

## **Australian Standards for the Export of Livestock Part 1: Reformatted**

Stage: Consultation Draft

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## Preface

The Export Standard for Australian Livestock (ASEL) builds on the existing regulatory framework for livestock exports and replaces the *Australian Standards for the Export of Livestock (ASEL) v2.3 2011* in its entirety.

This Standard is enacted by *Australian Meat and Live-stock Industry (Standards) Order 2005*, made under section 17 of the *Australian Meat and Live-stock Industry Act 1997*.

The objective of this Standard is to set out the requirements to ensure animals are fit to export and manage the risks to animals' health and welfare throughout the export voyage.

Under this Standard all information applies to the export of livestock both by sea and by air. Where differences exist due to the means of export transportation, these will be clearly specified.

This edition is a general revision to collate the current regulatory requirements of *Australian Standards for the Export of Livestock (ASEL) v2.3 2011* and the export advisory notices (EANs) published since 2011, and to modernise the format of the Standard.

## Scope and general

### 1.1 Scope

The scope of this Standard is to specify the:

- additional domestic activities required to prepare animals for the export voyage, beyond the requirements in other national Standards and/or state and territory legislation
- domestic facilities and resources to be used to prepare animals for export
- management of animals throughout the export voyage in order to maintain their health and welfare status
- minimum required on-board resources
- record keeping and reporting obligations, and
- chain of responsibility for the animal's health and welfare.

### 1.2 Application

This Standard is intended to be read in conjunction with relevant mandatory laws, regulations and guidelines for the treatment, preparation, transport and carriage of livestock from Australia, including:

- *Export Control Act 1982*
- *Export Control (Animals) Order 2004*
- *Australian Meat and Live-stock Industry Act 1997*
- *Australian Meat and Live-stock Industry (Export Licensing) Regulations 1998*
- Relevant state and territory legislation (e.g. animal welfare/ prevention of cruelty to animals/ farm practices relating to livestock etc.)
- National Model Codes of Practice for the Welfare of Animals and Australian Animal Welfare Standards and Guidelines including specifically; the Australian Animal Welfare Standards and Guidelines for the land transport of livestock
- Part 43 of the *Australian Commonwealth Marine Order (Cargo and cargo handling — livestock) 2006*
- International Air Transport Association (IATA) Live Animal Regulations
- *International Convention for the Prevention of Pollution from Vessels, 1973*, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78): Annex V: Prevention of pollution by garbage from vessels.

Vessels used for the export of livestock must comply with international and Australian Standards, including Australian Certificate for the Carriage of Livestock (ACCL) requirements.

The transport of livestock must be undertaken in accordance with the Australian Animal Welfare Standards and Guidelines for the land transport of livestock (Land Transport Standards), any other requirements of state and territory legislation, ASEL, and importing country requirements. All livestock movements must comply with the National Livestock Identification System (NLIS) as required by Australian state and territory governments.

Exporters seeking to export some kinds of animals that do not meet the fit to export requirements under this Standard because their export is deemed higher risk but are otherwise in good health, may be exported with an appropriate risk management plan, approved by the department. Further details of the exceptions the department may consider are contained in Appendix M.

### 1.3 Compliance

This Standard must be complied with as part of:

- the conditions of a livestock export licence
- the registration of a premise to be used for holding and assembling livestock for export, and
- an exporter's approved arrangement for the export of livestock, particularly in the preparation of livestock in order to be granted an export permit and health certificate for the export consignment.

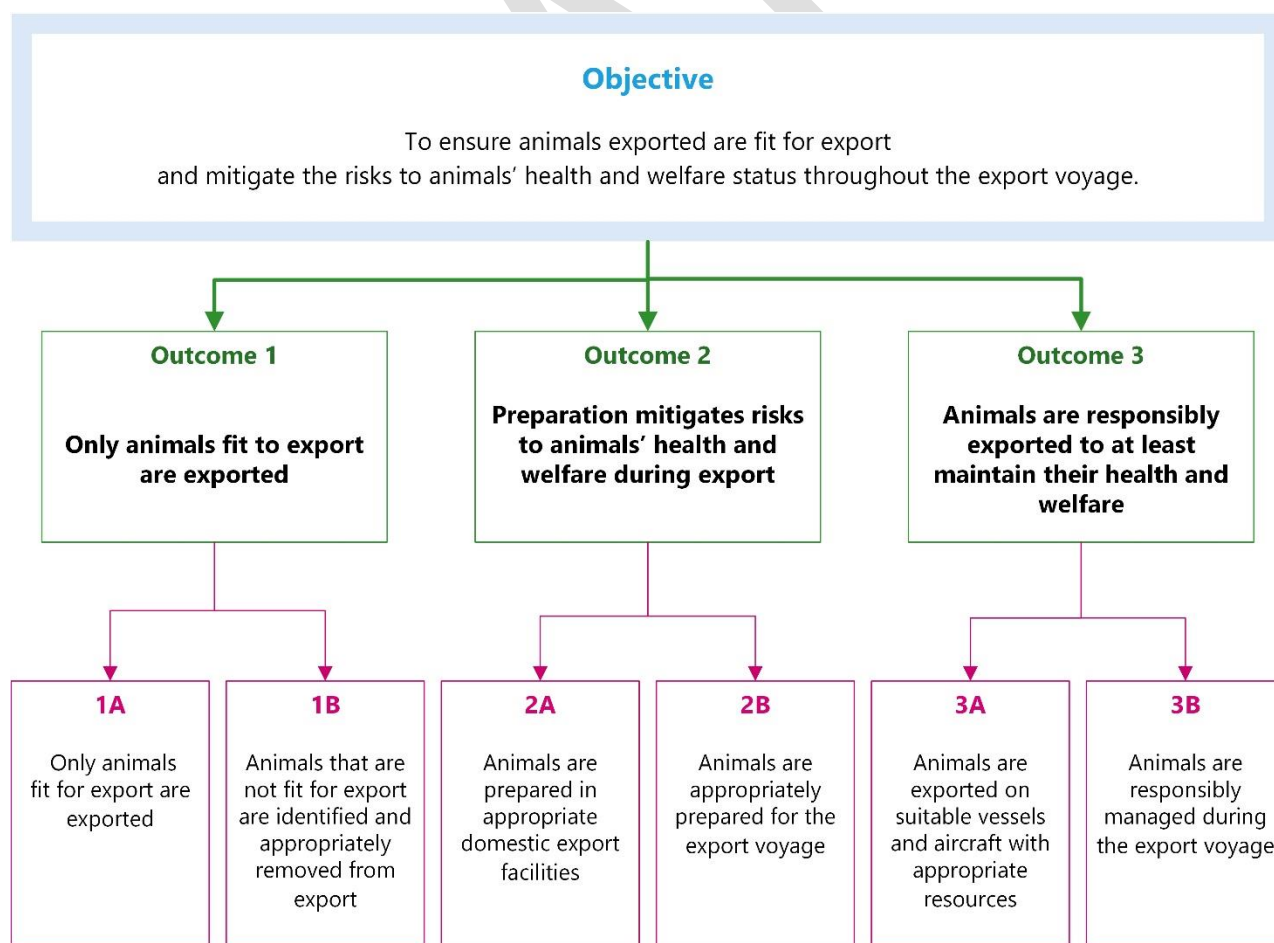
Failure to comply with this Standard may result in refusal to grant an export permit for affected consignment/s and/or performance management and compliance action including cancellation or suspension of registration or licence.

Non-compliance with any of the relevant mandatory laws, regulations and guidelines for the treatment, preparation, transport and carriage of livestock from Australia, would be considered to be material to the department's assessment of competency and integrity of a person or company to continue to hold an approved arrangement, premises registration and/or export licence.

### 1.4 Outcomes

The Standard is grouped into three core outcomes to achieve the objective:

- Animals are fit to export.
- Animals are appropriately prepared in order to mitigate the risks to their health and welfare during export.
- Animals are responsibly managed in order to maintain their health and welfare status during the export voyage.





## Definitions

For the purposes of this Standard the definitions below apply.

### *Accredited stockperson*

Stockpersons who are accredited by LiveCorp for the shipboard husbandry of livestock.

### *Accredited veterinarian*

A veterinarian who is accredited under section 4A.07 of the *Export Control (Animals) Order 2004* to carry out duties in relation to the export of livestock. Otherwise known as an Australian Government Accredited Veterinarian (AAV).

### *Adverse effect*

An abnormal, harmful or undesirable effect on an animal that causes anatomical or functional damage, irreversible physical changes, or increases in susceptibility to other biological, chemical, or environmental stresses.

### *AMSA*

AMSA means the Australian Maritime Safety Authority established by the *Australian Maritime Safety Authority Act 1990*.

### *Animal welfare*

As defined in the OIE Terrestrial Animal Health Code, animal welfare refers to the ability of an animal to cope with the conditions in which it lives. An animal is in a good state of welfare if (as indicated by scientific evidence) it is healthy, comfortable, well nourished, safe, able to express innate behaviour, and if it is not suffering from unpleasant states such as pain, fear, and distress.

Good animal welfare requires disease prevention and appropriate veterinary treatment, shelter, management and nutrition, humane handling and humane slaughter or killing. Animal welfare refers to the state of the animal; the treatment that an animal receives is covered by other terms such as animal care, animal husbandry, and humane treatment.

The concept of animal welfare involves the internationally recognised 'five freedoms', which are: freedom from hunger, thirst and malnutrition; freedom from fear and distress; freedom from physical and thermal discomfort; freedom from pain, injury and disease; and freedom to express normal patterns of behaviour.

### *Animals*

A reference to animal or animals within this Standards is interchangeable with 'live-stock' as defined in the *Export Control (Animals) Order 2004*.

### *Appropriately segregated*

Livestock of the following types must be segregated in different lines/pens:

- animals of different species
- animals of the same species sourced for different end purposes, i.e. feeder animals must be segregated from breeder animals of the same species
- young animals from older animals
- animals of a dissimilar size
- any animals covered by an ASEL management plan from those that aren't covered by an ASEL management plan
- camels of different sexes.

### *Approved premises*

A place approved in accordance with section 3.06 of the *Export Control (Animals) Order 2004* for the preparation, quarantine or isolation of livestock for export by air.

### ***Authorised Officer***

A person appointed under section 20 of the *Export Control Act 1982* as an Australian Government Authorised Officer.

### ***Blue Tongue Virus transmission zone***

A published region in which the risk of bluetongue transmission is heightened, based on serological monitoring, surveys, and insect vector trapping information gathered through the National Arbovirus Monitoring Program (NAMP) – The NAMP Bluetongue Virus Zone Map is subject to change and can be viewed on the Animal Health Australia website.

### ***Class***

A group of livestock of the same species that share a common characteristic such as age, size or sex, or some other physiological characteristic such as pregnancy.

### ***Competent pregnancy tester***

A competent pregnancy tester, for a pregnancy test conducted in:

- the Northern Territory—is a person accredited by the relevant agency of the Northern Territory to conduct pregnancy tests, and
- Western Australia—is a person accredited by the relevant agency of Western Australia to conduct pregnancy tests.

Competent pregnancy testers may only diagnose pregnancy for feeder/slaughter cattle or buffalo by manual palpation and are not approved to use ultrasound diagnoses or the IDEXX pregnancy test. They cannot complete pregnancy testing of breeder or productive cattle or buffalo consignments for any market.

### ***Competent stock handler***

A person is competent to perform a requirement of this Standard if he or she has the requisite knowledge, skills, experience, attitude and behaviour to perform the requirement, and has the ability to manage and handle animals humanely, efficiently and capably at the relevant stage(s) of the livestock export chain.

Supporting evidence of competency includes any of the following:

- records of on-the job training
- relevant experience
- recognised training and staff training registers
- induction training
- supervisor sign-off for specific tasks, or
- demonstrable ability.

### ***Curfew***

Also known as 'empty out' time, is the deliberate and variable period of water and /or 'green' fresh feed deprivation before another procedure, such as weighing or transport. Any water curfew must be included in the total water - deprivation time with respect to transport journeys.

### ***Disembarkation***

The unloading of livestock, commencing at the first overseas port (and acceptance of the consignment, or part thereof, by the competent authority of the country). It commences with the unloading of the first animal and ends when the last animal is unloaded from the vessel.

### ***Emaciated or Over-fat body condition***

Livestock is in an emaciated or over-fat body condition if it is assessed by a competent person against the corresponding species scoring system within Appendix A, as having the following body scores:

Species	Body condition		
	Emaciated	Fit to export (inclusive)	Over-fat
Cattle and buffalo	0 to 1.99	2 to 6	6.01 to 7
Pregnant cattle	0 to 2.49	2.5 to 4	4.01 to 5
Dairy cattle	0 to 2.99	3 to 6	6.01 to 8
All other livestock	0 to 1.99	2 to 4	4.01 to 5

### ***Euthanasia***

The killing of an animal in a humane manner which causes immediate loss of consciousness and then rapid death of the animal while unconscious.

### ***Export Permit***

A permit issued by the Secretary under the *Export Control (Animals) Order 2004* to export live animals from Australia.

### ***Extended long haul voyage***

A loaded voyage greater than thirty (30) days in length.

### ***Extended long haul voyage management plan***

Exporters require an approved extended long haul voyage management plan as part of their approved arrangement before they submit a Notice of Intention (NoI). Requirements for an extended long haul voyage management plan are specified in the Guidelines for Approved Arrangements available on the department's website.

