LAND TRANSPORT OF HORSES

STANDARDS AND GUIDELINES

Derived from The Australian Standards and Guidelines for the Welfare of Animals – Livestock Transport version 1.1 26 September 2011

Contents

Introduction ....................................................................................................................... 2

Principles relating to the transport of horses ........................................................................ 3

Objectives ....................................................................................................................... 4

Standards ......................................................................................................................... 4

Guidelines ........................................................................................................................ 4

2 Horse handling competency .................................................................................. 8

Objective ......................................................................................................................... 8

Standard .......................................................................................................................... 8

Guidelines ....................................................................................................................... 8

3 Transport vehicles and facilities for horses ....................................................... 9

Objective ......................................................................................................................... 9

Standard .......................................................................................................................... 9

Guidelines ....................................................................................................................... 9

4 Pre-transport selection of horses....................................................................... 11

Objective ......................................................................................................................... 11

Standards .......................................................................................................................... 11

Guidelines ....................................................................................................................... 11

5 Loading, transporting and unloading horses ................................................... 15

Objective ......................................................................................................................... 15

Standards .......................................................................................................................... 15

Guidelines ....................................................................................................................... 17

6 Humane destruction ........................................................................................... 23

Objective ......................................................................................................................... 23

Standards .......................................................................................................................... 23

Guidelines ....................................................................................................................... 23
Introduction

Purpose
The purpose of this document is to describe standards and guidelines that ensure the welfare of horses during land transport. The standards provide the basis for developing and implementing consistent legislation and enforcement across Australia, and guidance for all those responsible for horses during land transport. They reflect available scientific knowledge, current practice and community expectations. The standards and guidelines may be reflected in the industry-based quality-assurance programs that include welfare provisions.

Scope
These standards and guidelines cover the transport of horses by road. The standards apply to all those responsible for the care and management of horses that are transported, including drivers, transport companies, owners, agents and livestock handlers at farming enterprises, depots, saleyards and livestock-processing plants. The chain of responsibility for horse welfare in transport begins with the owner or their agent, and extends to the final receiver of the horse. These standards and guidelines should be considered in conjunction with other requirements for transporting horses, and related Commonwealth, state and territory legislation, including:

• for transport — the Australian Standards for the Export of Livestock1, livestock health and biosecurity requirements, and regulated livestock loading schemes and driver regulations
• for other enterprises — model codes of practice or standards and guidelines for livestock species, saleyards, livestock processing (slaughter) establishments and the Australian Standards for the Export of Livestock.

Where legislation requires a higher standard than these standards, the higher standard will apply. Where there is a conflict with another standard in meeting the welfare standards, the welfare of horses must be the first consideration unless there is an occupational health and safety requirement.

Interpretation
This document has been derived from the Australian Animal Welfare Standards and Guidelines Land Transport of Livestock. The general standards and guidelines that apply to all livestock and the specific standards and guidelines that relate to horses are included. This document combines the two parts of the Australian Animal Welfare Standards and Guidelines Land Transport of Livestock Part A, which provides the general standards and guidelines that apply to all major livestock species and Part B, which provides specific standards and guidelines for each species. Each chapter contains a heading; an objective, standards and guidelines.

• The objective is the intended outcome(s) for each section of the standards and guidelines;
• The Standards are the acceptable animal welfare requirements designated in this document, ie the requirements that must be met under law for horse welfare purposes. They are intended to be clear, essential and verifiable statements; however, not all issues are able to be well defined by scientific research or are able to be quantified. Standards use the word ‘must’.
• Guidelines are the recommended practices to achieve desirable animal welfare outcomes. The guidelines complement the standards. They should be used as guidance. Guidelines use the word ‘should’. Non-compliance with one or more guidelines will not in itself constitute an offence under law.
• Notes — Explanations of the context of the standards and guidelines (the notes are advisory statements for selected background information).

In addition, there is a glossary relevant to horse transport which is a separate document.
Principles relating to the transport of horses

Transport can be stressful to horses; it is therefore essential that effective management practices are in place to minimise any risks to their welfare. Horses can be transported more effectively and with lower risk to their welfare if:

- the preparation before transport is adequate for the intended journey
- competent selection of horses is done before loading
- horses are handled correctly at all times using well-designed and maintained facilities
- horses are managed and handled by competent stock handlers
- road transport facilities and vehicles are designed and maintained for safe transport of horses
- the journey is planned to ensure prompt delivery of the horses, and undertaken to ensure appropriate timing of arrival with consideration of situations that may affect their welfare
- consideration is given to feed and water requirements, provision of adequate shelter, and protection from, or treatment of, injury and disease.

The risk of adverse animal welfare outcomes is related to:

- competency of personnel involved in any phase of horse transport
- selection and preparation of the horses for the journey
- journey duration
- food and water-deprivation time
- timing of water, feed and rest before transport and at unloading
- age and condition of the horses being transported
- road conditions and terrain
- weather conditions
- vehicle and facility design and maintenance
- space allowance on the vehicle
- ability to observe the horses en route and take action to remedy any problem.

These risk factors can be cumulative and they apply across all stages of land transport as defined in the standards, from assembly before the journey to unloading at the destination. From an animal welfare perspective, land transport of horses is a process that begins before the physical journey and only ends some time after this physical journey is complete.

Managing these risk factors is a shared responsibility between all the people involved, including owners, managers, handlers, agents and drivers. The risk factors for horse welfare during land transport also need to be managed within and across state and territory borders. At the start of the journey, the owner or agent should communicate to the driver accurate information on water provision, to ensure appropriate water management throughout the journey. The pre-transport phase has an important impact on the successful management of horses during transport.

The provision of feed and water is a key requirement for horse welfare; the transport process means that horses are often deprived of feed and water. The transport process includes activities from the time that horses are first deprived of feed and water before loading, until the time that they have access to feed and water or are killed at the end of the journey.

From a welfare perspective, the stages in the transport process and the responsibilities of persons can be described clearly, as follows:

- mustering, assembling, handling and preparation of horses, including selection as ‘fit for the intended journey’, feed and water provision, and holding periods (consignor)
- loading, transport and unloading, including assessing horses during the loading process that they are ‘fit for the intended journey’ and additional inspections of livestock and spelling periods (transporter / driver)
- after unloading (receiver).

When horses are transported on land, a competently operated and suitably designed vehicle should be used. At all times, horses must be handled to prevent injury and minimises stress. These principles apply to all journeys involving horses.
1 Responsibilities and planning

Objectives
People responsible for the care and management of horses at all stages of the transport process are identified, are aware of and are accountable for their responsibilities.

