

LAND TRANSPORT OF HORSES – March 2021

Submission to Task Group from the Australian veterinary Association March 2021

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The Australian Veterinary Association (AVA)

The Australian Veterinary Association (AVA) is the national organisation representing veterinarians in Australia. The AVA consists of over 9000 members who come from all fields within the veterinary profession. Clinical practitioners work with companion animals, horses, farm animals, such as cattle and sheep, and wildlife. Government veterinarians work with our animal health, public health and quarantine systems while other members work in industry for pharmaceutical and other commercial enterprises. We have members who work in research and teaching in a range of scientific disciplines. Veterinary students are also members of the Association.

Contact:

Jeffrey Wilkinson National Manager AVA Special Interest Groups Australian Veterinary Association E: Jeffrey.wilkinson@ava.com.au T: 0418 638 231

Laurie Dowling Executive officer Queensland Division Australian Veterinary Association E: <u>laurie.dowling@ava.com.au</u> T: 0407 573 390



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Submission to the Queensland Department of Agriculture and Fisheries (QDAF) Task Group from the Australian Veterinary Association

Summary:

The Australian Veterinary Association (AVA) thanks the QDAF Task Group for the opportunity to comment and provide input into the review of *The Australian Animal Welfare Standards and Guidelines - Land Transport of Livestock - Horses*, last published in 2012. Under the current Queensland Animal Care and Protection Act Regulation 2012.horses are covered under section 33 of Schedule 3 but only as a subsection of the Code of practice for transport of livestock. These standards were developed over many years by a broad stakeholder group including government and the AVA and represented minimum standards, not optimal standards.

The AVA strongly supports the review of the current National Standards and Guidelines which was one of a number of key recommendations detailed in *The Independent Inquiry Into Cruelty In The Management of Retired Racehorses* (*The Martin Inquiry*). The AVA advocates for a new set of National Standards and Guidelines to reflect contemporary best practice for transport of horses on both land and sea, and new compulsory Codes of Practice being developed in all Australian States.

Transport of horses by sea in Australia occurs across Bass Strait where horses are confined inside transport vehicles and loaded into a ship's cargo hold. It is absolutely critical that adequate mechanical ventilation with fresh air and regular monitoring of horse welfare and temperature conditions occurs in these situations. The outcome of Court proceedings examining charges related to the death of 16 horses which occurred in 2018 is still ongoing. Specific new standards for sea transport may need to be developed for this type of transport pending the findings and outcome of proceedings.

Recognised health and welfare issues related to the transport of horses:

Experienced Australian equine veterinarians have identified a number of significant risk factors and conditions which influence the health and welfare of horses during transport and this is supported by a review of relevant current literature. Factors include:-

- Physiological stress and social anxieties due to close confinement in unfamiliar surroundings and in unfamiliar social groups, excessive noises, unfamiliar smells.
- The value of the horse being transported higher value horses are likely to be transported more carefully with greater attention being given to their health and welfare than low value horses. The Martin Inquiry examined poor welfare outcomes of horses being transported long distances from southern Australian states to an export abattoir in Queensland for slaughter, and charges were laid and prosecuted against some operators.



- Injuries lacerations, fractures, abrasions, contusions
- Muscular problems tying up, muscle, soreness, muscle stiffness
- Heat stress and heat stroke raised core body temperature, elevated rectal temperature >38.5°C, sweating, dehydration, lethargy
- Gastrointestinal problems oesophageal obstruction, gastric ulceration, colonic faecal compaction, diarrhoea, colic, enterocolitis. Horses should not be transported if they are suffering from infectious gastro-intestinal diseases prior to transport.
- Respiratory problems Nasal discharge, coughing, inflammation, and infection of the upper and/or lower respiratory tract, pleuro-pneumonia. Horses should not be transported if they are suffering from respiratory infectious diseases prior to transport.
- Death Horses found dead or humanely euthanased as a result of transport

Research shows that there are four aspects of animal transport which have increasing impact on welfare as transport duration increases (Nielsen *et al*, 2011) ¹. These relate to:

- The physiological and clinical state of the animal before transport and during transport
- Feeding and watering
- Rest
- Thermal environment

Lester *et al* (2013) ² found that horses subjected to water deprivation in a controlled non-transport environment showed significant decrease in body weight after 24 hours (6.3%), as well as significant reduction in faecal water content and electrolyte imbalances. This is a risk factor for large intestinal impactions (colic), as well as electrolyte abnormalities and metabolic disturbances.