### ***Extreme weather***

Temperature and climatic conditions (e.g. rain, hail, snow, wind, humidity and heat) that either individually or in combination, is likely to expose livestock to heat or cold stress.

### ***Fit to export***

Consistent with Outcome 1, to be fit to export, animals must:

- meet the importing country requirements
- have the appropriate characteristics, i.e. does not meet any of the rejection criteria specified in this standard
- not be showing behavioural or physical signs of illness or disease, or a condition that could cause the decline of the animal's health and welfare during export preparation or the export voyage.

### ***Fodder***

Any feed intended for consumption by livestock, including hay, pellets, or grain.

### ***Heat stress risk assessment (HSRA)***

The agreed heat stress risk assessment for livestock export voyages from Australia by sea is performed by a software program developed by LiveCorp and Meat and Livestock Australia called 'HotStuff'. The latest version of the software approved by the department must be used.

### ***Hospital pen***

A designated area reserved for the sole purpose of special care of weak, sick or injured animals. Hospital pens/stalls need to comply with Provision 33 of Marine Orders 43.

### ***IATA Live Animal Regulations***

The International Air Transportation Association Live Animal Regulations current edition as in force.

### ***Importing Country Requirement***

A reference to importing country requirements is a reference to:

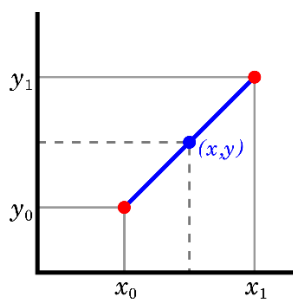
- the requirements of the relevant importing country protocol, and
- the requirements or conditions of the relevant import permit (including any waiver or variation of a requirement of the importing country protocol).

### ***Land Transport Standards***

The Australian Animal Welfare Standards and Guidelines for the Land Transport of Livestock.

### ***Linear interpolation***

Linear interpolation is a method of finding new values for any function using two given value points. A graphical representation of linear interpolation is below:



### ***Livestock***

As defined under 'live-stock' in the *Export Control (Animals) Order 2004*.

### ***Livestock Services***

Any equipment, processes and systems necessary to ensure the health and welfare of livestock throughout the export, which may include but are not limited to feed and water supply systems, ventilation monitoring on aircraft and ships and the washing down of decks and disposal of faeces on a ship.

### ***Long haul voyage***

Any loaded export journey greater than 10 days (inclusive) and not exceeding 30 days in length.

### ***Marine Orders 43***

Marine Orders 43 means Part 43 of the Marine Orders with effect under subsection 343 (2) of the *Navigation Act 2012*.

### ***Mortality***

Mortality means, in respect of any species, the percentage determined by dividing the number of deaths of that species occurring while on the ship (including during loading and unloading) by the total number of that species loaded and multiplying the resultant figure by 100. Mortalities which occur after arrival in the port but before the animal can be discharged must be included in the daily and end of voyage reports.

### ***NLIS***

NLIS (National Livestock Identification System) is Australia's system for the identification and tracing of livestock. It is a permanent, whole of life identification system that enables individual animals to be tracked from property of birth to slaughter for food safety, product integrity and market access purposes. NLIS provides the facility for livestock movements to be logged in a secure central database.

### ***NoI***

A Notice of Intention to export submitted by the exporter under the *Export Control (Animals) Order 2004*.

### ***Notifiable incident***

An incident that has the potential to cause serious harm to the health and welfare of animals.

For the export of livestock by sea, a notifiable incident includes, but is not limited to:

- a shipboard mortality rate equal to or greater than a reportable level
- disablement of ventilation, feeding and/or watering systems on a vessel carrying livestock, causing a serious adverse effect on animal welfare
- rejection of livestock at an overseas port or by an importing country government
- diagnosis or reasonable suspicion of an emergency disease in a consignment of livestock
- loss of a vessel (a marine casualty of a vessel) carrying livestock
- disablement of a vessel carrying livestock, such that assistance is required for return to port
- any other incident that has a serious adverse effect on animal health or welfare, and/or
- an act of terrorism or piracy.

For the export of livestock by air, a notifiable incident includes, but is not limited to:

- loss of aircraft
- breakdown of ventilation systems on an aircraft carrying livestock causing a serious adverse effect on animal welfare
- rejection of livestock at an overseas airport or by an importing country government
- a mortality rate equal to or greater than the reportable level, and/or
- any other incident that has an adverse effect on animal welfare.

### ***Portable livestock unit (PLU)***

A portable livestock unit, and includes a box, platform, containers or other arrangement used to form pens or stalls for the carriage of livestock. Portable livestock units need to comply with Provision 34 of Marine Orders 43.

### ***Prepared for export***

Includes actions taken from sourcing through to the completion of loading the animals onto the vessel or aircraft.

### ***Pregnancy test***

A valid pregnancy test is that which has been completed in accordance with the species pregnancy test requirements within the testing criteria section of this Standard.

### ***Registered premise***

A place registered for the preparation of livestock for export by sea in accordance with the *Export Control (Animals) Order 2004*.

### ***Registered veterinarian***

A qualified veterinarian who is currently registered with a State or Territory Veterinary practitioners' registration board or equivalent, as defined in the *Export Control (Animals) Order 2004*.

### ***Reportable Level***

With respect to the reportable mortality level for a species, the percentage listed below or three animals, whichever is the greater number of animals:

- sheep and goats: 2 per cent;
- cattle and buffalo, voyages  $\geq 10$  days: 1 per cent;
- cattle and buffalo, voyages  $< 10$  days: 0.5 per cent;
- camelids: 2 per cent;
- deer: 2 per cent.

### ***RFID***

RFID or radio-frequency identification device are tags or bolus implanted within the animal which contain electronically stored information used for individual identification purposes.

### ***Sea Load Plan***

A valid Load Plan for export by sea must be compliant with relevant ship safety standards and include details of:

- the net available pen area on the ship (excluding the area of the hospital pens) according to the vessel's record of equipment for the carriage of livestock
- the number of livestock that may be loaded on the vessel, stocking densities and pen group weight range tolerances for the species based on the minimum pen area per head for the relevant livestock species and class as specified in Appendix H.

The Load Plan must also give due consideration to:

- the requirements of Marine Orders 43, in particular Part 33 (hospital pens) Part 8 (Restrictions on carriage of livestock)
- differences in handling, holding and husbandry needs of each livestock species, number of animals, sex, class, reproductive status, weight, breed, origin, preparation and transport history
- pen layout, available pen area for the particular consignment, ventilation, vessel characteristics, port rotation, discharge sequence and stability
- ensuring the livestock are Appropriately Segregated on-board
- separation of cattle or buffalo from other species by a passageway, an empty pen or an effective impermeable barrier, to the satisfaction of an accredited stock person or accredited veterinarian
- location of livestock in relation to health and welfare (there must be no penning or location of livestock on or in any part of a vessel where the livestock, livestock fittings, livestock equipment or carrying arrangements could substantially compromise the animal's health and/or welfare)
- any relevant HSRA stocking density outputs.

### ***Short haul voyage***

Voyages no greater than ten (10) days (exclusive) in voyage length, i.e. the voyage is 1-9 days in length.

### ***Spay declaration***

A valid spay declaration for feeder or slaughter cattle or buffalo, is a written declaration by the vendor certifying either the animal has been spayed:

- not less than 280 days before export, or
- using the Willis dropped ovary technique not less than 30 days before export.

### ***Sufficient personnel***

The number of people required to ensure good animal welfare outcomes.

### ***Unfit to export***

Consistent with the rejection criteria from the ASEL S1A.2.1 and animals that do not meet test results or other eligibility criteria for importing country requirements are not fit to export.

### ***Voyage***

In maritime law, the time of a vessel's transit from one place to another.

### ***Water deprivation time***

The time that animals can be deprived of access to adequate water of a quality to maintain good health and welfare. Water deprivation time is the total continuous period of water deprivation, starting when all animals last had access to water. Each of the below must be included when calculating the total water deprivation time with respect to transport journeys:

- time off water during mustering and when yarded after mustering
- curfew

- all time on the transport vehicle, whether moving or stationary, and
- any time without water after unloading, such as at a saleyard, spelling centre or registered or approved premise.

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## **Outcome 1—Animals are fit to export**

### **1A. Only animals fit to export are sourced and prepared for export**

#### **1A.1 Inspection of animals prior to export**

Animals must be inspected regularly to ensure they are, and remain, fit to export. All animals must be inspected on-farm, and in accordance with the inspection requirements of the Land Transport Standards and as per either 1A.1.1 or 1A.1.2 depending on the intended mode of transport for export. Animals that are not fit to export must, in accordance with part 1B, not be sourced or prepared for export.

##### **1A.1.1 Inspection for export by sea**

- (a) In addition to the inspection requirements of the Land Transport Standards, at a minimum, livestock to be exported by sea must be inspected by a competent person familiar with the requirements of the consignment (unless otherwise specified) to determine if the animals remain fit to export:
  - (i) upon the animals being unloaded into a registered premise
  - (ii) daily whilst the animals are in the registered premise by a competent stock person
  - (iii) prior to inspection by an authorised officer, and
  - (iv) immediately prior to the animals being loaded onto the vessel.
- (b) 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 premise for five (5) days and fed appropriately as per Appendix D.

##### **1A.1.2 Inspection for export by air**

In addition to the inspection requirements of the Land Transport Standards, to be exported by air livestock must be inspected by a competent person familiar with the requirements of the consignment (unless otherwise specified) to determine if the animals remain fit to export at a minimum:

- (a) upon the animals being unloaded into a registered premise
- (b) daily whilst the animals are in the registered premise, and
- (c) once loaded, immediately prior to the departure of the aircraft.

#### **1A.2 Animals must meet the importing country requirements**

Livestock sourced for export must meet the requirements set out in the applicable importing country protocol and import permit, such as sex, breed, and property clearances etc. Upon inspection, any animal that does not meet the importing country requirements is not fit to export. Animals that are not fit to export must, in accordance with part 1B, be removed from the export consignment.

#### **1A.3 Animals have a suitable health and welfare status for export**

Livestock must be of a suitable health and welfare status in order to be fit to export. Upon inspection, any animal that meets the rejection criteria within this Standard is not fit to export. In addition, any livestock showing behavioural or physical signs of illness or disease, or a condition that could cause the decline of the animal's health and welfare during export preparation or on the export voyage, is not fit to export. Animals that are not fit to export must, in accordance with outcome 1B, be removed from the export consignment.

##### **1A.3.1 Rejection criteria—All livestock**

Any animal that meets any of the following rejection criteria is not fit to export:

- (a) Livestock must not be sourced or prepared for export if they are showing signs consistent with any of the following rejection criteria:
  - (i) emaciated or over-fat body condition in accordance with the body scores in Appendix A
  - (ii) anorexia (inappetence)
  - (iii) unwell, lethargic, dehydrated
  - (iv) uncoordinated, collapsed, weak



- (v) ill-thrift
  - (vi) un-healed de-horning or tipping wounds
  - (vii) lactating, unless with calves at foot and being transported by air
  - (viii) lameness or abnormal gait
  - (ix) abnormal soft tissue or bony swellings
  - (x) dysentery or profuse diarrhoea
  - (xi) bloat
  - (xii) neurological symptoms (head tilt, circling, Incoordination)
  - (xiii) abnormal or aggressive behaviour/intractable or violent
  - (xiv) generalised and extensive buffalo fly lesions
  - (xv) generalised skin disease
  - (xvi) generalised papillomatosis or generalised ringworm, dermatophilosis
  - (xvii) visible external parasites
  - (xviii) significant lacerations
  - (xix) discharging wounds or abscesses
  - (xx) cutaneous myiasis (flystrike)
  - (xxi) ballanitis (pizzle rot)
  - (xxii) blood/discharge from reproductive tract (vulva/prepuce)
  - (xxiii) blindness in one or both eyes
  - (xxiv) cancer eye
  - (xxv) keratoconjunctivitis (including pink eye)
  - (xxvi) scabby mouth
  - (xxvii) excessive salivation
  - (xxviii) nasal discharge, the cause of which may affect the health or welfare of the livestock
  - (xxix) severe coughing, or
  - (xxx) respiratory distress—difficulty in breathing.
- (b) In addition to the above, all livestock with horns must not be sourced or prepared for export if they have any of the following:
- (i) untipped sharp horns (horns must be blunt)
  - (ii) horns that are turned in so as to cause damage to the head or the eyes
  - (iii) horns that would endanger other animals during transport, or
  - (iv) horns that would restrict access to feed or water during transport.
- (c) Female livestock must not be treated with a prostaglandin drug within 14 days of export, and not during the 60 day period before export unless they have been pregnancy tested immediately before prostaglandin treatment and declared to be in the first trimester of pregnancy or not detectably pregnant.
- (d) Mobs with unusual mortalities over the whole period of pre-export isolation are not fit to export and the whole mob must be rejected.
- (e) In addition, for export by air, all eligible pregnant livestock or livestock that have given birth in the last 48 hours are not fit to export unless accompanied by a veterinary certificate certifying the animal is fit to travel and there is no evidence of imminent parturition.
- (f) Animals intended to be exported for human consumption must comply with Australian food safety requirements, including standards for chemical residues or environmental contaminants.

