

## Standard 6 — Air transport of livestock

### Guiding principles

Animals are prepared according to required protocols, are fit to travel, and the journey is planned and undertaken in a manner that meets the importing country requirements for the air transport of livestock.

### Required outcomes

- Livestock sourced for export must meet any requirement under a law of a state or territory relating to the sourcing of livestock. State and territory governments are responsible for ensuring that these requirements are met.
- Livestock sourced for export must meet these standards and importing country requirements. The Australian Quarantine and Inspection Service (AQIS) is responsible for ensuring that these standards and requirements are met.
- Livestock are safely delivered to an airport of the importing country.
- Statutory reporting requirements are met after the flight.

### Overview

Air transportation of livestock for export encompasses the sourcing of livestock and their on-farm preparation, through to the air transportation phase of the export chain.

Transportation by air, whether on long international journeys or shorter domestic flights, requires careful planning to reduce any adverse impacts on animals. The entire export journey from the property of source to the final destination (either the airport or the receiving country's quarantine facility) should be planned.

The airlines have a responsibility to deliver animals to their destination in such a way as to minimise any adverse effects on them.

The airline and the exporter are responsible for the care and welfare of all animals during transport, even when an attendant appointed by the exporter travels with the consignment.

Animals must be transported in aircraft holds that can be adequately ventilated, and in which the temperature can be maintained at a level that is comfortable for the animals. Airport ground power units to operate air conditioning systems may be required for certain aircraft. Aircraft carrying livestock should be loaded and unloaded as quickly and safely as possible.

### Linkages to other parts of the export chain

In the planning phase, the exporter must specify the livestock to be exported in the consignment risk management plan.

Where livestock for export by air transportation are transported by road to the registered premises and are prepared in registered premises, the standards for those parts of the export chain apply.

### Definitions

An **approved veterinarian** for pregnancy testing is:

- for cattle, a member of the Australian Association of Cattle Veterinarians and an accredited tester under the National Cattle Pregnancy Diagnosis Scheme; or

- for cattle and all other species, able to demonstrate to the satisfaction of AQIS before commencing such pregnancy testing a level of experience and skill equivalent to that of such a person.

A **notifiable incident** with regard to export of livestock by air includes, but is not limited to:

- loss of aircraft;
- disablement of ventilation systems on an aircraft carrying livestock causing a serious adverse effect on animal health and welfare;
- rejection of livestock at an overseas airport;
- mortality in a consignment; or
- any other incident that has an adverse effect on animal health and welfare.

## Version 1 — Standard for air transport of livestock

- Standards S6.1–S6.19 cover the sourcing and on-farm preparation of livestock for export by air transportation.
- Standards S6.20–S6.28 cover the loading and carriage of livestock for export by air transport.

Number	Standard
S6.1	<p>Livestock sourced for export must meet any relevant animal health and welfare 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) feed and water requirements;</li><li>b) livestock management and husbandry practices;</li><li>c) protection from and control of disease;</li><li>d) protection from climatic extremes, predation, natural disasters;</li><li>e) handling facilities; and</li><li>f) intensive production system requirements.</li></ul>
S6.2	<p>Livestock sourced for export must be:</p> <ul style="list-style-type: none"><li>a) identified to the property of source;</li><li>b) accompanied by a correctly completed and signed declaration as to the identification of the livestock and property of source; and</li><li>c) individually identified where testing is required during preparation.</li></ul>
S6.3	<p>Livestock sourced for export and intended for human consumption must comply with Australian food safety requirements, including standards for chemical residues or environmental contaminants.</p>

