Public Q & A: Live Export & the Law

Chair:
Dana Campbell, CEO
Voiceless

Speakers:
Dr Malcolm Caulfield and Professor Clive Phillips
Dr Malcolm Caulfield

Principal Lawyer,
Animal Welfare Community Legal Centre
LIVE EXPORT

“Australia leads the world in animal welfare practices – we are the only country that has a system to support specific animal welfare outcomes for livestock exports...

Our continued involvement in the livestock export trade provides the opportunity to influence animal welfare conditions in importing countries…”

Department of Agriculture, Fisheries and Forestry
LIVE EXPORT

“The export of livestock...for slaughter will be prohibited unless the risks to New Zealand's reputation as a responsible exporter can be adequately managed. This decision was made following a recent review...

The review addressed concerns about the treatment and handling of livestock, and slaughter practices in importing countries...”

Hon Jim Anderton, NZ Minister of Agriculture 18 December 2007
For nearly 10 years the Australian taxpayer has been investing to improve animal welfare in Indonesia – and this is the outcome (ABC 7 January 2012)

“Indonesian Veterinary Association chairwoman Wiwiek Bagja said animal welfare laws in effect since 2009 did not work because they do not actually lay out what punishments people should face for animal cruelty”
The largest ship of all – the *Ocean Shearer*
What is live export?

The export (mainly by sea) of live animals (mainly sheep and cattle), mainly for slaughter (some for breeding)

Sheep go mainly to Middle East countries
Cattle go mainly to Asian countries, particularly Indonesia

Live export is the subject of Commonwealth legislation

Key player is the EXPORTER (essentially an agent) who must be licensed – the exporter is the target of all the significant legislation (ie not the owner of the animals or the master of the ship or the owner of the ship)
Australian live sheep exports and value

Source: ABS
Australian live cattle exports and value

Source: ABS
Just a note on the economics...

There have been several industry-sponsored economic analyses of the trade, none of which say how much it's worth to the exporters.

There are only 3 exporters of any significance.

A recent Bahraini newspaper report indicated that importers were paying about $200 per head for sheep.

The end of the year report for Muchea saleyard in WA indicated shipping wethers being sold at around $60 each.

In 2007 the report by Hassall & Co showed the purchase cost was similar and the total costs to the exporter (ie transport, feedlot, shipping etc) were about the same again (ie total of about $100)

How far would you go to protect a profit like that?
Animal welfare - Before the voyage

Animals must be inspected to ensure they are fit to go on the journey

In the *Al Kuwait* case, Crawford M noted:
“Over 103,000 sheep were loaded...I infer that (the veterinarian) observed the sheep momentarily as they passed in the race, dockside, on their way on board.”

**but they can be found to be fit without each animal being inspected**
(ie inspection can be on a “herd basis”)

Contrast this with the situation under state and territory animal welfare law, where it is an offence to be cruel to AN ANIMAL and a person responsible for AN ANIMAL must ensure the welfare of THE ANIMAL

*Animal Welfare Act 1993* (Tas)
s6: A person who has the care or charge of an animal has a duty to take all reasonable measures to ensure the welfare of the animal

s8: A person must not do any act, or omit to do any duty, which causes or is likely to cause unreasonable and unjustifiable pain or suffering to an animal
Animal welfare - During the voyage

- the stockperson compulsory on all voyages (or maybe not)

- the AAV at DAFF’s discretion

both are selected and employed by the exporter (evidence of pressure to make favourable reports......)

