**Mortality Report 84 - Cattle exported by sea to Vietnam in August 2020**

[**Summary**](https://www.agriculture.gov.au/biosecurity-trade/export/controlled-goods/live-animals/livestock/regulatory-framework/compliance-investigations/investigations-mortalities/cattle-vietnam-report-84)

On 11 August 2020, Australian Cattle Enterprises Pty Ltd (ACE) exported 1,399 feeder/slaughter cattle and 423 feeder/slaughter buffalo to Vietnam. The journey was completed in 9 days and discharged in Vietnam between 18 and 20 August 2020. This voyage departed prior to the implementation of the *Australian Standards for the Export of Livestock 3.0* and was subject to the standards set out in the *Australian Standards for the Export of Livestock 2.3 (ASEL).*

A mortality rate of 0.57% (8 head) was reported for the cattle. The shipboard mortality rate for cattle exceeded the reportable level of 0.5% on voyages of less than 10 days as prescribed by ASEL. A mortality rate of 0.47% (2 head) was reported for buffalo, below the reportable level. Only the cattle are the subject of this report.

All cattle mortalities during the voyage were reported as being a result of bovine respiratory disease (BRD).

As a result of this incident, the Department of Agriculture, Water and the Environment required ACE to develop and implement an approved BRD management plan and an Australian Accredited Veterinarian accompanied its next consignment.

[**Information reviewed**](https://www.agriculture.gov.au/biosecurity-trade/export/controlled-goods/live-animals/livestock/regulatory-framework/compliance-investigations/investigations-mortalities/cattle-vietnam-report-84)

The department reviewed the event by assessing the following information:

1. reports from the exporter
2. daily reports and the end of voyage report from the accredited stockperson
3. property of origin details
4. load plans and ship space calculations from the exporter
5. reports from the Master of the vessel
6. documents and information from the regional department veterinary officer (RVO)
7. records from the registered premises (RP)
8. department records from previous and subsequent voyages
9. the exporter’s approved arrangement and approved management plans
10. report from the Australian Maritime Safety Authority (AMSA) regarding its investigation into the vessel
11. weather records from the Bureau of Meteorology

[**Background**](https://www.agriculture.gov.au/biosecurity-trade/export/controlled-goods/live-animals/livestock/regulatory-framework/compliance-investigations/investigations-mortalities/cattle-vietnam-report-84)

Prior to this voyage, ACE had exported 5 consignments of feeder/slaughter cattle to Vietnam with a total of 15,090 cattle. This is the first notifiable mortality incident for ACE.

[**Investigation Findings**](https://www.agriculture.gov.au/biosecurity-trade/export/controlled-goods/live-animals/livestock/regulatory-framework/compliance-investigations/investigations-mortalities/cattle-vietnam-report-84)

**The livestock**

The consignment consisted of 1,399 feeder/slaughter cattle averaging 409kgs for cows, 462kgs for steers and 498kgs for bulls. The cattle were sourced from 28 properties of origin with one located in Western Australia and the remaining 27 located in the Northern Territory.

**Preparation in the registered premises (RP)**

One RP was used for the cattle in this consignment. It is located in the Northern Territory and is routinely used to prepare livestock including cattle for export. Most cattle were delivered to the RP 3 to 13 days prior to loading, with a small number delivered 14 to 28 days prior. Of the consignment, 390 cattle had been held over from a prior consignment and had been held in yards for 5 to 6 weeks prior to loading.

The required time for cattle to be held in an RP for short haul voyages (voyages under 10 days) with a single port of discharge is 24 hours. The cattle in the consignment met the ASEL requirements of minimum length of time that livestock must remain in an RP.

During this period, the weather was mostly fine with a maximum temperature of 34°C recorded at nearby Batchelor (Bureau of Meteorology, 2020).

An Australian Accredited Veterinarian (AAV) and the RVO examined the cattle at the RP on 10 August 2020. A total of 9 cattle were rejected based on lameness and ill thrift. No signs of BRD were observed at the time of inspection.

One further steer was removed from the consignment and did not depart the RP due to lameness.

**The vessel**

The vessel involved in this incident is a purpose-built livestock carrier used to export livestock to a range of markets. There have been 4 notifiable mortality incidents on this vessel involving cattle exported to Israel in December 2006 (#10), Vietnam in March (#61) and May 2016 (#64) and March 2019 (#78).