Number	Standard
S6.4	<p>Livestock sourced for export must be fit to travel. Consistent with the rejection criteria in these standards for livestock at the point of export, livestock sourced for export must not present with any condition that could cause the animal's health to decline during transport or export preparation. Such conditions include:</p> <ul style="list-style-type: none"> <li>• lethargy, weakness, ill-thrift, dehydration</li> <li>• anorexia (inappetence)</li> <li>• lameness or abnormal gait</li> <li>• abnormal soft tissue or bony swellings</li> <li>• scouring, dysentery, profuse diarrhoea</li> <li>• bloat</li> <li>• nervous signs (eg head tilt, circling, incoordination)</li> <li>• abnormal or aggressive behaviour / intractable or violent animals</li> <li>• external parasites (unless treatment is to be performed prior to loading for embarkation)</li> <li>• cutaneous myiasis (flystrike)</li> <li>• significant lacerations</li> <li>• discharging wounds or abscesses;</li> <li>• generalised papillomatosis, ringworm or dermatophilosis</li> <li>• generalised and extensive buffalo fly lesions</li> <li>• pink eye / keratoconjunctivitis (active inflammation of one or both eyes)</li> <li>• cancer eye</li> <li>• blindness in one or both eyes</li> <li>• abnormal nasal discharge</li> <li>• coughing or respiratory distress</li> <li>• scabby mouth</li> <li>• excessive salivation</li> <li>• bleeding horn stumps</li> <li>• ballanitis (pizzle rot in sheep).</li> </ul>
S6.5	<p>Cattle and buffalo sourced for export must have been weaned at least fourteen (14) days before sourcing for export.</p>

Number	Standard														
S6.6	<p>Pregnant livestock for export must not be accepted for carriage when the date of either the last service or earliest exposure to a male prior to departure has exceeded the following:</p> <table border="1" data-bbox="400 369 1353 651"> <thead> <tr> <th data-bbox="400 369 794 436">Livestock</th> <th data-bbox="794 369 1353 436">Maximum days of gestation at scheduled date of departure</th> </tr> </thead> <tbody> <tr> <td data-bbox="400 436 794 470">Cattle and buffalo</td> <td data-bbox="794 436 1353 470">250</td> </tr> <tr> <td data-bbox="400 470 794 504">Deer (axis, fallow, sika)</td> <td data-bbox="794 470 1353 504">170</td> </tr> <tr> <td data-bbox="400 504 794 537">Deer (red, reindeer)</td> <td data-bbox="794 504 1353 537">185</td> </tr> <tr> <td data-bbox="400 537 794 571">Sheep</td> <td data-bbox="794 537 1353 571">115</td> </tr> <tr> <td data-bbox="400 571 794 604">Goats</td> <td data-bbox="794 571 1353 604">115</td> </tr> <tr> <td data-bbox="400 604 794 651">Camelids</td> <td data-bbox="794 604 1353 651">Under development</td> </tr> </tbody> </table>	Livestock	Maximum days of gestation at scheduled date of departure	Cattle and buffalo	250	Deer (axis, fallow, sika)	170	Deer (red, reindeer)	185	Sheep	115	Goats	115	Camelids	Under development
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S6.7	<p>All livestock sourced as being pregnant (ie possibly pregnant), must be pregnancy tested by an approved veterinarian within forty-five (45) days prior to the scheduled date of export to determine the stage of pregnancy:</p> <ol style="list-style-type: none"> <li data-bbox="421 786 1409 920">Livestock that are declared to be pregnant or that have given birth in the last forty-eight (48) hours must not be tendered for transport unless accompanied by a veterinary certificate certifying that the animal is fit to travel and there is no evidence of imminent parturition.</li> <li data-bbox="421 936 1409 1070">Within seventy-two (72) hours of the scheduled date of export, the livestock must be inspected by an accredited veterinarian, and livestock showing udder engorgement and slackening of the pelvic ligament must be withdrawn from export.</li> </ol>														
S6.8	<p>Ewes and does with two (2) or more permanent incisor teeth must only be sourced for export as slaughter and feeder animals if they have been pregnancy tested within thirty (30) days of export and certified not to be pregnant by a veterinarian or other person able to demonstrate an equivalent level of experience and skill.</p>														
S6.9	<p>Unless approved by the relevant Australian Government agency, lambs and goat kids must only be sourced for export by air transportation if:</p> <ol style="list-style-type: none"> <li data-bbox="421 1339 1390 1406">they have been weaned at least fourteen (14) days before sourcing for export;</li> <li data-bbox="421 1422 1102 1456">lambs have a liveweight of more than 20 kg; and</li> <li data-bbox="421 1471 1082 1505">goat kids have a liveweight of more than 14 kg.</li> </ol>														
S6.10	<p>Horned cattle and buffalo must only be sourced for export as slaughter and feeder animals:</p> <ol style="list-style-type: none"> <li data-bbox="421 1612 1238 1646">for cattle, if the horns are 12 cm or less in length and blunt;</li> <li data-bbox="421 1662 1417 1729">for buffalo, if the horns are no longer than the spread of the ears and are blunt; and</li> <li data-bbox="421 1744 900 1778">if de-horned, wounds are healed.</li> </ol> <p>Otherwise, horned cattle and buffalo must only be sourced for export with the approval of the relevant Australian Government agency.</p>														

