

## Standard 2 — Land transport of livestock

### Guiding principle

Land transport is planned and is undertaken on a competently operated and suitable vehicle, with the livestock being handled in a manner that prevents injury and minimises stress throughout the journey.

### Required outcomes

- Only livestock fit to travel are presented for loading.
- Livestock are loaded in a manner that prevents injury and minimises stress.
- Transport of livestock is undertaken in a manner that meets these Standards, any requirements of a state or territory relating to the transport of livestock, and importing country requirements.
- Livestock are unloaded in a manner that prevents injury and minimises stress.

### Overview

The health and welfare requirements of livestock must be addressed throughout the whole of the land transport phase in the export chain. Livestock presented for land transport must be fit to travel and accompanied by documentation that allows the livestock to be traced to their property of source.

The land transport phase begins when the first animal is mustered and ends when the last animal is unloaded at the end of the journey. It includes:

- pre-loading mustering and yarding;
- any stationary resting or holding periods;
- transport of livestock from the property of source to registered premises; and
- subsequent transport from registered premises to a point of embarkation.

The maximum acceptable travel times vary for different species, and these are described in the appendices to these Standards (Appendixes 2.1 and 2.2). Livestock should not be permitted to begin a new journey until they have had sufficient rest and recuperation time, with the provision of adequate and suitable feed and water.

The immediate responsibility for the health or welfare of livestock during the land transport phase is as follows:

- Transport operators are responsible for ensuring that vehicles are of appropriate design for the type of livestock being transported, and are appropriately maintained. Operators must plan the journey to ensure that it complies with these Standards including any relevant requirements for animal health and welfare and road transport under state or territory legislation and model codes of practice, such as requirements relating to the length of journey, stocking density, rest periods and access to suitable feed and water. Details of the journey, any incidents during the journey and any animal care provided that could affect the livestock's health and welfare need to be accurately documented by the vehicle driver.
- Livestock handlers have a responsibility for the humane handling and care of livestock, especially during loading and unloading.
- The vehicle driver accepts responsibility for the livestock at the point of loading and transfers this responsibility to a suitable person at the driver's destination. The driver must provide details of any aspect of the journey that might affect the future health and welfare of the livestock.

Others with responsibilities for the health and welfare of livestock during the land transport phase are as follows:

- Exporters of livestock are responsible for the general health and welfare of the livestock until they are loaded. They are also responsible for the livestock's fitness for the intended land transport.
- Exporters of livestock must ensure that livestock selected are fit to travel. Agents of exporters have a joint responsibility at the start and at the end of the journey to ensure the availability of suitable facilities for the assembly, loading, transport, and unloading and holding of livestock. Agents are also jointly responsible for dealing with emergencies.
- Exporters must be able to demonstrate that the transport of the livestock complies with these Standards, importing country requirements, and any relevant risk mitigation measures documented or referred to in the approved consignment risk management plan.

These Standards are relevant to each stage of the livestock export chain and should be reflected in relevant quality assurance programs. Livestock sourced for export must meet any requirement under a law of a state or territory. State and territory governments are responsible for ensuring that these jurisdictional requirements are met under respective state and territory legislation. The Australian Quarantine and Inspection Service (AQIS) must be satisfied that importing country requirements and these Standards have been met before issuing a health certificate and export permit.

Further details regarding roles and responsibilities and the export chain process is outlined in the Australian Position Statement on the Export of Livestock ([www.daff.gov.au/livestockexportstandards](http://www.daff.gov.au/livestockexportstandards)).

#### **Linkages to other parts of the live export chain**

Livestock that are sourced and prepared to meet these Standards and importing country requirements must be fit to travel when presented for land transport to registered premises.