### **1A.3.2 Rejection criteria—Cattle**

Further to 1A.3.1:

- (a) All cattle must have been weaned for at least 14 days prior to sourcing for export.
- (b) If horned, cattle must have horns no longer than 12 cm.
- (c) For export by sea, cattle must have an individual liveweight between 200 kg and 650 kg inclusive. In addition:
  - (i) female feeder or slaughter cattle must be determined not to be detectably pregnant by a valid pregnancy test or accompanied by a valid spay declaration.
  - (ii) female breeder cattle must not be more than 190 days pregnant at the scheduled date of departure and tested in accordance with the requirements of a valid breeder pregnancy test.
  - (iii) *Bos taurus* cattle from an area of Australia south of latitude 26° south must not be sourced for export to the Middle East from May to October unless an agreed livestock heat stress risk assessment indicates the risk is manageable as per the testing criteria specified in this Standard.
  - (iv) *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).
- (d) For export by air, cattle have a liveweight of more than 150 kg prior to sourcing for export. In addition:
  - (i) female breeder cattle must not be more than 220 days pregnant at the scheduled date of departure and tested in accordance with the requirements of a valid pregnancy test.

### **1A.3.3 Rejection criteria—Buffalo**

Further to 1A.3.1:

- (a) all buffalo must have been weaned for at least 14 days prior to sourcing for export.
- (b) if horned, buffalo must have horns no longer than the spread of the ears.
- (c) For export by sea, buffalo must have an individual liveweight between 200 kg and 650 kg inclusive. In addition:
  - (i) female feeder or slaughter buffalo must have been determined not to be detectably pregnant by a valid pregnancy test or accompanied by a valid spay declaration
  - (ii) female breeder buffalo must be no more than 220 days pregnant at the scheduled date of departure and tested in accordance with the requirements of a valid pregnancy test.
- (d) For export by air, all female breeder buffalo must be no more than 250 days pregnant at the scheduled date of departure and tested in accordance with the requirements of valid pregnancy test.

### **1A.3.4 Rejection criteria—Sheep**

Further to 1A.3.1:

- (a) all sheep must have been weaned for at least 14 days prior to sourcing for export.
- (b) if horned, sheep must have horns no longer than one full curl.
- (c) 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.
- (d) For export by sea, all sheep must:
  - (i) a liveweight of more than 28 kg
  - (ii) have fibre not more than 25 mm in length
  - (iii) either be:
    - A. 10 days or more off shears when sourced, or
    - B. be shorn during the 10 day period before export and accommodated in sheds on the registered premises.
  - (iv) if female breeder sheep, must not be more than 100 days pregnant at the scheduled date of departure and tested in accordance with the requirements of a valid pregnancy test.

- (v) 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 (inclusive).
- (e) For export by air sheep must have a liveweight of more than 20 kg. In addition:
  - (i) all female breeder sheep over 40 kg must not be more than 115 days pregnant at the scheduled date of departure and tested in accordance with the requirements of a valid pregnancy test.

#### **1A.3.5 Rejection criteria—Goats**

Further to 1A.3.1, all goats must have:

- (a) been weaned for at least 14 days prior to sourcing for export.
- (b) if horned:
  - (ii) horns no longer than 15 cm long, or
  - (iii) if the ends of the horns are no further than 20 cm apart, horns no longer than 22 cm.
- (c) become conditioned to being handled and to eating and drinking from troughs for a minimum of 21 days prior to transfer to the registered or approved premises.
- (d) if female feeder or slaughter goats, must be determined not to be detectably pregnant and tested in accordance with the requirements of a valid pregnancy test.
- (e) For export by sea, all goats must:
  - (i) have a liveweight of more than 22 kg, and
  - (ii) if female breeder goats, be determined to be no more than 100 days pregnant at the scheduled date of departure and tested in accordance with the requirements of a valid pregnancy test.
- (f) For export by air goats must:
  - (i) have a liveweight of more than 14 kg, and
  - (ii) if female breeder goats, must not be more than 115 days pregnant at the scheduled date of departure and tested in accordance with the requirements of a valid pregnancy test.

#### **1A.3.6 Rejection criteria—Camelids**

Further to 1A.3.1:

- (a) all female feeder or slaughter camelids must have been determined not to be detectably pregnant and tested in accordance with the requirements of valid pregnancy test.
- (b) all camels must meet transport and shipping height requirements of the intended transport (i.e. camels standing in their natural position do not touch any overhead structures).
- (c) all camels must have become conditioned to being handled and to eating and drinking from troughs for a minimum of 14 days prior to transfer to the registered or approved premises.
- (d) For export by sea:
  - (i) all female breeder alpaca and llamas must not be more than 228 +/- 2 days pregnant at the scheduled date of departure and tested in accordance with the requirements of valid pregnancy test.
  - (ii) no bull camels may be sourced between 1 May and 30 September if they are more than five (5) years of age and are in rut.
- (e) For export by air alpacas and llamas must:
  - (i) have a liveweight of more than 12 kg, and
  - (ii) be at least three (3) months old.
- (f) For export by air, all female camels must not be more than 250 days pregnant at the scheduled date of departure and tested in accordance with the requirements of valid pregnancy test.

**1A.3.7 Rejection criteria—Deer**

Further to 1A.3.1, all deer must:

- (a) have been weaned for at least two (2) months prior to sourcing.
- (b) be at least six (6) months old.
- (c) not have unhealed velveting wounds.
- (d) not have broken antlers.
- (e) have become conditioned to being handled and to eating and drinking from troughs for a minimum of 14 days prior to transfer to the registered or approved premises.
- (f) For export by sea, all deer must:
  - (i) have had hard antlers longer than five (5) cm removed leaving only buttons
  - (ii) not have in velvet antlers longer than 10 cm
  - (iii) not be in the first week after velveting
  - (iv) if over 12 months old, are not in rut, and
  - (v) if female, have been tested in accordance with the requirements of a valid pregnancy test and determined to be not detectably pregnant, or in the case of breeders, must not be more than 140 days pregnant at the scheduled date of departure.
- (g) For export by air, all deer must:
  - (i) not be in velvet or hard antler
  - (ii) not be in the first week after velveting
  - (iii) be outside the roar and rut periods if over twelve (12) months old, and
  - (iv) if female breeder deer, have been tested in accordance with the requirements of a valid pregnancy test and must be no more than the following number of days pregnant at the scheduled date of departure:
    - A. Axis, Fallow and Sika—170 days
    - B. Rusa, Red and Reindeer—185 days.

**1B. Incorrectly selected animals and those that are no longer fit to export are identified and removed at the earliest appropriate time**

**1B.1 Animals that become unfit to export are clearly identified, not exported and treated humanely**

- (a) Livestock sourced for export that become sick, injured or otherwise unfit to export during export preparation must:
  - (i) be clearly identified as unfit to export
  - (ii) be excluded from further preparation for export, and
  - (iii) have arrangements made for their prompt and humane handling, treatment, or euthanasia and disposal in accordance with relevant state or territory legislation.
- (b) Veterinary advice must be sought for any sick or injured livestock in the registered or approved premise if the cause of a sickness or injury is not obvious, or if action taken to prevent or treat the problem is ineffective.
- (c) Investigation by a registered veterinarian must be conducted if mortalities in any one paddock or shed of the registered premise exceed 0.1 per cent or three (3) deaths, whichever is the greater, on any one (1) day for cattle and buffalo, or 0.25 per cent or three (3) deaths, whichever is the greater, on any one (1) day for any other species of livestock.
- (d) Animals that are unfit to export because the animal:
  - (i) does not meet test results or other eligibility criteria for importing country requirements must be immediately removed from the consignment.
  - (ii) is identified as unfit to export for any reason other than failure to meet importing country requirements, must be removed from the consignment prior to the authorised officer's inspection.
    - A. In circumstances where removing animals unfit to export from a consignment prior to inspection by an authorised officer will not result in the best animal welfare outcome, the rejected animals must be distinctively identified but may remain in the consignment if a valid reject plan is provided to the department's authorised officer prior to inspection.
- (e) Any animals identified by the authorised officer as unfit to export, must be removed from the consignment before animals are loaded onto trucks, if not earlier.
- (f) Any dead livestock must be removed from the consignment and carcasses disposed of in accordance with relevant health and environmental legislation. If the dead livestock is identified:
  - (i) at port or airport, any dead livestock must be removed from the port/airport
  - (ii) at the registered premises:
    - A. the dead livestock must be removed daily, and
    - B. animals must not be able to access the area used for disposal of carcasses.
- (g) Animals that are surplus to requirements must be handled appropriately and in a humane manner that prevents injury and minimises stress.

## **Outcome 2—Animals are appropriately prepared in order to mitigate the risks to their health and welfare during export.**

### **2A. Domestic export facilities and resources are appropriate to prepare the animals for export.**

#### **2A.1 The location of the premises is appropriate**

The location of the premises used to hold and assemble livestock prior to transport to the vessel or aircraft, must not be more than eight (8) hours journey time from the port of embarkation, with the exception of camels for export through northern ports.

#### **2A.2 Premises meet appropriate operational and design specifications for the type and species of livestock being prepared for export.**

Premises registered for the preparation of livestock for export must meet the following:

- (a) To ensure adequate supply of feed and water:
  - (i) feeders, self-feeders and water troughs must allow for complete cleaning of all surfaces and prevent spoilage of feed during inclement weather, and minimise faecal contamination and injuries
  - (ii) all fodder must be placed in troughs so that animals do not eat from the ground/floor
  - (iii) all pelletised livestock feed at the registered premises must be stored in a manner that maintains the integrity and nutritional value of the feed, and protects it from weather, pests and external contaminants (including chemical spray drift) and from direct access by animals
  - (iv) feed trough allowance for sheep and goats held in paddocks at the registered premises is to be calculated on a paddock by-paddock basis and must be:
    - A. for ration feeding, no less than five (5) cm length of feed trough per head
    - B. for ad libitum feeding, no less than three (3) cm length of feed trough per head
    - C. during any or all of May, June, July, August, September and October feeding must occur from fully sheltered feed troughs, with the exception of areas of Australia north of latitude 26° south.
  - (v) the quantity of feed available should meet at least the minimum daily feed requirements, which are:
    - A. cattle/buffalo — 2.5 per cent of their bodyweight, of a quality feed able to meet daily maintenance requirements
    - B. sheep and goats — 3 per cent of their bodyweight per day for sheep younger than 4 tooth and 2 per cent of their bodyweight per day for 4 tooth or older, of a quality feed able to meet daily maintenance requirements, and
    - C. deer — 2 per cent of their bodyweight per day of a quality feed able to meet daily maintenance requirements.
  - (vi) all livestock in the registered premises must have access to drinking water at all times (unless under curfew or being handled)
  - (vii) water troughs must be:
    - A. positioned apart from hay and feed sources to prevent fouling, and
    - B. kept clean.
  - (viii) water quality must be suitable for the livestock and there must be sufficient storage and delivery capability or a contingency plan to ensure continuity of supply to all animals at peak demand for two (2) days.
- (b) To ensure adequate shelter the registered premises must be either constructed or located in such a manner as to provide animals with protection from extreme climatic conditions by means of:
  - (i) shade
  - (ii) windbreaks

- (iii) shelter, or
  - (iv) other means approved by the department.
- (c) Livestock handling facilities and sheds at registered premises must comply with the following:
  - (i) Sheds must be constructed with sufficient drainage and ventilation to ensure that sheds are free draining.
  - (ii) Sheds with slatted or mesh floors must be designed and maintained to prevent entrapment of feet.
  - (iii) Facilities must be designed and maintained to facilitate livestock handling, inspection and removal of individual animals with a minimum of stress and injury to the animals.
  - (iv) Floors of yards, sheds, pens and loading ramps must have non slip surfaces.
- (d) To control drainage, surface water, groundwater and effluent run-off, the premises must be located or constructed in such a manner that:
  - (i) surface water and livestock effluent are directed away from laneways, livestock handling areas, livestock confinement areas and feed storage areas
  - (ii) the livestock confinement area of the registered premises is free draining and remains firm under foot, and
  - (iii) the surfaces around feeders and water troughs are evenly graded and compacted to form a hard, durable surface that readily sheds surface water.
- (e) Fencing at registered premises must:
  - (i) be appropriate to hold livestock and to prevent the unauthorised entry or escape of livestock
  - (ii) be maintained in a good state of repair
  - (iii) be inspected before the entry of each consignment and twice a week while livestock are in the registered premises, and
  - (iv) be consistent with the importing country requirements.
- (f) Access to registered premises must be controlled at all times. The operator of the registered premises must have arrangements in place at the premises to restrict unauthorised entry and access to the feed when livestock are being prepared for export, ensuring that:
  - (i) all entry points to premises being clearly signed
  - (ii) only those persons necessary for the day to-day operation of the premises and state and territory government officials having direct access to the area of the premises, and
  - (iii) all non-employees reporting to reception for appropriate biosecurity checks relevant to the requirements of the premises.
- (g) Unloading facilities must be designed, constructed and maintained to enable safe and efficient unloading of livestock.

## **2B. Animals are responsibly managed in order to prepare them for the export voyage**

### **2B.1 Animals have ready access to feed and water**

To ensure animals have ready access to feed and water:

- (a) All livestock at the registered premises must be offered water and feed as soon as possible and no more than 12 hours after arrival.
- (b) Animals must not be deprived of water beyond the maximum limits specified for each species and class of animal in Appendix B. If animals are deprived of water, the corresponding rest time must be provided and all animals offered appropriate feed and water.
- (c) If animals of any species become dehydrated, precautions need to be taken to ensure that they do not gorge themselves when given access to water.

