



Assessing sheep and cattle for dehydration for transport or sale

Current as of March 2023.

This factsheet assists a person responsible for sheep and cattle in meeting their animal welfare obligations when assessing whether animals are dehydrated and evaluating whether they are fit for transport or for sale at a saleyard.

Why is hydration status important in relation to transportation and selling at saleyards?

Water is essential for animals to regulate and maintain body temperature, fluid balance, electrolyte concentrations and normal body function. Animals drink primarily to replace lost fluid, rather than in anticipation of future needs.

Dehydration can occur because of water deprivation or through managing heat load by sweating and panting or evaporative cooling. Dehydration can be a life-threatening problem for both young and adult animals and must be corrected quickly. It can limit an animal's capacity to manage heat load and can predispose the animal to heat stress.

Water deprivation may start at mustering, if adequate water is not provided prior to loading (farm, depot or saleyard) animals will not rehydrate prior to being transported.

Dehydration can occur no matter where cattle or sheep commence and end their journey and regardless of season or daily temperature. Longer stock movement distances and higher air temperatures can cause faster onset of visual signs of dehydration. Planning for adequate rehydration is required for long distance transport of livestock, such as the vast distances from north pastoral cattle station to saleyards, export depots and abattoirs in the south.

Animals entering a saleyard suffer some level of water deprivation. Ensuring all animals have unlimited access to clean, cool water is essential. Penning density must be sufficiently low to allow each animal to drink and allowances made for ensuring that non-dominant or submissive animals have sufficient access. When the air temperature rises above 25°C animals increase their water consumption due to sweating, panting and evaporative cooling. Therefore, increased water intake becomes crucial to prevent dehydration.

Prior to offering an animal for sale at a saleyard the animal must be inspected for a range of conditions including being visibly dehydrated. If an animal is visibly dehydrated it cannot be offered for sale or be transported from the saleyard under the Animal Welfare (Transport Saleyards and Depots) (Cattle and Sheep) Regulations 2020 (Transport Regulations).

What is meant by 'visibly dehydrated'?

Any animal showing visible clinical signs of dehydration is visibly dehydrated and unfit to load, transport or sell at a saleyard without rehydration.

Assessing cattle and sheep for dehydration

Assessing the degree of dehydration in livestock can be done by examining the mucous membranes, skin tenting, and eyeball position. Table 1 provides a summary of signs of dehydration and fitness to be transported or sold through these examinations.

Table 1 – Summary of clinical signs of dehydration and fitness to be transported or sold

Dehydration %	Eyeball position – mm gap from eyeball to skin	Skin tent – time skin remains tented (seconds)	Mucous membranes (moistness level)	Capillary refill time (CRT)	Fit to be transported or sold at a saleyard
Normal	0mm gap eyes sit normally	<1	Moist	<2 seconds	YES
1-5%	0mm gap eyes sit normally	1-4	Moist	<2 seconds	YES
6-8%	1-3mm gap Slightly sunken eyes	5-10	Tacky	>2 seconds	NO
9-10%	<5mm gap Small gap between the eyeball and the surrounding tissue Moderately sunken eyes	11-15	Tacky to dry	>3 seconds	NO
11-12%	>8mm gap Large gap between the eyeball and the surrounding tissue Very sunken eyes	16-45	Dry	<3 seconds	NO

Mucous membranes – moisture/dryness

The moisture level of the mucous membranes (gums and nose) can indicate the first sign of significant dehydration in an animal. If the mucous membrane is dry or tacky when lightly touched with a finger the animal is visibly dehydrated and cannot be transported or sold at a saleyard.

Mucous membranes – capillary refill time (CRT)

CRT is an estimate of the animal's circulation at the surface of the peripheral blood vessels in the mucus membranes and skin. It is assessed by briefly pressing firmly on the gums with a fingertip to produce a 'blanched' white spot and counting the time it takes for the original colour to return. The original colour will return to the gums within 2 seconds if the animal is hydrated. If the original colour takes more than 2 seconds to return, the animal is visibly dehydrated and cannot be transported or sold at a saleyard.

