 1978 (MARPOL 73/78): Annex V: Prevention of pollution by garbage from vessels* as a reference document to be read in conjunction with the ASEL Standards.

MARPOL 73/78 is not referenced in ASEL v2.3.

MARPOL 73/78 is an international convention developed to preserve the marine environment by minimizing pollution of the sea. Annex V deals specifically with disposal of shipboard garbage.

Australia is a signatory to MARPOL 73/78. It is an important international convention that must be complied with. However, responsibility for compliance with MAROL 73/78 rests with the ship's Master, not with Australian livestock exporters.

Compliance with MARPOL 73/78 is a maritime issue, not a livestock husbandry or animal welfare matter. MARPOL 73/78 compliance should come under Australia's maritime legislation rather than its livestock export standards.

Proposed path forward
Reference to MARPOL 73/78 should be deleted from ASEL v3.0.

2. International Air Transport Association (IATA) Live Animal Regulations

IATA is the peak industry association for the international airline industry. Most, but not all of the major international airlines are IATA members.

The *IATA Live Animal Regulations* provide guidance on the carriage of live animals by air, but are not mandatory requirements that member airlines must follow.

The *IATA Live Animal Regulations* cover an extensive range of living creatures. In addition to farmed livestock, the *IATA Live Animal Regulations* cover domestic pets, laboratory animals, a wide variety of wildlife, reptiles, amphibians, birds, fish and insects. The focus is on safe handling of individual animals and small consignments, rather than full freighter loads of livestock. The *IATA Live Animal Export Regulations* are over 460 pages in length.

ASEL v3.0 lists the *IATA Live Animal Regulations* as a reference document to be read in conjunction with the ASEL Standards. Compliance with IATA is also a requirement in ASEL v3.0:

- 3A.3.3 (c) *For exports by air: feed water and bedding must be provided by the exporter in accordance with the requirements within IATA Live Animal Regulations*; and
- 3A.4 (d) *For export by air, a valid load plan must be prepared to ensure the animals are loaded and penned in accordance with IATA Live Animal Regulations and stocking densities and penning arrangements as given in Appendix I.*

As far as possible, ASEL should be a stand-alone document that sets out established best practice for the export of Australian livestock. Rather than expecting livestock exporters to also comply with a 460-page IATA advisory document, that has been written for the airline industry, covers a wide array of animal species and is focused on small consignments - it would be better if relevant parts of *IATA Live Animal Regulations* were simply incorporated into ASEL. This will require a systematic scan of the *IATA Live Animal Regulations*, to determine which elements are relevant to the Australian livestock export industry and identify any areas where the *IATA Live Animal Regulations* differ from current ASEL requirements and/or accepted industry best practice. This is a desktop study that could be completed for consideration in Stage 3 or 4 of the ASEL Review.

An industry-funded research project W.LIV.0261 *Best practice design of crates for livestock exports by air (Hogan & Willis, 2009)* includes detailed recommendations about best practice design of aircraft livestock crates. The key findings from this research have not yet been incorporated into ASEL. They should be.

Proposed path forward

1. All references to *IATA Live Animal Regulations* should be deleted from ASEL v3.0. ASEL should be a stand-alone document that sets out all necessary animal husbandry and management requirements for Australian livestock exported by air.

2. A desktop study should be undertaken to determine:
   - which elements of the *IATA Live Animal Regulations* are relevant to the Australian livestock export industry; and
   - where the *IATA Live Animal Regulations* differ from ASEL requirements, Hogan and Willis research findings and/or current industry practice.

3. Further consideration of specific air freight requirements in ASEL should be placed on hold until a comparison of the *IATA Live Animal Regulations*, current ASEL requirements and Hogan & Willis research findings has been completed.

3. Deer

There have not been any deer exported from Australia by sea in recent years, and only occasional boutique consignments exported by air. As a result, there is very little practical experience with deer exports from Australia. Nor is there much experience with deer exports from New Zealand.

2015	2016	2017	Total
90	88	nil	178

Table 2. Live deer exports from Australia 2015-17 (Source MLA)

ASEL v3.0 contains numerous requirements relating to deer, covering selection, pre-export preparation and delivery, by sea and air. These requirements appear to have been cut and pasted from elsewhere. There are many gaps. For example, ASEL v3.0 specifies the minimum pen area required for farmed Red or Red-Wapiti cross deer exported by sea, but there is not a minimum pen area specified for other species of deer. Likewise, ASEL v3.0 specifies nutritional requirements for Red deer, but not for other species of deer.

ASEL v3.0 also contains anomalies and errors relating to deer. For example, there is a pregnancy testing requirement for Reindeer, even though there are no Reindeer in Australia. Another example, the aircraft stocking density table for deer gives minimum pen area requirements for deer weighing up to 420 kg, even though the heaviest farmed deer in Australia (mature Red deer stags) only weigh about 160 kg.

It is not clear if the ASEL v3.0 requirements for deer are in fact best practice.

In the foreseeable future, it seems unlikely that there will be other than an occasional boutique consignment of deer exported from Australia.

All references to deer in ASEL v3.0 should be deleted, and a new paragraph inserted to say that deer may not be exported, by sea or air, unless a consignment management plan has been approved by the Department of Agriculture & Water Resources (DAWR). This should ensure that deer selection and management to the point of delivery overseas is appropriate, with a management plan tailor-made for the species, class of deer, export destination and mode of delivery.

Deleting deer-specific requirements from ASEL will also give it a clearer focus on the major species of export livestock – cattle, sheep and goats.

Proposed path forward
1. All references to deer (in the text, appendices and tables) in ASEL v3.0 should be deleted. 2. A new paragraph should be inserted to say that deer may not be exported, by sea or air, unless a consignment management plan has been approved by DAWR.

4. Camelids

The number of camelids exported from Australia during the last five years is very small:

- a few small consignments of alpacas exported by air, and none by sea;
- a few small consignments of rangeland camels exported by air, and none by sea; and
- no llamas exported by air or sea.

Given the small numbers involved, there is relatively little experience with camelid exports.

	2015	2016	2017	Total
Alpacas	1,113	243	1,744	3,100
Camels	123	61	61	245
Llamas	nil	nil	nil	nil

Table 3. Live camelid exports from Australia 2015-17 (Source: MLA)

ASEL v3.0 contains various paragraphs relating to alpacas, llamas and/or camels. It is not clear if they are in fact best practice for camelid exports. There are many gaps in the ASEL v3.0 requirements for camelids. A few examples: there is a minimum space requirement for camels in a registered premises, but not for alpacas or llamas. There are minimum times in pre-export quarantine specified for cattle, buffalo, sheep and goats, but not for camelids. There are minimum restraint and veterinary equipment lists for cattle, buffalo, sheep and goats, but not for camelids. And, there is a table with the minimum aircraft pen area required for alpacas exported by air, but not for llamas or camels.

There are also anomalies in the ASEL v3.0 requirements for camelids. For example, the minimum liveweight for export by air is the same for alpacas and llamas (14 kg), even though they have very different birth and mature weights.

Over the next few years a small but ongoing demand for boutique consignments of high-value breeding alpacas exported by air seems likely. Occasional air and sea freight consignments of camels can also be expected. However, there are likely to be few, if any, llamas exported live.

In the short term, all references to camelids should be deleted from ASEL v3.0, and a new paragraph inserted to say that camelids may not be exported, by sea or air, unless a consignment management plan has been approved by DAWR. This should ensure that camelid selection and management to the point of delivery overseas is appropriate, with a management plan tailor-made for the species, class of animal, export destination and mode of delivery.