## Version 2.2 — Standard for land transport of livestock for export

Number	Standard
S2.1	<p>The land transport of livestock for export must meet any relevant animal health and welfare and road transport requirements under state and territory legislation and relevant requirements under national Model Codes of Practice for the Welfare of Animals.</p> <p>(Note: Standards S2.1a–d deleted).</p>
S2.2	<p>The land transport must meet any importing country requirements for the land transport phase in the export chain.</p>
S2.3	<p>The land transport must be undertaken in accordance with a travel plan. This travel plan must be completed for all interstate journeys greater than two (2) hours and journeys of more than eight (8) hours duration.</p> <p>Each plan must address the following:</p> <ul style="list-style-type: none"> <li>(a) species, class, condition and number of livestock;</li> <li>(b) transport vehicles;</li> <li>(c) loading densities and penning requirements;</li> <li>(d) duration of the journey, including rest periods for driver and livestock;</li> <li>(e) the method of loading and unloading of the livestock;</li> <li>(f) inspection of livestock before loading;</li> <li>(g) the feed and water requirements and curfew times applicable to the livestock under this Standard, including to livestock sourced from saleyards;</li> <li>(h) the expected weather conditions before and during transport;</li> <li>(i) the route and the types of roads traversed;</li> <li>(k) completion of vendor declarations or waybill regarding the property of source and the time of departure; and</li> <li>(l) contingency plans for managing transport breakdown, accidents, escapes, deaths, downers and injuries.</li> </ul> <p>(Note: Standard S2.3j deleted).</p>
S2.4	<p>Livestock must be prepared for land transportation from the property of source in line with requirements outlined in Appendix 2.3.</p>
S2.5	<p>(Note: Standard S2.5 deleted).</p>
S2.6	<p>(Note: Standard S2.6 deleted).</p>
S2.7	<p>(Note: Standard S2.7 deleted).</p>

Number	Standard
S2.8	<p>The following feed and water curfews must be observed for livestock before their loading for land transport from the property of source:</p> <ul style="list-style-type: none"> <li>(b) livestock on green feed must be held off green feed (but may be given access to dry feed) for at least twelve (12) hours; and</li> <li>(c) livestock may be held off water (but may be given access to dry feed) for up to twelve (12) hours.</li> </ul> <p>(Note: Standard S2.8a deleted).</p>
S2.9	<p>Livestock must not be deprived of water beyond the limits specified for each species and class of animal in Appendix 2.1.</p>
S2.10	<p>When livestock are loaded for transport by land:</p> <ul style="list-style-type: none"> <li>(a) animals of different species must not be mixed in a single pen;</li> <li>(b) classes of animals of the same species must not be mixed;</li> <li>(c) young animals must be separated from older animals;</li> <li>(d) animals of a dissimilar size must be separated; and</li> <li>(e) <ul style="list-style-type: none"> <li>i. Cattle lacking horns may be mixed with cattle with horns up to 12cm in length and tipped (blunt);</li> <li>ii. Sheep lacking horns may be mixed with sheep with horns up to one curl in length and of such a shape as not to cause eye damage;</li> <li>iii. Goats lacking horns may be mixed with goats with horns up to 22cm in length.</li> </ul> </li> </ul>
S2.11	<p>Livestock must be inspected prior to loading and any animal showing signs consistent with the rejection criteria in Standard S1.7 of <i>Standard 1 – Sourcing and on farm preparation of livestock</i>, or any other condition that could cause the animal's health and welfare to decline during transport or export preparation, must not be transported.</p>
S2.12	<p>Livestock must not be loaded until the travel plan is completed. The following documentation must accompany each load of the consignment:</p> <ul style="list-style-type: none"> <li>(b) a signed declaration as to the identification of the livestock and the property of source; and</li> <li>(d) a journey log that commences at loading, is maintained through the journey and finalised on completion of unloading, and is used to record the actual journey details.</li> </ul> <p>The livestock transport driver must be aware of the travel plan prior to commencement of the journey.</p> <p>The documentation relating to each consignment must be kept for at least two (2) years after the date of export.</p> <p>(Note: Standards S2.12a, c deleted).</p>

