MV Becrux V1: Investigation into the cause of high mortalities in cattle and sheep

AQIS
Canberra
October 2002
INTRODUCTION

On 14 June 2002 the MV Becrux departed Portland Victoria carrying 46,055 sheep and 1,734 cattle on its maiden voyage to Dammam (Saudi Arabia), Doha (Qatar), and Muscat (Oman). The vessel called in at Fremantle Western Australia on 18 June 2002 to pick up a further 17,358 sheep and 243 cattle for a total of 63,413 sheep and 1,977 cattle.

On 1 July 2002 Livecorp informed the Australian Maritime Safety Authority (AMSA) that approximately 200 head of cattle had died. AMSA passed this information on to AQIS. On that day the vessel berthed in Dammam and discharged 23,658 sheep. The Saudi authorities refused to allow the discharge of the cattle, all of which had been consigned to Dammam.

On 3 July the vessel departed Dammam and on 6 July berthed in Fujeirah. At this stage 1,248 sheep and 380 cattle had died. Further mortalities occurred in port. The vessel discharged 3,000 sheep (1,500 sheep originally consigned to Qatar and 1,500 originally consigned to Muscat) and 1,037 cattle. The cattle were walked to a nearby feedlot. Cattle mortalities continued over a number of days. According to best information available, 614 cattle died on the vessel and 200 died in the feedlot during the next 3 days, giving a total mortality of 814 cattle.

On 7 July the vessel departed Fujeirah and arrived in Doha on 8 July where it discharged 23,217 sheep.

On 10 July the vessel departed for Muscat, arriving on 11 July, where it discharged the remaining 12,122 sheep and the remaining 44 cattle. The vessel departed Muscat on 11 July, arriving in Portland on 23 July.

In response to these events AQIS formulated a project plan to investigate the cattle and sheep mortalities on the Becrux. The project plan is at Appendix 1.

This investigation reports against each element identified in the project plan, with particular attention on animal selection, animal preparation, and ship-board animal management. The report also considers whether the consignment conformed to the Export Control (Animals) Orders, AMLI (Export of Cattle) Amendment Order 1999 (No. LC1/99), AMLI (Export Licensing) Regulations 1998 and applicable Model Standard Codes of Welfare.

This report recognises that AMSA will also do a report, with a particular focus on vessel factors and a detailed chronology of events. Therefore, this AQIS report and the AMSA report are complementary to each other.
Figure 1 Map of the Middle East

[Map of the Middle East with labeled cities Dammam and Fujairah]
Investigation Scope

Information for this investigation was sourced from:

- Interviews with personnel working at Cape Nelson Feedlot Portland;
- Inspection of receival documents and weighbridge documents at Cape Nelson Feedlot;
- Interviews with the 3rd party veterinarian responsible for preparing sheep and cattle at Cape Nelson feedlot and in Fremantle;
- Interviews with AQIS certifying veterinarians in Victoria and Western Australia;
- Interview with Wellards management personnel;
- Inspection of purchase orders and other documents in Wellard’s office, Fremantle;
- Interview with the Master of the Becrux;
- Inspection of the Master’s reports;
- Interviews with the AQIS-approved veterinarian who accompanied the voyage to oversee the condition of sheep, as required by the Saudi Livestock Export Program;
- Interviews with the Livecorp-accredited stockman who accompanied the voyage to manage the sheep and cattle;
- Report furnished by the Meat and Livestock Australia veterinarian based in Bahrain who met the vessel on arrival in Dammam and Fujeirah

1. Obtain information on the events and environmental conditions of pre-export preparation for Portland and Fremantle cattle and sheep, and assess the impact of such events on the animals consigned.

Cattle purchase

- Purchase orders for cattle for both Portland and Fremantle were for good quality cattle:
  - fat score 3;
  - only sound healthy cattle to be selected;
  - horns to be polled or tipped to shipping standards;
  - health must be suitable for export, and adhere to Australian Livestock Export Standards (ALES);
  - all cattle to be purchased, transported under ALES.
- For delivery to Portland, cattle originated from a number of sources, purchased in lots from a number of sales and properties. They were held after purchase either at the
Cape Nelson Feedlot, at Lower Light feedlot SA, at properties in Victoria, or trucked directly from the property of origin to the wharf for loading.

- Purchase orders for bulls show that bulls were to be no greater than 450kg in weight, with an average weight of no greater than 400kg:
  - beef or Bos indicus cross bulls, no dairy or 1st cross dairy types;
  - weight 250-450kg with maximum average of not more than 400kg;
  - horns no more than 10cm and tipped, age shown as young bulls;
  - curfew of 12 hours, no feed and water.

- Of the cattle provided to Cape Nelson Feedlot (CNF) at Portland, a number of lines were of average weight above 400kg (total of approximately 180 head) as shown in the CNF receival document. One animal purchased in a private sale from a property at Narawong recorded a weight of 520kg on arrival at the feedlot.

- Cattle arriving from Dubbo and other NSW sales arrived on 13 June 2002. It is a “best practice” requirement under ALES clause 6.6 that cattle should be allowed to rest for 24 hours before being loaded aboard a ship for export, if they have travelled for 12 to 36 hours. However animals left Dubbo saleyards on 12 June and travelled directly to the feedlot without an intervening rest period.

- The Fremantle purchase order was for 250 young beef bulls with no horns, 250-450kg with maximum average of 400kg.

**Sheep delivered to Cape Nelson Feedlot:**

- Sheep for the consignment arrived from 7 May until 13 June.

- Sheep were sourced from various regions in Victoria, south eastern SA, Tasmania, King Island, and areas near Dubbo in NSW. Sheep were also obtained from Kobo Feedlot in Portland.

- Sheep were described as lighter than normal due to difficulty in obtaining numbers. The requirement to vaccinate for scabby mouth all the animals for the split port discharge caused a management problem in vaccinating such a large number of sheep in very poor weather;
  - any sheep vaccinated after 31 May were done so in contravention of the Saudi Livestock Export Program (SLEP) which states that vaccinations for a split port discharge must be done 14 days before export.

- There was a large problem with pink eye in the feedlot as is common in winter.
Weather, feed conditions at Portland

- Weather conditions during time in the feedlot were described as very poor to appalling; wet windy and cold. There was very little shelter for either sheep or cattle.
- Cattle were fed hay ad lib during their time in the feedlot. No cattle were prepared onto pellet ration prior to export. A small number of cattle were described as lame in the feedlot and there is some evidence that some cattle were lame at and after loading.
  - 9-12kg hay/head/day was fed out to cattle until 5 June, when the amount fed was reduced to 7kg/head/day.
- Despite the cold weather the cattle held condition during their time in the feedlot. Cattle of similar description had been held in the feedlot during this time and loaded on the MV Maysora which subsequently experienced less than 1% cattle mortality on its voyage to the Middle East.

Weather conditions at Fremantle

- Fremantle experienced mild winter weather with little rain during the assembly of the sheep and cattle.

SUMMARY

- Purchase specifications for cattle were for stock suitable for export. These specifications were generally adhered to with the exception of 1 animal weighing more than 500kg in contravention of Australian Meat and Livestock Order LC1/99.
- The sheep consigned to Portland were lighter than normal.
- Weather conditions at Portland were very severe.
- Cattle held their condition whilst at Portland.

CONCLUSION

- It is likely that the very severe weather in the feedlot predisposed the sheep to a salmonella-associated syndrome at the feedlot which lead to mortalities at sea.
2. Obtain information on the events and environmental conditions at loading at Portland and Fremantle, and consider the impact of such events on the animals consigned.