### **2B.2 Animals are managed by sufficient competent personnel**

To ensure animals are managed by sufficient competent personnel:

- (a) Operators of registered premise must employ sufficient competent personnel for the effective day-to-day operation of the premises and management of the livestock.
- (b) For export by sea:
  - (i) sufficient personnel must be available at loading the vessel to ensure that livestock husbandry and welfare needs are addressed, and
  - (ii) a suitably competent person must be appointed by the exporter to be responsible for overseeing the handling, husbandry and welfare of the livestock for export, and to ensure that loading facilities and livestock handling standards at the port are satisfactory during unloading from the land transport, inspection and loading onto the vessel.

### **2B.3 Animals are appropriately segregated**

Livestock must be appropriately segregated and held, assembled, presented for export in the registered premise in accordance with the approved Nol.

### **2B.4 Animals have an appropriate amount of space**

Livestock in the registered premise must be provided with the appropriate amount of space in accordance with the relevant registered premise stocking density in Appendix C.

### **2B.5 Animals are appropriately prepared for the export voyage**

To ensure animals are appropriately prepared for the export voyage:

- (a) Livestock must be prepared for the voyage in the registered premise in accordance with the relevant registered premise hold times and corresponding feed requirements in Appendix D.
- (b) Animals must not be deprived of water past the maximum water deprivation times in Appendix B and corresponding minimum rest periods must be observed for all land transport of livestock for export.

### **2B.6 Animals are loaded and unloaded safely**

In addition to the requirements of the Land Transport Standards, to ensure animals are loaded and unloaded safely:

- (a) Livestock must be expediently loaded and unloaded by a sufficient number of competent stock handlers in a manner that prevents injury, minimises stress and ensures that livestock husbandry and welfare needs are addressed.
- (b) During every specified rest period required within Appendix B and the Land Transport Standards, sheep and goats of all ages must:
  - (i) be unloaded



- (ii) have access to food and adequate water of a quality to maintain good health, which may be withdrawn during the curfew period of up to a maximum of eight (8) hours before reloading, and
  - (iii) have enough space for exercise and rest.
- (c) Dogs must be muzzled at port and the number of dogs used should be the minimum necessary to complete the task.
- (d) Animals must not leave the registered premises until AMSA, Department of Agriculture and Water Resources (sea ports) and the Master of the vessel have determined that the vessel is in a fit state for the vessel to load stock before departing.
- (e) For export by sea:
  - (i) Deer must be loaded onto the ship through raceways with solid walls, such as plywood, preferably at least two (2) meters high
  - (ii) When camels are loaded onto the ship, the clearance between the hump and the deck of the ship must be at least 100 millimetres.

## **Outcome 3—Animals are responsibly managed in order to mitigate risks to their health and welfare during the export voyage**

### **3A. Animals are exported on suitable vessels and aircraft with appropriate resources.**

#### **3A.1 If animals are to be exported in portable livestock units, they are appropriate**

- (a) Portable Livestock Units (PLUs) must not be used to transport livestock from a port of loading to a port of discharge if there is a regular service between those ports of vessels that:
  - (i) are permanently equipped for the carriage of livestock, and
  - (ii) have valid Australian certificates for the carriage of livestock (ACCLs).
- (b) If PLUs are used to transport livestock, the voyage must not be more than 10 days.
- (c) If a vessel that is not permanently equipped for the carriage of livestock is to be used for the export of livestock of a particular species from a port in Australia:
  - (i) the livestock must be carried in a PLU approved under Marine Orders 43
  - (ii) the PLUs, the voyage and the vessel must conform to the requirements within Appendix E, and
  - (iii) the arrangements for the carriage of PLU's on-board the vessel must be approved by an inspector appointed in accordance with Marine Orders 43.

#### **3A.2 Animals are accompanied by appropriate veterinary medicines and equipment**

Vessels must:

- (a) carry appropriate veterinary medicines and equipment sufficient for the species and number of livestock carried, as specified in Appendix F
- (b) store veterinary medicines accordance with veterinary directions and manufacturer's recommendations, and
- (c) carry appropriate restraint equipment as specified in Appendix F.

#### **3A.3 Animals are accompanied by adequate supplies of feed, water and bedding**

##### **3A.3.1 Water**

At the time of departure, vessels must hold or be able to produce the quantity of water to meet the anticipated needs of the animals plus the statutory reserve amounts, as specified in Appendix G, taking into consideration the livestock species, class, age and expected weather conditions.

##### **3A.3.2 Feed**

At the time of departure, the vessel must hold at least the quantity of feed to meet the anticipated needs of the animals:

- (a) The vessel must also hold the statutory reserve amounts, as specified in Appendix G.
- (b) 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 than two (2) weeks prior to loading, this feed may be used on-board.
- (c) 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.
- (d) Pelleted feed must be accompanied by a manufacturer's declaration that states it is manufactured in accordance with national pellet standards.
- (e) Pelleted feed for sheep, goats and camelids must also meet the nutritional requirements in Appendix G.
- (f) Feed from a previous voyage may remain in a feed storage tank provided that:
  - (i) each tank is completely emptied at least once every 90 days

- (ii) all feed that is no longer suitable for livestock consumption is emptied in its entirety before further suitable feed is loaded, and
  - (iii) records are maintained of the emptying of feed storage tanks.
- (g) For deer, where concentrates are fed, the concentrates should be included at a ratio of 1:4 with the roughage.
- (h) For all voyages travelling through the Suez Canal, the statutory reserve of additional fodder that must be loaded must be increased to at least seven (7) days.

### **3A.3.3 Bedding**

For export by sea, bedding must be provided in accordance with the following specifications:

- (a) Cattle and buffalo on voyages of ten (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 seven (7) tonnes or 25 m<sup>3</sup> for every 1000 m<sup>2</sup> of cattle pen space.

NOTE: This does not apply to cattle and buffalo loaded from Brisbane or a port north of latitude 26° south and exported to Southeast Asia or Japan.

- (b) Deer and camelids on all voyages must be provided with straw, shavings or sawdust to be used at a rate of at least seven (7) tonnes or 25 m<sup>3</sup> for every 1000 m<sup>2</sup> of deer pen space before animals are loaded.
- (c) For export by air: feed, water and bedding must be provided by the exporter in accordance with the requirements within the IATA Live Animal Regulations.

### **3A.4 Stocking density and penning arrangements are appropriate**

- (a) For export by sea, prior to loading the animals:
- (i) a load plan for the vessel on which the livestock are to be transported must be prepared in accordance with the stocking densities and pen-group weight-range tolerance specifications in Appendix H, and
  - (ii) 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.
- (b) For exports of deer by sea, only solid walled pens with an adequate number of ventilation holes and 250 mm to 300 mm at the top and bottom may be used.
- (c) For exports of camels by sea, a suitable bedding material must be supplied and where there is deemed to be a risk of leg injury, the rails must be covered with mesh or plywood kickboards to a height of one (1) m. The opening in the rails for feed and water troughs must be at least 450 mm but not exceeding 500 mm.
- (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.

### **3A.5 Contingency plans to ensure the safe carriage and maintenance of the animal's health and welfare during export are prepared.**

- (a) Contingency plans for the following emergencies must be prepared for each consignment:
- (i) emergencies and interruption during loading, including procedures for contacting the exporter in the event of an animal health or welfare emergency
  - (ii) mechanical breakdown of the vessel or aircraft
  - (iii) rejection of the consignment by the importing country, and
  - (iv) For export by air:
    - A. unavailability of the aircraft to be used for the air transportation, and
    - B. livestock are unable to be loaded onto the aircraft.

- (v) For export by sea:
  - A. a feed or water shortage during the voyage
  - B. an outbreak of disease during the voyage, and
  - C. extreme weather conditions during the voyage.
- (b) The contingency plan under 3A.5(a)(v)A. for a shortage of feed, must include:
  - (i) Adequate means to match the fodder already on-board the vessel to prevent on-board mortalities, and
  - (ii) Advising the importer of any fodder shortages that occurred during the voyage and assisting the importer with details of the fodder composition and transitioning onto local fodder.
- (c) The contingency plan under 3A.5(a)(v)A. for a shortage of feed, must consider:
  - (i) the time required to manufacture fodder that matches the composition of that on-board if the voyage length is extended and additional fodder must be sourced
  - (ii) the time and amount of existing fodder required to successfully transition to fodder of a different composition
  - (iii) importing country requirements for the origin of the fodder, and
  - (iv) availability and access to suitable fodder along the voyage route.

### **3B. Animals are responsibly managed during the export voyage**

#### **3B.1 Animals have appropriate space**

To ensure animals have appropriate space during the export voyage:

- (a) For export by sea:
  - (i) Livestock must be appropriately segregated, loaded and penned on the vessel in accordance with the load plan. Livestock may also be segregated by any other relevant characteristic (and, where relevant, port of destination), in accordance with the load plan.
  - (ii) The consignment must be checked before departure to ensure that the livestock has been loaded in accordance with the load plan.
  - (iii) The pen stocking density must be checked regularly throughout the voyage and adjustments made as required.
- (b) For export by air, loading density and penning arrangements must conform to stocking densities and penning arrangements as given in Appendix I and any relevant international requirements.

#### **3B.2 Animals have ready access to feed and water**

To ensure animals have ready access to feed and water whilst on the export voyage:

- (a) For export by sea:
  - (i) All livestock on the vessel must have access to adequate water of a quantity and quality and frequency to maintain good health and suitable feed to maintain good health of all animals, taking into consideration any particular needs of the livestock species, class and age.
  - (ii) All livestock must be offered feed and water as soon as possible after being loaded on the vessel, and within 12 hours.
  - (iii) Feed and water supply systems must be monitored day and night and maintained in good order.
  - (iv) Adequate feed and water must be supplied to livestock awaiting and during the discharge period.
- (b) For export by air:
  - (i) All livestock must be offered feed and water while in transit if climatic conditions, species and class of livestock and total time warrant.

### **3B.3 Animals are provided appropriate ventilation**

To ensure animals have appropriate ventilation whilst on the export voyage:

- (a) For export by sea:
  - (i) When livestock are loaded on vessels with enclosed decks, the ventilation system must be run continuously from the commencement of loading.
  - (ii) Ventilation must be monitored daily to ensure adequate thermoregulation of the livestock.
- (b) For export by air: when the aircraft carrying livestock is on the ground (whether moving or stationary), the operator of the aircraft must ensure that ventilation and temperature in the livestock hold is adequate to maintain all of the animals' health and welfare.

### **3B.4 Miscellaneous export by sea**

- (a) Washing down of decks and disposal of faeces and litter must be carried out with regard to the health and welfare of livestock.
- (b) When bedding is used, it must be maintained to ensure the health and welfare of the livestock and meet requirements as set out in paragraph 3A.3.3 of this Standard.

### **3B.5 Animals are managed by sufficient competent personnel**

The on-board management of livestock for export by sea must ensure the health and welfare of animals during the voyage:

- (a) An accredited stock person must accompany each consignment of livestock and must remain with the consignment until the vessel has completed discharging at the final port of discharge.
- (b) An accredited veterinarian must accompany each consignment of livestock where required by the relevant Australian Government agency and must remain with the consignment until the vessel has completed discharging at the final port of discharge.
  - (i) Accredited veterinarians must accompany consignments by sea that are:
    - (c) travelling to or through the Middle East
    - (d) undertaken upon new or recently renovated vessels, or
    - (e) the first consignment for an exporter.
  - (ii) The accredited veterinarian and accredited stock person may be the same person if that person holds both current accreditations.
- (f) Accredited stockpersons and accredited veterinarians must work with the vessel's Master and crew to ensure and maintain the health and welfare of the livestock on-board.
- (g) All personnel handling and caring for livestock or who are otherwise responsible for animals during the voyage must be able to demonstrate an adequate level of experience and skill to allow them to undertake their duties.
- (h) Pregnant livestock must be accompanied by an accredited stockperson with experience with pregnant livestock.

### **3B.6 Animals are inspected regularly (day and night) during the export voyage**

- (a) For export by sea:
  - (i) livestock must be inspected systematically both day and night to ensure the health and welfare of the livestock are maintained.
  - (ii) a meeting must be held daily during the voyage to discuss all issues relating to the health and welfare of the livestock. This must include the Master and/or the Master's representative, accredited stockperson and if on-board, the veterinarian.
- (b) For export by air, livestock must be checked to ensure health and welfare is maintained:
  - (i) where feasible;
  - (ii) within 30 to 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.

**3B.7 Animals identified to be in poor health and welfare status receive appropriate, prompt and humane handling and care**

(a) For export by sea, any livestock identified after loading as being distressed, sick or injured must:

- (i) be transferred to a hospital pen, if required
- (ii) be given immediate appropriate treatment
- (iii) if required to be treated using veterinary medicines or equipment the usage must be in accordance with veterinary directions and manufacturer's recommendations
- (iv) if necessary, be safely and humanely euthanised without delay

NOTE: See the Australian Animal Welfare Standards and Guidelines, Standard 6—Humane Destruction, for recommended euthanasia practices.

- (v) 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.