Number	Standard
S2.13	<p>Livestock must be loaded in a manner that prevents injury and minimises stress. In particular:</p> <ul style="list-style-type: none"> <li>(a) the use of electric prods must be restricted to the minimum necessary to assist loading, and be in accordance with state/territory legislation. Electric prods must not be applied to the face or ano-genital area. Prods are not to be used for camelids or deer;</li> <li>(b) where animals need to be lifted to assist loading, they must not be lifted by the skin or wool.</li> <li>(c) 'metallic rattles' can be used for livestock to encourage movement in response to sound and, if necessary, polypipe may be used humanely to persuade animals to move; and</li> <li>(d) well-trained dogs may be used to help with the loading of livestock (other than camelids and deer). The dogs must be muzzled. The number of dogs used should be the minimum necessary to complete the task.</li> </ul>
S2.14	<p>Loading density and penning arrangements for land transport must conform to stocking densities and penning arrangements as given in Appendix 2.2.</p>
S2.15	<p>At loading for land transport, the person responsible for the land transport vehicle must assume responsibility for the livestock.</p>
S2.16	<p>Livestock must be checked to ensure that they are evenly distributed and remain fit to travel:</p> <ul style="list-style-type: none"> <li>(a) immediately before departure;</li> <li>(b) within 30–60 minutes of commencement of the journey;</li> <li>(c) at least every 2–3 hours as road conditions warrant; and</li> <li>(d) immediately before departure after any stop.</li> </ul>
S2.17	<p>Working dogs must not be transported in the stock crate with livestock.</p>
S2.18	<p>Livestock must be unloaded and rested in suitable facilities and offered food and water at appropriate intervals during the journey, as specified in Appendix 2.1 and in accordance with state/territory legislation.</p>
S2.19	<p>At unloading, livestock become the responsibility of the person designated with responsibility for the livestock at the registered premises. That person must be notified of any aspect of the journey that might affect the future welfare of the livestock.</p>
S2.20	<p>Livestock that are distressed or injured at unloading must be given immediate assistance.</p> <p>If euthanasia is necessary, it must be carried out humanely.</p> <p>Note: An appendix on euthanasia is under development</p>
S2.21	<p>Livestock must be unloaded into registered premises to rest and adapt for their export journey if the duration of the land transport journey is more than fourteen (14) hours.</p>

Number	Standard
S2.22	<p>Livestock must be unloaded into the registered premises by competent stock handlers in a manner that prevents injury and minimises stress.</p> <p>Facilities must be designed, constructed and maintained to enable safe and efficient unloading of livestock.</p>
S2.23	(Note: Standard S2.23 deleted).
S2.24	All relevant standards for the land transport of livestock for export relating to loading, handling during transport and unloading must also be applied to transport from the registered premises to the port of export.

## Appendix 2.1 — Maximum water deprivation times and rest periods for livestock

The time limit for any given journey by livestock and the requirement for rest periods are primarily determined by the maximum time that animals can be deprived of access to adequate water of a quality to maintain good health and welfare. This is termed the *water deprivation time*.

The water deprivation time is the total continuous period of water deprivation, starting when stock last had access to water, and must include:

- time off water during mustering;
- time off water when yarded after mustering;
- curfew or 'empty out' time (see below);
- all time on the vehicle, whether moving or stationary; and
- any time without water after unloading, such as at a saleyard, spelling centre or registered premises.

*Curfew or empty out* time is the deliberate and variable period of water and/or 'green' fresh feed deprivation intended to minimise faecal and urine spoilage of the transport vehicle, subsequent problems with animals slipping, and contamination of the environment.

The maximum water deprivation times and rest period requirements are described below.

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.

### Cattle

The Australian Model Code of Practice for the Land Transportation of Cattle gives water deprivation times for different classes of cattle. Live export by sea involves mature stock weighing at least 200 kg.

**Table A2.1.1** Maximum water deprivation times for cattle

	Normal time	Extended time
Mature stock	36 hours	48 hours

#### *Extended water deprivation times*

Extended water deprivation times are permissible if and only if:

- animals 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 a forty-eight (48)-hour period of water deprivation, and the animals are to be rested with water and feed for at least eighteen (18) hours immediately upon arrival at the registered premises; and
- the journey's duration, excluding time off water before loading onto the transport vehicle, is less than fourteen (14) hours.

#### *Rest periods*

Cattle older than six (6) months must be spelled for twelve (12) to twenty-four (24) hours after each thirty-six (36) hours water deprivation time for a normal journey, or for thirty-six (36) hours after journeys of thirty-six (36) to forty-eight (48) hours.

