

# Mortality Investigation Report 58 Cattle exported by sea to Thailand in February 2015

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## Summary

On 28 February 2015, Australian Rural Exports Pty Ltd (Austrex) exported a consignment of cattle from Darwin to Thailand. There were 33 mortalities in this consignment of 924 cattle, a mortality rate of 3.57 per cent. This exceeds the reportable mortality level of 1.0 per cent for cattle on voyages of ten days or longer as prescribed by the *Australian Standards for the Export of Livestock (ASEL)*.

From the information available a definitive cause of the mortalities could not be determined.

## Information reviewed

The department investigated the mortalities by reviewing the following information:

- report from the exporter
- end of voyage report and daily voyage reports
- documents from the Australian Government Accredited Veterinarian (AAV) who prepared the consignment
- report from the Master of the vessel
- documents from the regional department veterinary officer (DVO)
- records from the registered premises
- the department's records from previous and subsequent voyages.

## Background

On 28 February 2015, Austrex exported two consignments of cattle from Darwin, on the same vessel, a consignment of 2956 cattle to Indonesia and a consignment of 924 cattle to Thailand. In the consignment to Thailand, 33 mortalities were reported, a mortality rate of 3.57 per cent. In the consignment to Indonesia, one mortality was reported. This report only considers the consignment to Thailand, because it exceeds the relevant reportable mortality level of 1.0 per cent.

Austrex is an experienced exporter of feeder and slaughter cattle to South East Asian markets. In the 12 months before this incident Austrex exported a total of 165,755 cattle in 55 consignments by sea to Indonesia, Malaysia, Philippines and Vietnam. There were a total of 119 mortalities reported, a mortality rate of 0.07 per cent.

Prior to this incident, Austrex's previous reportable mortality was in October 2014 in a consignment of feeder cattle from Darwin to the Philippines. Mortalities were attributed to bovine respiratory disease (BRD). Report (Report 54) contains more information and is available on the department's website.

The export of feeder and slaughter cattle to Thailand commenced in 2015. Two previous consignments of feeder/slaughter cattle were exported to Thailand, with a total of 2795 cattle exported and one mortality recorded. This was Austrex's first consignment to Thailand.

## Investigation Findings

## **The Livestock**

Cattle in the consignment were Brahman and Brahman cross slaughter bulls (261), feeder heifers (202), feeder steers (179) and slaughter steers (282) sourced from five properties in Queensland and the Northern Territory which complied with Thailand's import requirements.

## **Preparation in the registered premise**

The majority of cattle were assembled at two registered premises in Darwin between 16 February and 18 February 2015. During assembly, six mortalities were reported in the registered premises holding the bulls and no mortalities were reported in the other registered premises. The exporter reported that two of the mortalities were caused by bovine respiratory disease (BRD), two were caused by three day sickness (bovine ephemeral fever) and two cattle were euthanased as they were severely lame and not fit to transport. There were no other mortalities or health issues reported in either registered premises during this period.

The minimum time required in pre-export isolation was two clear days. However, due to delays with the vessel cattle were held in pre-export isolation for between 9 and 11 days. During this period Darwin experienced monsoonal wet weather making the yards wet.

The DVO initially inspected the cattle at the registered premises on 20 February 2015 and raised concerns about wet conditions and lameness in the bulls. The DVO directed the cattle be moved to a pen with a better surface (less rocky and muddy).

The cattle were inspected again at the registered premises by the DVO and AAV on 25 February 2015 and lameness was again identified. The DVO, AAV and exporter agreed to remove all lame animals at loading to avoid increased stress caused by double handling. Permission to leave for loading was issued by the DVO on 27 February 2015. The registered premises records confirm 27 bulls were rejected for lameness during the final inspection at loading.

## **Loading onto the vessel**

Loading of the vessel was completed on 28 February 2015. A DVO was present at various times during the loading. During loading there was one mortality and no underlying cause was identified.

The vessel has five decks, with deck one being the lowest and deck five being the highest. All decks were utilised on this voyage. The cattle for Thailand were loaded on decks one and five. Decks two, three, four and some of deck five were used for the Indonesia consignment.

Fodder and bedding were loaded above ASEL requirements.

## **Conditions during the journey**

An AAV is not required to be on board as a standard requirement for feeder and slaughter cattle to Thailand or Indonesia. Instead a LiveCorp Accredited stockperson is responsible for reporting to the department and works with the master of the vessel and the crew to maintain the health and welfare of the livestock on board.

During the voyage the wet bulb temperatures on all decks ranged between 25°C and 29°C and the relative humidity ranged between 76% and 79%. There were no reports of rough seas during the voyage. Mortalities began on the first day and continued to occur during the voyage.

The stockperson's daily voyage reports noted the bulls on deck one were not doing well from day one. Many animals were reported as lying down and did not get up (a specific count of the downer animals was not provided in the daily voyage reports). Feed and water consumption in this group was reported as less than expected.