Cattle

- Due to variation in documents showing the number of bulls and steers supplied to the feedlot, it is not possible to entirely determine the number of animals loaded directly onto the ship directly from properties, and the number originating from the feedlot. As a result it is not possible to accurately differentiate the events and environmental conditions to which the cattle were subject prior to loading.
- A small mob of cattle became lame whilst in the feedlot (approximately 6 cattle were treated with penicillin).
- Four deaths due to pneumonia in a Friesian consignment held in more sheltered conditions elsewhere in the feedlot around the same time suggest that climatic conditions were bad at the time. However, there was no sign of respiratory disease in the cattle at the time of loading.

Table 1: Summary of loading weights and number of cattle loaded at Portland (as per Portland weighbridge summary, CNF weigh-out list, Wellards supplied weights):

<table>
<thead>
<tr>
<th></th>
<th># head</th>
<th>Total weight (kg)</th>
<th>Average weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct to Ship</td>
<td>110</td>
<td>42,650</td>
<td>387.7</td>
</tr>
<tr>
<td>Via CNF</td>
<td>398</td>
<td>165,000</td>
<td>414.6</td>
</tr>
<tr>
<td>Total</td>
<td>508</td>
<td>207,650</td>
<td>408.8</td>
</tr>
<tr>
<td>Bulls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct to ship</td>
<td>466</td>
<td>165,285</td>
<td>354.7</td>
</tr>
<tr>
<td>Via CNF</td>
<td>370</td>
<td>125,180</td>
<td>338.3</td>
</tr>
<tr>
<td>Via Adelaide</td>
<td>390</td>
<td>145,850</td>
<td>374.0</td>
</tr>
<tr>
<td>Total</td>
<td>1,226</td>
<td>436,315</td>
<td>355.9</td>
</tr>
<tr>
<td>Totals</td>
<td>1,734</td>
<td>643,965</td>
<td>371.4</td>
</tr>
</tbody>
</table>

- The exporter believes that 400 of the cattle loaded in Portland were either Bos Indicus or Bos Indicus-infused cattle. A further 146 of this type were loaded in Fremantle, giving a total of 526 Bos Indicus cattle for the consignment.
• The only separation into lines was separation of bulls and steers. There was at least 200kg weight range in bulls loaded at Portland, which were not drafted into weight lines prior to loading.

• The Mates receipt issued by Victorian Regional Stevedores on 14 June indicates however the number of bulls loaded is 1,244 and the number of steers is 508. This is 18 bulls more than shown in available weight-out documents and the reason for this discrepancy cannot be explained.

• There was little rain at Portland on the day of loading.

• A further 243 cattle were loaded at Fremantle.

• The weather on the day of loading at Fremantle was mild.

Sheep
• Numbers of the sheep loaded from Portland had diarrhoea and were hollow, indicating inappetence. Despite heavy culling, numbers were loaded that would not be of normal quality. The 3rd party veterinarian was concerned about the sheep because of weather conditions that they experienced in the feedlot and their resultant reduced food intake.

• No sheep were loaded onto the ship directly from farm.

• See the table below for comparison of the documented number of sheep at arrival, weigh-out and loading of the ship.
Table 2: Summary of sheep numbers and classes arriving at CNF, discharged from CNF and loading.

<table>
<thead>
<tr>
<th>Class of sheep</th>
<th># head received</th>
<th># rej doa</th>
<th># head available</th>
<th># head on CNF weigh out doc</th>
<th># head Form L</th>
<th>#head Mates receipt</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wethers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(OW)</td>
<td>4,957</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(YW)</td>
<td>19,900</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(W)</td>
<td>13,579</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(SA)</td>
<td>7,480</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(W)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(SB)</td>
<td>7,260</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total wethers</td>
<td>38,436</td>
<td>409</td>
<td>38,027</td>
<td>39,490</td>
<td>39,361</td>
<td>39,361</td>
<td>Shortfall of 1,334 head</td>
</tr>
<tr>
<td>Rams</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(RMS)</td>
<td>569</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(YRMS)</td>
<td>833</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total rams</td>
<td>1,402</td>
<td>1</td>
<td>1,401</td>
<td>1,534</td>
<td>1,525</td>
<td>1,525</td>
<td>Shortfall of 124 head</td>
</tr>
<tr>
<td>Lambs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(LMS)</td>
<td>293</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(MLMS/ML)</td>
<td>3,363</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total lambs</td>
<td>3,656</td>
<td>29</td>
<td>3,627</td>
<td>(Q) 508</td>
<td>845</td>
<td>(Q) 506</td>
<td>Excess of 2,782 head (vet has put the Damara # in with lambs)</td>
</tr>
<tr>
<td>Ewes</td>
<td>4,232</td>
<td>12</td>
<td>4,220</td>
<td>(Q) 4336</td>
<td>4,324</td>
<td>(Q) 4,324</td>
<td>Shortfall of 104 head</td>
</tr>
<tr>
<td>Damaras</td>
<td>333</td>
<td>2</td>
<td>331</td>
<td>(S) 331</td>
<td>Not given</td>
<td>(S) 339</td>
<td>Variation in # available &amp; # loaded.</td>
</tr>
<tr>
<td>Total # sheep</td>
<td>48,059</td>
<td>453</td>
<td>47,606</td>
<td>46,199</td>
<td>46,055</td>
<td>46,055</td>
<td>Difference of 1,551 head between arrival and discharge. Difference of 144 head between discharge and Mate’s receipt.</td>
</tr>
</tbody>
</table>

A further 17,358 sheep were loaded at Fremantle.
**Loading on the vessel, stocking densities, fodder**

- It is difficult to reconcile differing versions of load plans. In general, loading density seems to have been according to ALES and SLEP standards.

- Exporter’s records and Mate’s receipts show a difference of 50 tonnes less of pellets, 3 tonnes more of chaff and 10 tonnes more of sawdust than that actually loaded in Fremantle.

- There is no confirming weight document that shows final consignment weights for the sheep which has taken rejects into account. The CNF weigh-out document shows total weight for 46,199 head. 144 head are presumed to be rejects and to be 7,560kg more than the declared loaded weight. If the declared weight is correct then the average weight of the sheep rejected would have been around 52.5kg;
  - this is a surprisingly high figure for reject weight as most of the line averages were below 50kg, and considering the earlier descriptions of the condition of the sheep as being light and poorer quality than normal, it would be presumed that rejects would be commonly lighter than their counterparts which are selected for export.

- These findings suggest that either the declared loaded weight is less than the true loaded weight or the numbers of sheep loaded are not as stated. It follows therefore that the calculated feed requirement would also be incorrect.

- The cattle fodder and water calculation is based on a total weight of 665 tonnes of cattle, which it appears exceeds that of weighbridge recorded amount. The impact of these feed and water calculation deviations on the voyage between Portland and Fremantle is not of any consequence but is likely to be significant when the final loading is completed in Fremantle.
SUMMARY

• One bull weighing greater than 500kg was loaded at Portland contrary to AMLI Order LC1/99.

• 102 head of cattle were transported from Dubbo departing 13 June, unloaded at CNF on the morning of 14 June then re-loaded that afternoon in contravention of LEAP standards of best practice.

• Numbers of sheep loaded at Portland had diarrhoea and were hollow, indicating the likely presence of inappetence and a salmonellosis syndrome.

• 102 head of cattle were transported from Dubbo departing 13 June, unloaded at CNF on the morning of 14 June then re-loaded that afternoon in contravention of ALES standards.

• There was little rain on the day of loading at Portland.

• Despite differing versions of load plans, loading density seems to have been according to ALES and SLEP standards.

CONCLUSION

• The actual loading at Portland and Fremantle had little effect on the outcome of the voyage.