(b) For export by air, any livestock for export identified during transport by air as being distressed, sick or injured must, where feasible:

- (i) be given immediate appropriate treatment
- (ii) if necessary, be safely and humanely euthanised without delay
- (iii) arrangements must be made to remove or separate sick or dead livestock from pens carrying multiple animals in transit. If animals need to be off-loaded, arrangements must be made to ensure the health and welfare of the animals.

## Overarching requirements

### 4A. Responsibility for the health and welfare of animals

#### 4A.1 Ensuring all animals are fit to export

To ensure all animals that are exported are fit to export:

- (a) It is the responsibility of livestock exporters to have systems in place to ensure consignments of export livestock are compliant with this standard and all animals in the consignment are fit to export.
- (b) Where animals are not fit to export, exporters must have systems in place to manage the animals as per part 1B of this Standard, including implementing an effective identification system for these animals, suitable for the exporter's business.

#### 4A.2 People responsible for animals are aware of the health and welfare state of the animals

People who are transferring responsibility for the livestock must notify the person assuming responsibility for the livestock, of any aspects of the export preparation and previous journey that may affect the future health and welfare of the livestock.

Point in the export process	Person responsible for the livestock
At point of sourcing	Livestock consignor
Loading for land transport	Driver and transporting company
Undertaking land transport	Driver and transporting company
Unloading into the registered premise	Designated person at the registered premise as the receiver
Loading for land transport	Driver and transporting company
Undertaking land transport	Driver and transporting company
<b>For a consignment to be exported by sea:</b>	
Arrival at port of embarkation	Person designated by the exporter
As the livestock load onto the vessel	Master of the vessel
<b>For a consignment to be exported by air:</b>	
Arrival at airport for loading	Person designated by the exporter
Once accepted for carriage by air	Airline
As the livestock load onto the aircraft	Captain of the aircraft

NOTE: The person responsible for the livestock at each point of the land transport journey is taken from the Land Transport Standards, see those Standards for further definitions.

### 4B. Isolation requirements

#### 4B.1 General isolation requirement

Where a period of pre-export quarantine or isolation is required by the importing country, animals must at all times be physically isolated from all other animals (whether for an alternative export market or domestic use) to prevent contact.

#### 4B.2 Isolation procedures

Where handling facilities used for loading, holding, treating or inspecting livestock (including roadway and lanes) are to be used for both domestic and export livestock (including livestock of differing export status), the operator of the premises must have procedures in place to ensure that:

- (a) handling facilities are not used simultaneously by livestock of differing pre-export quarantine or isolation status
- (b) a minimum livestock traffic separation of two (2) m is maintained at all times, or livestock are separated by a physical barrier such as a fenced road or lane or a fully fenced empty paddock, unless specified otherwise by the importing country, and
- (c) handling facilities and equipment used by different consignments of animals are managed in accordance with the pre-export quarantine or isolation requirements of each importing country.

#### **4C. Prohibitions for export by sea**

##### **4C.1 Prohibition for preparing sheep and goats to the Middle East**

The following classes of livestock must not be prepared for export by sea to Middle Eastern countries 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.

##### **4C.2 Extended long haul voyages by sea**

The export of livestock by sea via the Suez Canal or the Cape of Good Hope, the Panama Canal or Cape Horn, or via another route where the voyage is expected to be longer than 30 days, is prohibited without an approved extended long haul voyage management plan.

##### **4C.3 Export of goats by sea**

The export of goats by sea on voyages longer than a short haul voyage (10 days) is prohibited without an approved goats by sea on a long haul voyage management plan as per Appendix N.

#### **4D. Animals have appropriate traceability**

##### **4D.1 Animals meet identification and traceability requirements**

All animals must be:

- (a) identified to the property of origin
- (b) accompanied by a correctly completed and signed declaration as to the identification of the livestock and property of origin
- (c) individually identified where any testing (including spay or pregnancy testing) is required during export preparation, and
- (d) If cattle or buffalo, the animals must also be individually identified by ear tag, NLIS number and property identification code (PIC) on both the submission to laboratory for testing of samples, and linked with the laboratory results, where any testing is required during export preparation.



#### **4D.2 Animal's treatment history**

Records of the following must be kept for at least two (2) years after the date of export:

- (a) all husbandry procedures relevant to livestock exports (such as pregnancy testing)
- (b) all vaccinations relevant to livestock exports (such as for scabby mouth)
- (c) all veterinary medicines and agricultural chemicals used to vaccinate, treat or prepare livestock from sourcing to disembarkation from the vessel
- (d) daily inspections by competent stock persons of the health, welfare and mortality of livestock while at the registered premises, and
- (e) in the case of animals that die or become sick, injured, distressed or otherwise unfit to export prior to loading, all actions taken in accordance with part 1B.1 of this Standard with the exception of actions taken under paragraph 1B.1(g).

#### **4D.3 National vendor declarations**

When receiving livestock, the operator of the registered premises must obtain a copy of the vendor declarations for each consignment regarding the property of origin and health and welfare status of the livestock before accepting the animals. The declaration is provided by the livestock producer and must be kept by the exporter for at least two (2) years after the date of export.

### **4E. Reports must be completed by the specified people within the specified timeframes**

#### **4E.1 Notifiable incidents**

To ensure notifiable incidents are promptly and appropriately reported:

- (a) If a notifiable incident occurs at any time during the export of livestock a report must be provided to the department by:
  - (i) The Master of the vessel or on-board accredited veterinarian in the case of exports by sea, or
  - (ii) The exporter in the case of exports by air.

NOTE: The obligation of the Master of the vessel to also provide this report to AMSA under Provision 37.1 of the Marine Orders 43 is a penal provision.

- (b) The report must be made as soon as possible and, for export by sea, must be made within twelve (12) hours of occurring.
- (c) For export by sea, if the notifiable incident involves a mortality rate equal to or greater than the reportable level, a report must be provided that includes the following:
  - (i) details of the mortalities (e.g. number, species, suspected cause)
  - (ii) factors that may have contributed to the deaths, and
  - (iii) the current location of the vessel and, if appropriate, its destination and estimated time of arrival.

#### **4E.2 Daily Reports**

For sea export journeys greater or equal to 10 days, an accredited stock person must provide daily reports on the health and welfare of the livestock to the relevant Australian Government agency, commencing on day one (1) of the voyage. The report must include the information outlined in Appendix J. Where an accredited veterinarian is on-board, the veterinarian rather than the stock person must provide the daily report.

#### **4E.3 End of journey/voyage reports**

To ensure end of journey and end of voyage reports are promptly and appropriately reported:

- (a) For export by sea, an accredited stockperson or if on-board, the accredited veterinarian, must provide an end-of-voyage report on the health and welfare of the livestock to the department within five (5) days of completion of discharge at the final port of discharge, regardless of the duration of the journey. The report must include the information outlined in Appendix L.
- (b) For export by air, an end-of-journey report on the health and welfare of the livestock transported by air must be provided to the relevant Australian Government agency within five (5) days of completion of discharge at final port of disembarkation and must contain the information outlined in Appendix K.

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## Testing criteria

For the purposes of this Standard the following testing criteria apply.

### Pregnancy tests

#### *Pregnancy test for breeder cattle or buffalo*

A valid pregnancy test for breeder cattle or buffalo must:

- have been carried out during the 30 day period before export
- for voyages of more than 10 days, be carried out by a registered veterinarian who is a member of the Australian Cattle Veterinarians and an accredited tester under the National Cattle Pregnancy Diagnosis Scheme (NCPD)
- for voyages less than 10 days, be carried out by a registered veterinarian who can attest to demonstrable current experience
- be evidenced by written certification by the person carrying out the test that the animal is no more than the following maximum days pregnant at the scheduled date of departure
- For export by sea—190 days for cattle and 220 days for buffalo
- For export by air—250 days for cattle or buffalo

NOTE: For consignments where an accredited NCPD tester is required, the exporter must ensure the name of the accredited tester, their accreditation number and a statement of their accreditation is provided on the pregnancy declaration for the consignment.

The veterinarian may base this certification on assessment of the animals by a method other than manual palpation if the veterinarian:

- is accredited under the National Cattle Pregnancy Diagnosis Scheme, and
- determines that cattle or buffalo are too small to be manually palpated safely.

#### *Pregnancy test for camelids*

A valid pregnancy test for camelids must:

- have been carried out during the 30 day period before export
- have been carried out by ultrasound, or in the case of breeders by ultrasound foetal measurement
- be carried out by a registered veterinarian with demonstrable current experience in camelid pregnancy diagnosis
- be evidenced by written certification by the person carrying out the test, that the animal is not detectably pregnant, or in the case of breeders, not more than 228 +/- 2 days pregnant at the scheduled date of departure.

#### *Pregnancy test for feeder/slaughter cattle and buffalo*

A valid pregnancy test for feeder or slaughter cattle or buffalo must:

- have been carried out during the 30 day period before export
- be carried out by a registered veterinarian if exported by air, or if exported by sea by a registered veterinarian or a competent pregnancy tester
- be evidenced by written certification by the person carrying out the test, that the animal is not detectably pregnant.

#### *Pregnancy test for goats, sheep or deer*

A valid pregnancy test for goats, sheep or deer must:

- have been carried out during the 30 day period before export
- have been carried out by ultrasound, or in the case of breeders by ultrasound foetal measurement
- be carried out by a person able to demonstrate a suitable level of experience and skill, and
- be evidenced by written certification by the person carrying out the test, that the animal is not detectably pregnant, or in the case of breeders, not more than the specified number of days pregnant at the scheduled date of departure.

### **Counting days**

For the purposes of calculating the number of days an activity was conducted before export, the day the activity was performed (i.e. sheep shorn, test conducted or sample taken) is considered to be day zero and the day of loading of the animal is counted as the last day. For example, if a heifer was pregnancy tested on 1 July, day zero is 1 July and the day of loading must be no later than 31 July to meet the valid pregnancy test requirements of testing during the 30 day period.

For the purpose of counting clear days in a registered premise, exclude the first day (arrival day) and last day (departure day).

When counting journey time, the time begins upon the loading of the first animal onto the mode of transport (i.e. truck) and finishes when the last animal is discharged (i.e. into the registered premise).

The time for a voyage is calculated from completion of loading in Australia until anticipated arrival at the first port of discharge overseas.

### ***Heat stress risk assessment***

Using the agreed livestock heat stress risk assessment (HSRA), the assessment is taken to have indicated that the risk is manageable if:

- The HSRA output is less than a 2 per cent risk of 5 per cent mortality
- The HSRA cross wind output for any open decks is less than seven (7) knots (3.6m/s)
- The HSRA output for stocking density meets at least the relevant stocking density specified in this Standard.

When a HSRA is required, the HSRA must be provided to the department in both PDF and the associated HotStuff voyage data file (either \*.xls or \*.docx).

The load plan for the consignment must give at least as much space as specified in both this Standard and the HSRA minimum stocking density output.

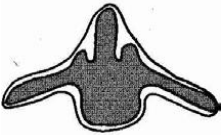
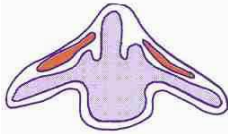
**Appendix A—Body condition scoring system by species****TABLE #1—CATTLE BODY CONDITION SCORING**


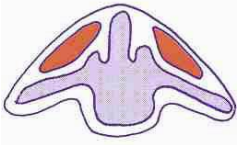
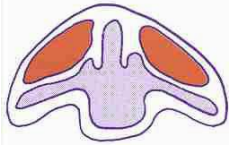
Standard		Optional	
Score	Fat depth (mm) at P8 site	Score	Fat depth (mm) at P8 site
1	0–2		
2	3–6	2 Low (L) 2 High (H)	3–4 5–6
3	7–12	3 L 3 H	7–9 10–12
4	13–22	4 L 4 H	13–17 18–22
5	23–32	5 L 5 H	23–27 28–32
6	33–42	6 L 6 H	33–37 38–42
7	> 42	7 L 7 H	> 42

**TABLE #2—SHEEP AND GOATS BODY CONDITION SCORING**

Score	Backbone	Short ribs	Eye muscle
1	Prominent and sharp	Ends are sharp and easy to press between, over and around	Thin, the surface tending to feel hollow
2	Prominent but smooth	Smooth, well-rounded ends —can feel between, over and around each smoothly	Reasonable depth with the surface tending to feel flat
3	Can be felt, but smooth and rounded	Ends are smooth and well covered —firm pressure is necessary to feel under and between short ribs	Full and rounded
4	Detectable with pressure on the thumb	Individual short ribs can only be felt with firm pressure	Full with a covering layer of fat
5	Can be felt with firm pressure	Cannot be felt even with firm pressure	Muscle cannot be felt due to a thick layer of fat

**TABLE #3—ALPACA BODY CONDITION SCORING**






Score	Description	Illustration
1	Severely concave between spine and ribs. The backbone is very noticeable, ribs are clearly felt and brisket shows no fat.	
2	Slightly concave between spine and ribs. You can feel backbone, ribs are noticeable and brisket is firm.	

Score	Description	Illustration
3	Neither concave nor convex between spine and ribs. You can feel the backbone, but it does stand out and you can just feel the ribs and the brisket.	
4	Slightly convex between spine and ribs. You can feel the backbone, but it does not stand out and you can just feel the ribs and the brisket.	
5	Severely concave between spine and ribs, the top of the back feels flat. You cannot feel backbone or ribs, brisket wobbles when touched.	



The picture on the left is an example of how to body score an alpaca by placing your hand on the backbone, just forward of the pelvic area (or toward the last of the ribs).