A scientific review of alpaca and camel exports should be carried out, drawing on Australian and overseas knowledge and experience, to clearly establish best practice export procedures. This desktop study could be completed for consideration in Stage 3 or 4 of the ASEL Review.

Proposed path forward

1. All references to camelids (in the text, appendices and tables) in ASEL v3.0 should be deleted.

2. A new paragraph should be inserted to say that camelids may not be exported, by sea or air, unless a consignment management plan has been approved by the DAWR.

3. Alpaca and camel specific requirements should only be inserted into ASEL after a scientific review has clearly established best practice for export of these species.

5. ASEL requirements that are not best animal welfare practice

From time to time, exporters, export service providers and DAWR staff are frustrated with ASEL requirements that are inflexible, and although developed in good faith and technically sound in most circumstances, are not best animal welfare practice for a particular consignment or set of circumstances. A few examples:

- Sheep held outdoors at a registered premises, in extremely cold, wet, windy weather, but not able to be loaded on a vessel, where conditions are much more favourable, because they have only spent four clear days not five clear days in the registered premises.

- Unjoined heifers that must be put through the yards and pregnancy tested a second time because there has been a shipping delay and the previous pregnancy test is now a week outside the allowable 30-day pregnancy testing window.
- Five-month old ewe lambs or goat kids, exported as breeders, which must be pregnancy scanned and certified as not more than 100 days pregnant.

ASEL v3.0 should have a paragraph to the effect that the ASEL Standards may be varied, with approval from a DAWR authorised officer, if this will enhance animal welfare outcomes. To enable prompt but considered decision-making, the authority to vary ASEL requirements needs to be delegated to senior DAWR veterinary field officers.

Proposed path forward

1. ASEL should have a paragraph to the effect that the Standards may be varied, with approval from a DAWR authorised officer, if this will enhance animal welfare outcomes.
2. The authority to vary ASEL requirements should be delegated to senior DAWR veterinary field officers.

6. Contingency plans ASEL v3.0 para 3A.5

Paragraph 3A.5 in ASEL v3.0 contains a raft of new contingency planning requirements. These requirements are largely unworkable. It is not realistic to have detailed, specific, up to date contingency plans for such a wide array of theoretical circumstances.

The key need is for a management system that identifies and is able to promptly and appropriately respond to issues as they arise. Key features are:

- Standard operating procedures that minimize the risk of a critical incident.
- Operations staff able to identify and respond to potential issues early.
- Good communication between the vessel and exporter.
- Senior management with the authority, resources and commitment to do whatever is necessary to resolve the issue.
- Good technical advice throughout.
- Good networks and advice regarding the overseas market(s) involved.

Contingency planning is very important. However, more thought is needed to decide what (if any) mandatory requirements are included in ASEL and how individual exporter contingency arrangements interface with the live export industry's critical incident management plans.

Proposed path forward

1. Section 3A.5 should be deleted.
2. The contingency planning requirements in ASEL need further consideration, to ensure they are realistic, genuinely mitigate risks and are consistent with and complement the live export industry's critical incident management plan.

ASEL – TECHNICAL ISSUES

The technical issues discussed in this submission are listed in the order they appear in ASEL v3.0 and are not in order of priority for consideration by the ASEL Technical Review Committee.

6. ASEL Definitions

ASEL v3.0 contains a raft of new or amended definitions that were not in ASEL v2.3, are not consistent with definitions in the suite of *Australian Animal Welfare Standards and Guidelines for the Welfare of Animals*, and have not been developed in consultation with industry stakeholders.

The definition of 'Animal welfare' is a prime example. It has been cut and pasted from the OIE *Terrestrial Animal Health Code*. It is very different from the definition of 'Animal welfare' in the *Australian Animal Welfare Standards and Guidelines*.

The *Australian Animal Welfare Standards and Guidelines* were specifically developed for *'implementing and enforcing consistent legislation across Australia'*. They were developed after widespread consultation with state and territory governments, livestock industry organisations, animal welfare groups and the general public. There is no obvious reason why ASEL should use definitions other than those developed, with extensive consultation, to provide a consistent regulatory framework for the welfare of Australian livestock. As far as possible, definitions in ASEL should be the same those in the *Australian Animal Welfare Standards and Guidelines.*

Subjective terms such as 'emaciated' and 'over-fat' should be removed from the ASEL text and definitions and replaced with body condition scores, using the condition scoring systems recommended by Meat & Livestock Australia and Dairy Australia, and widely used in the beef cattle, sheep and dairy industries.

ASEL v3.0 also has definitions for terms that do not seem to occur in the text, such as 'Adverse effect' and 'Bluetongue virus transmission zone'. There is no need to define terms that do not occur in the text.

There are also critical definitions missing, such as definitions for 'pastoral' and 'station' sheep.

The ASEL v3.0 definitions extend beyond defining key words and meanings. For example: there is information about what a competent pregnancy tester may and may not do. Information such as this should be in the relevant section of the ASEL text proper, not lost in the introductory definitions.

Proposed path forward

1. The definitions in ASEL v3.0 need to be reviewed, to ensure there is a comprehensive list of definitions that are relevant, accurate and concise.

2. As far as possible, definitions in ASEL should be the same as those used in the *Australian Animal Welfare Standards and Guidelines.*

8. Inspection of goats exported by sea ASEL v3.0 para 1A.1.1 (b)

ASEL v3.0 Paragraph 1A.1.1 (b) states that … *'If goats are to be exported by sea on a short haul voyage, they must be inspected at the registered premises by an authorised officer on at least two (2) occasions during preparation to confirm the goats have been held in the registered premises for five (5) days and fed appropriately as per Appendix D.'*

A number of issues need further consideration:

- This requirement should apply to all sea voyages, not just short-haul.
- Inspection should be by an authorised officer or AAV. This will reduce compliance costs, especially if an AAV is on site for other work.
- One additional inspection during export preparation should be sufficient, excluding inspection on entry to the registered premises and final inspection prior to loading.
- The inspection should not be restricted to time held in the registered premises and feeding, but include a broader consideration of export preparation, such as adaption to feeding in troughs, prevalence of scouring and management of dominance behaviour in bucks.

Proposed path forward

Paragraph 1A.1.1 (b) should be amended to read ... *'When goats are exported by sea, they must be inspected by an authorised officer or AAV at least once during export preparation, (excluding the day of delivery to the registered premises and day of final inspection prior to loading), to confirm the goats are being appropriately prepared for export.'*

9. Animal inspection at approved premises ASEL v3.0 para 1A.1.2 (a) & (b)

ASEL v3.0 Paragraphs 1A.1.2 (a) and (b) state that animals for export by air must be inspected on being unloaded into a registered premises and daily whilst in a registered premises.

Animals exported by air may be prepared for export in a registered or approved premises. The requirements for animal inspection at an approved premises should be the same as at a registered premises.

Proposed path forward

Paragraph 1A.1.2 (a) should be amended to read ... *'upon the animals being unloaded into a registered or approved premises'.*

Paragraph 1A.1.2 (b) should be amended to read ... *'daily whilst the animals are in the registered or approved premises'.*

10. Compliance with Australian food safety standards ASEL v3.0 para 1A.3.1 (f)

ASEL v3.0 Paragraph 1A.3.1 (f) states that …. *'Animals intended to be exported for human consumption must comply with Australian food safety requirements, including standards for chemical residues or environmental contaminants.'*

This paragraph is fine in principle, but needs some additional caveats:

- Relates to slaughter animals only, not feeders or breeders.
- Residue status must be at the expected date of arrival overseas.
- Must exclude any protocol treatments mandated by the importing country.