Number	Standard
S6.11	<p>Horned sheep or goats must only be sourced for export if the horns:</p> <ul style="list-style-type: none"> <li>a) are not turned in so as to cause damage to the head or eyes;</li> <li>b) would not endanger other animals during transport; and</li> <li>c) would not restrict access to feed or water during transport.</li> </ul> <p>Otherwise, horned sheep or goats must only be sourced for export with the approval of the relevant Australian Government agency.</p>
S6.12	<p>Horned rams must only be sourced for export if the horns:</p> <ul style="list-style-type: none"> <li>a) are one full curl or less, or are tipped back to one full curl or less;</li> <li>b) would not endanger other animals during transport; and</li> <li>c) would not restrict access to feed or water during transport.</li> </ul> <p>Otherwise, horned rams must only be sourced for export with the approval of the relevant Australian Government agency.</p>
S6.13	<p>Captured feral goats must not be sourced for export unless they have become accustomed to being handled and to eating and drinking from troughs for a minimum of fourteen (14) days before transfer to registered premises.</p>
S6.14	<p>Deer must only be sourced for export if they:</p> <ul style="list-style-type: none"> <li>a) are at least six (6) months old;</li> <li>b) have been weaned for at least two (2) months before sourcing for export; and</li> <li>c) have become accustomed to being handled and to eating and drinking from troughs for a minimum of fourteen (14) days.</li> </ul>
S6.15	<p>Male deer must only be sourced for export if:</p> <ul style="list-style-type: none"> <li>a) they are not in velvet or hard antler;</li> <li>b) they are not in the first week after velveting;</li> <li>c) velveting wounds have healed; and</li> <li>d) they are outside the roar and rut periods (1 February to 30 June) if they are over one (1) year of age.</li> </ul>
S6.16	<p>Camels, including wild-caught camels, must only be sourced for export if they:</p> <ul style="list-style-type: none"> <li>a) have become accustomed to being handled and to eating and drinking from troughs for a minimum of fourteen (14) days; and</li> <li>b) meet transport and shipping height requirements of the intended transport (ie camels standing in their natural position do not touch any overhead structures).</li> </ul>
S6.17	<p>The on-farm preparation of livestock sourced for export must be performed by a veterinarian or a person able to demonstrate an equivalent level of experience and skill and with the minimum restraint necessary to carry out any required procedures.</p>