Standards

| SA1.1 | A person in charge must exercise a duty of care to ensure the welfare of horses under their control and compliance with the livestock transport standards. The responsibility for horse welfare in the transport process is: |
|       | i) the consignor for the: |
|       |   a) mustering and assembling of horses; and |
|       |   b) handling; and |
|       |   c) preparation, including inspection and selection as ‘fit for the intended journey’; and |
|       |   d) feed and water provision; and |
|       |   e) holding periods before loading; and |
|       | ii) the transporter is responsible for: |
|       |   a) the loading including final inspection during loading as ‘fit for the intended journey’; and |
|       |   b) the loading density; and |
|       |   c) additional inspections of horses; and |
|       |   d) spelling periods during the journey; and |
|       |   e) unloading |

SA1.2 If a person in charge reasonably expects the journey time to exceed 24 hours, the transporter must possess a record which is accessible at the roadside and that specifies:

i) the date and time that the horses last had access to water; and

ii) the date and time of horse inspections and any welfare concerns and actions taken; and

iii) emergency contacts.

A person in charge who is transferring responsibility for horses to be further transported for a total journey time of longer than 24 hours must provide a record with this information to the next person in charge.

Guidelines

Responsibilities of all people involved in horse transport

GA1.1 All people involved in planning a journey and mustering, assembling, handling, selecting, loading and transporting horses have a responsibility for their welfare. They should communicate effectively to support those with key responsibilities, and should ensure that management systems are in place to minimise risks to livestock welfare.

Note: Many people and many tasks are involved in successfully transporting horses.

Responsibilities of horse consignors (suppliers)

GA1.2 The consignor is responsible for the horses until they are to be loaded onto the transport vehicle. This responsibility should include but is not restricted to:

- selecting horses to make sure that they are fit for the intended journey
- providing feed, water and rest before curfew or loading, as appropriate
- providing suitable holding and loading facilities that do not predispose horses to injury
- handling horses according to these standards and guidelines
- communicating feed, water provision times and other relevant information
- completing required documentation accurately for each consignment, including transferring the responsibility for horse welfare
• making sure that any horses that are unsuitable for loading following preloading inspection at the assembly point are appropriately managed, treated or humanely destroyed.

Note: Horse consignors may include owners, agents, drivers and transport companies and personnel from properties, saleyards, depots and livestock-processing plants who handle horses to be transported. There is a ‘chain of responsibility’ for those managing horse welfare. In some parts, the responsibility for horse welfare is clearly shared; for example, during loading between the consignor and the driver. Responsibility exists but is less clear when the impact of earlier decisions affects the welfare of horses at a later time.

Responsibilities of drivers and transporting companies

GA1.3 The driver or transporting company is responsible for the horses from the point of loading (including inspection and assessment of horses during loading), to the point of unloading and notifying the receiver of the horses at the destination. This responsibility should include but is not restricted to:
• being competent in their tasks and key activities to meet the provisions of these standards and guidelines
• taking action to determine the time that horses were deprived of water (and, for unweaned horses, liquid feed), from the previous owner or person responsible, including time without water during assembly, holding, loading or previous transport
• inspecting and assessing horses at loading to ensure that they are fit for the intended journey
• inspecting horses during the journey as required and taking action if a problem arises that affects their welfare
• making sure that the management, care or humane destruction of any horses that are judged as weak, ill or injured during the journey is appropriate
• informing the consignor and receiver of any problem encountered during the journey in relation to the welfare of the horses, including where horses may not have met the specified fitness requirements for loading
• completing required documentation accurately for each consignment transported, including journey plans, as specified in these standards
• making sure that the plan for the journey takes into consideration the condition, class of horses, nature of the journey, weather conditions and the provisions in these standards, such as water-deprivation time, spelling and loading density
• driving in a manner that minimises impact on the welfare of the horses, including appropriate driving techniques for the road conditions, managing horses during weather that may predispose them to heat or cold stress, and considering rest-stops and the nature of the journey
• recording and communicating to the person(s) responsible when there are inappropriate holding, loading or unloading facilities at the property of origin or destination, so that corrective action can be taken
• having the contact details of owners or agents and customers at the source and destination for assistance as required
• notifying and transferring the responsibility for the horses to the responsible person at the destination on unloading, including after-hours arrangements for receiving them.

Note: If the time horses were deprived of water is unknown at the time of loading, or if it differs across the consignment, this should be noted on the documentation. Transporting companies are mentioned because they may provide general or specific policy direction to their employed drivers in these areas; hence they bear a responsibility for horse welfare.

Responsibilities of receivers (persons and companies at destination)

GA1.4 The person at the destination is responsible for the horses from the point of unloading and notification of horses being received. This responsibility should include but is not restricted to:
• providing drivers, transport companies, agents, pick-up crews and carriers with contact details of relevant personnel at the destination, including personnel to be available out of hours, should a problem arise during the transport journey or assistance be needed on arrival
• communicating with the transport company or driver and providing effective instructions on the practices and arrangements for unloading and managing horses if arriving out of hours
• handling and managing horses in accordance with the provisions specified in these standards and guidelines
• providing water, feed and other requirements during holding as required
• providing suitable unloading or loading and holding facilities that do not predispose horses to injury
• informing the transport company, driver and consignor of any adverse impacts on horse welfare from the journey that are first observed after arrival
• making sure that any horses that are weak, ill or injured at unloading are identified, managed, treated or humanely destroyed at the first opportunity
• removing dead horses from the vehicle.

Note: Persons at destination are responsible for receiving the horses; they may include owners, operators and staff of properties, saleyards, depots and livestock-processing plants. There is also a responsibility for horse welfare that extends to company management at the destination.

Responsibilities of people who plan journeys

GA1.6 People responsible for planning journeys should:
• take into consideration
  o the nature of the intended journey
  o the class and condition of horses
  o the weather and road conditions anticipated during the journey
  o the time that horses are deprived of feed and water
  o planned rest stops and spells
• make sure that a sufficient number of personnel are available for each stage of the journey and at the planned time
• make sure, when planning the transport of horses as a salvage operation, that the journey enables quick and direct transport, and avoids saleyards or holding depots, unless spelling is appropriate.

GA1.7 Planning should ensure that horses are transported to their destination as quickly as possible and via the most suitable route within legal limits.

GA1.8 Where information is not provided on water and feed provision for horses being transported, the transport company, driver or agent should take action to obtain these times. This will allow determination of:
• the total time off feed and water, including mustering
• when the horses have to be spelled or fed.

GA1.9 If interstate crossing points have fixed times of operation, the journey should be planned to accommodate these times, but should also meet the other requirements for welfare of the horses.

Note: People responsible for planning the transport of horses may include owners, agents, transport companies and drivers, and livestock-processing plant, depot and saleyard personnel.

Contingency arrangements

GA1.13 As part of the planning for each journey, arrangements to manage any delay, breakdown or other emergency should be established to minimise risks to horse welfare during all transport. Contingency arrangements may involve written arrangements, journey plans, and details on consignment sheets or arrangements that are in place for rest stops, particularly for long-distance journeys.

GA1.14 Contingency arrangements should include, but are not restricted to, actions, contacts and other written procedures relating to the following situations:
• breakdown or mechanical failure
• delays and lengthened journeys, where this will affect arrangements for feeding and watering
• adverse weather — specifically, climatic conditions that predispose horses to heat or cold stress
• poor road conditions
• illness or injury
• other issues specific to the journey or horses being transported.

GA1.15 For all journeys, the transport company and driver should have the relevant contact details of owners or agents and customers at the origin and destination.

