

## 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 for 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 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 a registered premises; and
- subsequent transport from a registered premises to an embarkation wharf.

The maximum acceptable travel times vary for different species, and these are described in the appendixes 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 and 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.

#### **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 for travel when presented for land transport to a registered premises.

## Initial standards — Standard for the land transport of livestock for export

- Standards S2.1–S2.9 cover pre-loading of livestock for export
- Standards S2.10–S2.15 cover loading of livestock for export
- Standards S2.16 and S2.17 cover the land transport journey
- Standards S2.18–S2.24 cover unloading at registered premises.

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, including:</p> <ul style="list-style-type: none"> <li>a) pre-transport preparation of livestock;</li> <li>b) loading and unloading of livestock;</li> <li>c) transport vehicle design and maintenance; and</li> <li>d) management of livestock during transportation.</li> </ul>
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. 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 mustering, 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>j) the risk of spread of infectious diseases;</li> <li>k) completion of vendor declarations regarding the property of source and health status of the livestock before the commencement of the planned journey; and</li> <li>l) contingency plans for managing transport breakdown, accidents, escapes, deaths, downers and injuries.</li> </ul>
S2.4	<p>Livestock must be mustered and handled in preparation for loading in a way that maintains their health and fitness for travel. This must include:</p> <ul style="list-style-type: none"> <li>a) 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;</li> <li>b) 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.</li> </ul>
S2.5	<p>Holding areas for livestock before loading for land transport must securely</p>

Number	Standard
	contain the animals, maintain a safe environment and protect the animals from exposure to severe weather conditions.
S2.6	<p>Vehicles used for land transport of livestock must:</p> <ul style="list-style-type: none"> <li>a) be registered for that purpose under a law of a state/territory;</li> <li>b) be constructed to minimise injury and securely contain the livestock, having regard to species, class, condition and number of livestock;</li> <li>c) have sufficient space between decks for the livestock, including horned livestock, to stand in a natural position without having contact with overhead structures;</li> <li>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;</li> <li>e) be constructed so that the faeces and urine from livestock on upper levels do not soil livestock on lower levels.</li> <li>f) be regularly serviced and maintained in good mechanical and structural condition, including the stock crate; and</li> <li>g) be clean before the journey to minimise the risk of injury and contamination of the livestock.</li> </ul>
S2.7	<p>Inspection of loading facilities and vehicle must be undertaken before loading on the property at which the land transport is to commence.</p> <p>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.</p>
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>a) cattle must be held off water for at least twelve (12) hours;</li> <li>b) cattle on green feed must be held off green feed and water (but may be given access to dry feed) for at least twelve (12) hours;</li> <li>c) buffalo on green feed must be held off green feed (but may be given access to dry feed) for at least twelve (12) hours;</li> <li>d) sheep and goats must be held off water (but may be given access to dry feed) for at least twelve (12) hours.</li> </ul>
S2.9	Livestock must not be deprived of water beyond the limits specified for each species and class of animal in Appendix 2.1.
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 if there is a likelihood of aggression or injury to other animals;</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) animals with horns or antlers must not be mixed with animals lacking horns or antlers.</li> </ul>
S2.11	Livestock sourced for export must be fit to travel. Consistent with rejection criteria for livestock at the point of export, livestock must not present with any condition that could cause the animal's health to decline during transport or export preparation. Such conditions are outlined in standard S 1.7 of <i>Standard</i>

Number	Standard
	<i>1 – Sourcing and on-farm preparation of livestock.</i>
S2.12	<p>Livestock must not be loaded until all required documentation is complete. The documentation accompanying each load of the consignment must include:</p> <ol style="list-style-type: none"> <li>a) a travel plan (developed in accordance with S2.3);</li> <li>b) a signed declaration as to the identification of the livestock and the property of source;</li> <li>c) any other declarations in relation to on-farm preparation or treatments required by the importing country; 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> </ol> <p>The documentation relating to each consignment must be kept for at least two (2) years after the date of export.</p>
S2.13	<p>Livestock must be loaded by an accredited stock person or a person able to demonstrate an equivalent level of experience and skill and in a manner that prevents injury and minimises stress. In particular:</p> <ul style="list-style-type: none"> <li>• The use of electric prods must be restricted to the minimum necessary to assist loading, and in accordance with state/territory legislation. Electric prods must not be applied to the face or genitals. Prods are not to be used for camels, alpacas or deer.</li> <li>• Where animals need to be lifted to assist loading, they must not be lifted by the skin.</li> <li>• ‘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.</li> <li>• Well-trained dogs may be used to help with the loading of livestock (other than camels, deer or alpacas). Well-trained dogs need not be muzzled. The number of dogs used should be the minimum necessary to complete the task.</li> </ul>
S2.14	Loading density and penning arrangements for land transport must conform with stocking densities and penning arrangements as given in Appendix 2.2.
S2.15	At loading for land transport, responsibility for the livestock transfers to the person responsible for the land transport vehicle.
S2.16	<p>Livestock must be checked to ensure that they are evenly distributed and remain fit to travel:</p> <ol 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> </ol>
S2.17	Working dogs must not be transported in the stock crate with livestock.
S2.18	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.
S2.19	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

Number	Standard
	livestock.
S2.20	<p>Livestock that are distressed or injured at unloading must be given immediate assistance:</p> <p>a) if euthanasia is necessary, it must be carried out humanely.</p> <p><i>Note: an Appendix on euthanasia is currently under development</i></p>
S2.21	<p>Livestock must be unloaded into a pre-embarkation 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>
S2.22	<p>Livestock must be unloaded into the pre-embarkation registered premises by competent stock handlers in a manner that prevents injury and minimises stress:</p> <p>a) Facilities must be designed, constructed and maintained to enable safe and efficient unloading of livestock.</p>
S2.23	<p>Following unloading, disposal of carcasses, manure or litter must be carried out in such a way as to prevent the transmission of disease and in compliance with all relevant health and environmental requirements under state and territory legislation.</p>
S2.24	<p>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 pre-embarkation registered premises to the port of export.</p>

## 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 potable water. This is termed the *water deprivation time*.

The water deprivation time is the total continuous period of water deprivation, starts 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;
- 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. Cattle that are more than six (6) months pregnant cannot be exported by sea.

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

	<b>Normal time</b>	<b>Extended time</b>
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 48-hour period of water deprivation, and animals 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 12–24 hours after each thirty-six (36) hours water deprivation time for a normal journey, or for thirty-six (36) hours after journeys of 36–48 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**

	<b>Normal time</b>	<b>Extended time</b>
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 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 potable water 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 potable water, 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**

	<b>Normal time</b>	<b>Extended time</b>
Mature goats	32 hours	38 hours
Young goats (less than 12 months)	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 are 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**

Rest periods for goats are under development.

## **Camelids**

Camels may be transported for a maximum of three (3) days (72 hours) in suitably constructed transports which allow daily feeding and watering. Potable water 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**

*[under development]*

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

Loading density and penning arrangements for the land transport of livestock must conform with 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 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 (square metres/head)	Head per 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 (square metres/head)	Head per 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)	Space allowance (square metres/head)	Head per 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)	Space allowance (square metres/head)	Head per 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 A2.2.4 Loading densities for camels**

Mean liveweight (kg)	Head per 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 to 200 mm between the rest and walking state. Hump height is easily measured at rest by premarked levels in a race.