**TABLE #4—CAMELS BODY CONDITION SCORING**

Score	Description	Illustration
1	Little or no fat in the hump sac; hump hairy and may be leaning to one side.	
2	Hump with moderate development rising 5 per cent higher than chest depth, but may also be leaning to one side.	
3	Hump with good development and rising to 10 per cent higher than chest depth. Hump is still sculptured inwards on both sides and still fits over the chest and abdominal area.	
4	Hump fully developed and rising to 15 per cent higher than chest depth. Hump rounded outwards on both sides and runs from the shoulder to the rump.	
5	Hump overextended and rising more than 15 per cent higher than chest, or so full that it is rounded on the sides like a semicircle.	

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**TABLE #5—DEER BODY CONDITION SCORING**

Score	Description	Pelvis, ribs and spine	Rump area
1	Emaciated — no fat cover	Prominent	Concave
2	Lean — minimal fat cover	Prominent but appear rounded rather than sharp	Slightly concave
3	Prime — ideal fat cover	Not readily distinguished	Flat
4	Fat — fat (some trimming necessary)	Pelvis rounded, spine covered by fat	Rounded
5	Overfat — overfat (excessive trimming required)	Pelvis concealed by fat, spine hard to palpate	Very convex



**Appendix B—Maximum water deprivation and minimum rest times**

In addition to the Land Transport Standard requirements, the following maximum water deprivation and minimum rest times must be observed for all land transport of animals:

**TABLE #6—MAXIMUM WATER DEPRIVATION AND MINIMUM REST TIMES**

Type of livestock	Journey time	Maximum water deprivation time	Extended water deprivation time*	Rest Period
Cattle and buffalo <sup>Δ</sup> older than 6 months		36 hours		12 to 24 hours
	36 to 48 hours	36 hours		18 hours
	Completed within 48 hours		48 hours	36 hours
Sheep over 6 months of age and goats over 12 months of age		32 hours	38 hours	12 hours
Sheep and goats less than 12 months of age	Every 20 hours of transport <sup>^</sup>	20 hours		12 hours
Sheep less than 6 months of age and goats less than 12 months of age	Completed within 28 hours		28 hours	12 hours
Camels	Maximum 72 hours total	24 hours		every 4 hours <sup>±</sup>

Δ Buffalo must not be held off water prior to transport, no curfew is permissible.

<sup>^</sup> Unless the entire journey can be completed with a total of 28 hours.

<sup>±</sup> If camels are tied up, they must be released and allowed to stand at least every 4 hours.

\* Extended water deprivation times are only permissible if all of the following conditions have been met:

- animals have been inspected during transport and are travelling well and not showing signs of fatigue, thirst or distress
- adverse weather conditions are neither prevailing nor predicted;
- the extension will allow the journey to be completed within the extended time, and
- the total time the animals travel on the transport vehicle, counted from the time from the first animal is loaded onto the transport vehicle to arrival at destination, is less than 14 hours.

**Appendix C—Registered premise stocking density requirements****TABLE #7—STOCKING DENSITY REQUIREMENTS IN REGISTERED PREMISES**

<b>Species and Individual liveweight</b>	<b>Penned in</b>	<b>Hold time</b>	<b>Minimum space (m<sup>2</sup>/head)</b>	<b>Variance</b>
Cattle or Camels 500 kg	-	30 days or less	4 m <sup>2</sup>	0.04 m <sup>2</sup> for each 5 kg change 0.09 m <sup>2</sup> for each 5 kg change
	-	30 days or more	9 m <sup>2</sup>	
Sheep or Goats 54 kg	Sheds in groups of less than 8 animals	Less than 10 days	0.6 m <sup>2</sup>	-
	Sheds in groups of 9 to 15 animals	Less than 10 days	0.53 m <sup>2</sup>	-
	Sheds in groups of 16 to 30 animals	Less than 10 days	0.4 m <sup>2</sup>	-
	Sheds in groups of more than 31 animals	Less than 10 days	0.33 m <sup>2</sup>	-
	Sheds in groups of less than 8 animals	10 days or more	0.9 m <sup>2</sup>	-
	Sheds in groups of 9 to 15 animals	10 days or more	0.8 m <sup>2</sup>	-
	Sheds in groups of 16 to 30 animals	10 days or more	0.6 m <sup>2</sup>	-
	Sheds in groups of more than 31 animals	10 days or more	0.5 m <sup>2</sup>	-

**Appendix D—Registered premise hold times and feed requirements****TABLE #8—CATTLE AND BUFFALO PREMISES HOLD TIMES**

Length of voyage	Number of intended ports	Minimum length of time in registered premise
Short haul	One port of loading or one port of discharge	24 hours
Short haul	Multiple ports of loading or multiple points of discharge	One clear day
Long haul	-	Two clear days

**TABLE #9—SHEEP AND GOAT PREMISES HOLD TIMES AND FEED REQUIREMENTS**

Type of livestock	Minimum length of time in the one registered premise	Feed requirements during period in registered premise
<b>All sheep, and goats to be exported by air:</b>		
in premises south of latitude 26° south, and in paddocks during any or all of May, June, July, August, September and October	Five clear days	During the last three days, livestock are fed ad libitum, but only on pelletised feed equivalent to that normally used during an export journey.
in premises south of latitude 26° south and in paddocks during any or all of November, December, January, February, March and April	Three clear days	Fed ad libitum and only on pelletised feed equivalent to that normally used during an export journey.
in premises south of latitude 26° south and in sheds during any or all months of the year	Three clear days	Fed ad libitum and only on pelletised feed equivalent to that normally used during an export journey.
<b>Goats to be exported by sea:</b>		
on a short haul voyage	Five clear days	Fed ad libitum and only on shipboard ration intended to be used during the export journey.*

\* The shipboard ration must include a minimum of 200 grams of chaff or hay per day per goat.

## Appendix E—Portable Livestock Unit (PLU) requirements

The requirements within this Appendix applies where PLUs are used to transport livestock exported by sea.

- (a) The maximum number of PLUs per voyage/consignment is 5 (not including 1 additional empty PLU, if a PLU is to be used as a hospital/isolation area).
- (b) The stocking density within the PLU must be set in accordance with the minimum stocking densities within this standard, with an additional 15% space allocation to account for the following as necessary:
  - (i) species and class;
  - (ii) size and body condition;
  - (iii) wool or hair length;
  - (iv) horn status;
  - (v) predicted climatic conditions;
  - (vi) design and capacity of the PLU.
- (c) An appropriate hospital/isolation area must be available, and must be clearly stated in the exporter's standard export plan, as a means of segregating livestock if required. This can be either:
  - (i) divider rails (any);
  - (ii) an additional empty PLU, along with the required equipment or facilities to move livestock safely between PLUs.

NOTE 1: Any division within a PLU must comply with the requirements of Marine Orders Part 43.

NOTE 2: If an additional empty PLU is used as the means of segregating livestock, details of livestock (stud) that are capable of being "led" between PLUs, or of a sheep trolley or portable panels, must be included within the consignment inventory.

- (d) PLUs must be adequately equipped to provide shelter and shade (shade-cloth and tarpaulins). The accredited stock person or accredited veterinarian must take action before or during extreme weather conditions to minimise the risk to the welfare of livestock.
- (e) The floor surface of a PLU must be non-slip and non-abrasive.

NOTE: This can be achieved through the use of sufficient and suitable bedding material for the class and species of livestock to be transported.

- (f) For cattle, bedding material (kiln-dried sawdust/shavings or equivalent) must be applied at a minimum of 4 kg per m<sup>2</sup> before loading.
- (g) Soiled bedding material must be replaced as necessary (subject to type and species).
- (h) The consistency and depth of bedding material must be continually monitored.
- (i) Bedding management must minimise abrasions, lameness, pugging, faecal coating and ammonia production.
- (j) The placement and securing of PLUs on-board the vessel must be:
  - (i) done in accordance with sections 34 and 35 of the Marine Orders Part 43; and
  - (ii) done in a way approved by a surveyor appointed under the *Navigation Act 2012*.
- (k) PLU's must not be stacked on top of each other.
- (l) Each PLU must be stowed in a position that allows direct access to the PLU.
- (m) Feed and water must be managed in accordance with the requirements within this standard and the Marine Orders Part 43 with adequate storage space; and with sufficient protection from weather.
- (n) The vessel must have adequate capacity to desalinate water or sufficient water storage on-board.

## Appendix F—Mandatory veterinary medicines and equipment

While the following tables within this appendix state the minimum mandatory veterinary medicines and equipment, additional drugs and equipment may be necessary if there are other classes of the species in the consignment. For example, obstetrical supplies for pregnant animals).

For consignments of PLUs, only half the number of species relevant doses is required because of the lower numbers transported and must carry one rope halter, one nose grip pliers per consignment as well as equipment for the humane killing of livestock.

**TABLE #10—MINIMUM RESTRAINT AND VETERINARY EQUIPMENT—SLAUGHTER/FEEDER CATTLE OR BUFFALO**

Drugs and equipment (per 1000 cattle and buffalo)	Voyages of 10 days or more	Voyages of less than 10 days
<b>Injectable antibiotics</b>		
penicillin (short acting)	30 cattle doses	15 cattle doses
oxytetracycline (long acting) or equivalent	30 cattle doses	15 cattle doses
Antibiotic(s) appropriate for the treatment of bovine respiratory disease*	30 cattle doses	15 cattle doses
<b>Anti-inflammatory drugs</b>		
dexamethasone	30 cattle doses	15 cattle doses
flunixin or equivalent	30 cattle doses	15 cattle doses
Topical wound treatment	Sufficient to treat 20 minor wounds	Sufficient to treat 10 minor wounds
An effective pink eye treatment system	1 box of 20 tubes	10 tubes
<b>Sedative</b>		
Xylazine	10 cattle doses	5 cattle doses
Thermometers	3 per ship	3 per ship
Needles (18 G, 1½") or equivalent	1 box of 100	1 box of 100
Hypodermic syringes	40 × 20 mL, 10 × 5 mL	20 × 20 mL, 5 × 5 mL

\*The following antibiotics can be used for the treatment of bovine respiratory disease: Florfenicol, Tilmicosin, Tulathromycin, Cefiofur, Tylosin.

**TABLE #11—MINIMUM RESTRAINT AND VETERINARY EQUIPMENT—CATTLE OR BUFFALO**

Drugs and equipment (per 1000 cattle and buffalo)	
Restraint equipment	Adjustable head bale (1 per ship) should be included
	Rope halter (1 per ship)
	Nose grip pliers (1 pair per ship)
Post-mortem kit	2 post-mortem knives plus steel and sharpening stone per ship
Remotely triggered syringe device	1 syringe plus spare parts per ship, plus 10 spare needles per 1000 animals
Captive-bolt gun	1 per ship, plus 40 cartridges per 1000 animals

**TABLE #12—MINIMUM RESTRAINT AND VETERINARY EQUIPMENT—SHEEP AND GOATS**

<b>Drugs and equipment (per 10,000 sheep and goats)</b>	
Injectable antibiotics	
Penicillin (short acting)	10 sheep doses
Oxytetracycline (long acting) or equivalent	10 sheep doses
Flystrike dressing	Sufficient to treat 20 wounds
An effective pink eye treatment system (similar acting to Orbenin)	1 box of 20 tubes
Thermometers	3 per ship
Needles (18 G, 1½") or equivalent	100
Hypodermic syringes	10 x 20 mL, 2 x 5 mL
Footrot secateurs	1 pair
Post-mortem kit	2 post-mortem knives plus steel and sharpening stone per ship
Captive-bolt gun	1 per ship, plus 100 cartridges per 10,000 animals

**Appendix G—Feed and water requirements export by sea****TABLE #13—FEED AND WATER ALLOWANCES**

Type of livestock	Feed per head per day	Water per head per day
Cattle, buffalo or camelids that are: <ul style="list-style-type: none"> <li>Less than 250kg</li> <li>Pregnant</li> <li>Breeding heifers with ≤6 permanent incisor teeth</li> </ul>	At least 2.5 per cent of liveweight	At least 12 per cent of liveweight*
For all other cattle, buffalo or camelids	At least 2.0 per cent of liveweight	
Sheep and Goats with 5 or more permanent incisor teeth	At least 2.0 per cent of liveweight	4 litres
Young sheep and goats 4 or less permanent incisor teeth	At least 3 per cent of liveweight	Increase to 6 litres for each day the ambient temperature is expected to be ≥35 degrees Celsius
Deer	At least maintenance rations <sup>^</sup>	TBC

\*May be reduced to 10 per cent of liveweight, if water consumption for each of the three previous voyages on the ship averaged less than 10 per cent of liveweight per head per day.

<sup>^</sup>Usually achieved by 2 per cent of liveweight as good quality hay or its equivalent. Feed requirements should be calculated on the basis of daily requirements of metabolisable energy (ME) in Table #16.