GA1.16 The transport company or driver should ensure that there are contingency arrangements in place for humane destruction. Such arrangements may include one or more of the following:
• people competent in humane destruction are available
• equipment for humane destruction is maintained and operational
• instructions on the recommended procedures for humane destruction are in the vehicle for reference
• contact details of competent persons that may assist in humane destruction are available
• contingency arrangements are in place at locations along the journey or at the destination for assistance with humane destruction.

GA1.17 If unexpected delays occur, such as vehicle breakdown, the driver should make every reasonable effort to minimise the delay and ensure that water is provided within the times specified in the standards.

GA1.18 Essential mechanical maintenance during the journey of a routine nature should be possible to prevent undue delays and minimise the risk to the welfare of livestock (e.g. tyre changes).

GA1.19 A maintenance logbook or record of servicing should be kept for the vehicle.
2 Horse handling competency

Objective
Persons responsible for handling, managing or transporting horses are competent.

Standard
SA2.1 A person involved in any part of the horse transport process must be competent to perform their required task, or must be supervised by a competent person.

Guidelines

GA2.1 Elements of competency for each phase of the horse transport process should include:
• understanding responsibilities for horse welfare
• planning journeys that satisfy the welfare standards and address contingencies that may arise, with consideration of extremes of weather, nature of the journey, class and condition of horses, and time off feed and water
• contingency procedures and the ability to carry out the activities required to maintain the welfare of horses during delay, breakdown or other emergencies
• maintaining records and taking action to determine the time horses were deprived of water and food and calculating total time off for water and food
• horse handling and, where necessary, using handling aids and other equipment appropriately
• inspecting and assessing horses for their fitness for the intended journey, and determining whether horses meet the specified requirements
• identifying weak, injured or ill horses and other behavioural signs of distress, that are relevant for assessment as being fit for the intended journey and taking the appropriate remedial action as relevant
• humane destruction by the choice of appropriate methods or the actions that need to be taken to contact or advise people who are competent
• vehicle operation and basic maintenance.

GA2.2 Supporting evidence of competency should include 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.

Note: Further details relevant to elements of stock-handling competency are covered in other chapters.
3 Transport vehicles and facilities for horses

Objective
Horse transport vehicles and facilities for holding, loading and unloading are constructed, maintained and operated to minimise risks to their welfare.

Standard
SA3.1 A person in charge must ensure that the vehicles and horse handling facilities are constructed, maintained and operated in a way that minimises risk to the welfare of horses.

Vehicles and facilities must:

i) be appropriate to contain horses; and

ii) have effective airflow; and

iii) have flooring that minimises the likelihood of injury or of horses slipping or falling; and

iv) be free from internal protrusions and other objects that could cause injury; and

v) have sufficient vertical clearance for horses to minimise the risk of injury.

Guidelines
GA3.1 Facilities, vehicles, crates and containers should provide a suitable environment to minimise the risk to the welfare of horses from extremes of temperature, weather and humidity.

GA3.2 Materials used in the construction of vehicles, crates and containers should be able to be cleaned effectively. There should be a cleaning program for livestock crates and containers between journeys.

GA3.3 Internal sheeting should be smooth to reduce the risk of pressure points and bruising.

GA3.4 Vehicle gates and facilities should be sufficiently wide to ensure easy movement of horses and to minimise injuries.

GA3.5 Vehicle exhaust gases should not significantly pollute the livestock crate, to avoid respiratory distress.

GA3.6 The livestock crate should be designed to ensure that horses can rise from lying in a normal manner without contacting overhead deck structures.

GA3.7 Limbs of horses should not protrude from the livestock crate. Limbs should be contained within the livestock crate using an appropriate crate design, sound side panelling and appropriate loading densities.

GA3.8 Flooring and surfaces should be designed to maximise grip and minimise slipping and falling. Strategies to improve grip include slats or grooves in the surface. If horses are seen to be slipping and falling, the floor surface and handling of horses should be examined and appropriate action taken to prevent the problem.

GA3.9 The floor of multi-deck vehicles should be constructed and maintained in a way that prevents the soiling of horses on lower decks.

GA3.10 Appropriate bedding should be provided for certain classes of horses.

GA3.11 Fixed partitions should be available in the livestock crate for use when travelling in hilly or high-traffic areas or when carrying small numbers of horses, to prevent horses being thrown around or injured. Partitions should also be used for segregation when required.
GA3.12 For horses that are susceptible to cold (such as young horses), transport vehicles should have either fully enclosed fronts or the ability for the vehicle front, roof or canopy to be covered to prevent wind chill and cold stress.

GA3.13 Solid yard extensions should be used to cover any gaps between the loading ramp floor and the floor of the vehicle through which an animal or part of a horse might go down.

GA3.14 Railings on ramps and raceways should be of appropriate height, with the gaps sufficiently narrow at the bottom to prevent horses being caught, slipping through or becoming injured.

GA3.15 Ramps need to be wide enough to ensure easy movement and should be of an appropriate slope for the class of horse.

GA3.16 Avoidable visual or noise distractions to horses should be removed or reduced.
4 Pre-transport selection of horses

Objective
Horses prepared and selected for transport, are fit for the intended journey.

Standards

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA4.1</td>
<td>Horses must be assessed as fit for the intended journey at every loading by a person in charge. A horse is not fit for a journey if it is:</td>
</tr>
<tr>
<td>i)</td>
<td>unable to walk on its own by bearing weight on all legs; or</td>
</tr>
<tr>
<td>ii)</td>
<td>severely emaciated; or</td>
</tr>
<tr>
<td>iii)</td>
<td>visibly dehydrated; or</td>
</tr>
<tr>
<td>iv)</td>
<td>showing visible signs of severe injury or distress; or</td>
</tr>
<tr>
<td>v)</td>
<td>suffering from conditions that are likely to cause increased pain or distress during transport; or</td>
</tr>
<tr>
<td>vi)</td>
<td>blind in both eyes; or</td>
</tr>
<tr>
<td>SB8.4</td>
<td>Mares known to be in the last four weeks of pregnancy must only be transported under veterinary advice unless the journey time is less than four hours.</td>
</tr>
<tr>
<td>SB8.6</td>
<td>A person must not transport a horse of equine lameness score four and five (see lameness score assessment table below) unless veterinary advice is obtained.</td>
</tr>
<tr>
<td>SA4.2</td>
<td>Any horse assessed to be not fit for the intended journey must only be transported under veterinary advice.</td>
</tr>
<tr>
<td>SA4.3</td>
<td>The consignor must only supply horses that are fit for the intended journey.</td>
</tr>
<tr>
<td>SA4.4</td>
<td>A person in charge must not load, nor permit to be loaded, horses that are not fit for the intended journey except under veterinary advice.</td>
</tr>
<tr>
<td>SA4.5</td>
<td>If a horse is assessed to be not fit for the intended journey before loading, a person in charge must make appropriate arrangements for the care, treatment or humane destruction of the horse at the first reasonable opportunity.</td>
</tr>
</tbody>
</table>

Note: Horses being ‘fit for the intended journey’ is an important issue for their welfare. Many factors may affect horses’ fitness for the intended journey at different stages of a journey. Selection of fit horses is a responsibility shared between the consignor and the driver. Loading includes vehicle-to-vehicle transfers.