3. Assess conformity of the consignment to the Export Control (Animals) Orders at the point of issuance of export permits at Portland and Fremantle.

• As described in the Orders, if an authorised officer is satisfied that a veterinary officer has determined the animals are fit to travel and transport arrangements are adequate for their health and welfare, he must issue an export permit.

• The Export Control (Animals) Order 6.1 requires that a notice of intention to export (NOI) be presented to AQIS at least 7 clear working days prior to the commencement of a pre-export isolation period, or where isolation not required, at least 7 clear working days prior to intended date of export;

  ➢ in this case the NOI for Portland was received by AQIS Melbourne on 6 June 2002 ie 6 clear working days before export, not 7;

• It is quite common for AQIS to receive NOIs less than 7 days prior to export. Order 6.2 gives the Secretary discretion to allow less than 7 days clear working days’ notice, having regard to the intended destination, and the kind and number of animals. There is no evidence that any consideration was given to Order 6.2.
• NOIs were received by AQIS WA on 11 June, 5 working days days prior to export.
• There is no indication that import permits were sighted for export to Qatar or Oman.

**SUMMARY**

• NOIs were received in both Victoria and Western Australia less than 7 clear working days before export.

**CONCLUSION**

• The consignment contravened Export Control (Animals) Order 6.1(a).
• The sheep were fit to travel according to current AQIS and industry criteria for fitness. Therefore, the sheep consignment conformed to the fitness requirements in the Orders for issuance of an export permit.
• See 7 below for comments concerning cattle.

4. **Conformity of the consignment to the AMLI (Live Sheep Exports to Saudi Arabia) Order 2001.**
• Clause 7(a) of this Order states that the exporter must lodge a Notice of Intention to export (NOI) with AQIS at least 14 days before the anticipated date of export. The NOIs in Portland and Fremantle were lodged 8 and 7 calendar days respectively before the anticipated date of export.

**CONCLUSION**

• The consignment did not conform to clause 7(a) of the AMLI (Sheep exports to Saudi Arabia) Order.
5. Conformity of the consignment to AMLI Order No. L15196 Export of Ewes for Slaughter.
- This Order states that ewes exported for slaughter must be scanned as not detectably pregnant, eartagged and a prescribed certificate given to the exporter.
- Ewes were loaded for Qatar. There was no indication on the declarations that the non-pregnant animals had been eartagged as required under the AMLI order. Also the certification provided was not in accordance with the format prescribed in the Order. On this basis the ewes loaded could not have been appropriately identified as being not detectably pregnant.

CONCLUSION
- The consignment did not conform to AMLI Order L15196.

6. Conformity of the consignment to the Export Control (Orders) Regulations Livestock Export (Merino) Orders.
- This Order states that the export of merino ewes and rams is prohibited unless the Secretary of AFFA grants an exemption. Exemptions are generally granted on the basis of an annual quota set by the Commonwealth in consultation with industry.
- The exporter did not seek an exemption for the 1,402 rams and 4,232 ewes exported in this consignment.

CONCLUSION
- The consignment did not conform to the Livestock Export (Merino) Orders.
7. Conformity of the cattle consignment to the Australian Livestock Export Standards (ALES) where failure to conform to ALES is related to Clause 8(e) of the Export Control (Animals) Orders.

- Clause 8(e) of the Export Control (Animals) Orders relates to preparation of the animal for shipments overseas, and travel arrangements being adequate for the health and welfare of the animal.
- In terms of weight, cattle were selected in conformance with ALES, with the exception of one bull which was over 500kg.

CONCLUSION

- With the exception of one animal the cattle were prepared in conformity with ALES.

8. Conformity of the sheep consignment to the Australian Livestock Export Standards (ALES), Saudi Live Export Program (SLEP) and AMLI legislation relating to this consignment.

- SLEP documents were not available from either the exporter or the third party veterinarian, therefore it is not possible to ascertain/verify that SLEP requirements have been met for this consignment and the requirement for at least one scratching of all sheep as per Livecorp split port discharge requirement.
  - as noted above, sheep were being vaccinated in the feedlot in the last few days before export. Any non-Saudi sheep vaccinated after 31 May were done so in contravention of SLEP, which states that vaccinations for a split port discharge must be done 14 days before export.
- Because of the number of consignments arriving at Portland it is not possible to say with certainty that all sheep conformed to Omani and SLEP requirements.
- All Omani sheep (Animex states that only wethers may be exported to Oman) are required under the protocol to be isolated under government supervision for at least 5 days prior to export, ie. be held in the feedlot for 5 days prior to export;
  - any wethers arriving in the feedlot after 9 June would not fulfil this protocol requirement and would be ineligible for export to this market;
  - of the eligible type of sheep for this market 2,349 Y wethers and 4,694 wethers arrived at the feedlot after 9 June and therefore did not fulfil protocol requirements for export to Oman.
• It is a requirement under Clause 22 of SLEP that the exporter must ensure that all sheep exported to Saudi Arabia spend at least 5 days in a live export feedlot immediately prior to loading;
  ➢ therefore no animals should have been permitted for export to Saudi Arabia if arriving at CNF after 10 June. 220 rams, 1,452 Y wethers and 4,568 head of other wethers would have been ineligible for export to Saudi Arabia (no female slaughter sheep are permitted for Saudi Arabia or Oman).

• All sheep for export to Saudi Arabia in this consignment must have received their second scabby mouth vaccination no later than 7 June to allow 6 clear days and the day of loading.

• Sheep arriving from 8 June onwards should have been scratched prior to transportation, and should have arrived with SLEP vaccination documentation and SLEP ear tags in-situ. A column is provided in the CNF weigh-in document for ear tag numbers. Of sheep arriving the document shows only 3,780 head with tags on arrival, 3,331 of these arriving after 7 June).

• Any other animals arriving after 7 June (apart from the tagged animals listed on the receival document) would not have conformed to the vaccination requirements under SLEP and therefore were ineligible for export to Saudi Arabia. It is possible that animals arriving on or before 7 June may have been vaccinated in the feedlot to conform to the timing required by SLEP, but it has not been possible to confirm this.

• The AQIS certifying Veterinary Officer wrote to the exporter after departure of the Becrux to point out several deficiencies:
  ➢ slaughter ewes were not scanned for pregnancy as required by AMLI Order L15/96, and LEAP 7.1.4;
  ➢ sawdust was not laid for the animals during loading;
  ➢ horned rams were caught in the fences on deck 8;
  ➢ it was not possible to inspect animals on the right side (i.e. it was only possible to inspect them on the left side) at loading;
  ➢ SLEP documents were not available for inspection at the time of loading;
  ➢ it was not certain that the export of merino rams complied with the Livestock Export (Merino) Orders.

The exporter’s reply contested all of the above points.
SUMMARY

- A number of consignments arrived at Portland within a short period of time and it is not possible to verify that all sheep conformed to importing country requirements with respect to time in the feedlot.

- It has not been possible to verify from SLEP documents that all requirements of that program were fulfilled:
  - it is not possible to verify that all Omani sheep were held in the CNF for at least 5 days.
  - it is not possible to verify that all sheep consigned to Saudi Arabia were held at CNF for at least 5 days.
  - it is not possible to verify that all sheep which arrived after 8 June had already had their 2\textsuperscript{nd} scabby mouth vaccination;
  - it is not possible to confirm that sheep which arrived after 31 May for non-Saudi discharge had all been vaccinated on-farm against scabby mouth.

CONCLUSION

- In general, it is difficult to be confident that all elements of ALES, SLEP and the AMLI Order regarding split port discharges were adhered to.

9. Assess the correctness of declarations from the 3rd party veterinarian.

- All third party declarations provided have been altered in some form from the AQIS-approved versions.