In a study examining the effects of long-haul transport of horses in Australia (Padalino et al 2015)³ found that the most common issues were respiratory problems (27%); gastrointestinal problems (27%); pyrexia (19%); traumatic injuries (15%); and death (12%). Journey duration had a significant effect on the distribution of transport related issues with a marked increase of the proportion of the most severe problems (i.e., gastrointestinal; respiratory problems and death) occurring after 20 h in transit.

In another study of transport-related health problems and journey duration published in 2016⁴, Padalino et al found that there is a relation between the occurrence of these problems with the likelihood of developing more severe illness - respiratory &/or gastrointestinal problems, or death or euthanasia - being higher on journeys of longer than 24 hours than on journeys of less than 8 hours. This strongly suggests the need to decrease the maximum journey time in Australia.

The current 24-hour maximum time off water is a key issue to be addressed in the current Standards and Guidelines. Neilson *et al*, 2011 in their review of the literature said that transport of healthy horses in warm weather for more than 24 hours without access to water led to severe dehydration. There are indications that it can take a while before horses start to drink during watering breaks, that they may drink very little, and that they may refuse to drink from sources that are novel to them.

These results and other scientific studies have clearly shown that there are welfare issues as a consequence of depriving horses of water for 24 hours, Dr Paladino's conclusion⁵ is that 12 hours



without food and water is too long and recommends offering food and water at least every 4 hours of have drinking systems in vehicles. Many horses will drink better off the transport and associated with some exercise, so true consideration needs to be taken by the transporter whether to unload at 4 hours and whether it may be possible to carry water from a source already familiar to the horse's taste.

Detailed AVA Response and Recommendations:

- 1. Water, feed, and rest during transport
- 2. Record keeping and monitoring
- 3. Prevention of heat stress
- 4. Fit for the intended journey
- 5. Transport of mares and foals
- 6. Mix of animals transported together
- 7. Space allowance requirements
- 8. Flooring and bedding in transport vehicle

1. Water, feed, and rest during transport

Recommendations:

That the following standards for rest and water include:

- Before transport commences horse should be allowed free access to clean water and feed e.g. good quality hay, for a minimum of 6 hours. Some transport vehicles are already equipped to provide individual and safe horse access to continuous water and feed during the journey and this should be encouraged.
- After 4 hours of transport (actual moving travel time) –. a stop for 30 minutes for the provision of clean water and good quality feed e.g. hay. This can be without unloading
- After 8 hours of transport (actual moving travel time) horses must be unloaded and offered suitable good quality feed and clean water for a minimum of 4 hours in an area of suitable space that allows them to rest and lie down safely.
- After 12 hours of transport (actual moving travel time) horses must be unloaded and offered good quality feed and clean water for a minimum of 6 hours in an area of suitable space that allows them to rest and lie down safely.
- After 16 hours of transport (actual moving travel time) a stop for 30 minutes for the provision of clean water and good quality feed e.g. hay. This can be without unloading.
- After 20 hours of transport (actual moving travel time) horses must be unloaded and offered good quality feed and clean water for a minimum of 4 hours in an area of suitable space that allows them to rest and lie down safely.
- After 24 hours of transport (actual moving travel time) horses must be unloaded and offered good quality feed and clean water for a minimum of 24 hours in an area of suitable space that allows them to rest and lie down safely.
- If final destinations to properties are within close proximity after moving travel time journeys of 4, 8,12,16, 20 or 24 hours of travelling time i.e. less than 1 hour, then travel can continue to reach that final destination.
- The maximum journey time is 24 hours of transport (moving travel time).

2. Record keeping and monitoring

Details should be recorded of the start and end times of transport, the times of last access to feed and water as well the following additional information: Horses need to be individually identified with name (if appropriate), breed, age, sex, microchip number, brands and any signs of illness and injuries recorded. The design of a specific form may or may not be necessary, however the record needs to be permanent and to be easily accessible, kept for at least 2 years for any investigation purposes should an adverse event occur, and all the parameters recorded as a standard. Current forms for movement of livestock such as a livestock waybill/national vendor declaration could be utilised to incorporate and record this data.

The AVA strongly recommends the use of cameras to monitor horses in transport floats and proposes that they should be mandatory for commercial horse transport operations. Dr Padalino also proposes the use of monitoring systems and in an Australian survey found many transporters do not have cameras and only check horses at petrol station stops, with many reporting to have found horses with significant injuries (fractures) or dead and have no idea of what had occurred.

It is also very important to have competently trained drivers and transporters who can recognise distressed, diseased, or injured horses in distress and on how to drive vehicles transporting live animals.

Recommendations:

- That specific criteria be established for record keeping to incorporate the above as standards.
- Camera monitoring should be mandatory for commercial operators.

3. Prevention of Heat Stress

The AVA agrees that a roof should provide shelter from heat and rain during transport but it does not have to be a permanent structure.