Guidelines

Selection of horses for transport

GA4.1 Before loading horses, the consignor should notify the driver of any concerns about fitness of horses to be transported. Any special requirements for a consignment should be agreed between the consignor and the driver.

GA4.2 Records should be maintained of any horses that are transported under special circumstances.

GA4.3 Effective management options for horses considered not fit for the intended journey should include, but is not restricted to:
- effective containment in a suitable holding area
- rest
- provision of shelter, feed and water
- veterinary treatment
- humane destruction.

GA4.4 Horses with broken limb bones should be humanely destroyed unless veterinary advice recommends alternative measures.
Fitness

GB8.1 Additional considerations for horse welfare should be made for long-distance travel:
- for horses over six months old after 12 hours off water
- for lactating mares after eight hours off water
- for foals under six months old after eight hours off water
- for mares in the third trimester of pregnancy after five hours off water.

These considerations should include:
- that the horses are fit for the remainder of the intended journey
- that prevailing or predicted weather conditions are favourable
- additional spell times during the journey
- a longer spell time at the end of the journey
- the recent management of the horses before first loading.

GB8.2 Conditions that could adversely affect horse welfare during transport and should be considered in the assessment of fitness for the intended journey. Such conditions might include any signs of colic, raised or lowered body temperature, lethargy, and profuse diarrhoea, disease, or wounds or abscesses. A decision to transport a horse with the above conditions should be made only after considering the welfare of the animal concerned and the treatment and management options.

GB8.3 Mares in the last trimester of pregnancy and those in early lactation should not be transported for periods longer than eight hours to reduce the risk of metabolic disease and herpes virus related abortions. They should be provided with water, food, space to lie down and rest for 12 hours before reloading.

GB8.4 Mares in the last month of pregnancy should not be transported unless under veterinary advice, which should include the following provisions:
- water-deprivation time should not exceed five hours
- feed and water should be provided immediately before loading and on unloading
- additional space should be provided on the vehicle to enable the mare to lie down
- the mare should be separated from other horses
- veterinary advice should be sought.

GB8.5 Mares that have given birth should not be transported within seven days of foaling except when under veterinary advice or travelling for treatment. In this case, adequate space for lying down, and bedding, feed and water should be provided. Horses should also be able to be inspected.

GB8.6 Horses should be at least a body condition score of 2 before transport, as described in the table below. Horses below condition score 2 should only be moved after veterinary advice and for the shortest distance necessary.

<table>
<thead>
<tr>
<th>Body Condition Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Very poor (Very sunken rump, deep cavity under tail, skin tight over bones, very prominent backbone and pelvis, marked ewe neck)</td>
</tr>
<tr>
<td>1</td>
<td>Poor (Sunken rump, cavity under tail, ribs clearly visible, prominent backbone and croup, ewe neck (narrow and slack))</td>
</tr>
<tr>
<td>2</td>
<td>Moderate (Flat rump either side of backbone, ribs just visible, narrow but firm neck, backbone well covered)</td>
</tr>
<tr>
<td>3</td>
<td>Good (Rounded rump, ribs just covered but easily felt, no crest, firm neck)</td>
</tr>
<tr>
<td>4</td>
<td>Fat (Rump well rounded, gutter along back, ribs and pelvis hard to feel, slight crest)</td>
</tr>
<tr>
<td>5</td>
<td>Very fat (Very bulging rump, deep gutter along back, ribs buried, marked crest, fold and lumps of fat)</td>
</tr>
</tbody>
</table>

GB8.7 Lameness assessment should be made using the equine lameness scoring system described in the table below.

<table>
<thead>
<tr>
<th>Score</th>
<th>Equine Lameness assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Lameness not perceptible under any circumstances</td>
</tr>
<tr>
<td>1</td>
<td>Lameness difficult to observe, not consistently apparent regardless of circumstances (e.g. weight carrying, circling, inclines, hard surface)</td>
</tr>
<tr>
<td>2</td>
<td>Lameness difficult to observe at a walk to trot in a straight line (e.g. weight carrying, circling, inclines, hard surface)</td>
</tr>
<tr>
<td>3</td>
<td>Lameness consistently observable at a trot under all circumstances</td>
</tr>
<tr>
<td>4</td>
<td>Lameness obvious, marked nodding, hitching and/or shortened stride</td>
</tr>
<tr>
<td>5</td>
<td>Lameness obvious, minimal weight bearing in motion or rest, inability to move</td>
</tr>
</tbody>
</table>

Source: American Association of Equine Practitioners Scale of Lameness Grading (1984)

Feed, water and rest considerations

GA4.5 Pre-transport spell (water and rest) periods should be provided for the following classes of horses, if the travel time is expected to be of a long duration and approaching the maximum water-deprivation time for the livestock class:
- horses that are pregnant, have recently given birth, are lactating or with young at foot
- immature horses
- horses that are unaccustomed to handling
- horses that are stressed or fatigued from mustering or handling
- weak horses.

GB8.8 Adult horses should be fed and watered at floor level every five hours and as soon as possible after unloading, with a suitable quality and quantity of feed and water to minimise colic risk.

Note: Water and feed curfews can be an important part of horse management for transport, depending on pasture conditions. Issues include faecal and urine contamination of horses, vehicles and roads, and slipping and falling of horses in wet livestock crates. Water curfews must be managed in the context of the total time off water.

GA4.6 Where water is provided, it should be easily accessible to all horses and horses should be able to drink with normal posture.

GA4.7 Horses should be monitored to determine whether they are drinking as expected and, if they are not drinking, action should be taken to encourage water intake. Actions may include:
- ensuring horses can access the water facilities (e.g. through stocking density, trough size and space)
- checking observable water quality (e.g. by flushing water lines, keeping troughs clean)
- adding electrolyte or molasses, providing water on the ground or providing feed.
Where there is a general problem with horses from many sources not drinking, water chemistry should be examined.

GA4.8 Where food is provided, it should be of adequate quality and amount for horses. Where food offered during the transport process is different from normal rations, food intake should be encouraged during a period of familiarity training.

Note: Providing water is a key determinant of horse welfare during transport. Time off water is calculated as the total time that horses are not provided with water, further specified in the Glossary, and Chapter 5. The elements of this calculation may include:
- mustering (away from water)
- assembly in holding areas and yards (where water is not provided)
- curfews
- time on the vehicle, either moving or stationary (where water is not provided)
- time for unloading into new holding areas at the destination until water is provided.
A pre-transport spell period is recommended for the best welfare of the horses and may be required to ensure periods for water provision are not exceeded. A minimum acceptable spell period is defined as four hours of access to water with space to lie down and rest. Food and shelter should also be considered.
5 Loading, transporting and unloading horses

Objective
Horses are handled, loaded, transported and unloaded in a manner that minimises risks to their welfare.