- In form L (Declaration of Loading) the net loading area shown is not entirely correct. The area shown is the available area for the ship to be loaded with sheep only. The Australian Certificate for the Carriage of Livestock (ACCL) issued by AMSA shows that the available area for cattle is 23,682.63 m\(^2\) (a difference of 156.95 m\(^2\)).

- Stocking density should be calculated for each deck, figures which are clearly shown in the ACCL. In terms of calculating the stock space requirements, the discrepancies between the weighing documentation put some doubt on the true numbers of head loaded. For example the breakdown of sheep lines on the Form L do not reflect the lines shown on either the Mates receipt or the CNF weigh-out document. This could indicate that the increased space allocation for Saudi sheep has not been appropriately calculated ie. Saudi rams and Damaras (and lambs have presumably been classified as either rams or wethers).
Form H signifies that all SLEP treatments were performed (including aging, vaccinating and tagging of sheep) and that the exporter held signed declarations indicating such on file. These documents were not able to be produced by the exporter when he was requested to do so.

Weight and head count documents, fodder and sawdust documents for stock loaded at both Portland and Fremantle are below the standard which would allow accurate and correct assessment of the stocking rates and feed quantity during the voyage.

**SUMMARY**

- Differences in figures used for net loading area and discrepancies in the weight and numbers of sheep loaded at Portland mean that it is not possible to verify that sheep were loaded at the correct stocking density.

- The 3rd party veterinarian relied on declarations held on file by the exporter that ageing, vaccinating and tagging sheep had been done. It has not possible to verify that these treatments required under SLEP and certified as having been done, were in fact done.

- Documents relating to weight of stock, number of stock, fodder and sawdust loaded are not consistent.

**CONCLUSION**

- It is not possible to verify that certain declarations made by the 3rd party veterinarian were correct.

**10. Assess the correctness of export certification issued by AQIS.**

- Section 8(d) of the Export Control (Animals) Orders states that before issuing an export permit a veterinary officer must be satisfied that the animals are fit to travel and preparation has been adequate for the health and welfare of the animals.

- On the basis of documents provided and an inspection of the cattle the AQIS veterinary officer concluded that the cattle were fit on the day.

- Similarly the sheep were fit on the day although a proportion had scours.

- The health certificates were accurate in attestations of disease freedom in Australia.
• The health certificate for sheep exported to Oman declares that the sheep have been held in isolation for 5 days before export. As noted above, it is not possible to verify that all Omani sheep fulfilled this requirement.

CONCLUSION

• The AQIS officer correctly issued an export permit and health certificates on the basis of documents provided to him and inspection of the animals based on current AQIS practice.

11. Obtain information on the environment conditions and events for the voyage between Portland and Fremantle and assess the impact on the consignment.

Weather

• The Master described sea conditions as good when leaving Portland. Sawdust was laid out on Day 1.
  ➢ Day 1 temperature 20-23°, moderate sea and swell with passing showers;
  ➢ Day 2 rough seas and swell, partially cloudy and clear, force 6 southerly;
  ➢ Day 3 moderate sea and swell, cloudy and clear, temp 21-26°;
  ➢ Day 4 0400hrs rough sea and heavy swell, rolling and pitching moderately, 0800hrs rough seas continue with very poor visibility and rain. Around 1130 line ashore Fremantle, and 1300 commenced loading cargo and fodder. At 1530 completed loading bulk fodder. Loading completed 1930hrs and cast off just after 2300hrs with moderate seas and swell, cloudy.

Cattle

• The Master reported that cattle did not eat or drink much across the Bight. He claimed that cattle were sitting down in rolling weather rounding Cape Leuwin (WA). The vessel hit rolling seas during the night of Day 4 (estimates of a 15 degree roll).
**Sheep**

- Mortalities commenced immediately after departure and rose to 100 per day by the time the vessel reached Fremantle.
- There is very little comment from the veterinarian or stockman accompanying the vessel on the cause of death of the sheep.

**SUMMARY**

- On two days of the voyage there were moderate conditions, and on two there were heavy seas and swell.
- Cattle were affected by the ship’s rolling although there were no mortalities. Sheep mortalities however quickly climbed to around 100 per day.

**CONCLUSION**

- The early onset of high mortalities in sheep is indicative of feedlot-associated salmonellosis.

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**12. Obtain information on the environmental conditions and events for the voyage between Fremantle and the Equator and assess the impact on the consignment.**

**Cattle**

- The on-board veterinary officer reported that the flooring in the pens did not have enough grip. When associated with wet manure and water after washing, cattle had difficulty arising. When they tried to do so, they ground their hoofs to the extent that they bled profusely. These cattle were obviously lame on rising. Old heavy bulls were particularly affected by the flooring conditions.
- The Captain confirmed that feed and water intake could not be calculated by deck and this was done across the ship with metred measurement.
- The Chief Officer did not keep records of the hospital pen animals.
- In the first few days there were problems with water fittings blowing out in the watering system.
- Scouring continued in the sheep, particularly in the Saudi line of sheep.
- There was particularly rough weather up the WA coast.
• Up until 23 June, 6 head of cattle were destroyed due to injuries caused by rough weather. The animals had been treated with anti-inflammatory drugs. Those which could still walk were moved to hospital pens. Pens which contained downer animals which could not walk to hospital pens were reduced in stocking density.

• Management responsibility for the cattle became confused within a few days of leaving Fremantle. It seems that decision-making became fragmented within the matrix of company standard operating procedures, vessel operating procedures, authority of the Master, First Officer, stockman and veterinarian. Correct procedural delegation of authority for the stock during the voyage is unclear.

Sheep

• Sheep mortalities peaked on the day after crossing the Equator and reduced thereafter.

• Up to day 9, wethers loaded in Portland accounted for a disproportionate percentage of total mortalities; for example mortalities in B wethers loaded at Portland were 2.5% at day 9.

SUMMARY

• Sea conditions were rough for the transit up the WA coast.

• Floor conditions on the vessel contributed to cattle lameness.

• Management responsibility for the consignment became confused during this period.

13. Obtain information on the environmental conditions and events experienced during the voyage between the Equator and arrival at Dammam and assess the impact on the consignment.

Cattle

• Wash down of cattle decks commenced on 23 June on order of the veterinarian, and was completed during the evening of 24 June just after crossing the Equator. At the time of commencement of wash down the Captain claims a large percentage of the cattle pens were in a faecal slurry and cattle were covered in dung.

• Wash down was only performed on the flooring of the pens, and the Captain reported that the vet had ordered that no cattle were to be wet.
In preparation for wash down, troughs were removed. Cattle were shuffled between pens to wash empty pens. This procedure meant that animals on at least one deck appear to have been without feed and water for at least 24 hours.

The on-board veterinary officer was loath to wash down because he believed that this contributed to problems in animals rising, and also increased humidity. Company instructions to the Master state:

*Cattle pens should be flushed on a regular basis with bedding replaced as necessary. Humidity and temperature may affect the need for flushing and in this respect you will have to determine the need for lushing based on prevailing circumstances.*

On 25 June the veterinarian decided that all cattle were to be moved to Deck 6. He believed that after wash down, fresh wet manure produced a faecal slurry which in the worst pens led to the cattle being completely covered in sloppy manure.

- his decision to move stock was also based on his assessment that cattle in 4-5 pens on two decks were showing signs of heat stress.

The boson and crew were unaware that the vet and stockman had commenced moving cattle during morning feedout.

Movement commenced with moving sheep on Deck 6 into alleyways. Cattle were moved up to Deck 6 onto sheep pads, cattle pens were shovelled out, and then sheep were moved down to the pens vacated by the cattle. Movement of cattle was by shuffling them along through pens, so they were moving in pens before having to negotiate ramps.