Proposed path forward

Paragraph 1A.3.1 (f) should be amended as follows …. *'At the time of discharge overseas, cattle, buffalo, sheep and goats exported as slaughter animals must comply with Australian food safety requirements, including standards for chemical residues or environmental contaminants, but excluding any chemical residues arising from protocol treatments mandated by the importing country.'*

11. Cattle horn length ASEL v3.0 para 1A.3.2 (b)

ASEL v3.0 Paragraph 1A.3.2 (b) states that cattle must have horns no longer than 12 cms.

There are now very few cattle offered for live export with horns. They are mostly scrub cattle from the pastoral areas of northern Australia. These cattle are more difficult to handle, do not perform as well under intensive management and there is more carcase wastage from bruising. This applies whether such cattle are offered for live export or slaughtered in Australia.

Dehorning mature cattle is not good animal welfare practice. The *Australian Animal Welfare Standards and Guidelines – Cattle* require pain relief to be administered when cattle over six months of age are dehorned. When well-developed horns are cut to less than 12 cms in length, the vascular portion of the horn is invariably exposed, with extensive bleeding. This is not good animal welfare practice.

The only reference to horned cattle in the *Australian Animal Welfare Standards and Guidelines – Land Transport of Livestock* is a requirement that *'Horned bulls should have the nonvascular horn tip removed to a diameter of three cms.'*

There would be merit in having harmony between ASEL and the *Australian Animal Welfare Standards and Guidelines – Land Transport of Livestock*, with a common requirement for horns to be tipped to a diameter of three centimetres.

Proposed path forward

Paragraph 1A.3.2 (b) should be replaced with a requirement that horned cattle must have the nonvascular horn tip removed to a diameter of three centimetres.

12. Export of southern *Bos taurus* cattle ASEL v3.0 para 1A.3.2 (c) (iv)

ASEL v3.0 Paragraph 1A.3.2 (c) (iv) states *that Bos taurus cattle with a body condition score of five (5) or more must not be sourced for export from or through any area north of latitude 26° south from 1 October to 31 December (inclusive).*

It is not clear what outcome this requirement seeks to achieve. Presumably this paragraph is intended to mitigate the risk of heat stress. However, the exclusion period does not align with either the southern or northern hemisphere summer, nor with the northern Australian wet season.

In the absence of a clear purpose or required outcome – this paragraph should be deleted from ASEL.

Proposed path forward
Paragraph 1A.3.2 (c) (iv) should be deleted.

13. Maximum stage of pregnancy for cattle exported by air ASEL v3.0 para 1A.3.2 (d) ASEL v3.0 Testing criteria

ASEL v3.0 Paragraph 1A.3.2 (d) states that cattle exported by air must not be more than 220 days pregnant at the scheduled date of departure. This is at variance with ASEL v3.0 Testing criteria requirements, which state that cattle exported by air must not be more than 250 days pregnant.

The maximum stage of pregnancy allowed for cattle exported by air should be standardized at the lesser figure of 220 days.

Proposed path forward
For cattle exported by air, the maximum stage of pregnancy allowed should be 220 days.

14. Buffalo horns ASEL v3.0 para 1A.3.3 (b)

ASEL v3.0 Paragraph 1A.3.3 (b) states that buffalo must have horns no longer than the spread of the ears. It is not clear what outcome this requirement seeks to achieve. Access to feed and water troughs should not be a problem for buffalo with wider horns, as troughs suitable for horned buffalo can be provided if required.

The *Australian Animal Welfare Standards and Guidelines – Land Transport of Livestock* do not place any restrictions on the transport of horned buffalo in Australia.

Proposed path forward
Paragraph 1A.3.3 (b) should be deleted.

15. Pregnancy testing feeder and slaughter sheep ASEL v3.0 para 1A.3.4 (c)

ASEL v3.0 Paragraph 1A.3.4 (c) states that …. *'all female feeder or slaughter sheep over 40 kg and all Damara female sheep must be determined to be not detectably pregnant and tested in accordance with the requirements of a valid pregnancy test.'*

There are now very few Damara or Damara-cross sheep exported live, and the number of Damaras in Australia is in steady decline. The reason why Damaras are treated differently from other breeds is presumably because they are mainly found in pastoral areas where there is uncontrolled breeding. However, other breeds are also present in the pastoral zone.

There is no reason to believe that Damara sheep breed at a significantly earlier age or lower bodyweight than other breeds of sheep.

The current wording might be interpreted to include Damaras exported as breeders.

For simplicity and clarity, the reference to Damara sheep should be deleted.

Proposed path forward

Paragraph 1A.3.4 (c) should be replaced with a paragraph as follows:

All female feeder and slaughter sheep over 40 kg must be determined to be not detectably pregnant with a valid pregnancy test.

16. Minimum weight for sheep exported by sea ASEL v3.0 para 1A.3.4 (d) (i)

ASEL v3.0 Paragraph 1A.3.4 (d) (i) requires sheep exported by sea to have a liveweight of more than 28 kg.

Light lambs require a higher level of care in an intensive management system. Past shipboard experience suggests that lambs weighing less than 32 kg are a higher shipboard mortality risk. The minimum liveweight for lambs exported by sea should be increased accordingly.

Proposed path forward

Paragraph 1A.3.4 (d) (i) should be amended to read …. *'a liveweight of more than 32 kg.'*

17. Wool length ASEL v3.0 para 1A.3.4 (d) (ii)

ASEL v3.0 Paragraph 1A.3.4 (d) (ii) states that sheep exported by sea must …. *'have fibre not more than 25 mm in length.'*

This is significantly different from the requirements in ASEL v2.3, which state that sheep must …. *'have wool not more than 25 mm in length, unless approved by the relevant Australian Government agency based on an agreed heat stress risk assessment model.'*

There are two key differences between the wording in ASEL v2.3 and in ASEL v3.0. The first is by changing the word 'wool' to 'fibre'. This is significant because haired sheep were previously exempt from wool length requirements. The only breed of long-haired sheep exported in any numbers is the Awassi. Awassis are 'desert' sheep that originate from the Middle East. They are renowned for heat tolerance, with large vascular ears, fat stored in the tail rather than as subcutaneous fat, and medullated hair fibres rather than wool. Experience with exporting Awassi and Awassi-cross sheep over the last twenty years is that they travel well and despite having a long coat, cope with hot weather better than other sheep breeds. This experience is supported by physiological research in the international literature, that hair breed sheep are more heat tolerant than wool breed sheep in hot humid environments.

Visual appearance (a long shaggy haired coat) is an important marketing feature for these sheep. There is no obvious reason to require Awassi sheep to be shorn before export, and clear cost and marketing disadvantages in doing so. Shearing also has negative welfare connotations, with additional handling required and hence stress on the sheep.

HotStuff provides an effective and scientifically valid means of assessing the heat stress risk for sheep exported to the Middle East, with different risk ratings for recently shorn, unshorn and hair breed sheep. It should be used to determine the heat stress risk for haired sheep.

The second issue is that ASEL v3.0 does not provide any mechanism for exemption. There are markets for Australian sheep where heat stress is not an issue, and having wool cover might be advantageous. For example, breeding sheep exported to Russia or Turkey during the northern hemisphere winter.

Proposed path forward

Paragraph 1A.3.4 (d) (ii) should be amended to read …. *'have wool not more than 25 mm in length, unless approved otherwise by the Department of Agriculture & Water Resources. Note: This requirement does not apply to haired sheep.'*

18. Time off shears ASEL v3.0 para 1A.3.4 (d) (iii)

ASEL v3.0 Paragraph 1A.3.4 (d) (iii) states that all sheep must be 10 days or more off shears when sourced or must be shorn during the 10 day period before export and accommodated in sheds on the registered premises.