## Buffalo

The standard cattle transport times and water consumption rates are generally a good guide for buffalo; however, there is no permissible time off water before transport for buffalo. The thicker hide of buffalo prevents them from dissipating body heat as readily as other species. If animals become agitated during loading or unloading, or are held on stationary transport for an extended period, regular spraying with water to cool them is the best way to prevent stress or reduce stress levels. Frequent cooling down with a water spray, or transport in the cooler times of the day, is appropriate in hot and humid weather.

## Sheep

**Table A2.1.2 Maximum water deprivation times for sheep**

	Normal time	Extended time
Mature stock	32 hours	38 hours
Young stock (less than 6 months old)	20 hours	28 hours

### *Extended water deprivation times*

Extended water deprivation times are permissible if and only if:

- animals 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 animals to be rested with feed and water for at least twelve (12) hours immediately upon arrival at the registered premises; and
- the journey's duration, excluding time off water before loading onto the transport vehicle, is less than fourteen (14) hours.

### *Mustering and loading*

Feed and adequate water of a quality to maintain good health must be provided between mustering and loading if:

- sheep are to remain in the yards for more than twenty-four (24) hours;
- sheep are to travel for twenty-four (24) hours or more; or
- the combined yarding and travel time is to be more than the time nominated in Table A2.1.2.

### *Rest periods*

- After each thirty-two (32) hours of combined curfew and travel, adult sheep must have a rest period of at least twelve (12) hours.
- Animals between weaning and twelve (12) months of age must have a rest period of at least twelve (12) hours after every twenty (20) hours of transport, unless the entire journey can be completed within a total of twenty-eight (28) hours.
- During every specified rest period, sheep of all ages must:
  - a) be unloaded;
  - b) 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
  - c) have enough space for exercise and rest.

## Goats

Table A2.1.3 Maximum water deprivation times for goats

	Normal time	Extended time
Mature goats	32 hours	38 hours
Young goats (less than 12 months old)	20 hours	28 hours

### *Extended water deprivation times*

Extended water deprivation times are permissible if and only if:

- animals 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 entire journey to be completed within the extended time, and animals to be rested with feed and water for at least twelve (12) hours immediately upon arrival at the registered premises; and
- the journey's duration, excluding time off water before loading onto a transport vehicle, is less than fourteen (14) hours.

### *Rest periods*

- After each thirty-two (32) hours of combined curfew and travel, adult goats must have a rest period of at least twelve (12) hours.
- Animals between weaning and twelve (12) months of age must have a rest period of at least twelve (12) hours after every twenty (20) hours of transport, unless the entire journey can be completed within a total of twenty-eight (28) hours.
- During every specified rest period, goats of all ages must:
  - a) be unloaded;
  - b) 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
  - c) have enough space for exercise and rest.

## Camelids

Camels may be transported for a maximum of three (3) days (72 hours) in suitably constructed transports which allow daily feeding and watering. Adequate water of a quality to maintain good health must be available daily. It is often preferable to leave the camels in the truck without unloading and loading. Parking under shade should be considered if conditions are excessively hot. If tying up is required, camels must be released and allowed to stand at least every four (4) hours.

## Deer

Standards for rest periods for deer are under development.

## Appendix 2.2 — Loading densities and penning arrangements for livestock of various liveweights

The land transport of livestock for export must meet any relevant animal health and welfare and road transport requirements under state and territory legislation and relevant requirements under national Model Codes of Practice for the Welfare of Animals.

Loading density and penning arrangements for the land transport of livestock must conform to stocking densities and penning arrangements given below.

Loading densities are determined according to the average liveweight, condition, size, shape and horn status of the livestock, as well as the prevailing conditions and the distance animals are to be transported.

Numbers in the tables below may be varied, provided the welfare of the livestock is not compromised and the following principles are applied:

- loading rates must be assessed for each pen or division in the stock crate;
- five (5) per cent fewer livestock should be loaded if livestock are horned;
- in hilly and more populated areas, where road vehicles change speed more frequently, sufficient internal partitions must be used and numbers varied accordingly; and
- when fewer livestock per pen than in the tables below are transported, firmly fixed portable partitions must be used.