Table 1 On-board environmental conditions (source: exporter information)

Day	Temperature		Humidity
	Dry (°C)	Wet (°C)	
1	29-31	26-28	79-80%
2	30-33	27-29	76-79%
3	30-32	27-29	78-79%
4	30-33	27-29	76-79%
5	30-32	27-29	78-79%
6	30-32	27-29	78-79%
7	30-32	27-29	78-79%
8	30-32	27-29	78-79%
9	30-32	27-29	78-79%
10	30-32	27-29	78-79%
11	28-30	25-27	77-78%
12			Unloading

### Mortalities and treatments during the voyage

Twenty three animals died or were euthanased during the voyage, a further ten downer animals were euthanased at discharge due to inability to unload. Table 2 shows the daily treatments and mortality percentages as reported in the daily voyage reports. Austrex advised the accredited stockperson on board reported their concerns about the health of the bulls in this consignment on Day 2 of the voyage. Their concerns related to many downer animals and reduced feed and water intake among the bulls.

Table 2 – mortalities and treatments by day

Day	Daily Mortalities	Cumulative Mortality	Cumulative Mortality %	Comment/treatment
1	3	3	0.32	Added extra water troughs to pens
2	2	5	0.54	One downer steer on deck two treated with anti-inflammatory and antibiotic medication Added chaff to ration for bulls and moved some animals up to deck 2 to make more room for the bulls
3	1	6	0.65	One steer on deck two treated with anti-inflammatory and antibiotic for swollen front leg Added more sawdust to pens and continued with chaff
4	1	7	0.78	One steer on deck two treated with anti-inflammatory and antibiotic for swollen front leg One steer on deck four treated with anti-inflammatory and antibiotic for swollen back leg
5	1	8	0.87	
6	2	10	1.08	

Table 2 – mortalities and treatments by day

Day	Daily Mortalities	Cumulative Mortality	Cumulative Mortality %	Comment/treatment
7	3	13	1.40	
8	1	14	1.51	
9	2	16	1.73	Some bulls moved to deck 4 to give more space after discharge of Indonesian consignment
10	2	18	1.95	
11	4	22	2.38	Three bulls euthanased
12	1	23	2.49	
discharge	10	33	3.57	Ten bulls euthanased in port due to inability to unload

The daily voyage reports submitted by the stockperson reported they treated the affected bulls by making extra space available, providing additional sawdust to make the pens more comfortable, adding chaff to the feed to improve appetite and providing extra water troughs to make access to water easier. Other information including the end of voyage report and communication with the exporter indicate the stockperson also treated the downer bulls with an antibiotic and anti-inflammatory. Austrex advised the pre-export veterinarian was consulted several times during the voyage and provided advice on treatment of the affected cattle. The stockperson noted the affected bulls did not appear to show signs of BRD during the voyage. Specifically the cattle had clear bright eyes and no nasal discharge or excessive panting.

### **Mortality by class**

The consignment comprised 261 slaughter bulls, 202 feeder heifers, 179 feeder steers, and 282 slaughter steers. All mortalities were in the bulls with a mortality rate of 12.6 per cent (33 out of 261). All bulls were from the same property of origin (which only supplied bulls for this consignment) and prepared in the same registered premise. The weight of bulls ranged between 392 to 429 kg.

### **Mortality by deck**

All mortalities were on deck one, where the bulls were loaded.

The department's records indicate there have been no previous reportable mortality incidents on this vessel.

### **[Australian Maritime and Safety Authority Evaluation of the Vessel](#)**

The Australian Maritime Safety Authority (AMSA) did not conduct an investigation because the voyage mortality level of the combined consignments was 0.88 per cent (34 mortalities out of 3880 loaded), which is less than the ASEL reportable mortality level of 1.0 per cent.

### **Conclusions**

All cattle mortalities came from the same property of origin and were prepared at a single registered premises. The DVO and the exporter removed 27 animals during loading due to obvious lameness.

The department could not determine a definitive cause of the mortalities. The extended period in the registered premises combined with the wet conditions contributed to the increased levels of lameness resulting in a number of animals rejected. The bulls also had poor feed intake on board the vessel. This may be attributed to poor transitioning to pelleted feed while in the registered premises. Thirteen of the 33 mortalities were euthanased due to being downer animals.

Post mortems completed by the stockperson on board showed no obvious abnormalities and no additional laboratory testing was completed.

### **[Actions for subsequent voyages](#)**

In response to this incident Austrex prepared a high risk cattle management plan. The management plan includes:

- a more stringent selection process
- when possible, delaying deliveries of cattle to the registered premises, so they are not held for an extended period and
- continuing with BRD vaccination.

Further actions suggested in response to the previous mortality event in October 2014 (Report 54) were also included in the high risk cattle management plan.

As of 31 December 2016 Austrex has not sent any further consignments to Thailand. Between this incident and 31 December 2016 Austrex exported 319,066 feeder and slaughter cattle to South-East Asia by sea with 143 mortalities reported, a mortality rate of 0.04 per cent. Between the completion of this voyage and 31 December 2016 the vessel shipping this consignment has completed 18 voyages carrying a total of 59,183 cattle with 30 mortalities reported. Mortality rates on these voyages ranged from nil (six voyages) to 0.28 per cent.

The department will continue to monitor mortality reports from all exporters.

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**Last reviewed:**

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