Standards

<table>
<thead>
<tr>
<th>Class</th>
<th>Maximum time off water (hours)</th>
<th>Minimum Spell duration (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horses over 6 months old</td>
<td>24</td>
<td>12</td>
</tr>
<tr>
<td>Lactating mares</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Foals less than 6 months old</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Mares known to be more than 7.5 months pregnant, excluding the last 4 weeks</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

SA5.1 If the maximum permitted time off water is reached, the person in charge must provide the horses with a spell (water, food, space to lie down and rest) before continuing the current journey or before starting another journey.

SB8.1 A person in charge must ensure time off water does not exceed the time periods given below for each class of horse:

<table>
<thead>
<tr>
<th>Class</th>
<th>Maximum time off water (hours)</th>
<th>Minimum Spell duration (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horses over 6 months old</td>
<td>24</td>
<td>12</td>
</tr>
<tr>
<td>Lactating mares</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Foals less than 6 months old</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Mares known to be more than 7.5 months pregnant, excluding the last 4 weeks</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

SA5.2 The person in charge must manage time off water to minimise risk to the welfare of the horses according to:

i) the increased risk to their welfare of longer journeys close to the permitted maximum time off water; and

ii) the assessment of whether the horses are fit for the remainder of the intended journey; and

iii) the predicted climatic conditions, especially heat or cold; and

iv) the class of horses, especially if weak, pregnant, recently having given birth, lactating or immature; and

v) the nature of the intended journey.

SB8.2 If horses over six months old have been off water for 24 hours, the person in charge must ensure the horses have a spell for 12 hours before starting another journey. If lactating mares, foals and pregnant mares known to be more than 7.5 months pregnant excluding the last four weeks have been off water for 12 hours, the person in charge must ensure the horses have a spell for 12 hours before starting another journey.

SB8.3 Journey time may be extended for horses to 36 hours only if each of the following conditions are satisfied:

i) horses must have access to water and feed every five hours; and

ii) horses are not exposed to the natural elements; and

iii) there must be sufficient space to allow a comfortable standing position; and

iv) flooring must be suitable including drainage to remove urine; and

v) regular assessments must be made that the horses are fit for the remainder of the intended journey; and

vi) horses must have a spell for 24 hours before starting another journey.

SB8.5 A person who transports a foal with its mother for a journey time of more than five hours must provide sufficient space on the vehicle for the foal to suckle and lie down.

SA5.3 If no records are provided indicating the last time the horses had access to water, horses at a livestock handling facility (saleyard, spelling facility or staging point) must be provided with reasonable access to water by the person in charge within 24 hours at the
SA5.4 The driver must assess the loading density for each pen or division in the livestock crate. The assessment is based on average live weight of the intended loading, and must be managed to minimise risk to the welfare of the horses. Determination of loading density must consider all of the following factors:

i) class
ii) size and body condition
iii) predicted climatic conditions
iv) nature of the intended journey
v) design and capacity of the vehicle.

SB8.7 A person who uses a vehicle which has stalls and pens to transport horses must ensure that each horse stall or pen can be accessed easily for feeding, watering and visual inspection. All vehicles must contain nonslip flooring and walls of sufficient strength to withstand horse activity.

SB8.8 A person who uses a vehicle which is fully enclosed and environmentally controlled must ensure the vehicle has effective airflow with equipment providing at least 12 air changes per hour.

SB8.9 A person who uses a vehicle to transport horses must ensure there is a vertical clearance of at least 2.2 m between the livestock crate floor and overhead structures.

SB8.10 A person transporting a stallion unused to being handled must segregate it from other stallions and classes of horses.

SA5.5 The driver must have the final decision on the loading density.

SA5.6 The driver must segregate horses by sufficient internal partitions to minimise risk to the welfare of other horses. Determination of segregation must consider all the following factors:

i) class and size
ii) general health of the animals
iii) level of aggression
iv) nature of the intended journey.

SA5.7 A person who handles horses in the transport process must do so in a manner that is appropriate to their class, and minimises pain or injury. Specifically:

i) horses must not be lifted by only the head, ears, or tail; or
ii) horses must not be lifted off the ground by a single leg; or
iii) mechanical lifting of horses must ensure that the horse is supported or secured as necessary; or
iv) horses must not be thrown or dropped; or
v) horses must not be struck in an unreasonable manner, punched or kicked; or
vi) horses which are unable to stand must not be dragged, except in an emergency to allow safe handling, lifting, treatment or humane destruction.

SB8.11 A person must not use an electric prodder on a horse during the transport process.

SB8.12 A person must not use a dog to move a horse during the transport process.

SB8.13 A person transporting horses across Bass Strait must individually stall them, except for mares with foals at foot, which must be stalled together.

SA5.9 A person in charge must ensure that a dog is under control at all times during loading, transporting and unloading horses.

SA5.10 A transporter must ensure that a dog is not transported in the same pen as horses.

SA5.11 A transporter must ensure that the ramp and the vehicle are properly aligned, and that
any gap between the ramp and the vehicle is sufficiently narrow to minimise the likelihood of injury to horses during loading and unloading.

SA5.13 The transporter must:
   i) inspect the livestock crate immediately before departure, to ensure that doors are closed and secured; and
   ii) inspect the receiveyard immediately before unloading, to ensure that there is free access and sufficient space for the horses intended to be unloaded; and
   iii) take reasonable steps to notify a receiver of the arrival of the horses at the destination.

SA5.14 The transporter must inspect horses:
   i) on the vehicle before departure; and
   ii) except when horses travel on roll-on/roll-off livestock transport vehicles during a sea journey, within the first hour of the journey and then at least every three hours or at each driver rest stop, whichever comes first; and
   iii) at unloading; and
   iv) at each driver or vehicle change over stop.

SA5.15 Upon identifying a distressed or injured horse at an inspection, a person in charge must provide or seek assistance at the first reasonable opportunity. Weak, ill or injured horses must be identified to the person receiving them.

SA5.16 A person in charge must take reasonable steps to minimise the impact of extreme weather conditions on the welfare of horses during the transport process.

SA5.17 The receiver must make arrangements at the first reasonable opportunity for separating weak, ill or injured horses for rest and recovery, appropriate treatment, or humane destruction and disposal of dead horses.

Guidelines

Loading horses

GA5.1 Before loading, the driver should inspect the condition of the livestock crate and ensure it is correctly set up and fully operational. If inspecting the vehicle at night or where light is insufficient, a portable source of lighting should be available.

GA5.2 Horses should be loaded and unloaded from the transport vehicle in a calm and quiet manner to ensure that stress and injuries are minimised.

GA5.3 The driver should ensure that limbs of the horses are not protruding from the crate before each departure.

Loading density

GA5.4 Where the area available on the vehicle or in the livestock container is small and the effective space available to the horses is reduced by irregularly shaped boundaries, loading density should be reduced.

GA5.5 Horses on the vehicle should not be loaded either too loosely or too tightly because this may increase the risk of injury. In general, over-loading is the greater risk to horse welfare. The numbers per pen should be sufficient to provide stability for the class of horses and the intended journey. Internal gates should be closed during transport to ensure stock density is evenly spread. When not in use, internal gates should be secured.