The proposal to have 27 degrees C as a guideline for assembling horses prior to travel is not supported per se as it does not take into account humidity nor the practical realities of northern Australia. The European Commission guidelines⁶ provide the following matrix table of temperature and relative humidity specifically designed for European climatic conditions and not specifically Australia. However, this table is applicable generally for relative levels of risk.

Dry Bulb Temp (°C)	Relative humidity (%)					
	50	60	70	80	90	100
25,6	22,2	23,3	23,9	23,9	25	25,6
26,7	23,3	23,9	25	25,6	26,1	26,7
27,8	23,9	24,4	25,6	26,1	27,2	27,8
28,9	25	25,6	26,7	27,2	28,3	28,9
30	25,6	26,7	27,2	28,3	28,9	30
31,1	26,7	27,2	27,8	29,4	30,6	31,1
32,2	27,2	28,3	28,3	30,6	31,1	32,2
33,3	28,3	28,9	30	31,1	32,2	
34,4	28,9	30	31,1	32,2		
35,6	30	31,1	32,2			
36,7	30,6	31,7				
37.8	31,1	32,8				

The AVA recommends wet bulb globe temperature (WBGT) as the best measure for the potential for heat stress in horses and includes temperature, humidity, wind speed, sun angle and cloud cover.



Typically, no changes are recommended for WBGT reading less than 28, some precautions at 28-30, additional precautions at 30-32, 32-33 is hazardous and over 33 cancellation of all competitions are recommended.

Cross ventilation via opened windows, overhead 'whirlies', and air flaps usually give excellent ventilation when transports are moving but adequate airflow and ventilation needs to mechanically powered when vehicles are stationery e.g. during stops in hot weather or in a transport vehicle in a cargo hold of a ship. Standards of adequate mechanical ventilation therefore need to be defined.

Recommendations:

- Wet bulb globe temperature should be the standard to assess risk of heat stress and heat stroke.
- Transport operators should monitor WBGT and if the reading exceeds 32 then transport should be delayed unless it is able to be ameliorated by active ventilation.
- Active ventilation needs to be defined.

4. Fit for the intended journey

A horse that is to be transported in connection with an economic activity must be healthy and in good physical condition and must not be transported unless it is unfit for the intended journey unless under veterinary supervision. A horse is not considered fit for transport if it is:

- ill
- injured
- infirm
- fatigued
- unable to move without pain or assistance
- prolapsed
- a newborn foal with unhealed navel
- a mare that has given birth during the previous week
- a mare that is in the last month of its gestation period, unless it is transported directly to the nearest available place for veterinary treatment or diagnosis (see below).

Horses should not be transported if they are suffering from any signs of infectious respiratory disease e.g. equine herpes virus, strangles, or gastro-intestinal disease prior to transport When animals fall ill during transport they must be separated from other animals and receive treatment as soon as possible.

Veterinary authorisation to travel is required for a body condition score of 0 or 1. Transport of horses in this level of condition should only be considered for short duration e.g. 4 hours maximum to a place of care and rehabilitation. Longer transport should be an absolute last resort with euthanasia being a better option on the property of origin should adequate nutritional support not be available on the property of origin.

Recommendation:

- A minimum body condition score of 2 is recommended as a standard before transport.
- Veterinary authorisation is required for transport of as horse of body score 1 or less and then only if travelling to a place of care or as a last resort.

5. Transport of mares and foals

It is not common practice to transport newborn foals however carefully managed transport may be required in a number of circumstances.

Recommendations:



- Mares that are within 4 weeks of foaling should not be transported. The only exception should be if the journey is of short duration (less than 100km) and is absolutely necessary to improve the health and welfare conditions of the unborn foal and mare, and only if permanently accompanied throughout the journey by a dedicated attendant.
- Foals less than one month old with unhealed umbilical cords should not be transported except under veterinary supervision and advice
- Foals less than 3 months of age should not be transported even with the mare, unless under veterinary guidance.
- Mares with foals between 3 6 months of age should not be mixed and transported together unless in partitioned horse floats with frequent camera monitoring, and where the foal is in close proximity to the mare and cannot be trampled or kicked by the mare.
- Foals less than 6 months of age should not be transported together with or without mares.

6. Mix of animals transported together

Transport of horses when mixed together can be especially stressful for physically weaker animals, or animals of different sizes, breeds, or of significantly different ages and different sexes. If horses have not been regularly handled before transport then attempts should be made to handle then before transport by leading them with a head collar and lead. This includes foals more than 3 months of age. Generally unhandled/unbroken horses (e.g. feral horses) should not be mixed with handled horses. Animals which have been living in a herd situation previously may have developed a sense of affinity and acknowledged hierarchy with herd mates enabling their possible mixing on a transport vehicle, although aggressive and dominant animals within the herd can inflict significant injury especially in confined spaces.