Number	Standard
S6.18	<p>Livestock sourced for export that require vaccination or treatment must be vaccinated or treated in accordance with state and territory legislation and the importing country's requirements:</p> <ul style="list-style-type: none"> <li>a) Where scabby mouth vaccination is required, sheep must not be sourced for export unless vaccinated on two (2) separate occasions at least fourteen (14) days apart, and the second vaccination is applied at least eight (8) days but not more than fifty-six (56) days prior to the planned date of export.</li> <li>b) A record of all vaccines, veterinary medicines and agricultural chemicals used to vaccinate or treat livestock sourced for export must be kept for at least two (2) years after the date of export.</li> <li>c) All vaccines, veterinary medicines and agricultural chemicals used to vaccinate or treat livestock sourced for export must be stored and used in accordance with the manufacturers' recommendations.</li> <li>d) Any slaughter or feeder livestock treated with a drug for which the withholding period exceeds the anticipated date of arrival at the overseas destination must not be sourced for export, except where treatment with that type of drug is specified in the importing country's protocol.</li> <li>e) Female livestock must not be treated with a prostaglandin drug within fourteen (14) days of export, and not during the sixty-day (60) period before export unless they have been pregnancy tested immediately before prostaglandin treatment and declared to be in the first trimester of pregnancy.</li> </ul>
S6.19	<p>Livestock sourced for export that become sick or injured during on-farm preparation must be excluded from export, and arrangements must be made for their prompt and humane handling and care.</p>
S6.20	<p>Loading density and penning arrangements for the export of livestock by air must conform with stocking densities and penning arrangements as given in Appendix 6.1 and with requirements under state/territory legislation and international requirements.</p>
S6.21	<p>At the point of loading of livestock for export by air, responsibility for the livestock must be transferred to the airline, which then notifies the captain of the aircraft, who has overall responsibility for the livestock and must be advised of the species, location and quantity of all livestock and of any special requirements of the livestock on board the aircraft.</p>
S6.22	<p>Livestock for export by air must be checked to ensure they remain fit to travel:</p> <ul style="list-style-type: none"> <li>a) immediately before departure;</li> <li>b) where feasible: <ul style="list-style-type: none"> <li>i. within thirty to sixty (30–60) minutes of commencement of the journey;</li> <li>ii. at least every two to three (2–3) hours as conditions warrant; and</li> </ul> </li> <li>c) immediately prior to departure after any transit stops.</li> </ul>

Number	Standard
S6.23	<p>Any livestock for export identified during transport by air as being distressed or injured must, where feasible:</p> <ul style="list-style-type: none"> <li>a) be given immediate treatment if distressed or injured;</li> <li>b) be euthanased without delay as necessary; and</li> <li>c) arrangements must be made to remove or separate sick or dead livestock from pens carrying multiple animals in transit. If animals need to be offloaded, arrangements must be made to ensure the health and welfare of the animals.</li> </ul>
S6.24	<p>Feed and water must be offered to all livestock for export by air while in transit if climatic conditions, species and class of livestock and total journey time warrant.</p>
S6.25	<p>A contingency plan for the following emergencies must be prepared for each consignment as part of the consignment risk management plan:</p> <ul style="list-style-type: none"> <li>a) unavailability of the aircraft to be used for the air transportation;</li> <li>b) mechanical breakdown; and</li> <li>c) rejection of the consignment by the overseas market.</li> </ul>
S6.26	<p>Where the aircraft carrying livestock for export by air is on the ground (whether moving or stationary) for prolonged periods, including transit stops, the ventilation and temperature in the livestock hold must be adequate to maintain the health and welfare of the livestock.</p>
S6.27	<p>If a notifiable incident occurs at any time during the export of livestock by air, a report in the prescribed format must be provided to the relevant Australian Government agency as soon as possible after the notifiable incident occurs.</p>
S6.28	<p>An end-of-journey report on the health and welfare of the livestock transported by air must be prepared and 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 6.2.</p>

## **Appendix 6.1 Stocking density for the penning of livestock during transport by air**

Tables A6.1.1 – A6.1.3 define the minimum area per head. Any decrease in the final stocking density will be determined by the certifying veterinary officer based on animal health and welfare considerations.

When calculating stocking rates, the following must be taken into account:

1. It is essential that accurate final weights of livestock are obtained in view of the weight limitations imposed by the load capabilities of the aircraft and the space required per animal.
2. When calculating the stocking density per pen, the number of livestock per pen must be rounded to the nearest whole number. Half of a number (0.5) is rounded up.
3. The livestock must be able to stand normally, and once lying down should be able to regain their feet unaided and without undue interference from other stock.
4. In multi-tier penning there may be a loss of floor and height area in the upper tier due to the contour of the plane and the overall height limitation.
5. When the animal stands in a natural position, no part of the animal's body (or horns) should touch any overhead part of the container.
6. The pen area per head for horned livestock must be increased by ten (10) per cent.
7. For flights scheduled in excess of twenty-four (24) hours, the pen area per head must be increased by ten (10) per cent.
8. When livestock are loaded with mixed cargos in aircraft lower holds, the pen area per head must be increased by ten (10) per cent.
9. Additional pen area requirements in points six to eight (6–8) are not cumulative.
10. Consideration must be given to ambient temperatures in relation to the ventilation capacity of the aircraft at loading and stopovers.