The boson claimed that at 6am on 26 June the veterinarian instructed all men to help with the move rather than with feeding. At 9am whilst on rounds the Captain saw that at least one deck of sheep had not been fed and he took a skeleton staff to complete feeding of cattle not moving at that time.

The crew worked through till 2am the next morning (27 June) to finish deck 1 aft. Cattle moved up to Deck 6 were fed before the crew retired. Feeding of the ship commenced at 8am. During the period since retiring, 10 head of cattle had died on Deck 6. Deck 2 fore commenced at 10am (27 June) and the crew knocked off at 6pm. The veterinarian and stockman continued to move cattle. Approximately 8 head of hospital cases remained below on 28 June, otherwise all cattle were now on Deck 6.

- Water use figures during this period indicate a severe decline in water consumption.

On 28 June the wind direction changed so that there was no cross-wind on deck 6. Cattle on deck 6 showed signs of severe heat stress and 8 died. The next day 68 more animals died and many others went down. Many animals had a coat of manure which exacerbated the condition.
• Deaths on Deck 6 commenced after the move. The rise in mortality rate commenced before the vessel entered the hot area of the Straits of Hormuz. Pen conditions had deteriorated with around 30cm of sloppy dung slurry.

• On 29 June the crew were organized into 2 disposal teams to have 24 hour carcass removal.

• The veterinarian reported that in general, high condition store cattle in heavy winter coat did not cope well with temperature and humidity.

**Sheep**

• Sheep mortalities dropped rapidly from a peak soon after crossing the Equator and stabilised at a relatively low level for the remainder of the journey. Hot, humid conditions in the Gulf seem not to have affected the sheep.

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### SUMMARY

• Cattle were moved from lower decks to the upper decks because they were showing signs of heat stress.

• A breakdown in normal vessel washdown procedures meant that a faecal slurry accumulated in the cattle pens and coated the cattle.

• Hot, still conditions in the Gulf led to massive, rapid deaths in cattle.

• Sheep mortalities stabilised at a low daily level after crossing the Equator.

### CONCLUSION

• The move of cattle from lower to upper decks caused intense disruption to normal ship’s activities, leading to lowered feeding of all stock and low water consumption by the cattle.

• Cattle deaths were low before the move and increased before the vessel entered hot conditions in the Straits of Hormuz.

• Once hot, humid, still conditions were encountered, cattle deaths rose rapidly.
14. Obtain information on the mortality events occurring onboard, assess patterns of deaths and significance of the reported findings relating to the mortalities.

Cattle

- Cattle deaths were minimal until the vessel entered the Gulf, and after they had been moved to the upper decks.
- Massive deaths coincided with the onset of hot, still weather. Until this stage, all deaths had been reported as being due to injuries.
- Deaths rose to catastrophic levels before the vessel docked at Dammam and continued until all cattle had been unloaded.
- Cattle in forward condition, with long coats and covered in a layer of manure fared worst. Not a single Bos indicus animal died.
**Sheep**

- Sheep deaths were high almost from the beginning of the voyage, then stabilised at relatively low daily levels.
- Sheep deaths seem not to have been influenced by hot, still weather in the Gulf. Their pattern is more consistent with feedlot-associated salmonellosis.

### SUMMARY

- Cattle deaths were low until the cattle were moved, then encountered hot, still humid conditions.
- Cattle in forward condition with long coats and coated in faecal slurry fared worst. No Bos indicus cattle died.
- Sheep deaths had stabilised to relatively low levels by the time the vessel entered the Gulf.

### CONCLUSION

- The patterns of mortalities in cattle and sheep were very different to each other.
- Cattle deaths primarily occurred in hot, still conditions in the Gulf. The effects of this seem to have been exacerbated by stress and water deprivation associated with moving cattle from lower to upper decks.
- The effects of heat and still conditions seem to have been exacerbated by a breakdown in ship’s operations leading to a faecal slurry in the pens which coated the animals and led to lowered capacity to dissipate heat.
- Not a single Bos indicus, or Bos indicus-infused animal died. This leads to the conclusion that heat-adaptation of the cattle was a significant factor in their ability (or not) to withstand weather conditions experienced in the Gulf.
- Sheep deaths were caused by an enteric disease, very probably feedlot-associated salmonellosis.
15. Obtain information on environmental conditions and events experienced at Dammam, and assess the impact on the consignment.

- Conditions remained hot and still at Dammam and cattle deaths increased to their highest daily levels after arrival at Dammam.
- Saudi quarantine authorities rejected the cattle due to their concern about the very high number of deaths, saying they were due to infectious disease. The vessel was delayed in sailing and this increased the time the cattle were maintained in hot, windless conditions.
- Sheep were accepted by the Saudi authorities and 23,658 were unloaded. At this stage total sheep mortalities were 1.98%
- Cattle deaths were not due to infectious disease. This was given by Saudi veterinary authorities for the reason for their rejection in Dammam, but clinical observations by both the on-board veterinarian and the MLA veterinarian support a diagnosis of death due to extreme heat stress.
- Blood samples were collected in Fujeirah and sent to the CSIRO Australian Animal Health Laboratory (AAHL) in Geelong. The nature of the samples and their transport precluded in-depth investigation, but anthrax was specifically excluded as a cause of death.

SUMMARY

- Cattle deaths were due to extreme heat stress and were not due to infectious disease.

16. Obtain information on the events following departure from Dammam and subsequent discharge of stock in Fujeirah and assess the impact on the consignment.

- After departure from Dammam, crew time was concentrated on winching dead animals overboard. This was slow and only 2-3 carcases could be disposed of each hour.
- The highest daily total of cattle deaths occurred between Dammam and Fujeirah.
- On arrival in Fujeirah, in some pen areas the faecal slurry was one foot deep. Many animals were lying down and so were mired in this slurry.
• Bos taurus animals were in thick winter coats, many with adherent faeces and all showing significant signs of heat stress. It was very noticeable that the Bos indicus cattle all appeared healthy and unaffected by the climate.

• Conditions on the vessel were unpleasant; there was a significant covering of faeces in all pens. There was a smell of decaying carcases. In some pens cattle could not access water troughs because of the presence of carcases.

• It was noticed that young stock had fared better than old, and animals with better body scores fared worse.

• As many cattle as possible were unloaded (1,037) and walked slowly to a nearby feedlot. Approximately 95 animals were left on board as they were moribund, or unable to walk off the ramps.

• Accurate figures could not be obtained, but it is estimated that up to 200 cattle died in the feedlot in the 3 days after discharge.

• 3,000 sheep were unloaded.

SUMMARY

• Crew time was focussed on disposing of carcases and cleaning the vessel.

• Cattle pens were covered in a faecal slurry up to 30cm deep.

• 1,037 cattle and 3,000 sheep were unloaded.

CONCLUSION

• The extra time on board between Dammam and Fujeirah was catastrophic for the cattle.

• Normal husbandry on board was diminished, as crew concentrated on disposing of dead animals.
17. Identify the certification provided to UAE authorities, and assessment of the events surrounding the discharge at Fujeirah.

- AQIS Canberra provided a health certificate consistent with UAE requirements, to allow discharge of the cattle in Fujeirah.

18. Identify the certification (if any) provided to veterinary authorities for discharge of 46 cattle in an as-yet unknown port after Fujeirah.

- 46 cattle were unloaded in Muscat. It is not known what certification was presented to veterinary authorities. No certification was provided by AQIS.