This requirement was introduced for good reason, after a mortality incident at Portland in 1983, when 15,000 sheep died overnight in foul weather. With grown sheep, most deaths from exposure occur within 10 days of shearing, when sheep are wet to the skin and are exposed to strong wind. Recent shearing is a critical risk factor.

The requirement for sheep to be at least 10 days off shears or shorn and accommodated in sheds applies Australia-wide, including areas where the risk of an extreme weather event is very low.

If need be, sheep exported from Western Australia can generally be shorn during the 10 days prior to export and accommodated in sheds. Paragraph 1A.3.4 (d) (iii) is not a major limitation. There is usually sufficient shed space available, and there are welfare advantages exporting recently-shorn sheep.

The requirement that sheep must be at least 10 days off shears or accommodated in sheds on the registered premises is however a limiting factor in Victoria and South Australia, where sheep are prepared for export in outdoor paddocks. Sheep have to be purchased more than 10 days off shears, but also with less than 25 mm wool - to comply with ASEL v3.0 Paragraph 1A.3.4 (d) (ii). This severely restricts sheep availability. There is also a negative welfare effect, as sheep with 25 mm of wool would travel better if they were shorn just prior to export.

If the risk of an extreme wet, windy weather event is low, because of the registered premises location and availability of shelter, there would be merit in allowing sheep to be sourced less than 10 days off-shears, or sourced in wool, shorn at the registered premises and kept in paddocks prior to export. This would increase the pool of sheep available for export and result in more recently-shorn sheep loaded.

The sheep assembly depots located near Dublin in South Australia are a case in point. It is a semi-arid area. The nearest Bureau of Meteorology weather station to Dublin is at Mallala (8 km away), with an average annual rainfall of only 403 mm. The risk of an extreme wet, windy weather event is exceedingly low.

The requirement for sheep kept in paddocks at a registered premises to be 10 days or more off shears should only apply if losses from exposure are a significant risk. This should be determined with a case by case risk assessment, taking into account the location of the registered premises and availability of shelter.

Proposed path forward

Paragraph 1A.3.4 (d) (iii) should be amended as follows:

'Unless approved by DAWR, based on an assessment of the risk of exposure losses from an extreme weather event, all sheep must be 10 days or more off shears when sourced or must be shorn during the 10 day period before export and accommodated in sheds on the registered premises.'

19. Sheep exported from Darwin, Weipa or Wyndham ASEL v3.0 para 1A.3.4 (d) (v)

ASEL v3.0 Paragraph 1A.3.4 (d) (v) states that sheep exported by sea must not be sourced for export from or through the ports of Darwin, Weipa or Wyndham from 1 November to 31 May in the following year. There is a similar requirement in ASEL v2.3.

This requirement was placed in ASEL v2.3 to manage the risk of clinical bluetongue, by precluding sheep exports from northern Australia during the wet season. However, it is technically flawed.

- The bluetongue transmission zone extends in a wide arc across northern Australia, from Broome in Western Australia to south of Sydney. The bluetongue zone includes much of central and southern Queensland. There are several million sheep in the bluetongue zone, but no clinical bluetongue.
- Sheep exports are restricted from some, but not all ports in the bluetongue zone. For example, there is no restriction on sheep exports from Broome or Townsville.

- The risk of sheep being exposed to bluetongue virus is principally determined by where the sheep are sourced from, and where they undergo pre-export quarantine, not which port they are exported from.
- There are no restrictions under Australian state disease control legislation that prevent or restrict sheep farming in the bluetongue zone.
- Precluding sheep exports from northern Australia during the wet season does not reduce the risk of bluetongue virus infection at their overseas destination.

Regardless of the risk of exposure to bluetongue virus, there have not been, and are unlikely to be, many sheep exported from northern Australia – during the wet season, or at any other time.

Proposed path forward
Paragraph 1A.3.4 (d) (v) should be deleted.

20. Minimum weight for sheep exported by air ASEL v3.0 para 1A.3.4 (e)

ASEL v3.0 Paragraph 1A.3.4 (e) requires sheep exported by air to have a liveweight of more than 20 kg.

A 20 kg lamb is a very light lamb that requires a high level of care in an intensive management system, including air transport. Animal welfare would be enhanced if the minimum weight allowed for sheep exported by air is increased to 24 kg.

Proposed path forward
Paragraph 1A.3.4 (e) should be amended to read …. *'For export by air, sheep must have a liveweight of more than 24 kg.'*

21. Goat horns ASEL v3.0 para 1A.3.5 (b)

ASEL v3.0 Paragraph 1A.3.5 (b) states that goats must have horns no longer than 15 cms long, or if the ends of the horns are no further than 20 cms apart, horns no longer than 22 cms. The basis for these horn length and width measurements is not clear.

Required outcomes are:

- Feed and water access is not restricted during transport.
- Other goats are not endangered by goats that have long horns with sharp tips.
- Stockpersons are not endangered by goats that have long horns with sharp tips.

For goats with large horns, these outcomes can largely be achieved with tipping, to remove the sharp horn points, and with only the solid non-vascular horn cut. Dehorning that exposes the vascular horn tissue is undesirable for animal welfare reasons.

Proposed path forward
Paragraph 1A.3.5 (b) should be amended to read …. *'If horned, with horns that are likely to restrict access to feed and water during transport and/or endanger other goats or stock handlers, the horns must be tipped to remove the points, with only the solid non-vascular horn cut.'*

22. Minimum weight for goats exported by sea ASEL v3.0 para 1A.3.5 (e) (i)

ASEL v3.0 Paragraph 1A.3.5 (e) (i) requires goats exported by sea to have a liveweight of more than 22 kg.

Goat kids require a high level of care in an intensive management system, including sea transport. Animal welfare would be enhanced if the minimum weight allowed for goats exported by sea is increased to 24 kg.

Proposed path forward
Paragraph 1A.3.5 (e) (i) should be amended to read …. *'a liveweight of more than 24 kg.'*

23. Minimum weight for goats exported by air ASEL v3.0 para 1A.3.5 (f) (i)

ASEL v3.0 Paragraph 1A.3.5 (f) (i) requires goats exported by air to have a liveweight of more than 14 kg.

Small goat kids require a high level of care in an intensive management system, including air transport. Animal welfare would be enhanced if the minimum weight allowed for goats exported by air is increased to 18 kg.

Proposed path forward
Paragraph 1A.3.5 (f) (i) should be amended to read …. *'a liveweight of more than 18 kg.'*

24. Fodder only in troughs ASEL v3.0 para 2A.2 (a) (ii)

ASEL v3.0 Paragraph 2A.2 (a) (ii) states that …. *'all fodder must be placed in troughs so that animals do not eat from the ground.'*

This is a new requirement that was not present in ASEL v2.3.

For sheep in an outdoor assembly depot, there are good reasons for feeding hay away from the feed troughs, especially during the first two days after sheep arrive at the assembly depot, and especially for pastoral sheep, sheep that have been trucked long distances and/or if there is cold weather. Some sheep are initially reluctant to eat from a trough, but will eat hay on the ground.

Provision of hay on a feed pad or on dry ground away from the feed troughs ensures these sheep get something to eat whilst they adapt to life in the assembly depot.

It is also common practice to feed hay to cattle in a hay feeder rather than in a trough, as this is more labour efficient and there is less wastage.

This new requirement that all fodder must be placed in troughs is not best practice management.

Proposed path forward
Paragraph 2A.2 (a) (ii) should be deleted.