**TABLE #14—STATUTORY RESERVES**

Type of livestock	Additional feed	Additional water
Cattle, buffalo or camelids	20 per cent or 3 days, whichever is less	3 days
Sheep and goats	25 per cent or 3 days whichever is less	25 per cent or 3 days whichever is less
Deer	2 days for voyages ≥20 days 3 days for voyages 21 to 30 days	TBC

**TABLE #15—PELLETED FEED FOR SHEEP, GOATS AND CAMELIDS—NUTRITIONAL REQUIREMENT SPECIFICATIONS**

Pellet Composition	Specification
Moisture content	Less than 12 per cent
Ash as a percentage of dry matter)	Less than 13 per cent
Crude protein as a percentage of dry matter)	Between 9 per cent and 12 per cent
Urea as a percentage of dry matter)	Less than 1.2 per cent
Acid detergent fibre as a percentage of dry matter	Between 18 per cent and 35 per cent
Metabolisable energy	> 8.0 MJ/kg dry matter

**TABLE #16—SEASONAL NUTRITIONAL REQUIREMENTS OF MATURE DEER**

Mature deer	Energy requirement (MJ* ME† per day)			
	Autumn	Winter	Spring	Summer
<b>Stags</b>				
Red	19	35	42	38
Elk x red	25	47	56	51
Elk or wapiti	34	62	71	66
<b>Hinds</b>				
Red	27	26	28	49
Elk x red	48	46	50	85
Elk or wapiti	64	61	67	120

\*Metabolisable energy (ME), measured in †mega joules (MJ) produced in fermentation of food, is the digestible energy of the food provided, less the energy lost in the production of methane and urine (16 per cent to 20 per cent total).

Note: This assumes that diets containing 14 per cent to 16 per cent crude protein are adequate for maintenance.

**TABLE #17—SEASONAL NUTRITIONAL REQUIREMENTS FOR MAINTENANCE AND GROWTH OF RED DEER FROM WEANING TILL SLAUGHTER**

	Liveweight (kg)							
	40	50	60	70	80	90	100	110
<b>Maintenance stag requirements</b>								
Autumn (winter sheltered)	11.9	14.1	16.2	18.2	20.1	21.9	23.7	25.5
Winter	13.5	16.0	18.3	20.6	22.7	24.8	26.9	28.9
Spring	10.8	12.8	14.7	16.5	18.2	19.9	21.5	23.1
Summer	9.9	11.7	13.4	15.0	16.6	18.1	19.6	21.1
<b>Gain (g/day)</b>								
	50	100	150	200	250	300	350	400
Extra energy needed (MJ/day)	2.7	5.3	8.0	10.6	13.3	15.9	18.6	21.2

NOTE 1: Seasonal maintenance requirements are affected by the weather, and so may be lower when temperatures are warmer than normal and higher when temperatures are lower than normal.

NOTE 2: Add extra energy for gain to the maintenance requirement to get total requirement.



**Appendix H—Vessel stocking density requirements****TABLE #18—MINIMUM PEN AREA PER HEAD FOR CATTLE WEIGHING UP TO 400 KG EXPORTED BY SEA—DEFAULT TABLE**

Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)	Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)
200 or less	0.770	305	1.127
205	0.787	310	1.144
210	0.804	315	1.161
215	0.821	320	1.178
220	0.838	325	1.195
225	0.855	330	1.212
230	0.872	335	1.229
235	0.889	340	1.246
240	0.906	345	1.263
245	0.923	350	1.280
250	0.940	355	1.297
255	0.957	360	1.314
260	0.974	365	1.331
265	0.991	370	1.348
270	1.008	375	1.365
275	1.025	380	1.382
280	1.042	385	1.399
285	1.059	390	1.416
290	1.076	395	1.433
295	1.093	400	1.450
300	1.110	(cont.)	(cont.)

**TABLE #19—MINIMUM PEN AREA PER HEAD FOR CATTLE WEIGHING 405 TO 600 KG  
EXPORTED BY SEA—DEFAULT TABLE**

Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)		Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)	
	Voyages of 10 days or more	Voyages of less than 10 days		Voyages of 10 days or more	Voyages of less than 10 days
405	1.467	1.459	505	1.807	1.739
410	1.484	1.468	510	1.824	1.753
415	1.501	1.487	515	1.841	1.767
420	1.518	1.505	520	1.858	1.780
425	1.535	1.519	525	1.875	1.794
430	1.552	1.533	530	1.892	1.808
435	1.567	1.547	535	1.909	1.822
440	1.586	1.560	540	1.926	1.835
445	1.603	1.574	545	1.943	1.849
450	1.620	1.588	550	1.960	1.863
455	1.637	1.602	555	1.977	1.877
460	1.654	1.615	560	1.994	1.890
465	1.671	1.629	565	2.011	1.904
470	1.688	1.643	570	2.028	1.918
475	1.705	1.657	575	2.045	1.932
480	1.722	1.670	580	2.062	1.945
485	1.739	1.684	585	2.079	1.959
490	1.756	1.698	590	2.096	1.973
495	1.773	1.712	595	2.113	1.987
500	1.790	1.725	600	2.130	2.000

**NOTE:**

- (a) Pen group liveweight range: the liveweight range in each pen of cattle should not exceed the pen average plus or minus 50 kg.
- (b) For cattle weighing between 200 kg and 600 kg, for weights between those shown in the table, the minimum pen area per head should be calculated by linear interpolation.
- (c) Pen group liveweight range: the liveweight range in each pen of cattle should not exceed the pen average plus or minus 50 kg.
- (d) For cattle weighing between 200 kg and 600 kg, for weights between those shown in the table, the minimum pen area per head should be calculated by linear interpolation.

**TABLE #20—MINIMUM PEN AREA PER HEAD FOR CATTLE EXPORTED BY SEA FROM A PORT SOUTH OF LATITUDE 26° SOUTH, FROM 1 MAY TO 31 OCTOBER**

Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)	Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)	Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)
200 or less	0.847	300	1.221	400	1.668
205	0.866	305	1.240	405	1.688
210	0.884	310	1.258	410	1.707
215	0.903	315	1.277	415	1.727
220	0.922	320	1.296	420	1.746
225	0.941	325	1.315	425	1.766
230	0.959	330	1.333	430	1.785
235	0.978	335	1.352	435	1.805
240	0.997	340	1.371	440	1.824
245	1.016	345	1.390	445	1.844
250	1.034	350	1.408	450	1.863
255	1.053	355	1.427	455	1.883
260	1.071	360	1.445	460	1.902
265	1.090	365	1.464	465	1.922
270	1.109	370	1.483	475	1.961
275	1.128	375	1.502	480	1.980
280	1.146	380	1.520	485	2.000
285	1.165	385	1.539	490	2.019
290	1.184	390	1.558	495	2.039
295	1.203	395	1.613	500	2.060

**NOTE:**

- (a) For cattle weighing between 200 kg and 500 kg, for weights between those shown in the table, the minimum pen area per head should be calculated by linear interpolation.
- (b) For cattle weighing more than 500 kg, the minimum pen area per head is 2.06 m<sup>2</sup> plus 0.02 m<sup>2</sup> for each 5 kg above 500 kg.
- (c) For shipments that originate or load from a port south of latitude 26° south and take a route that does not cross latitude 15° south, stocking densities will be calculated from this table regardless of the date of the voyage.

**TABLE #21—MINIMUM PEN AREA PER HEAD FOR CATTLE EXPORTED BY SEA FROM A PORT SOUTH OF LATITUDE 26° FROM 1 NOVEMBER TO 30 APRIL**

Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)	Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)	Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)
200 or less	0.770	320	1.178	440	1.586
205	0.787	325	1.195	445	1.603
210	0.804	330	1.212	450	1.620
215	0.821	335	1.229	455	1.637
220	0.838	340	1.246	460	1.654
225	0.855	345	1.263	465	1.671
230	0.872	350	1.280	470	1.688
235	0.889	355	1.297	475	1.705
240	0.906	360	1.314	480	1.722
245	0.923	365	1.331	485	1.775
250	0.940	370	1.348	490	1.827
255	0.957	375	1.365	495	1.880
260	0.974	380	1.382	500	1.932
265	0.991	385	1.399	505	1.984
270	1.008	390	1.416	510	2.035
275	1.025	395	1.433	515	2.086
280	1.042	400	1.450	520	2.137
285	1.059	405	1.467	525	2.157
290	1.076	410	1.484	530	2.176
295	1.093	415	1.501	535	2.196
300	1.110	420	1.518	540	2.215
305	1.127	425	1.535	545	2.235
310	1.144	430	1.552	550	2.255
315	1.161	435	1.569		

**NOTE:**

- (a) For cattle weighing between 200 kg and 500 kg, for weights between those shown in the table, the minimum pen area per head should be calculated by linear interpolation.
- (b) For cattle weighing more than 500 kg, the minimum pen area per head is 2.06 m<sup>2</sup> plus 0.02 m<sup>2</sup> for each 5 kg above 500 kg.
- (c) For shipments that originate or load from a port south of latitude 26° south and take a route that does not cross latitude 15° south, stocking densities will be calculated from this table regardless of the date of the voyage.

**TABLE #22—MINIMUM PEN AREA PER HEAD FOR BUFFALO EXPORTED BY SEA**

Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)	Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)	Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)
200	0.770	355	1.297	510	1.824
205	0.787	360	1.314	515	1.841
210	0.804	365	1.331	520	1.858
215	0.821	370	1.348	525	1.875
220	0.838	375	1.365	530	1.892
225	0.855	380	1.382	535	1.909
230	0.872	385	1.399	540	1.926
235	0.889	390	1.416	545	1.943
240	0.906	395	1.433	550	1.960
245	0.923	400	1.450	555	1.977
250	0.940	405	1.467	560	1.994
255	0.957	410	1.484	565	2.011
260	0.974	415	1.501	570	2.028
265	0.991	420	1.518	575	2.045
270	1.008	425	1.535	580	2.062
275	1.025	430	1.552	585	2.079
280	1.042	435	1.569	590	2.096
285	1.059	440	1.586	595	2.113
290	1.076	445	1.603	600	2.130
295	1.093	450	1.620	605	2.147
300	1.127	455	1.637	610	2.164
305	1.144	460	1.654	615	2.181
310	1.161	465	1.671	620	2.198
315	1.161	470	1.688	625	2.215
320	1.178	475	1.705	630	2.232
325	1.195	480	1.722	635	2.249
330	1.212	485	1.739	640	2.266
335	1.229	490	1.756	645	2.283
340	1.246	495	1.773	650	2.300
345	1.263	500	1.790		
350	1.280	505	1.807		

NOTE: Buffalo stocking density is to be calculated according to the formula:

$$(0.0034 \times \text{liveweight (kg)}) + 0.09 \text{ m}^2.$$

**TABLE #23—MINIMUM PEN AREA PER HEAD FOR SHEEP AND GOATS EXPORTED BY SEA**

Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)		Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)	
	November to April	May to October		November to April	May to October
28	0.261	0.261	51	0.320	0.322
29	0.263	0.263	52	0.324	0.329
30	0.265	0.265	53	0.329	0.337
31	0.268	0.268	54	0.333	0.344
32	0.270	0.270	55	0.338	0.351
33	0.273	0.273	56	0.342	0.357
34	0.275	0.275	57	0.347	0.363
35	0.278	0.278	58	0.351	0.369
36	0.280	0.280	59	0.356	0.375
37	0.283	0.283	60	0.360	0.381
38	0.285	0.285	61	0.367	0.389
39	0.288	0.288	62	0.374	0.398
40	0.290	0.290	63	0.380	0.406
41	0.293	0.293	64	0.387	0.415
42	0.295	0.295	65	0.394	0.423
43	0.298	0.298	66	0.401	0.432
44	0.300	0.300	67	0.408	0.441
45	0.303	0.303	68	0.415	0.450
46	0.305	0.305	69	0.422	0.459
47	0.308	0.308	70	0.429	0.468
48	0.310	0.310	75	0.465	0.515
49	0.313	0.313	80	0.502	0.563
50	0.315	0.315	90	0.575	0.658

**NOTE:**

- (a) For horned rams an additional 10% pen space must be allocated.
- (b) For goats with horns in excess of paragraph 1A.3.5 (b), the goats are penned separately and an additional 10 per cent space must be allocated.
- (c) For sheep carrying more than 25 mm of wool, an additional 10 per cent pen space must be allocated.
- (d) For weights between those shown, the minimum pen area per head should be calculated by linear interpolation.

**TABLE #24—MINIMUM PEN AREA PER HEAD FOR FARMED RED OR RED CROSS WAPITI DEER EXPORTED BY SEA**

Liveweight (kg)	Pen area (m <sup>2</sup> )
< 100	TBA
100	1.54
110	1.57
120	1.59
130	1.62
140	1.64
150	1.67
200	1.80
250	2.08
300	2.36

Intermediate values should be calculated by linear interpolation.

**TABLE #25—MINIMUM PEN AREA PER HEAD FOR CAMELS EXPORTED BY SEA**

Liveweight (kg)	Pen area (m <sup>2</sup> )
300	1.43
400	1.91
500	2.38
600	2.86

NOTE:

- (a) An acceptable stocking density will meet the current camel industry standard. The area is arrived using the formula: area required (m<sup>2</sup>) = 0.00477 x average weight (kg).
- (b) Where a range of different animal sizes and types are to be carried, the area must be calculated for each line rather than on the basis of average weight of the entire shipment.

**TABLE #26—MINIMUM PEN AREA PER HEAD FOR PREGNANT CATTLE OR CAMELS EXPORTED BY SEA**

Type of livestock	Minimum average floor area per head
Pregnant heifers* of a Bos taurus breed	The minimum area required for cattle under Table #20
Pregnant heifers of a Bos indicus breed	The minimum area required for cattle under Table #19
Pregnant cows^ of a Bos taurus breed	An area 5 per cent larger than the minimum area required for cattle under Table #20
Pregnant cows of a Bos indicus breed	An area 5 per cent larger than the minimum area required for cattle under Table #19
Pregnant camels	An area 5 per cent larger than the minimum area required for camels under Table #25

\*heifer means a female bovine animal less than 3 years of age that has not produced a calf.