19. Accompany Becrux V2 in order to assess environmental conditions for sheep on the vessel.

19.1 Comparison of sheep mortalities between Saudi sheep and other sheep at time of discharge in Dammam; indication of the adequacy of stocking densities in the northern hemisphere summer.

19.2 Any physiological observations which may be relevant in terms of the age and performance of the sheep between properties of origin and state of origin

- An AQIS veterinarian accompanied the Becrux on its second voyage departing Portland on 27 July 2002, bound for Saudi Arabia, Qatar, the UAE and Oman.
- Sheep for Saudi Arabia were loaded at 15% below the ALES stocking density, as is mandatory under SLEP.
- Sheep for the other destinations were loaded at 4% below the ALES stocking density.
- The highest mortalities in both absolute and percentage terms were in Oman ewes and wethers. These appeared to be older, bigger-framed sheep. They were also unloaded last.
- The vessel encountered high temperature and humidity. Some of the sheep exhibited panting but none showed signs of high heat stress.
- Ewes were unloaded in Oman. The entry in Animex states that only wethers may be exported to Oman. It has not been clarified whether the Omani import permit allowed the importation of ewes.
### Table 4: Comparison of mortality rate by destination

<table>
<thead>
<tr>
<th></th>
<th>Number loaded</th>
<th>Date unloaded</th>
<th>Mortalities</th>
<th>Mortality %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Saudi sheep</strong></td>
<td>29,311</td>
<td>13/14 August</td>
<td>57</td>
<td>0.19%</td>
</tr>
<tr>
<td><strong>Qatar sheep</strong></td>
<td>15,572 wethers</td>
<td>15 August</td>
<td>40</td>
<td>0.02%</td>
</tr>
<tr>
<td></td>
<td>3,831 ewes</td>
<td></td>
<td>27</td>
<td></td>
</tr>
<tr>
<td><strong>UAE sheep</strong></td>
<td>5,000 wethers</td>
<td>17 August</td>
<td>32</td>
<td>0.64%</td>
</tr>
<tr>
<td><strong>Oman</strong></td>
<td>13,567 wethers</td>
<td>18 August</td>
<td>174</td>
<td>1.28%</td>
</tr>
<tr>
<td></td>
<td>2,589 ewes</td>
<td></td>
<td>56</td>
<td>2.16%</td>
</tr>
<tr>
<td><strong>Totals:</strong></td>
<td>69,714</td>
<td></td>
<td>388</td>
<td>0.56%</td>
</tr>
</tbody>
</table>

### SUMMARY

- The vessel encountered hot, humid conditions but sheep did not exhibit signs of extreme heat stress.
- Ewes were unloaded in Oman in seeming contradiction to the known import conditions for Oman.

### CONCLUSION

- The overall mortality rate for the voyage was very low. However, there were differences by class and destination of sheep. Young wethers unloaded in Saudi Arabia had a much lower mortality rate than older wethers and ewes, unloaded 5 days later in Oman.
- Lowest mortality rates on this voyage were associated with low stocking rate; young wethers; less time in the Gulf.
- Highest mortality rates were associated with ewes; older wethers; longer time in transit in the Gulf.
OVERALL CONCLUSIONS

The conclusions reached on each of the preceding investigation elements are based on empirical evidence obtained from interviews and inspection of documents. The following overall conclusions incorporate those above, but go a step further in an attempt to synthesise an overall view of what led to the high mortality events on the Becrux.

1. Cattle purchased for the consignment were appropriate in age size and weight, with the exception of one bull overweight. They conformed to ALES as it is currently written. However, ALES is silent on selection of cattle on the basis of their capacity to withstand heat and humidity. With the exception of 6 animals destroyed due to injuries sustained in rough seas, all cattle deaths were due to heat stress and these deaths occurred exclusively in cold-adapted Bos taurus cattle. Not a single Bos indicus or Bos indicis-infused animal died.

2. Due to the very severe weather at Portland in the days prior to loading, many sheep would have eaten less than normal as they were seeking shelter from wind and cold rather than feeding. It is likely this predisposed the sheep to a salmonella-associated syndrome which lead to high mortalities in the first few days at sea.

3. Numbers of sheep loaded at Portland had diarrhoea and were hollow, indicating the likely presence of inappetence and a salmonellosis syndrome. Numbers of sheep were of lower quality than normal. The sheep were fit to travel according to current AQIS and industry practice in assessing sheep for fitness, however experience has shown that sheep which show scour and poor condition in the feedlot are at risk of on-board mortality, particularly when shipped from Portland in poor weather.

4. At least one line of cattle was loaded in Portland in contravention of ALES standards with respect to resting cattle after a long truck journey.

5. Lack of auditability of the source of origin of cattle supplied direct to the ship creates a lack of certainty for the AQIS certifying veterinary officer with respect to the property of origin (POO) of the cattle and can potentially impact on the veterinary officer’s assessment whether animals meet importing country requirements and are suitable for export.

6. There are anomalies in documentation of numbers of sheep available for export and the number loaded. This did not have an effect on the outcome of the voyage, but it serves to reduce confidence in documentation provided for the voyage.

7. NOIs were given to AQIS less than 7 working days before export. AQIS commonly accepts this, but it places difficulties on AQIS to plan for an export consignment. It also means that by the time an NOI is lodged, it is too late for AQIS to assist the exporter to correct any deviations from a protocol.
8. The consignment did not conform to clause 7(a) of the AMLI (Sheep exports to Saudi Arabia) Order which states that an NOI must be lodged with AQIS 14 days before the date of export.

9. A number of consignments of sheep arrived at Portland within a short period of time and it is not possible to verify that all sheep conformed to importing country requirements with respect to time in the feedlot.

10. It has not been possible to verify from SLEP documents that all requirements of that program were fulfilled:

10a it is not possible to verify that all Omani sheep were held in the CNF for at least 5 days;

10b it is not possible to verify that all sheep consigned to Saudi Arabia were held at CNF for at least 5 days;

10c it is not possible to verify that all sheep which arrived after 8 June had already had their 2nd scabby mouth vaccination;

10c it is not possible to verify that all animals for non-Saudi ports which arrived after 31 May had been vaccinated for scabby mouth on-farm.

11. In general, it is difficult to be confident that all elements of ALES, SLEP and the AMLI Order regarding split port discharges were adhered to.

12. Differences in figures used for net loading area and discrepancies in the weight and numbers of sheep loaded at Portland mean that it is not possible to verify that sheep were loaded at the correct stocking density. Documents relating to weight of stock, number of stock, fodder and sawdust loaded are not consistent. These deficiencies are indicative of inadequate management of the preparation of the consignment, however this probably did not impact on the outcome of the voyage.

13. Because of deficiencies in documentation, it is not possible to verify that certain declarations made by the 3rd party veterinarian were correct.

14. The AQIS officer correctly issued an export permit and health certificates on the basis of documents provided and inspection of the animals based on current AQIS practice.

15. Rough weather in the Bight led to 6 cattle (0.3%) being destroyed because of injuries.

16. It is conjectural as to the contribution rough seas made to sheep deaths, particularly in sheep originating from Portland. Up to day 9, wethers loaded in Portland accounted for a disproportionate percentage of total mortalities; for example mortalities in B wethers loaded at Portland were 2.5% at this stage.
17. Management responsibility for the cattle became confused within a few days of leaving Fremantle. It seems that decision-making became fragmented within the matrix of company standard operating procedures, vessel operating procedures, authority of the Master, First Officer, stockman and veterinarian. Correct procedural delegation of authority for the stock during the voyage is unclear.