## Cattle

Table A2.2.1 Loading densities for cattle

Mean liveweight (kg)	Floor area (m <sup>2</sup> /head)	Head/pen length (12.5 m × 2.4 m deck)
250	0.77	38
300	0.86	34
350	0.98	30
400	1.05	28
450	1.13	26
500	1.23	24
550	1.34	22
600	1.47	20
650	1.63	18

## Buffalo

Table A2.2.2 Loading densities for buffalo

Mean liveweight (kg)	Floor area (m <sup>2</sup> /head)	Head/pen length (12.5 m × 2.4 m deck)
250	0.79	37
300	0.89	33
350	1.01	29
400	1.09	27
450	1.18	25
500	1.28	23
550	1.40	21
600	1.55	19
650	1.73	17

Note: Calculations of the above buffalo numbers have been based on animals with horns that are no longer than the spread of the ears and are blunt.

## Sheep

Table A2.2.3 Loading densities for sheep

Mean liveweight (kg)	Floor area (m <sup>2</sup> /head)	Head/pen length (2.4 m wide tray)		
		3.0 m	4.5 m	6 m
20	0.17	42	63	85
30	0.19	38	57	76
40	0.22	33	49	65
50	0.25	29	43	57
60	0.29	25	37	49

Note: Calculations of the above sheep numbers have been based on animals in half-wool. When transporting full-wool sheep, the number should be reduced accordingly; when transporting newly shorn sheep, it should be increased accordingly.

## Goats

Table A2.2.4 Loading densities for goats

Mean liveweight (kg)	Floor area (square metres/head)	Head/pen length (2.4 m wide tray)		
		3.0 m	4.5 m	6 m
20	0.117	62	92	123
30	0.165	44	65	87
40	0.213	34	51	68
50	0.261	28	41	55
60	0.309	23	35	47

Note: Large-horned animals require additional space depending on the size of horns.

## Camels

Table A2.2.5 Loading densities for camels

Mean liveweight (kg)	Head/pen length	
	5 m x 2.4 m deck	12.2 m x 2.4 m deck
Less than 250	12	26
250–300	10	22
350–400	9	20
More than 500	8–9	18–20

Note: Resting hump height clearance for land transport is 100 mm. When moving, the highest part of the camel is the fat-filled hump, the head is generally lowered. Hump height will lower by 100 mm to 200 mm between the rest and walking state. Hump height is easily measured at rest by premarked levels in a race.

## Appendix 2.3 — Preparation of animals before loading for transportation, vehicle requirements and loading facilities

### Livestock preparation for transportation

Livestock must be mustered and handled in preparation for loading in a way that maintains their health and welfare and fitness for travel. This must include:

- d) where the journey will take more than twenty-four (24) hours, provision of suitable feed and water and rest for at least twelve (12) hours close to the loading facility, before commencement of any curfews; and
- e) where livestock are mustered by helicopter or light plane, provision of suitable feed and water and rest for at least twenty-four (24) hours before commencement of any curfews.

Holding areas for livestock before loading for land transport must securely contain the animals and maintain a safe environment.

### Vehicle requirements

Vehicles used for land transport of livestock must:

- a) be registered for that purpose under a law of a state or territory;

- b) be constructed to minimise injury and securely contain the livestock, having regard to species, class, condition and number of livestock;
- c) have sufficient space between decks for the livestock, including horned livestock, to stand in a natural position without having contact with overhead structures;
- d) have adequate ventilation to meet variations in climate and the needs of the animal species being transported, and an exhaust system that does not pollute the air inside the stock crate;
- e) be constructed so that the faeces and urine from livestock on upper levels do not soil livestock on lower levels;
- f) be regularly serviced and maintained in good mechanical and structural condition, including the stock crate; and
- g) be clean before the journey to minimise the risk of injury and contamination of the livestock.

### **Loading facilities**

Inspection of loading facilities and vehicle must be undertaken before loading at the property at which the land transport is to commence.

Loading facilities must be designed, constructed, illuminated (where night-time loading occurs) and maintained to enable safe and efficient loading of livestock, to avoid injury and to minimise stress.