GB8.9 The following minimum space allowances should be provided:
<table>
<thead>
<tr>
<th>Class of livestock</th>
<th>Floor area (m²/head)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult horses</td>
<td>1.2</td>
</tr>
<tr>
<td>Horses 18–24 months</td>
<td>1.0</td>
</tr>
<tr>
<td>Horses 12–18 months</td>
<td>0.9</td>
</tr>
<tr>
<td>Horses 5–12 months</td>
<td>0.7</td>
</tr>
</tbody>
</table>

a Figures may increase by up to 10% for adult horses and up to 20% for young horses and foals.

GB8.10 The number of bays provided on the vehicle should be selected according to the duration of travel; the airflow capacity of the vehicle; the size, class and condition of the horses; and whether feed and water is to be provided during the journey.

GB8.11 Mares with foals at foot and young horses should be provided with additional space to allow the foal to suck, and both foals and young horses to lie down as required.

Vehicles and facilities

GB8.12 Pens or stall partitions should be strong and safe, allow air flow and be removable if an animal collapses.

GB8.13 Stalls should be at least 700 mm wide and 2350 mm long to accommodate larger horses and those over 15 hands tall.

GB8.14 Walls should be padded or constructed using a suitable material to avoid rubbing or injury, from a level of 75 cm above the floor to a height level with the animal's back. Padding may be required to protect the animals’ head.

GB8.15 Bows on body trucks and single-deck semitrailers should be at least 2 m high and padded to their full length to a thickness of two cm of soft material.

GB8.16 A mechanical means of forcing air circulation should be installed for enclosed vehicles, unless vents with natural airflow are provided and are effective. Effective airflow may reduce the impact of heat during transport and travel sickness in horses.

GB8.17 For controlled environment vehicles, temperature gauges and the airflow system should be checked before transport and every three hours during transport. Alarms or a monitoring system should be fitted to alert the driver to any problem.

GB8.18 Horses may baulk from hollow sounds caused by walking on ramps. This can be alleviated by using matting or providing earth, sand or sawdust on the floor of the ramp and vehicle.

GB8.19 Flooring should be cleaned before transport. Floors should be drained, absorbent or covered with material to absorb urine when transporting for longer durations.

Two-horse trailers

GB8.20 Where a single horse is being transported in a two-horse trailer, the horse should be placed on the driver’s side of the trailer or float.

GB8.21 Where two horses are travelling in a two-horse trailer, the larger or heavier horse should be penned on the driver’s side.

Horse handling

GA5.6 Horses should be handled in a manner that minimises stress. Horses with no room to move should not be forced, prodded, pushed or excessively handled. Where excessive handling effort
occurs, facility design should be examined. Excessive yelling, noise making and sudden movements should be avoided.

GB8.22 Horses that are unfamiliar to each other may become aggressive or stressed during the journey and should be segregated. The group should be assessed before loading to determine likely aggressive behaviour and whether segregation is needed.

GA5.7 Stock handlers should ensure that bystanders or items that may cause horses to baulk do not impede their smooth loading and unloading. Avoidable distractions should be minimised.

GA5.8 Weak or injured horses may be carefully lifted and placed on or off the vehicle if they cannot negotiate loading ramps.

GA5.9 Horses should not be pushed or pulled by the ears or tail.

GB8.25 Horses should not be routinely sedated for travel. If sedation is necessary, it should be administered by a veterinarian. Sedated horses should be stabilised if possible, segregated and not unduly affected by the motion of the vehicle. Action should be taken immediately on identifying a recumbent horse to separate it from other horses to avoid injury.

GB8.26 Where horses are rugged, airflow should be appropriate so that horses do not overheat and become dehydrated. Fitted hoods, blinkers, knee or hock caps, pads and bandages may protect horses during transport.

GB8.27 Where there are no partitions on the vehicle, or where horses are travelling in groups, hind shoes should be removed.

GB8.28 Manual lifting of foals is permitted for animals that may have difficulty in negotiating ramps.

GB8.30 Horses should be unloaded during water and rest stops to allow exercise.

GB8.31 Dogs should not be used to move horses.

Note: Horses have a strong following instinct and wild horses have a ‘flight zone’ that must be understood and used for efficient handling.

Handling aids

GA5.10 Handling aids should be used that are suitable for the class of horses being handled. Handling aids should be used with care. Aids for moving horses may include polypipes, sticks, flappers, backing boards, rattlers and canes with flags attached; hand, arm or body of the stock handler.

Special classes of horses

GA5.15 Transport arrangements (including spells) should be appropriate for the class and condition of the horses. In all circumstances, transport of the following classes of horses should be carefully managed to minimise risk to animal welfare:

- horses in third trimester of pregnancy
- horses that have recently given birth
- horses that are lactating and with young at foot
- immature horses
- weak horses.

GA5.16 Young, recently weaned horses and weak horses should be handled carefully and transported directly to their destination.

GB8.29 Unbroken horses should be trained in basic handling practices before transport.
GA5.17 If foals are born in transit, special arrangements should be made to protect them as soon as possible. These arrangements may include separate penning with the mother in the livestock crate, unloading at a spell stop, or humane destruction of the foal.

Weak, ill or injured horses

GA5.18 Weak, ill or injured horses should be managed to minimise risks to their welfare. Management may include shortening the journey by transporting directly to the destination, providing additional spells, protecting from extreme weather, not mixing with stronger horses and not consigning to saleyards.

GA5.19 Weak, ill or injured horses that are able to walk, do not have broken limbs and are not in pain should be assessed individually.

GA5.20 Weak, ill or injured horses that are able to walk, do not have broken limbs and are not in pain but have a higher risk of poor welfare should be transported only if necessary for the better management of the animal.

GA5.21 Where there is concern about the assessment of fitness for the intended journey, veterinary advice should be sought.

Segregation during transport

GA5.22 Mixing unfamiliar groups and aggressive horses should be avoided, unless appropriately managed through handling and segregation arrangements.

GA5.23 Horses that are particularly susceptible to disease, stress or injury, or that are being transported for veterinary treatment, should be penned separately on the vehicle, and either loaded last or first, to minimise any adverse welfare effects.

GB8.23 All stallions should be segregated.

GB8.24 Unbroken horses, pregnant mares, mares with foals at foot and animals that have health conditions should be segregated.

Driving management

GA5.24 Drivers should use smooth driving techniques, without sudden turns or stops, to minimise excessive movements of horses and to prevent injuries, bruising, slipping and falling of horses.

GA5.26 Airflow should be appropriate at all times, including when the vehicle is stopped.

GA5.27 Where there is any road accident involving the transport vehicle, all horses should at the first opportunity be:
- assessed, in the standing position if possible
- removed for treatment, or
- humanely destroyed at the accident site.

Weather conditions

GA5.28 Weather conditions should be taken into consideration when transporting horses if there is a risk of heat or cold stress.

GA5.29 Weather conditions during a stop should be considered and action taken to ensure horses are not subject to heat or cold stress.