^cow means a female bovine animal that has produced a calf or is over three (3) years of age.

**Appendix I—Aircraft stocking density requirements****TABLE #27—MINIMUM AIRCRAFT CRATE PEN AREA FOR CATTLE OR BUFFALO EXPORTED BY AIR**

Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)	Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)
150	0.54	530	1.34
160	0.56	540	1.36
170	0.58	550	1.38
180	0.60	560	1.40
190	0.62	570	1.42
200	0.64	580	1.44
210	0.66	590	1.46
220	0.68	600	1.48
230	0.70	610	1.50
240	0.72	620	1.53
250	0.74	630	1.55
260	0.76	640	1.57
270	0.78	650	1.59
280	0.80	660	1.61
290	0.82	670	1.64
300	0.84	680	1.66
310	0.87	690	1.68
320	0.89	700	1.70
330	0.91	710	1.72
340	0.93	720	1.74
350	0.95	730	1.76
360	0.98	740	1.78
370	1.00	750	1.80
380	1.02	760	1.82
390	1.04	770	1.84
400	1.06	780	1.86
410	1.08	790	1.88
420	1.10	800	1.90
430	1.12	810	1.93
440	1.15	820	1.95
450	1.17	830	1.97
460	1.19	840	1.99
470	1.21	850	2.01
480	1.23	860	2.03
490	1.25	870	2.05



500	1.27	880	2.07
510	1.29	890	2.09
520	1.31	900	2.12(cont.)
Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)	Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)
910	2.14	960	2.24
920	2.16	970	2.26
930	2.18	980	2.28
940	2.20	990	2.31
950	2.22		

NOTE: For weights between those shown in Table #19, the minimum pen area per head should be calculated by linear interpolation.

International Air Transport Association regulations stipulate that trained camels must be penned individually for air transport. However, wild-caught camels are not accustomed to individual penning or segregation and are best transported by air in cattle pens. Use of cattle pens must be limited to camels under 300 kg liveweight.

**TABLE #28—MINIMUM AIRCRAFT CRATE PEN AREA FOR SHEEP OR ALPACAS EXPORTED BY AIR**

Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)	Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)
20	0.150	49	0.266
21	0.154	50	0.270
22	0.158	51	0.274
23	0.162	52	0.279
24	0.166	53	0.283
25	0.170	54	0.288
26	0.174	55	0.293
27	0.178	56	0.297
28	0.182	57	0.302
29	0.186	58	0.306
30	0.190	59	0.311
31	0.194	60	0.315
32	0.198	61	0.320
33	0.202	62	0.324
34	0.206	63	0.329
35	0.210	64	0.333
36	0.214	65	0.338
37	0.218	66	0.342
38	0.222	67	0.347
39	0.226	68	0.352
40	0.230	69	0.356
41	0.234	70	0.360
42	0.238	75	0.383
43	0.242	80	0.405
44	0.246	85	0.428
45	0.250	90	0.450
46	0.254	95	0.473
47	0.258	100	0.495
48	0.262		

NOTE 1: For weights between those shown in Table #28, the minimum pen area per head should be calculated by linear interpolation.

NOTE 2: For sheep and alpacas with more than 25 mm of wool/fibre, the pen area per head must be increased by 10%, but this is not cumulative with other space requirements.

**TABLE #29—MINIMUM AIRCRAFT CRATE PEN AREA FOR GOATS EXPORTED BY AIR**

Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)	Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)
15	0.093	40	0.213
16	0.098	41	0.218
17	0.103	42	0.223
18	0.107	43	0.227
19	0.112	44	0.232
20	0.117	45	0.237
21	0.122	46	0.242
22	0.127	47	0.247
23	0.131	48	0.251
24	0.136	49	0.256
25	0.141	50	0.261
26	0.146	51	0.266
27	0.151	52	0.271
28	0.155	53	0.275
29	0.160	54	0.280
30	0.165	55	0.285
31	0.170	60	0.309
32	0.175	65	0.333
33	0.179	70	0.357
34	0.184	75	0.381
35	0.189	80	0.405
36	0.194	85	0.429
37	0.199	90	0.453
38	0.203	95	0.477
39	0.208	100	0.501

NOTE 1: For weights between those shown in Table #29, the minimum pen area per head should be calculated by linear interpolation.

NOTE 2: For fibre goats with more than 25 mm of fibre, the pen area per head must be increased by 10%, but this is not cumulative with other space requirements.

**TABLE #30—MINIMUM AIRCRAFT CRATE PEN AREA FOR DEER EXPORTED BY AIR**

Liveweight (kg)	Minimum pen area (m <sup>2</sup> )	Liveweight (kg)	Minimum pen area (m <sup>2</sup> )
20	0.13	100	0.53
22	0.14	110	0.55
24	0.15	120	0.57
26	0.16	130	0.59
28	0.17	140	0.61
30	0.18	150	0.63
32	0.19	160	0.64
34	0.20	170	0.66
36	0.21	180	0.68
38	0.22	190	0.69
40	0.23	200	0.70
42	0.25	210	0.73
44	0.26	220	0.75
46	0.27	230	0.77
48	0.28	240	0.79
50	0.29	250	0.81
55	0.31	260	0.84
60	0.34	270	0.86
65	0.37	280	0.88
70	0.39	290	0.90
75	0.42	300	0.92
80	0.45	310	0.96
85	0.47	320	0.98
90	0.49	330	1.00
95	0.51	340	1.02
350	1.05	390	1.14
360	1.08	400	1.17
370	1.10	410	1.19
380	1.12	420	1.21

NOTE: For deer, floor space must be adequate to allow deer to lie down during transport.

**Appendix J—Daily report—Sea**

Reporting must commence on day one of the voyage and must include the following information:

#	Required information															
1	Veterinarian's name and AAV accreditation number (if on-board)															
2	Stock person's name															
3	Date of report															
4	Journey day number (must be consistent with the day number used by the Master of the Vessel)															
5	Vessel's position and estimated time of arrival at next port															
6	<p>The number of animals loaded by port of loading and species</p> <p>EXAMPLE:</p> <table border="1"> <thead> <tr> <th>Species</th><th>e.g. Portland</th><th>e.g. Fremantle</th></tr> </thead> <tbody> <tr> <td>Cattle</td><td>100</td><td>200</td></tr> <tr> <td>Buffalo</td><td>0</td><td>5</td></tr> <tr> <td>Sheep</td><td>5 000</td><td>1 000</td></tr> <tr> <td>Goats</td><td>0</td><td>5</td></tr> </tbody> </table>	Species	e.g. Portland	e.g. Fremantle	Cattle	100	200	Buffalo	0	5	Sheep	5 000	1 000	Goats	0	5
Species	e.g. Portland	e.g. Fremantle														
Cattle	100	200														
Buffalo	0	5														
Sheep	5 000	1 000														
Goats	0	5														
7	<p>Dry bulb temperature and humidity</p> <p>One average recording for each deck, each day</p> <p>Bridge temperature (ambient)</p>															
8	Wet bulb reading (per deck)															
9	Feed and water consumption (average per head)															
10	Animal health and welfare issues by deck/tier															
11	Hospital pen report															
12	Medication and treatments used on this day															
13	Respiratory type (normal (1), panting (2), gasping (3)) by species/type/deck/hold															
14	Faeces type average for each deck (normal (1), sloppy (2), runny diarrhoea (3), firm pellets (4))															
15	Issues from daily meeting															
16	<p>Mortality details</p> <ul style="list-style-type: none"> <li>- By species and class of livestock</li> <li>- Reasons (if known)</li> <li>- Number of animals euthanized</li> <li>- Number of animals found dead</li> <li>- Daily/cumulative mortality figure by species</li> </ul> <p>EXAMPLE:</p> <table border="1"> <thead> <tr> <th>Mortality</th><th>Euthanasia</th><th>Natural causes</th><th>Species/class</th><th>Deck</th></tr> </thead> <tbody> <tr> <td>Daily</td><td>1 0</td><td>0 1</td><td>Cattle Buffalo</td><td>1</td></tr> <tr> <td>Cumulative</td><td>3 0</td><td>0 1</td><td>Cattle Buffalo</td><td>2</td></tr> </tbody> </table>	Mortality	Euthanasia	Natural causes	Species/class	Deck	Daily	1 0	0 1	Cattle Buffalo	1	Cumulative	3 0	0 1	Cattle Buffalo	2
Mortality	Euthanasia	Natural causes	Species/class	Deck												
Daily	1 0	0 1	Cattle Buffalo	1												
Cumulative	3 0	0 1	Cattle Buffalo	2												
17	General comments															

**NOTE:**

For sheep exported to the Middle East, the report must also include information on the number of sheep showing clinical signs of scabby mouth.

For voyages where a birth has occurred, the report must include numbers of livestock that gave birth and estimated stage of pregnancy at time of giving birth for each birth.

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## Appendix K—End of journey report—Air

This report must provide a general overview of the air journey, with mention of any specific issues relevant to the health and welfare of the livestock, and must include the following information:

#	Required information
1	Stock person's or Veterinarian's name or and AAV accreditation number (if on-board)
2	Aircraft type(s) and airline(s)
3	Flight number(s)
4	Departure port(s) Date Total loaded, by species
5	Transit stops Feed and water Access Maintenance issues
6	Flight conditions Weather Temperature (where the livestock is kept) Ventilation
7	Health and welfare of livestock Number of livestock born during the journey Number of abortions Number of mortalities
8	Discharge port(s) Date
9	Comments on discharge operations

**Appendix L—End of voyage report—Sea**

This report must provide a general overview of the sea voyage, with mention of any specific issues relevant to the health and welfare of the livestock, and must include the following information:

#	Required information
1	Vessel name
2	Voyage number(s)
3	Departure port(s) Date the animals were loaded (by port if more than one) Total number of animals loaded, by species* (by port if more than one)
4	Discharge port(s) Date the animals were unloaded (by port if more than one) Total number of animals unloaded, by species* (by port if more than one)
5	Feed and water issues Access Maintenance issues
6	Environmental conditions Weather Temperature (where the livestock is kept) Ventilation Decks/bedding
7	Health and welfare of livestock, including any treatments given to the livestock during the voyage. Number of livestock born during the voyage Number of abortions Number of mortalities by tier/deck and class of livestock
8	Relationships with Master/crew/accredited stock person/accredited veterinarian
9	Comments on discharge operations
10	Stock person's or Veterinarian's name or and AAV accreditation number (if on-board)

\* Cattle and buffalo numbers must not be combined

In addition, the accredited veterinarian should also collect additional information about any unexpected animal health or welfare issues and include this in the end of voyage report. Additional information may include video and photographs, animal identification and location on the vessel and information which may allow trace backs.



## Appendix M—ASEL management plans

Exporters seeking to export animals that would otherwise not be fit to export due to the specific requirements outlined in the table below, may apply to the department with an appropriate management plan demonstrating appropriate risk management. This plan must be approved by the department before the exporter may submit any relevant consignment's notice of intention to export.

The exporter must provide notice that the management plan has been invoked for each relevant consignment within the exporter's declaration in applying for an export permit and may also be required to submit a detailed load plan.

The department will only consider requests to vary the following requirements:

ASEL requirement	Management plan	Management plan must demonstrate	Relevant EAN
1A.2.3(b)(i) and 1A.2.2(b)(i): Source cattle or buffalo more than 200 kg	Light cattle/buffalo	Animals will be at least 200 kg at time of export	2016-11
1A.2.3(b)(i) and 1A.2.2(b)(i): Source cattle or buffalo less than 650 kg	Heavy cattle/buffalo	Animals will weigh no more than 850 kg, and additional appropriate animal preparation and voyage management procedures will be implemented to manage specific animal welfare risks	2016-12
4C.2: The export of livestock by sea via the Suez Canal or the Cape of Good Hope, the Panama Canal or Cape Horn, or via another route where the voyage is expected to be longer than 30 days, is prohibited.	Extended long haul voyage management plan	Additional appropriate animal preparation and voyage management procedures will be implemented to manage specific animal welfare risks, including all cattle and buffalo must be vaccinated for bovine respiratory disease	2016-15
2B.6(e): Animals must not leave the registered premises until AMSA clearance of the vessel has been granted	Load out of registered premise prior to AMSA approval	Animals will remain compliant with importing country requirements, and the total transport time from the registered premises to the port to the alternative registered premises will not exceed the requirements within this standard	Approved arrangements for the export of livestock – guidelines.
1A.2.2(a)(ii) and 1A.2.3(a)(ii): If horned, cattle must have horns no longer than 12 cm. If horned, buffalo must have horns no longer than the spread of the ears.	Long horn	Cattle horns will be tipped and no longer than 60cm between the outermost edges of the horns, buffalo horns will be tipped and no longer than 5cm from the outer margin of the ears. Additional 30 per cent space per animal is provided and additional appropriate animal preparation and voyage management procedures will be implemented to manage specific animal welfare risks	2017-15
4C.3: The export of goats by sea on voyages longer than a short haul voyage is prohibited	Export of goats by sea on a long haul voyage	Additional 10 per cent space per animal is provided and additional appropriate animal preparation and voyage management procedures will be implemented to manage specific animal welfare risks	2016-10