25. Water engorgement ASEL v3.0 para 2B.1 (c)

ASEL v3.0 Paragraph 2B.1 (c) states that …. *'If animals of any species become dehydrated, precautions need to be taken to ensure they do not gorge themselves when given access to water.'*

In practice, water deprivation and subsequent engorgement is not an issue for livestock being prepared for export. Nor is it clear what an exporter must do to comply. This paragraph should be deleted from ASEL.

Proposed path forward
Paragraph 2B.1 (c) should be deleted.

26. Safe loading and unloading ASEL v3.0 para 2B.6 (a) and (b)

ASEL v3.0 Paragraph 2B.6 (a) requires that during export preparation, livestock are loaded and unloaded with sufficient competent stock handlers to prevent injury, minimise stress and ensure that livestock husbandry and welfare needs are addressed.

ASEL v3.0 Paragraph 2B.6 (b) specifies that on unloading, sheep and goats have access to food and adequate good-quality water and have enough space for exercise and rest.

These requirements are good animal welfare practice. However, they are unnecessary duplication, as supervision of loading and unloading, availability of feed and water during land transportation and rest after unloading are all covered in the *Australian Animal Welfare Standards and Guidelines – Land Transport of Livestock.*

Proposed path forward
Paragraph 2B.6 (a) and (b) should be deleted.

27. Use of dogs
ASEL v3.0 para 2B.6 (c)

ASEL v3.0 Paragraph 2B.6 (c) states that …. *'Dogs must be muzzled at port and the number of dogs used should be the minimum necessary to complete the task.'*

This is a new requirement, not present in ASEL v2.3. It could be strengthened to better reflect best practice:

- The number of dogs used is the minimum necessary to complete the task.
- Dogs that bite are muzzled when working livestock.
- Dogs are kept away from contact with livestock when not working.

Proposed path forward

Paragraph 2B.6 (c) should be amended as follows:

'Use of dogs:

- *The number of dogs used must be the minimum necessary to complete the task.*
- *Dogs that bite must be muzzled when working livestock.*
- *Dogs must be kept away from contact with livestock when not working.'*

28. Grain content in shipboard rations
ASEL v3.0 para 3A.3.2 (b)

ASEL v3.0 Paragraph 3A.3.2 (b) states that …. *'Non-pelleted feed must not contain more than 30 per cent by weight of wheat, barley or corn. If the animals have adapted to feed with a greater percentage of wheat, barley or corn for at least two (2) weeks prior to loading, this feed may be used.'*

The equivalent wording in ASEL v2.3 is …. *'The shipboard ration must not contain more than 30% by weight of wheat, barley or corn, unless the livestock have been adapted to the ration over a period of at least two weeks before export.'*

The required outcome is that livestock don't suffer from lactic acidosis as a result of consuming shipboard fodder with a high starch content. Lactic acidosis ceased to be an issue in the 1980s, with routine use of pellets that have a high fibre and low cereal grain content.

ASEL v2.3 achieved the outcome required. There is no reason for change. However, it would be better if this requirement is moved to Table #15 – pellet specifications.

Proposed path forward

Paragraph 3A.3.2 (b) should revert to the original wording in ASEL v2.3:

'The shipboard ration must not contain more than 30% by weight of wheat, barley or corn, unless the livestock have been adapted to the ration over a period of at least two weeks before export.'

29. Chaff and hay for cattle on long-haul voyages ASEL v3.0 para 3A.3.2 (c)

ASEL v3.0 Paragraph 3A.3.2 (c) states that …. *'Fodder for cattle exported from an Australian port south of latitude 26° south must include at least 1 per cent of the required feed as chaff and/or hay.'*

On long haul voyages, chaff and hay are beneficial as alternative fodder for cattle in hospital pens. Chaff and/or hay are also essential for treating premature lactation in dairy heifers.

LiveCorp / MLA research project W.LIV.0256 (*Review of fodder quality and quantity in the livestock export trade*) recommended that at least 1% of the fodder required for cattle should be chaff and/or hay, for all long-haul voyages, regardless of load port.

Proposed path forward
Paragraph 3A.3.2 (c) should be amended as follows: *'For all long-haul and extended long-haul cattle voyages, at least 1 per cent of the fodder required for cattle must be chaff and/or hay.'*

30. Ship fodder tanks ASEL v3.0 para 3A.3.2 (f)

ASEL v3.0 Paragraph 3A.3.2 (f) requires fodder tanks on a ship to be completely emptied at least once every 90 days, feed that is no longer suitable for livestock to be removed, and records kept of the emptying of feed storage tanks. These requirements are also in AMSA *Marine Order Pt 43*, with the ship's Master responsible for compliance. They are not an exporter's responsibility. This paragraph should be deleted from ASEL.

Proposed path forward
Paragraph 3A.3.2 (f) should be deleted.

31. Extended long-haul voyages ASEL v3.0 para 3A.3.2 (h)

ASEL v3.0 Paragraph 3A.3.2 (b) requires voyages through the Suez Canal to have at least seven days reserve of additional fodder. This requirement should apply to all extended long-haul voyages.

Proposed path forward
Paragraph 3A.3.2 (h) should be amended as follows: *'For all sea voyages via the Suez Canal, the Cape of Good Hope, the Panama Canal or Cape Horn, or via any other route where the voyage is expected to be longer than 30 days, the statutory reserve of additional fodder that must be loaded must be increased to at least seven (7) days.'*

32. Bedding for cattle and buffalo exported by sea ASEL v3.0 para 3A.3.3 (a)

ASEL v3.0 Paragraph 3A.3.2 (a) states that cattle and buffalo exported on voyages of 10 days or more must be provided with sawdust, rice hulls or similar material to be used exclusively for bedding at a rate of at least 7 MT or 25 m^3 for every 1,000 m^2 cattle pen space. There is an exemption for cattle and buffalo loaded from Brisbane or from a port north of latitude 26°S and exported to SE Asia or Japan. These requirements are the same as those in ASEL v2.3.

Bedding for cattle and buffalo is likely to be a contentious issue, as it has been flagged as a priority issue by animal welfare advocates opposed to the live export trade. However, best practice is not well defined and changing the current requirements would have significant commercial implications with no guarantee of improved animal welfare.

Standard practice is to provide sawdust (rather than rice hulls or other bedding). Kiln dried sawdust is preferred – green sawdust is much less absorbent. Wood shavings and shredded paper are not suitable for shipboard use as they are prone to block drains and pumps.

At an AAV workshop in December 2016, there was little support for an increase in the minimum quantity of sawdust required on board. Rather, discussion focused on the strategic use of sawdust for cattle comfort in hospital pens and with very heavy cattle, and the use of sawdust to mop up wet spots after wash down and fluid spills, and in laneways and on ramps to reduce the risk of cattle slipping over during loading and discharge.

There is an industry-funded research project in progress, looking at bedding requirements for cattle exported by sea. The bedding requirements in ASEL should not be changed unless there is clear evidence that the changes will enhance delivery outcomes. The bedding research project should be allowed to run its course, with ASEL bedding requirements only amended, if appropriate, based on sound research evidence.

Proposed path forward
Paragraph 3A.3.3 (a) should not be changed until findings from the bedding research project in progress become available.

33. Heat stress risk assessment ASEL v3.0 para 3A.4 (a) (ii)

ASEL v3.0 Paragraph 3A.4 (a) (ii) states that …. *'For exports to the Middle East, an agreed heat stress assessment must be completed and indicate the risk is manageable as per the testing criteria in this Standard.'*

The geographical area where a heat stress risk assessment is required should be expanded to include Pakistan.