GA5.30 In hot weather, the journey should be managed to minimise the risk of heat stress. This may include loading and transporting susceptible horses during the cooler parts of the day, not stopping, and providing shade and other cooling strategies.
GA5.31 In extremely hot or humid weather, careful attention should be paid to the airflow of the transport unit; the speed of travel; the number, location and conditions of planned stops; loading density; and the condition of the horses being carried.

GA5.32 During cold weather, care should be taken to avoid cold stress and wind chill. This might include providing cover for the vehicle, enclosing the front of the vehicle, providing food before loading, avoiding colder weather or avoiding loading wet horses, or stopping the vehicle.

**In-transit inspections**

GA5.33 A source of lighting should be available to carry out inspections at night or in poor light.

GA5.34 Drivers should inspect horses as soon as practical after any unusual or difficult road or weather conditions.

GA5.35 If a problem with the horses is identified during transit, even when the problem is rectified, additional checks should be made as necessary to ensure the welfare of the consignment. Drivers should notify ahead for assistance if necessary.

**Feed, water, rest, stops and spells during or after the journey**

GA5.37 During a voluntary water stop, in addition to water and space to lie down, horses should be provided with the following additional provisions:
- access to appropriate food if the stop is greater than 12 hours
- enough space for exercise
- separation appropriate to the travel group.

GA5.38 Drivers and transport companies should be flexible when determining timing and length of stops and spells in transit, to achieve the best possible welfare outcomes.

GA5.39 The timing and quality of spells for horses that are to be transported on multiple, consecutive journeys should be carefully considered to maximise fitness for travel.

*Note:* If a journey is broken by unloading for short periods, such as occurs at a saleyard or en route to a livestock processing establishment, care should be taken that horses are not deprived of feed and water beyond the limits specified.

GA5.40 Where horses have been transported for extended periods, or are special classes of horses, longer spell periods should be provided.

GA5.41 Where there is doubt about an animal's fitness to resume a journey, the spell period should be extended, veterinary advice sought, and action taken to care for any horses that are rejected.

GA5.42 Water should be easily accessible to all horses and horses should be able to drink with normal posture.

GA5.43 Horses at a saleyard, spelling facility or staging point should be provided with reasonable access to water after 12 hours, and to feed after 36 hours at the facility.

GA5.44 During spells, horses should be monitored to determine whether they are drinking as expected, and if they are not drinking, action should be taken to encourage water intake. Actions may include ensuring horses can access the water facilities (through appropriate stocking density, trough size and space), checking observable water quality (by flushing water lines and keeping troughs clean), adding electrolyte or molasses, and providing water on the ground or providing feed. Where there is a general problem with horses from many sources not drinking, water chemistry should be examined.

*Note:* A spell is the provision of water, food and space to lie down to rest for the minimum time periods defined by standards for each class of horse and is a mandatory requirement when maximum time off water.
is reached, before starting a further journey. During a voluntary water stop, horses should be unloaded, allowed access to water and space to lie down, if this is not able to be provided on the vehicle. Feeding is not recommended during short water stops of less than 12 hours. Horses must be inspected for fitness for the remainder of the intended journey before reloading. Driver rest stops are different from voluntary water stops. During a driver rest stop, horses are generally not unloaded. No water provision time credit is given for a driver rest stop. Horses are inspected on the vehicle. Weather conditions during any stop or spell can have an important impact on horse welfare.

**Unloading horses**

GA5.45 Before unloading, the driver should check the condition of the receival area and make sure appropriate pens and water supplies are available. When inspecting the yard at night or where light is insufficient, a portable source of lighting should be available.

GA5.46 At unloading, if the facility is unmanned or out-of-hours arrangements are to be followed, drivers should make sure that unloaded horses have access to water.

GA5.47 Horses should be unloaded promptly on arrival at the destination.

GA5.48 Horses should be allowed to walk quietly and calmly off the vehicle to minimise stress and injury. Particular care should be taken during unloading as horses will be fatigued from the journey.

GA5.49 At night, lighting should be positioned to give even illumination over ramps, races, yards and inside the transport vehicle, and should not shine into the eyes of livestock moving in the desired direction.

*Note:* Requirements relating to handling, loading facilities and inspections apply to the unloading of horses.

**Horses that are not fit for the intended journey**

GA5.50 In the case of an emergency, where an unexpected substantial delay has arisen during the journey, time off water may be extended, provided that:

- it is in the best welfare interests of horses to be transported
- the reason, location, date, start and finish times of the delay is recorded.

GA5.51 Effective arrangements for horses considered not fit to travel should include, but are not restricted to:

- effective containment in a suitable holding area
- rest
- provision of shelter, feed and water
- veterinary treatment
- humane destruction.

**Identifying weak, ill or injured horses on arrival**

GA5.52 Horses that cannot walk from the vehicle (‘downers’) should be destroyed humanely on the vehicle, where practical. Alternatively, facilities, equipment and sufficient personnel should be available for the humane unloading of these horses and their humane destruction at the first opportunity.

GA5.53 Following the journey, feedback on horse welfare should be provided by the driver to the consignor.
6 Humane destruction

Objective
Where it is necessary to destroy horses, it is done promptly, safely and humanely.

Standards

<table>
<thead>
<tr>
<th>SA6.1</th>
<th>A person in charge must ensure that humane destruction methods result in rapid loss of consciousness followed by death while unconscious.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA6.2</td>
<td>A person in charge must ensure a moribund animal is humanely destroyed by a competent person or under the direct supervision of a competent person at the first reasonable opportunity.</td>
</tr>
<tr>
<td>SA6.3</td>
<td>If a competent person is not immediately available to humanely destroy a horse, the person in charge must arrange for a competent person to carry out the procedure at the first reasonable opportunity; unless it is in the welfare interest of the horse and a competent person is not immediately available, and the person considers they have the capability to destroy it.</td>
</tr>
<tr>
<td>SA6.4</td>
<td>A person humanely destroying a horse must take reasonable action to confirm it is dead.</td>
</tr>
<tr>
<td>SA6.5</td>
<td>A person must not use blunt trauma to destroy a horse.</td>
</tr>
<tr>
<td>SA6.6</td>
<td>Horses must not be destroyed by bleeding-out unless they are stunned.</td>
</tr>
</tbody>
</table>

Guidelines

Humane destruction methods

GB8.32 The recommended methods for humane destruction of horses include:
- for horses over six months old — a firearm aimed in the frontal position or lethal injection
- for foals under six months old — a firearm aimed in the frontal position or lethal injection.

GB8.33 A rifle shot by the frontal method (see Figure B8.1) is the preferred method of humanely destroying horses. For adult horses, a rifle should deliver at least the muzzle energy of a standard 0.22 magnum cartridge. For foals, a rifle should deliver at least the muzzle energy of a standard 0.22-long rifle cartridge.

GA6.1 Humane destruction should be done with the minimum number of people present, and other distractions should be minimised.

GA6.2 The horse should be handled carefully and be appropriately restrained so that it is not unnecessarily distressed or alarmed. Where horses are able to walk, they should be handled in a race or crush.

GA6.3 Horses should be brain-shot by rifle or captive bolt in the approved positions.