Skin tent test (Skin turgor test)

The skin tent test is a simple method to assess dehydration level. Loose skin over the point of the shoulder is firmly and briefly pinched with the fingers and pulled up, away from the animal's body, to form a tent. The skin is then allowed to retract to its original position. The skin will return to its original position in about one second or less if the animal is hydrated. If the skin stays tented for more than 4 seconds the animal is visibly dehydrated and cannot be transported or sold at a saleyard.

Eyes sunken level test

The distance from the eyelid to the eyeball can be estimated in millimetres and used to estimate percentage dehydration. There should be **no space** between an animal's eyeball and surrounding tissue. When dehydrated, eyes will recede into an animal's eye socket.

Visibly dehydrated sheep or cattle must not be transported or sold at saleyard

Under the Transport Regulations you must not supply for transport, load on a transport vehicle or offer for sale at saleyard sheep or cattle that are visibly dehydrated.

Livestock must be fit for the journey

Under the Transport Regulations, it is an offence for all persons involved in the process to consign or load sheep or cattle for transport, that are unfit to undertake the journey, whether from the property of origin, saleyard or other place.

Sheep and cattle that have been assessed as not fit for transport cannot be sold at a saleyard. If an animal is considered borderline for its fitness to undertake the journey, consider whether the animal's condition will deteriorate during the journey and/or at the saleyard rendering them unfit for sale or further transportation. Animals will be assessed at a saleyard before sale and again before consigning and loading on the transport vehicle for the outward journey.

Exemption

An animal that is unfit to undertake a journey may be loaded and transported only under the following conditions:

- The consignor and transporter have advice from a veterinarian that the animal can undertake the intended journey.
- The transporter ensures that the animal is loaded and transported in accordance with the veterinarian's advice.
- The transporter ensures the animal is transported the shortest distance necessary either to another property or abattoir.

A copy of this advice should accompany the animal to the final destination.

It is strongly recommended the advice is provided in writing. It is up to the consignor and/or the transporter to prove the veterinarian advised the animal could undertake the journey and was loaded and transported in accordance with the advice of the veterinarian.

Animals transported under veterinary advice must not be sent to a saleyard as they cannot be offered for sale or sold.

Appropriate arrangements for livestock that are not fit for transport or sale

Appropriate arrangements must be made for livestock that are not fit for transport or sale at the first reasonable opportunity. Appropriate arrangements mean one or more of the following, depending on the condition of the animal:

- separating the animal from any other animal and resting it until it has recovered
- treating the animal as appropriate to its condition, including seeking veterinary advice
- destroying the animal using a method of humane destruction.

At the first reasonable opportunity

At the first reasonable opportunity means appropriate arrangements for the animal are undertaken without delay except where a reasonable delay is caused by a significant reason relating to resources, skills, safety or the immediate welfare of other livestock.

More information

- *Animal Welfare Act 2002*
- Animal Welfare (Transport, Saleyards and Depots) (Cattle and Sheep) Regulations 2020
- Australian Animal Welfare Standards and Guidelines: Land Transport of Livestock; Livestock at Saleyards and Depots
- The following Animal Welfare Factsheets:
 - Managing heat load and heat stress at saleyards and depots
 - Humane destruction of sheep and cattle
 - Penning Density for Cattle and Sheep in Saleyards
 - Animal Welfare Responsibilities – Consignors and Transporters
 - Animal Welfare Responsibilities – Saleyards
- [agric.wa.gov.au/animalwelfare](https://www.agric.wa.gov.au/animalwelfare)



For more information and to view the suite of animal welfare factsheets, scan the QR code, or visit: <https://www.agric.wa.gov.au/animalwelfare/resources-and-publications>.

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