**Table A6.1.1 Minimum aircraft crate pen area for cattle and 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	460	1.19
160	0.56	470	1.21
170	0.58	480	1.23
180	0.60	490	1.25
190	0.62	500	1.27
200	0.64	510	1.29
210	0.66	520	1.31
220	0.68	530	1.34
230	0.70	540	1.36
240	0.72	550	1.38
250	0.74	560	1.40
260	0.76	570	1.42
270	0.78	580	1.44
280	0.80	590	1.46
300	0.84	600	1.48
310	0.87	610	1.50
320	0.89	620	1.53
330	0.91	630	1.55
340	0.93	640	1.57
350	0.95	650	1.59
360	0.98	660	1.61
370	1.00	670	1.64
380	1.02	680	1.66
390	1.04	690	1.68
400	1.06	700	1.70
410	1.08	710	1.72
420	1.10	720	1.74
430	1.12	730	1.76
440	1.15	740	1.78
450	1.17	750	1.80

For weights between those shown in the table, the minimum pen area per head should be calculated by linear interpolation.

**Table A6.1.2 Minimum aircraft crate pen area for sheep exported by air**

Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)	Liveweight (kg)	Minimum pen area (m <sup>2</sup> /head)
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		
49	0.266		
50	0.270		

For weights between those shown in the table, the minimum pen area per head should be calculated by linear interpolation.

For sheep with more than 25 mm of wool, the pen area per head must be increased by 10%.

**Table A6.1.3 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	41	0.218
16	0.098	42	0.223
17	0.103	43	0.227
18	0.107	44	0.232
19	0.112	45	0.237
20	0.117	46	0.242
21	0.122	47	0.247
22	0.127	48	0.251
23	0.131	49	0.256
24	0.136	50	0.261
25	0.141	51	0.266
26	0.146	52	0.271
27	0.151	53	0.275
28	0.155	54	0.280
29	0.160	55	0.285
30	0.165	60	0.309
31	0.170	65	0.333
32	0.175	70	0.357
33	0.179	75	0.381
34	0.184	80	0.405
35	0.189	85	0.429
36	0.194	90	0.453
37	0.199	95	0.477
38	0.203	100	0.501
39	0.208		
40	0.213		

For weights between those shown in the table, the minimum pen area per head should be calculated by linear interpolation.

For fibre goats with more than 25 mm of fibre, the pen area per head must be increased by 10%.

### **Loading density — deer**

For deer, floor space must be adequate to allow deer to lie down during transport. The following guidelines for stocking density (floor space required per head) apply:

- small species such as fallow and chital deer: 0.3 m<sup>2</sup> per animal
- rusa deer: 0.4 m<sup>2</sup> per animal
- red deer over 100 kg: 0.5 m<sup>2</sup> per animal
- red deer under 100 kg: 0.4 m<sup>2</sup> per animal
- strains of species with larger than average body weight may require more space.

### **Loading density — camelids**

- For alpacas, the stocking density table for sheep applies.
- For alpacas with more than 25 mm of fibre, the pen area per head must be increased by ten (10) per cent.

International Air Transport Association (IATA) 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.

## **Appendix 6.2 End of air transport journey report to the Australian Government**

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

- 1 Aircraft type(s) and airline(s)
- 2 Flight number(s)
- 3 Departure port(s)
  - date
  - total loaded, by species
- 4 Transit stops
  - feed and water
  - access
  - maintenance issues
- 5 Flight conditions
  - weather
  - temperature
  - ventilation
- 6 Health and welfare of livestock
  - number of livestock born during the journey
  - number of abortions
- 7 Comments on discharge operations