18. The patterns of mortalities in cattle and sheep were very different from each other.

19. Cattle deaths primarily occurred in hot, still conditions in the Gulf. The effects of this were exacerbated by stress and water deprivation associated with moving them from lower to upper decks. The effects of heat and still conditions were also exacerbated by a breakdown in ship’s livestock operations leading to a faecal slurry in the pens which coated the animals and led to lowered capacity to dissipate heat.

20. Cattle were moved from lower decks to the upper decks because they were showing signs of heat stress.

21. Cattle were not hosed for cooling at any stage, except between Fujeirah and Muscat, when 46 of 95 moribund cattle recovered sufficiently to be unloaded in Muscat.

22. The move of cattle from lower to upper decks caused intense disruption to normal ship’s livestock operations, leading to lowered feeding of all stock and low water consumption by the cattle.

23. Cattle deaths were low before the move and increased before the vessel entered hot conditions in the Straits of Hormuz.

24. Cattle deaths primarily occurred in hot, still conditions in the Gulf. The effects of this seem to have been exacerbated by:
   - stress and water deprivation associated with moving cattle from lower to upper decks;
   - a breakdown in ship’s operations leading to a faecal slurry in the pens which coated the animals and led to lowered capacity to dissipate heat.

25. The extra time on board between Dammam and Fujeirah was catastrophic for the cattle.

26. Not a single Bos indicus, or Bos indicus-infused animal died. This leads to the conclusion that heat-adaptation of the cattle was a significant factor in their ability to withstand conditions experienced in the Gulf.

27. Sheep mortalities were high in the early days of the voyage but stabilised at a low daily level after crossing the Equator. This is consistent with an enteric disease, very probably feedlot-associated salmonellosis. The effects of transport stress to the feedlot; poor weather at the feedlot; rough seas after Portland and Fremantle probably exacerbated the effects of salmonellosis, and led to further deaths due to inanition.

28. The overall mortality rate for voyage 2 was very low. However, there were differences by class and destination of sheep. Young wethers unloaded in Saudi Arabia had a much lower mortality rate than older wethers and ewes, unloaded 5 days later in Oman.
29. Lowest mortality rates on voyage 2 were associated with low stocking rate; young wethers; less time in the Gulf.

30. Highest mortality rates on voyage 2 were associated with ewes; older wethers; longer time in the Gulf.
AQIS LIVE ANIMAL EXPORT PROGRAM
PROJECT PLAN FOR INQUIRY INTO BECRUX V1

Project title: Inquiry into cattle and sheep mortalities on MV Becrux V1
Date of formal commencement: 8 July 2002
Date of reporting:
   Interim report: 15 August 2002
   Final report: 2 September 2002
Sponsor (Program Manager providing Resources):
   AQIS Live Animal Exports Program
Project leader: AQIS Veterinary Officer
Project team: 2 AQIS Veterinary Officers; AQIS Section Leader
Reporting to: AQIS senior management

1 PROJECT OVERVIEW
The Minister announced on 16 July 2002 that an inquiry would be undertaken into reportable mortalities on the Becrux V1. The Minister’s announcement was limited to cattle mortalities. Since then, the Project Team has expanded the scope of the inquiry to include sheep mortalities. The result of the inquiry and the subsequent report will be used in consideration of whether action should be undertaken against the exporter; whether amendments to the Australian Livestock Export Standards (ALES) should be recommended; and provide inputs into departmental policy with respect to livestock exports.

The inquiry will identify factors that have contributed to cattle and sheep mortalities during the maiden voyage and post-discharge of the MV Becrux V1, and provide findings and recommendations to the Live Export Incident Task Force (LEITF).

The report will also be submitted to the Australian Maritime Safety Authority (AMSA) as part of the MOU between AMSA, Livecorp and AQIS for investigating shipping mortalities.

1.1 Scope
The inquiry will examine:
- pre-export events and conditions;
- shipping environment;
- mortality data and reporting;
- industry standards of practice;
- AQIS certification procedures and documents;
- the events surrounding discharge of the cattle and sheep in the Middle East and their subsequent deaths.
Parties likely to be involved in the provision of information for the inquiry are:
- AQIS staff;
- AMSA;
- Livecorp;
- the exporter;
- the Master of the Becrux;
- the SLEP veterinarian and Livecorp stockmen accompanying the consignment;
- the AQIS accredited veterinarian for the consignment;
- the feedlot operator where animals were kept prior to export;
- agents and transport operators as required.

AQIS investigators will accompany AMSA Marine Surveyors during onboard investigation on return of the vessel to Australia. Parties involved in the export process will be interviewed as part of the inquiry. AQIS Compliance staff will be asked to assist as appropriate and as required.

2  PROJECT OBJECTIVE
To complete an inquiry into the Becrux V1, discharge and feedlot mortalities, and to submit a report of findings and recommendations to the Live Export Incident Task Force.

3  PROJECT SCOPE
The investigation will consider whether the consignment conformed to the Export Control (Animals) Orders, AMLI (Export of Cattle) Amendment Order 1999 (No. LC1/99), AMLI (Export Licensing) Regulations 1998 and applicable Model Standard Codes of Welfare. Specifically:

1. Obtain information on the events and environmental conditions of pre-export preparation for Portland and Fremantle cattle and sheep, and to assess the impact of such events on the animals consigned.
2. Obtain information on the events and environmental conditions at loading at Portland and Fremantle, and to consider the impact of such events on the animals consigned.
3. Assess conformity of the consignment to the Export Control (Animals) Orders at the point of issuance of export permits at Portland and Fremantle.
5. Conformity of the consignment to the AMLI Order No. L15196 Export of Ewes for Slaughter.
7. Investigation of the conformity of the cattle consignment to the Australian Livestock Export Standards (ALES) where failure to conform to ALES is related to Clause 8(e) of the Export Control (Animals) Orders.
8. Investigation into conformity of the sheep consignment to the Australian Livestock Export Standards (ALES), Saudi Live Export Program (SLEP) and AMLI legislation relating to this consignment.

9. Assess the correctness of third party declarations.

10. Assess the correctness of export certification issued by AQIS.

11. Obtain information on the environment conditions and events for the voyage between Portland and Fremantle and assess the impact on the consignment.

12. Obtain information on the environmental conditions and events for the voyage between Fremantle and the Equator and assess the impact on the consignment.

13. Obtain information on the environmental conditions and events experienced during the voyage between the Equator and arrival at Dammam and assess the impact on the consignment.

14. Obtain information on the mortality events occurring onboard, assess patterns of deaths and significance of the reported findings relating to the mortalities.

15. Obtain information on environmental conditions and events experienced at Dammam, and assess the impact on the consignment.

16. Obtain information on the events following departure from Dammam and subsequent discharge of stock in Fujairah and assess the impact on the consignment.

17. Identify the certification provided to UAE authorities, and assessment of the events surrounding the discharge at Fujairah.

18. Identify the certification (if any) provided to veterinary authorities for discharge of 46 cattle in an as-yet unknown port after Fujairah.

19. Accompany Becrux V2 in order to assess environmental conditions for sheep on the vessel.

19.1 Comparison of sheep mortalities between Saudi sheep and other sheep at time of discharge in Dammam; indication of the adequacy of stocking densities in the northern hemisphere summer.

19.2 Any physiological observations which may be relevant in terms of the age and performance of the sheep between properties of origin and state of origin.

3.1 Considerations outside the project scope

1. Implementation of the AMLI Order for the restriction of export of southern cattle to the Persian Gulf during the northern summer;
   - LEITF to consider this issue in light of the report and other relevant data and information.

2. Conformity of the consignment and ship to AMSA Marine Orders 43;
   - AMSA is required under MO43 to conduct an investigation and report on the operations of the ship and crew during the voyage.