Proposed path forward
Paragraph 3A.4 (a) (ii) should be amended as follows: *'For exports to the Middle East and Pakistan, an agreed heat stress assessment must be completed and indicate the risk is manageable as per the testing criteria in this Standard.'*

34. Feed and water in transit to livestock exported by air ASEL v3.0 para 3B.2 (b) (i)

ASEL v3.0 Paragraph 3B.2 (b) (i) states that …. *'For export by air, all livestock must be offered feed and water while in transit if climatic conditions, species and class of livestock and total time warrant.'* There is a similar requirement in ASEL v2.3.

Providing feed and water to cattle, sheep or goats in aircraft crates is not standard operating practice and has a number of practical and welfare disadvantages:

- Access to livestock in netted crates is extremely limited.
- Feed and water troughs in an aircraft crate are physical hazards, that occupy space, may cause injury, and are potential trip hazards.
- Water spillage increases the risk of injuries. There is less risk of animals slipping over in the crate if the floor stays dry.
- Water spillage in an aircraft crate increases humidity in the crate.
- Least stress animal handling principles dictate that, whilst livestock are confined to an aircraft crate, the less disturbance, the better.

Delivery outcomes are not enhanced by providing livestock exported by air with feed and water in transit. This is not best animal welfare practice.

Proposed path forward
Paragraph 3B.2 (b) (i) should be deleted.

35. Stockpersons experienced with pregnant livestock ASEL v3.0 para 3B.5 (h)

ASEL v3.0 Paragraph 3B.5 (h) states that …. *'Pregnant livestock must be accompanied by an accredited stockperson with experience with pregnant livestock.'*

This is a new requirement, not present in ASEL v2.3.

It is not clear what outcome this new requirement seeks to achieve. Nor is it clear what experience with pregnant livestock an accredited stockperson must have.

The accredited stockpersons working on live export ships are expert livestock handlers – that is their trade. The LiveCorp stockperson's training course also includes special consideration of managing pregnant cattle at sea. It can reasonably be assumed that accredited stockpersons are suitably experienced for shipboard work with pregnant animals.

This paragraph should be deleted from the ASEL standards.

Proposed path forward
Paragraph 3B.5 (h) should be deleted.

36. Inspection of livestock exported by air ASEL v3.0 para 3B.6 (b)

ASEL v3.0 Paragraph 3B.2 (b) states that ….

'For export by air, livestock must be checked to ensure health and welfare is maintained:
(i) where feasible.
(ii) within 30-60 minutes of commencement of the journey
(iii) at least every two (2) to three (3) hours as conditions warrant; and
(iv) immediately prior to departure after any transit stops.

There is similar wording in ASEL v2.3.

Checking livestock as specified above is not standard operating practice, generally not possible given the constraints of aircraft operations, and not best animal welfare practice.

- Livestock in the lower holds, (forward and aft), of a passenger or freighter aircraft are not accessible during flight. They cannot be physically checked during flight.
- Livestock on the main deck of a freighter can be physically checked during flight, but this is generally not recommended for both safety and animal welfare reasons.
- Entry to the main deck of a freighter to check livestock during flight is a safety risk if there is turbulence (no safety belt), loss of pressure (no oxygen, unless a portable oxygen bottle and mask are taken in), no buddy support and minimal lighting.
- Access to livestock in a netted crate is extremely limited.
- During flight, stress on the livestock is least if they are not disturbed, but left quietly alone with the main deck lights turned off.

Livestock travelling in the lower hold of an aircraft should be checked as late as possible before the animals are loaded into the aircraft and as soon as possible after they are unloaded.

Livestock travelling on the main deck of a freighter aircraft should be checked when the crates are loaded onto the aircraft, and monitored until the main door of the aircraft is closed. They should be checked again as soon as possible after the aircraft lands.

The temperature in each cargo hold can and should be monitored in the cockpit throughout the flight, with adjustments to the environmental control system as necessary to enhance animal comfort.

Proposed path forward

Paragraph 3B.2 (b) should be amended as follows:

'For export by air, livestock must be checked to ensure health and welfare is maintained:
(i) for livestock travelling in a lower cargo hold - as late as possible before the animals are loaded into the aircraft and as soon as possible after they are unloaded;
(ii) for livestock travelling on the main deck of a freighter aircraft – when the animals are loaded onto the aircraft, until the main door of the aircraft is closed, and again as soon as possible after the aircraft lands; and
(iii) the temperature in each cargo hold with livestock must be monitored throughout the flight.

37. Segregation of sheep with scabby mouth ASEL v3.0 para 3B.7 (a) (v)

ASEL v3.0 Paragraph 3B.7 (a) (v) states that …. *'If an accredited veterinarian is on-board a vessel that is carrying sheep and any animals on-board are showing signs of scabby mouth, the veterinarian must supervise the separation of these animals.'*

This is a new requirement, not present in ASEL v2.3.

Segregation of clinical cases of scabby mouth is ineffective as a means of disease control and is detrimental to the welfare of the sheep on board.

Sheep with clinical scabby mouth discharge vast numbers of scabby mouth virus. With many sheep in close proximity and a ventilation system that blows the virus around, the scabby mouth viral challenge on a sheep ship is a very high. This is the case regardless of whether or not sheep with clinical signs of the disease are penned separately. The key factor affecting scabby mouth prevalence and severity during a live export voyage is the immune status of the sheep on board, not how they are managed.

Removing individual sheep from their pens is stressful for both the animal concerned and the other sheep in the pen, and increases the risk of physical injury to the sheep. With time, most sheep with scabby mouth recover, without treatment. Physical removal of scabs with or without the topical treatment of the scab site only delays healing.

Proposed path forward
Paragraph 3B.7 (a) (v) should be deleted.

38. Prohibition for export by sea to the Middle East ASEL v3.0 para 4C.1 (a) and (b)

ASEL v3.0 Paragraphs 4C.1 (a) and (b) state that livestock must not be prepared for export by sea to the Middle East during the period from 1 May to 31 October:

(a) For sheep and goats held in paddocks:
- *(i) pastoral and station sheep*
- *(ii) sheep less than 34 kg and with no permanent incisors, and*
- *(iii) sheep and goats that have been held on trucks for more than 14 hours.*

(b) For sheep and goats held in paddocks or sheds:
- *(i) over-fat full mouth wethers*
- *(ii) broken-mouth sheep, and*
- *(iii) pregnant ewes.*

ASEL requirements should be evidence based. There is little or no science in the requirements in Paragraph 4C.1 (a).

- There is no definition in ASEL of what constitutes a pastoral or station sheep.
- Why is it acceptable to prepare pastoral and station sheep for export in a shed but not in a paddock, when practical experience says that feeding hay in a paddock is the best way to introduce pastoral and station sheep to an intensive management system?

- Light weight, young sheep are less susceptible to heat stress than mature sheep, due to their larger body surface to weight ratio and less subcutaneous fat.
- If trucking complies with the *Australian Animal Welfare Guidelines and Standards – Land Transport of Livestock*, why is there an additional restriction on transport time for sheep and goats animals going into a paddock, but not for sheep and goats going into a shed?

If the required outcome is to avoid exporting sheep more susceptible to heat stress during the Middle East summer, then the exclusion period is too long. Consignments departing Australia after 30 September arrive in the Middle East well after the high-risk summer period.

The exclusions in Paragraph 4C.1 (b) have merit, as these are genuinely higher-risk sheep. However, the exclusion period should be restricted to 1 May to 30 September.

Proposed path forward

Paragraph 4C.1 should be amended as follows:

'The following classes of sheep must not be prepared for export by sea to the Middle East, in a consignment departing Australia during the period 1 May to 30 September:

(a) full-mouth sheep in greater than condition score 4
(b) broken-mouth sheep, and
(c) pregnant ewes.'

