



Investigation into the reportable cattle mortality level on the voyage from Fremantle to Eilat, December 2006

1. Purpose

To report on the investigation into the cause of the mortalities in the cattle, and to make recommendations with the objective of reducing the likelihood of a recurrence.

2. Summary

The cause of the high number of mortalities was investigated.

The main contributing cause for the mortalities was an outbreak of acute pneumonia.

Forty three cattle died of 3491 cattle loaded which equates to 1.2% of the cattle consignment. The voyage was a long haul voyage and the reportable level for long haul voyage is 1%.

3. Background

The investigation into the mortality was carried out by reviewing the following information:

1. accredited veterinarian end of voyage report.
2. stockman end of voyage report.
3. report from the exporter.
4. records from the registered premises.
5. reviewing documentation presented to AQIS prior to obtaining permission to leave for loading.
6. report by the master of the vessel.
7. AMSA report

Action	Dates
NOI and CRMP submitted	29 November 2006
NOI and CRMP approved	5 December 2006
3491 cattle loaded in Fremantle	12 December 2006
Completed discharge Eilat – Israeli port	30 December 2006

4. Findings

4.1 Deaths in Registered Premises

The records from the feedlot do not indicate any deaths or health issues were present.

4.2 Loading

Twenty five cattle were rejected at the final inspection by the AQIS accredited veterinarian. The records indicated that seven cattle were rejected because of nasal discharge and some pink eye was present.

The feed rate was calculated at 2% per day but according to the ASEL, cattle under 250 kilograms must have access to 2.5% per day.

4.3 On board

The mortality rate per day rate was as follows

Date	Mortalities
18 December	1
19 December	1
23 December	3
24 December	2
26 December	2
27 December	5
28 December	7
29 December	11
During discharge	11

Historically the mortality rates for bulls to the Middle East have been as below:

Year	Class of cattle	Number of cattle exported	Mortality rate (%)
2004	Bull adult	29,599	0.54
2004	Bull calf	22,432	0.34
2005	Bull adult	44,039	0.36
2005	Bull calf	12,922	0.53

Based on post-mortem results, the AAV concluded that the cause of death was bronchopneumonia - 84 per cent of bulls that received a post mortem had signs of bronchopneumonia. The AAV did not perform a post mortem on the 11 animals which died on the last day because of proximity to land but the AAV had no reason to believe that the results of post mortems would not be similar.

The weights of cattle were determined by weighing at the registered premises or the port weighbridge. AQIS and the ASEL do not specify the curfew time or time of weighing the cattle to be used for determining the loading density in accordance with the ASEL.

5. AMSA evaluation of the vessel on return to Australia

The vessel was inspected on arrival and livestock were permitted to load.



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6. Conclusion

The cause of the reportable mortality event was an outbreak of pneumonia/shipping fever mainly on deck 4.

6. Recommendations

For AQIS

1. AQIS has written to the livestock export standards advisory committee chair to notify the committee of the cause of the reportable mortality and suggest that cattle to the Middle East are vaccinated before export against pasteurellosis/shipping fever.
2. Consider other permanent additional conditions for the export of bulls to the Middle East depending on results of ongoing voyages. The available evidence is that consignments which have had additional space and time in the registered premises have had good outcomes compared with the historical averages for bulls to the Middle East.

For the Exporter

1. Mandatory minimum period for cattle exported from southern ports to the Middle East of 3 clear days in the registered premises.
2. Additional 10 per cent space over and above the ASEL and heat stress risk assessment for the next consignment of feeder /slaughter bulls to the Middle East.
3. The exporter has a risk management plan for respiratory disease in their NOI and including additional antibiotics for the treatment of cattle with respiratory disease are loaded for cattle to Middle East.

For the livestock export industry

The livestock export industry should undertake an epidemiological investigation into the contributing factors for respiratory disease in cattle and sheep undertaking export voyages. The investigation should evaluate and recommend measures to prevent an onboard problem and to manage an outbreak of respiratory disease during export voyages.

Actions

Additional conditions were placed on the next consignment for cattle exported to Israel by the exporter.

1. the livestock were held in the registered premises for at least 3 clear days.
2. the livestock are given 10% extra space above the Australian Standards for the Export of Livestock requirements.
3. When the ship has been loaded to approximately 95% of the estimated capacity, loading ceases until the weight of the loaded cattle has been calculated, and the number of animals required to achieve the vessel's designated load capacity has been determined and that an AQIS representative has given approval for loading to continue.

Note: The voyage had an AQIS accredited veterinarian on board in accordance with normal policy for livestock exports to the Middle East.



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Results

The outcome of the voyage is included in the table below:

mortalities	Number loaded	Mortality rate
2	2830	0.07%