**Loading onto the vessel**

Loading was completed in 8.5 hours. No issues were reported during loading.

**Conditions during the voyage**

An accredited stockperson accompanied the voyage and was responsible for reporting to the department. The stockperson works with the Master of the vessel and crew to manage the health and welfare of the livestock on board.

The Master reported generally good weather conditions throughout the voyage, with slight to moderate seas and swell. The temperature ranged from 29°C to 32°C and humidity fluctuated between 79% and 80%.

The stockperson reported the cattle were unsettled and aggressive on day one of the voyage. Several leaking pipes required repair to reduce floor saturation. The stockperson reported that most pipes were repaired by day 2 with sawdust spread on floors where required, repairs continued throughout the voyage. Feed and water consumption was low for the first 2 days and increased as the voyage progressed.

**Mortalities and treatments**

There were a total of 8 cattle mortalities in the consignment of 1,399, leading to a shipboard mortality rate of 0.57%. The first mortality was recorded on day 2 of the voyage. The remaining cattle mortalities occurred on days 3 and 4. The reportable level for mortalities (0.5%) was reached on day 4. All cattle mortalities were found dead in their pens.

Post-mortem examinations were carried out on all 8 mortalities. Based on the post-mortem examinations, the accredited stockperson attributed all cattle mortalities to BRD.

ACE provided photographs taken during the post-mortem examinations. The reports, photographs, and comments provided ACE and the accredited stockperson support the stockperson’s assessment that the mortalities were due to BRD.

On day 2 of the voyage, the stockperson reported 5 heavy bulls were showing signs of respiratory infection and began treatment with antibiotics (Draxxin - tulathromycin). Increasing numbers of cattle with suspected respiratory infections were observed during days 3 (8 head) and 4 (5 head) of the voyage. The stockperson contacted ACE on day 3 with concerns about the mortality rate. ACE advised they contacted their land based AAV to discuss the clinical signs and issues on board and the AAV advised the current treatment being administered (Draxxin – tulathromycin) was appropriate. ACE advised the stockperson to monitor cattle closely (3 to 4 times each day) and isolate affected animals in hospital pens. Communication between the stockperson, ACE and AAV then occurred daily until discharge. Treatment of cattle with signs of respiratory infection continued up to and including day 6 of the voyage. No cattle mortalities were reported after day 4.

ACE’s investigation indicated that of the 8 mortalities, 4 had been held over from a previous consignment for approximately 4 weeks prior to induction to the RP, 2 had been held in quarantine for longer than 14 days with the remaining 2 being in quarantine between 3 and 10 days. All mortalities were bulls, with the 4 that had been held over from the previous consignment all originating from a single property of origin.

[**Department’s Actions to date**](https://www.agriculture.gov.au/biosecurity-trade/export/controlled-goods/live-animals/livestock/regulatory-framework/compliance-investigations/investigations-mortalities/cattle-vietnam-report-84)

The department required ACE to develop and implement an approved BRD management plan for its next voyage and required an AAV to accompany the consignment. The approved BRD management plan requires:

* Vaccination against BRD for identified ‘high-risk’ animals.
* Increased inspections at the RP specifically focused on signs of BRD, with stricter rejection criteria when symptoms of BRD are observed;
* Additional veterinary medicines in excess of ASEL requirements to be carried on board the vessel.

[**Australian Maritime and Safety Authority Evaluation of the Vessel**](https://www.agriculture.gov.au/biosecurity-trade/export/controlled-goods/live-animals/livestock/regulatory-framework/compliance-investigations/investigations-mortalities/cattle-vietnam-report-84)

AMSA conducted an investigation into the high mortality rate on board for this voyage and concluded that all livestock services were operating satisfactorily during the voyage. There was no evidence to indicate the high mortalities were due to the vessel's non-compliance with [Marine Order 43 (MO43)](https://www.amsa.gov.au/vessels/standards-regulations/marine-orders/).

[**Conclusions**](https://www.agriculture.gov.au/biosecurity-trade/export/controlled-goods/live-animals/livestock/regulatory-framework/compliance-investigations/investigations-mortalities/cattle-vietnam-report-84)

After review and analysis of the reports from the on-board stockperson and exporter which detailed the clinical signs of the cattle on board, the department determined that on the balance of probabilities, the mortalities were not as a result of non-compliance with ASEL requirements and the suspected causes  raised by the stockperson were plausible.