39. Pregnancy testing small breeder cattle or buffalo Testing criteria

The Testing criteria in ASEL v3.0 specify that breeder cattle and buffalo can only be determined as too small to be manually palpated safely by a veterinarian accredited under the National Cattle Pregnancy Diagnosis Scheme (NCPD).

Pregnancy testing very small cattle and buffalo heifers is an animal welfare issue for two reasons:

- it is an unnecessary invasive procedure for pre-pubital heifers; and
- with very small heifers there is a greater risk of rectal trauma.

The required outcome is that a decision not to pregnancy test heifers because they are too small is made by someone competent to make that assessment. Requiring that decision to be made by an NCPD accredited veterinarian is unduly restrictive. Any registered veterinarian should also be able to determine that cattle or buffalo heifers are too small to be safely palpated.

NCPD accreditation is not required for pregnancy testing breeder cattle or buffalo on sea voyages of 10 days or less. Nor is it required for pregnancy testing feeder and slaughter cattle, which may be done by a registered veterinarian or a competent pregnancy tester.

Proposed path forward

The pregnancy testing requirements should be amended to read as follows:

'A veterinarian may base this certification on assessment of the animals by a method other than manual palpation if the veterinarian determines that cattle or buffalo are too small to be manually palpated safely.'

40. Pregnancy testing time limits
Testing criteria

The pregnancy testing criteria in ASEL v3.0 require cattle to be pregnancy tested within 30 days of export. There is no flexibility to vary the 30-day time limit.

It is not uncommon for pregnancy testing to be undertaken in good faith during the 30 days before the expected date of export, but with unforeseen delays to loading, pregnancy testing slips outside the 30-day window and has to be repeated. This involves putting cattle through the yards an extra time for an intervention with no obvious benefit – especially for virgin heifers previously found 'not detectably pregnant'.

Animal welfare would be enhanced if the window for pregnancy testing is increased to 45 days for cattle that are certified to be not detectably pregnant.

Proposed path forward

The Testing criteria in ASEL v3.0 should be amended so that cattle certified as 'not detectably pregnant' within 45 days of export are deemed to have had a valid pregnancy test.

41. Body condition scores - cattle
ASEL v3.0 Appendix A, Table #1.

Table #1 in ASEL v3.0 shows body condition scores for cattle, with scores 1-7 based on fat depth (mm) at the P8 site.

The body condition scoring system in ASEL is not consistent with the 1-5 body condition scoring system for beef cattle recommended by Meat & Livestock Australia (MLA). Nor is the condition scoring system in ASEL consistent with the 1-8 scoring system for dairy cattle recommended by Dairy Australia.

The body condition scoring system(s) in ASEL should be the same as those widely used in the Australian beef and dairy industries. This will require Table #1 in ASEL v3.0 to be replaced with two separate tables – one for beef cattle and one for dairy cattle. It will also require all references to cattle body condition scores in ASEL (for example the definitions of 'emaciated' and 'over-fat' and restrictions on such cattle) to be appropriately aligned with the MLA and Dairy Australia scoring systems.

Proposed path forward

1. Table #1 should be replaced with two separate tables, one for beef cattle and another for dairy cattle.
2. The body condition scoring systems in ASEL should be the same as those recommended by MLA and Dairy Australia.

42. Maximum water deprivation and minimum rest times ASEL v3.0 Appendix B

Appendix B in ASEL v3.0 sets out maximum water deprivation times and minimum rest times for land transport of livestock in Australia. This table is unnecessary, as other requirements for land transport of livestock in Australia have been deleted from ASEL.

Maximum water deprivation times and minimum rest times for the land transport of livestock in Australia are contained in the *Australian Animal Welfare Standards and Guidelines – Land Transport of Livestock.*

Proposed path forward
Appendix B should be deleted.

43. Registered premises holding times – cattle and buffalo ASEL v3.0 Appendix D, Table #8

Table #8 in ASEL v3.0 sets out the minimum time cattle and buffalo must spend in a registered premises prior to loading. The requirements are similar to those in ASEL v2.3. They are:

- Short-haul, one port loading or one port discharge – 24 hours.
- Short haul, multiple port loading or multiple port discharge – one clear day.
- Long-haul – two clear days.

The required outcome is that cattle and buffalo are rested and fit to export at the time of loading. It is not clear what difference the number of loading or discharge ports or voyage length makes to the time cattle and buffalo should spend in a registered premises prior to loading.

There is no credible evidence to suggest that increasing the time cattle spend in a registered premises prior to export will improve animal welfare outcomes. To the contrary, as time in pre-export quarantine increases, so too does the risk and incidence of pinkeye, lameness, injuries, bovine respiratory disease and salmonellosis.

Twenty-four hours in a registered premises is sufficient for cattle and buffalo that have been delivered in accordance with the *Australian Animal Welfare Standards and Guidelines – Land Transport of Livestock*, and do not require any additional handling (such as pregnancy testing), to rest after transport from the property of origin and to be drafted and inspected prior to loading.

Proposed path forward
The minimum time that cattle and buffalo must spend in a registered premises prior to loading should be 24-hours, regardless of the number of loading or discharge ports or length of the voyage.

44. Registered premises holding times and feed requirements – sheep and goats ASEL v3.0 Appendix D, Table #9

Table #9 in ASEL v3.0 sets out minimum pre-export holding times and feed requirements for sheep and goats.

The minimum holding times in ASEL v3.0 are similar to those in ASEL v2.3, but they are not animal welfare best practice. For some consignments, the feed requirements specified in Table #9 are not best practice either. There are a number of issues of concern:

- Sheep prepared for export in paddocks, in a premises south of latitude 26° south, must spend an extra two days in pre-export quarantine during the winter months of May to October, compared with the summer months of November to April. Extending the time sheep spend in pre-export quarantine is not animal welfare best practice. An extra two days in pre-export quarantine does not enable shy feeders to be identified any better, and most of the sheep that are reluctant to eat in the feedlot start eating once they are loaded onto the vessel. As time in pre-export quarantine increases, so too does the risk and incidence of pinkeye, lameness, injuries, salmonellosis etc. Sheep need time to rest after transport from the property of origin. Provided the sheep are rested, the sooner they are loaded for export, the better. Best practice is to keep time in pre-export quarantine as short as possible. This is especially so during the southern hemisphere winter months, when sheep in paddocks may be exposed to cold, wet, windy weather. Under such conditions, animal welfare is enhanced when the sheep are loaded on a boat.
- ASEL v3.0 does not specify a minimum time in pre-export quarantine for sheep exported from a premises north of 26° south, or for goats exported by air.
- Two clear days in a registered or approved premises is sufficient time for sheep and goats that do not require any additional handling (such pregnancy scanning) to rest after transport from the property of origin, and to be drafted and inspected prior to loading.
- For the last three days in pre-export quarantine, sheep and goats exported by air must be fed ad-libitum, and only *on 'pelletised feed equivalent to that normally used during an export journey.'* This is not an appropriate requirement for air freight, where fodder is not normally provided during the journey. Nor is it appropriate for the many boutique consignments of sheep and goats exported by air and prepared for export in grassy paddocks. There is also merit in feeding hay prior to the feed curfew before air freight departure, so as to have a slowly digestible rumen fill.
- At times, there is merit in feeding hay to sheep held in paddocks during the three days prior to loading for export by sea. This is especially so if there is foul weather, as shy feeders that are reluctant to eat pellets in troughs will generally eat good quality hay if it is on offer.

Proposed path forward

1. Table #9 should be deleted.
2. The minimum time in a registered or approved premises prior to export should be set at two clear days, for all sheep and goats, exported by sea or air, from north or south of latitude 26° S.
3. ASEL should not prescribe any specific type of fodder that must be provided in a registered or approved premises, as this may preclude use of the most appropriate feed for a particular consignment.