Note: The primary consideration in humane destruction is to prevent the horse from suffering further pain or distress. In the context of the transport process, humane destruction is an emergency procedure. Many practical, safety and legal considerations will influence the choice of a humane destruction method. In the context of transport, it is accepted that horses to be destroyed will be appropriately restrained for close handling. The most prompt, approved method to relieve suffering is recommended.
Figure B8.1 Humane destruction of horses using the frontal method

Note: (A) indicates the frontal method. The dot indicates the point of aim and the arrow indicates the direction of aim.
The diagrams are representational and individual anatomical differences should be taken into account.

Observing horses after humane destruction

GA6.4 Following use of a humane destruction method, horses should be monitored for at least three minutes to ensure that death has occurred.

GA6.5 To determine whether humane destruction has caused death, two or more of the following signs should be observed (the first four signs are usually the most useful):

- loss of consciousness and deliberate movement (this sign alone is not sufficient, as the animal may just be stunned; involuntary movements may occur in a dead horse)
- absence of rhythmic respiratory movements (this sign alone is not sufficient, as there may be temporary respiratory failure)
- absence of corneal 'blink' reflex when the eyeball is touched
- maximum dilation of the pupil, nonresponsive to light
- absence of response to painful stimuli (although the withdrawal reflex is not reliable)
- absence of intentional vocalisation (horse may gasp but this should not be in a consistent pattern)
- tongue becomes limp and absence of jaw muscle tension (may be difficult to judge)
- absence of heartbeat (requires expertise to detect; heartbeat may persist for some minutes in a horse that is brain dead)
- absence of a pulse (requires expertise to detect, as for heartbeat)
- loss of colour in the mucous membranes, which become pale and mottled
- glazing of the eyes, where the cornea becomes opaque, dry and wrinkled (onset after some time, therefore not immediately useful)
- rigor mortis (onset after several hours, therefore not immediately useful).

GA6.6 Return of rhythmic breathing, corneal reflex, vocalisation or deliberate movement are the main signs that a horse is only stunned and requires the application of an approved method to ensure death.

GA6.7 If it is not certain that a horse is dead, then an approved method should be used immediately to ensure death in a rapid and humane manner. If necessary, bleeding-out or another technique should be used to ensure death in unconscious horses.

Note: The confirmation of a horse’s death following a humane destruction procedure can be a difficult task to judge, and requires training and experience in responses. It is important that a horse is monitored in the three minutes immediately following the humane destruction procedure.
Recommended methods and procedures for humane destruction

*Note: The following guidelines provide information on the recommended methods for humane destruction.*

**Firearms**

GA6.8 Firearm use should be in the frontal or poll positions.

GA6.9 Firearms should be cleaned regularly and maintained in optimal working condition.

GA6.10 To ensure maximum impact and the least possibility of misdirection, projectiles should be fired at the shortest range possible, but not with the barrel in contact with the horse’s head.

GA6.11 Suitable projectiles and propellant charges for the class of horse and situation should be used to always achieve humane destruction with reasonable personal safety if carried out correctly.

*Note: In general, firearms are the most acceptable method of humane destruction for horses. In transport situations, the distance between the end of the firearm barrel and the horse is expected to be between 10 and 100 cm. The only approved target organ is the brain. There are three effective aiming points at the head: frontal, poll and temporal. Before firing, the animal’s head must be still.

For the frontal method, the firearm or captive bolt should be directed at a point in the middle of the forehead where two lines from the topside of the base of the ears and top of the eyes intersect. The line of fire should be aimed into the skull towards the imagined centre of the brain or spinal cord as indicated in the diagrams. For the poll method, the horse is shot through the skull just behind the apex of the head. The line of fire should be in line with the animal’s muzzle.

For the temporal method (firearm only), the horse is shot from the side of the head so that the projectile enters the skull at a point midway between the eye and the base of the ear on the same side of the head. The projectile should be directed horizontally into the skull. This method is an option for adult horses due to the heavier bone structure of the front of the skull. A firearms safety consideration is that projectiles may exit the skull.

Firearms energy specifications are as follows:
- the standard 0.22-long rifle cartridge means the use of any 0.22 rim fire cartridge that produces in excess of 100 foot pounds of energy at the muzzle
- the standard 0.22-magnum cartridge means the use of any 0.22 rim fire magnum cartridge that produces in excess of 300 foot pounds of energy at the muzzle
- the centre fire cartridge means the use of any centre fire cartridge that produces in excess of 1000 foot pounds of energy at the muzzle.

**Captive bolt devices**

GA6.12 Captive bolt use should be:
- in the frontal or poll positions; and
- accompanied by appropriate restraint; and
- applied in contact with the skull.

GA6.13 The captive bolt stunner should be pressed firmly on the head before being discharged, and should be positioned as described in the approved positions. The temporal position is not an option.

GA6.14 For penetrating captive bolt stunners, the cartridge power and length of bolt should be appropriate to the class of horse. Non-penetrating captive bolt stunners are not recommended.

GA6.15 Operators should make sure that charges intended for use are appropriate for the class of horse.

GA6.16 Captive bolts should be regularly cleaned and maintained in optimal working condition according to the manufacturer’s instructions.

*Note: Two types of captive bolt stunners powered by an explosive cartridge are available:*
- the concussion stunner (non-penetrating) has a wide mushroom-shaped head that delivers a blow to the skull, causing unconsciousness
- the penetrating captive bolt stunner has a narrow bolt that is driven a short distance into the brain.
Both types of stunner only cause a stun, or loss of consciousness, that may be temporary and not lead to
death. The penetrating captive bolt stunner is recommended because it is more reliable at delivering an
effective stun in horses. The concussion stunner is not recommended for destruction of horses during
transport. Captive bolt stunning should be followed by an effective procedure to cause death, such as
bleeding-out.

**Anaesthetic overdose**

GA6.17 Veterinarians or approved persons should perform anaesthetic overdose as appropriate.

*Note:* Anaesthetic overdose depresses the central nervous system causing deep anaesthesia, leading to
respiratory and cardiac arrest. Many different drugs are available, but only for use by veterinarians. The
method is appropriate for all species that can be handled.

**Bleeding-out (exsanguination)**

*Note:* Bleeding-out of stunned horses is a method to cause death. Bleeding-out (exsanguination) is
performed by cutting the main blood vessels; at the top of the heart via the thoracic inlet (chest stick), in the
neck (neck cut) or in other locations.

**Pithing**

GA6.21 Pithing should be done to ensure death after stunning, particularly where blood loss is to
be avoided.

*Note:* Pithing is permitted only after an effective stunning method has been used and horses have been
assessed to be unconscious. Pithing is the process of destroying nervous tissue in and around the brainstem
to ensure death. Pithing is carried out by inserting a metal or plastic rod through a hole made with a captive
bolt pistol in the horse’s head. The rod is pushed down through the foramen magnum and into the spinal
cord. Pithing can also involve severing the spinal cord between the atlas and axis (the first and second
bones of the neck). The pithing process can stimulate violent involuntary movements of the horse’s legs and
head.

Pithing is not permitted at a registered livestock processing establishment. Any horse dispatched in this
manner must not be used for human consumption.