4 CONSTRAINTS, ASSUMPTIONS AND RELATED PROJECTS

Costs associated with the investigation will be a program cost and so will be spread across all clients of the program except where a direct service provided to the exporter concerned can be incorporated into the investigation.
# 5 Stakeholders

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Level</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. LEITF</td>
<td>Critical</td>
<td>LEITF responsible for provision of updated information and advice to Minister.</td>
</tr>
<tr>
<td>2. AQIS senior management</td>
<td>Critical</td>
<td>Overall management responsibility</td>
</tr>
<tr>
<td>3. Regional AQIS veterinarians</td>
<td>Important</td>
<td>Must be kept informed about whether the ship or exporter is permitted to load, what directions are to be put in place for exports, and can also act as a source of information for the inquiry.</td>
</tr>
<tr>
<td>4. AMSA</td>
<td>Important</td>
<td>Joint investigator</td>
</tr>
<tr>
<td>5. Livecorp</td>
<td>Important</td>
<td>Joint investigator; Provision of information</td>
</tr>
<tr>
<td>6. MLA</td>
<td>Important</td>
<td>MLA Bahrain as information provider. MLA handling PR for Livecorp</td>
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<td>7. Cattle Council of Australia</td>
<td>Non-essential</td>
<td>Should be kept informed of events.</td>
</tr>
<tr>
<td>8. RSPCA</td>
<td>Non-essential</td>
<td>Should be kept informed of events.</td>
</tr>
<tr>
<td>9. ALEC</td>
<td>Non-essential</td>
<td>Should be kept informed of events.</td>
</tr>
</tbody>
</table>
6 RISK

<table>
<thead>
<tr>
<th><strong>System Complexity and Risk</strong></th>
<th><strong>Risk</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of accurate, reliable information</td>
<td>Medium</td>
</tr>
<tr>
<td>Access to parties who were present during mortalities</td>
<td>Low</td>
</tr>
<tr>
<td>Available resources to conduct inquiry</td>
<td>Medium</td>
</tr>
<tr>
<td>Political risk</td>
<td>High</td>
</tr>
<tr>
<td>Future trade</td>
<td>High</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Team Risk</strong></th>
<th><strong>Risk</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Role Experience/Skills</td>
<td>Low</td>
</tr>
<tr>
<td>Team Composition (i.e. part time etc)</td>
<td>High</td>
</tr>
<tr>
<td>Staffing Level</td>
<td>High</td>
</tr>
<tr>
<td>Experience with Product/Subject</td>
<td>Low</td>
</tr>
<tr>
<td>Priority of Project for Team</td>
<td>Low</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Target</strong></th>
<th><strong>Risk</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion time</td>
<td>High</td>
</tr>
<tr>
<td>Sponsor Commitment</td>
<td>Low</td>
</tr>
<tr>
<td>Participation level of critical/essential stakeholders</td>
<td>Medium</td>
</tr>
<tr>
<td>Expectations of stakeholders</td>
<td>High</td>
</tr>
<tr>
<td>Impact on industry</td>
<td>High</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Total Project Risk</strong></th>
<th><strong>Risk</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate of all factors</td>
<td>High</td>
</tr>
</tbody>
</table>

1 **Accuracy of information**
   Failure of the exporter and other involved parties to provide accurate and meaningful information in response to the investigation will undermine the integrity and relevance of the investigation and its findings, and may also result in action being taken by the government which is not necessarily supported by evidence.

2 **Political risk**
   Opposition from animal welfare groups and the general public to the export of live animals is likely to be greatly increased by the publication of the final mortality figures for this consignment.

3 **Future trade**
   High mortalities present the risk of future rejections, particularly if the cause of the mortalities is not accurately determined.
7 ACTIVITIES

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Project team formed</td>
<td>Mon 8 July</td>
</tr>
<tr>
<td>2. AQIS officer commences to collect and analyse documents</td>
<td>Mon 8 July</td>
</tr>
<tr>
<td>3. Project plan developed</td>
<td>Mon 15 July-Fri 19 July</td>
</tr>
<tr>
<td>4. AQIS officer on temporary transfer to Canberra office to assist investigation</td>
<td>Mon 22-Fri 26 July</td>
</tr>
<tr>
<td>5. AQIS officer travels Canberra-Portland to inspect Becrux, interview master, inspect feedlot, audit AQIS certification for Becrux V1 and V2</td>
<td>Tues 23-Fri 26 July</td>
</tr>
<tr>
<td>6. AQIS officer travels Cairns-Portland to inspect Becrux, interview master, inspect feedlot, audit AQIS certification for Becrux V1 and V2</td>
<td>Tues 23-Fri 26 July</td>
</tr>
<tr>
<td>7. AQIS officer sails on Becrux V2 to Dammam, Doha and Muscat, UAE to monitor environmental conditions; assess crew procedures</td>
<td>Fri 26 July-Sat 17 August</td>
</tr>
<tr>
<td>8. AQIS officer travels to Perth to interview Wellards personnel, AQIS WA staff</td>
<td>Tues 30 July-Thurs 1 Aug</td>
</tr>
<tr>
<td>9. Information analysed and interim report written</td>
<td>Thurs 1-Thurs 15 August</td>
</tr>
<tr>
<td>10. AQIS officer returns from B2 voyage</td>
<td>Wed 21 August</td>
</tr>
<tr>
<td>11. Final report complete</td>
<td>Mon 2 September</td>
</tr>
</tbody>
</table>

8 BUDGET

<table>
<thead>
<tr>
<th>Activity</th>
<th>Cost elements</th>
<th>Total cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,3</td>
<td>None</td>
<td>$0</td>
</tr>
<tr>
<td>4</td>
<td>Airfare Mel-Cbr-Mel: $600</td>
<td>$1,465</td>
</tr>
<tr>
<td></td>
<td>T/A: $865</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Airfare Cbr-Mel-Cbr: $300</td>
<td>$1,150</td>
</tr>
<tr>
<td></td>
<td>Car hire 5 days: $350</td>
<td></td>
</tr>
<tr>
<td></td>
<td>T/A: $500</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>T/A + Airfare: $1,267</td>
<td>$1,267</td>
</tr>
<tr>
<td>7</td>
<td>Fares, T/A cost-recovered Pathology equipment</td>
<td>$238</td>
</tr>
<tr>
<td>8</td>
<td>Airfare Adel-Perth-Cbr: $1,000</td>
<td>$2,285</td>
</tr>
<tr>
<td></td>
<td>T/A + car: $1,285</td>
<td></td>
</tr>
<tr>
<td>9,10,11</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td><strong>$6,405</strong></td>
<td></td>
</tr>
</tbody>
</table>

Note: Salary costs for AQIS officers associated with the investigation total approximately $14,126, including time AQIS officer is to accompany the voyage to the Middle East.
9 REPORTING
A preliminary report is scheduled for completion by 15 August for consideration by AQIS senior management.

The final report is scheduled for 2 September. The report will be presented to LEITF. It will also form AQIS’s contribution to the AMSA-led inquiry as described in the MOU agreed between AMSA, Livecorp and AQIS.

10 CRITICAL STAKEHOLDER SIGN OFF
We have been involved in developing and/or reviewing the outputs of the project planning and are prepared to support the project and the services it requires. (After contributing to the draft plan please signify your agreement and date your contribution/agreement. i.e. the planning document is a living document and a hard copy will be retained by the project manager at each phase of communication with the stakeholders.)

<table>
<thead>
<tr>
<th>Name</th>
<th>Representing</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFFA officer</td>
<td>LEITF</td>
<td></td>
</tr>
<tr>
<td>AQIS officer</td>
<td>AQIS senior management</td>
<td></td>
</tr>
</tbody>
</table>