45. Veterinary kit – cattle and buffalo ASEL v3.0 Appendix F, Table #10

Table #10 in ASEL v3.0 sets out the minimum quantity and type of veterinary drugs required for slaughter and feeder cattle or buffalo exported by sea. The requirements are similar to those in ASEL v2.3.

There is not a minimum drug list for breeder cattle. Table #10 should apply to all classes of cattle and buffalo exported by sea, not just slaughter and feeder animals.

The veterinary drugs specified in Table #10 do not reflect best practice requirements, for products of choice or quantities required. The veterinary drug kit required in ASEL needs to be reviewed.

LiveCorp / MLA has an R&D project that will be re-tendered shortly to look at best practice use of veterinary drugs on ships. As part of that project, a small working party of experienced shipboard veterinarians and stockpersons should be tasked to recommend a veterinary kit appropriate for cattle and buffalo on short-haul and long-haul voyages. This could be completed for consideration in Stage 3 or 4 of the ASEL Review.

Proposed path forward

1. Table #10 should apply to all classes of cattle and buffalo exported by sea, not just slaughter and feeder animals.

2. A small working party of experienced shipboard veterinarians and stockpersons should be tasked to recommend a suitable veterinary kit for cattle and buffalo on short-haul and long-haul voyages.

46. Restraint of cattle and buffalo at sea ASEL v3.0 Appendix F, Table #11

Table #11 in ASEL v3.0 requires there to be an adjustable head bale on each ship exporting cattle or buffalo (1 head bale per ship). There is a similar requirement in ASEL v2.3.

Most cattle ships do not have a head bale on board that is both functional and used. There may be a portable head bale on board, but a portable head bale is too heavy and clumsy to cart around a ship and set up as needed at multiple locations.

On most ships, close examination or treatment of cattle by other than a remotely operated syringe requires the animal to be restrained behind a gate, roped down or sedated. This is unnecessarily harsh on the cattle and may result in some animals receiving a less than ideal examination or treatment program. Current cattle handling procedures at sea also fall well short of workplace safety standards in Australia. Adequate physical restraint of cattle at sea is necessary for the ship to be a safe workplace.

The availability of safe and effective xylazine reversing agents has made sedation a more practical cattle restraint option at sea. However, xylazine sedation and reversal of cattle at sea is beyond what might reasonably be expected of a shipboard stockperson, so is not appropriate for vessels without a veterinarian on board.

A simple, fixed head bale, with side gate to allow release of any animal that goes down, and basic lead in forcing pen, would enable cattle to be safely and effectively restrained for examination and treatment as required.

At least one fixed head bale is recommended for all ships exporting cattle from Australia. If ASEL is amended to require a functional fixed head bale on all cattle ships, there needs to be a phase in period, to allow time for a fixed head bale with side gate to be installed and railing changes made as necessary to the forcing area leading to the head bale.

As this issue involves infrastructure on cattle ships, it could be covered by *Marine Orders Part 43*, rather than in ASEL. However, as the required outcome is the safe and effective restraint of individual cattle, and requires animal husbandry rather than maritime expertise, it is more appropriate in ASEL.

Proposed path forward
ASEL should be amended to require at least one functional fixed head bale with a side gate on all cattle ships.

47. Water requirements for livestock exported by sea ASEL v3.0 Appendix G, Table #13.

Table #13 in ASEL v3.0 sets out the minimum quantity of water that must be loaded or produced on a vessel exporting livestock by sea. The requirements are similar to those in ASEL v2.3.

The water requirements are:

- Cattle and buffalo – at least 12 per cent of liveweight per head per day;
- Sheep and goats – 4 litres per head per day, increasing to 6 litres per head per day for each day the ambient temperature is expected to be 35°C or greater.

In the 1970s and 80s, ships exporting livestock from Australia also loaded large quantities of fresh water – sufficient to provide for the entire voyage. Given the critical importance of having enough drinking water on board, a large contingency was built into water requirement calculations, to allow for delays and any wastage of water that might occur during the voyage. The water requirements in ASEL reflect the needs of that era.

Advancements in reverse osmosis (RO) technology have dramatically changed water supply arrangements on the livestock vessels in service today. Livestock ships now have a bank of RO plants that produce fresh water whilst the vessel is at sea – sufficient daily production to meet the needs of a full livestock cargo, at maximum demand for water, and with inbuilt redundancy to ensure continuity of supply even if one RO plant is not operating. There are no moving parts in an RO plant, so apart from scheduled changes to the membranes, there is very little maintenance required and there are very few breakdowns.

Advances in fresh water production technology have alleviated the need for a large contingency in estimates of water requirements. The use of drinker bowls rather than large volume water troughs has also reduced water wastage. The adequacy of livestock drinking water supply at sea has effectively become a non-issue.

The water requirements in ASEL should be set at peak daily requirements, without the need for a large contingency extra. A statutory minimum water requirement of 10 per cent of liveweight per day, for all species of livestock, is more than adequate.

Proposed path forward
The statutory minimum water requirement for cattle, buffalo, sheep and goats exported by sea should be changed to 10 per cent of liveweight per day.

48. Shipboard pellet specifications
ASEL v3.0 Appendix G, Table #15

Table #13 in ASEL v3.0 sets out minimum nutritional requirements for pellets used as a shipboard ration for sheep and goats. These requirements are similar to those in ASEL v2.3.

ASEL does not have pellet specifications for cattle. However, in practice, the same shipping pellets are used for sheep and cattle.

The pellet specifications in ASEL are based on nutritional trials in the 1970s and 80s, to produce a pellet that provided maintenance energy requirements, would not cause acidosis or other dietary problems, and could be handled in bulk and fed out mechanically. Shipping pellets manufactured in Australia have a high fibre content and are low in starch. They are a very safe base ration to feed livestock at sea.

LiveCorp / MLA has recently commissioned a research project to review shipboard fodder standards. One issue of concern is pellet fragility, with some pellets breaking up to produce dusty 'fines'. Other research considerations include manipulation of pellets to minimize output of urinary nitrogen and hence ammonia production, and ways to reduce metabolic heat during heat stress conditions.

The shipboard pellet specifications in ASEL should not be changed unless there is clear evidence that the changes will enhance delivery outcomes. The shipboard fodder research project should be allowed to run its course, with ASEL requirements only amended, if appropriate, based on sound research evidence.

Proposed path forward
The shipboard pellet specifications in Table #15 should not be changed until findings from the shipboard fodder research project become available.

49. Horned cattle management plan
ASEL v3.0 Appendix M

Appendix M in ASEL v3.0 requires an exporter to have a 'long horn' management plan for cattle with horns longer than 12 cms and for buffalo with horns wider than the spread of the ears. As proposed in discussion items 11 and 14 above, both of these criteria should be deleted.

The long horn management program in Appendix M requires horned animals to be given 30 per cent extra pen space. There is no scientific basis for this. Rather, there is a wealth of practical experience that providing cattle with such a large area of extra space significantly increases injuries, as the animals have more jostle room and less mutual body support.

In the *Australian Animal Welfare Standards and Guidelines – Land Transport of Livestock,* there is no difference in pen space allocation for cattle and buffalo with or without horns.

Proposed path forward
The requirement in Appendix M for a long horn management plan should be deleted.

50. Deer, alpacas, camels and llamas ASEL v3.0 Appendix M

Appendix M in ASEL v3.0 should be expanded to require a consignment specific management plan for all deer, alpaca, camel and llama exports, by sea and air.

Proposed path forward
Appendix M should be expanded to require a consignment specific management plan for all deer, alpaca, camel and llama exports, by sea and air.