Recommendations:

English guidelines⁷ specify that horses must be handled and transported separately in the following cases and these should be adopted as standards:

- Horses and ponies of significant different sizes
- Horses that are hostile towards each other
- Sexually mature males from females
- Adult breeding stallions from each other
- Stallions should not be transported in close proximity with a mare in season and should be separated as far as possible and not within sight or smell of the mare.
- Unhandled and handled horses should not be transported mixed in the same load.

7. Space allowance requirements

The Consultation Paper, February 2021 maintains the propositions that "A horse that is comfortable can be transported over a longer period without excessive stress", and "New proposed standards for space allowance are therefore based on journey length".

Due to their flight /fright nature most horses during transport will only lie down as a very last resort, with potential for bad welfare outcomes due to injury. The fact that they may be supplied with an area to lie down does not necessarily address the welfare concerns of horses on long trips especially if numbers of horses are mixed together in a single area in a (cattle) truck.

AVA/EVA therefore maintains that space per se is not the defining character for good health and welfare outcomes for long journeys. Optimal width spaces, head and neck clearances are required in conjunction with the new length of journey standards as advocated for under Section 1 (above) of AVA/EVA's response are critical. These journey lengths and rest stops as defined in Section 1 of our response differ significantly from **Table 1** *"Space allowance proposals for the new standards" in The*



Consultation Paper, February 2021 document which describes journey lengths of 8-24 hours where horses are not unloaded, and even from 24-36 hours.

Under exceptional circumstances a space to lie down may be appropriate for transporting very low body condition score horses, very sick horses, or very unsound horses but this should only occur under Veterinary supervision, horse welfare professionals or government appointed inspectors.

Proposed space allowances for "A foal with its mother" and a "Mare in the last 4 weeks of pregnancy or that has given birth within the last 7 days" in the *Consultation Paper, February2021* are addressed under Section 5 (above) of AVA/EVA's response. When foals are transported on long journeys with their mothers they should be allowed access to suckle but prevented from being accidently trampled or kicked by a partition immediately alongside the mare.

With respect to minimum floor space dimensions for horses 6 months of age and older, a more important consideration is the width and length compared to the size and balancing ability of the horse. For instance some may need 730mm whilst others need wider e.g. 890mm. With respect to the proposal to increase the floor space allowance from $1.9m^2$ to $2.4m^2$ by allowing an extra $0.5m^2$ for journeys from 24-36 hours, or when horses are not unloaded for journeys 8-24 hours, this is unsatisfactory for the reasons mentioned earlier.

It is also important for horses to be allowed the ability to lower the head and neck during long transport to allow mucous clearance from the airways, and for the overall length to allow males and females to stretch out to urinate and defaecate. Head restraints should consist of a head collar with a loose lead tie which allows for full movement so it is therefore not usually advisable to cross tie head collars.

The proposed head height allowance of 1.5 times the height of the tallest horse's withers appears problematical and impractical because for a tall thoroughbred of 17hh the internal floor to ceiling height of the vehicle would be ~2.6m. The external height of the vehicle may therefore be too high to clear low bridges etc. Therefore the current internal height of 2.25m appears adequate provided that the ceiling is padded.

Recommendations:

The Task Group's proposed space allowance proposals for the new standards 1.9m², 2.4m² and 1.4m² as outlined in Table 1 of *The Consultation Paper, February 2021* be modified to reflect the relevant journey type and criterion recommendations of the AVA/EVA in Section 1 and Section 5 of this report.

8 Flooring and bedding in transport vehicle

The floor of the transport vehicle should be secure, non-slip, easily drainable and able to be cleaned, disinfected, and dried. The English guidelines⁷ are a good example of what should be done and advise the following:

- **level of cleansing and disinfection**. All cleansing and disinfection must be carried out so as to reduce the transmission of disease
- **method of cleansing**. Cleansing must be by removing any feeding stuff to which the animals have had access, bedding, excreta and other material of animal origin, mud and other contaminants using appropriate means, and then cleaning with water, steam or (when appropriate) chemicals, until free of dirt
- **disinfection after cleansing**. After cleansing has been completed, anything to be disinfected must be disinfected using an <u>approved disinfectant</u>



Recommendations:

- Cleaning and disinfection of the floor, and replacement of an absorbent material layer should be performed between different horse consignments and at least every 8 hours during a long transportation.
- The absorbent material on the floor should be a layer of dust free good quality pine sawdust, straw, or other suitable dust free absorbent material of sufficient thickness to soak up urine and body excretions during the period of the transport.

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