...and they may have to monitor the welfare of anything up to 110,000 animals

*Al Kuwait* case (Crawford M)

“Inspection of sheep was routinely performed from outside the pens. It was not possible to see every sheep, and not subtle clinical signs like diarrhoea or weight loss.”
Animal welfare - During the voyage

Major welfare issues:

- inanition in sheep (primarily because the animals do not become accustomed to the pelletised feed)...starvation...death (predisposition to infections such as with *Salmonella*)

- salmonellosis (mainly sheep)

- respiratory disease (mainly cattle)

- ammonia levels

- trauma

- heat stress

- giving birth / abortions (mainly cattle)

- overcrowding (extremely limited space allowances)
On-board welfare

Heat stress

Figure 1. Comparison of wet bulb temperatures recorded on the bridge and animal pen decks during a live export voyage and during a hot room experiment. The horizontal dottedline is at WBT 30°C, corresponding to a THI in excess of about 90, said to represent the "crisis phase" when there is extreme heat load and death is possible.
On-board welfare

Heat stress

Figure 2. Core temperature of sheep in response to increased ambient temperature, during two heating periods separated by 1.5 days at ambient temperature. The data were scanned and replotted from reference 34. Room temperatures achieved during each day of the experiment are shown in Figure 1. Each point represents the response to temperatures maintained for one day, except the last point in heat period 2, (maintained for 6h).
On-board welfare - Heat stress

The “heat stress risk assessment model”

- Must be complied with by law; except it's a secret.

- We do know it takes into account parameters like meteorological data, ventilation rates and so on.

- We do know the primary variable which it controls is stocking density (not so far as that affects welfare, but so far as it reflects the heat output of a group of animals in a pen on board ship)

- We do know that it only seeks to control the risk of death (ie it is not concerned with controlling the risk of approaching or exceeding the heat stress threshold)
Focus on mortality – not welfare

Oh, to be in England

● “MPs call for live export review

Members of parliament have asked for a full review of live exports following a debate in the House of Commons last week called by Thanet MP Laura Sandys.

It was agreed by all parties present at the debate that incidents such as the tragic one at Ramsgate, where 40 sheep lost their lives, should never be allowed to happen again...”

● And in Australia...?

In the 10 years since 2000, nearly half a million sheep have died (reportedly) on live export voyages
Focus on mortality – not welfare

The law (that is, ASEL), says that when notifiable mortality limits are exceeded, the AAV or the stockman must make a report.

Mortality triggers – 2% for sheep; 0.5% or 1% for cattle (latter for long-haul voyages) – so all animals are equal under this law? (contrast with state and territory animal welfare legislation – cruelty to “an animal”)

DAFF investigates mortality incidents AT ITS DISCRETION
And what happens at the other end?

Since 2003 Animals Australia has sought to bring conditions in importing countries to the attention of the public – and failed, until *Four Corners* last year.

That report was a game changer, not only for live export but for animal welfare in general.

It showed that the Australian public, in the main, abhors cruelty to its animals, here or in importing countries.

The response of the government has been to instigate “Export Supply Chain Assurance Systems” (ESCAS).
So what is ESCAS?

It is nothing more than a requirement that the exporter demonstrates to the satisfaction of DAFF: that it has a tracking system in place for animals in overseas countries, that there are “independent audits” of facilities such as abattoirs, which must operate in compliance with OIE recommendations.

Contrary to statements by DAFF, compliance with ESCAS is NOT A CONDITION of an export licence, so failure to comply carries no substantive sanctions (except perhaps that DAFF can make it more difficult next time round). The only way an exporter can be caught out is if DAFF demonstrates (at the criminal level of proof) that an exporter has supplied misleading or false information, knowingly or recklessly as to its accuracy.
Has ESCAS worked so far?

NO
What is the use of ESCAS?

When DAFF said it was going to introduce ESCAS, we not only thought it was laughable (let's tell Johnnie Foreigner how to run animal welfare), but thought it would create tremendous opportunities...

Because – while DAFF can hide animal welfare abuses in Australia and on board ship, it is never going to be able to keep animal welfare enthusiasts out of abattoirs (etc) overseas.

One of the things which has happened since the Indonesian revelations is that many people, including people overseas, are now reporting back to Animals Australia what is going on – so in other words, the lid is off Pandora's box.
Where to next?

The revelations will continue. There is more to come from Animals Australia and no doubt more will be revealed by new informants.

The biggest problem facing us is if the Labor Party loses the next federal election.

The federal Labor caucus is being driven by people like Melissa Parke and Kelvin Thomson to face up to the unacceptability of live export – but that doesn't mean it's an election issue.

*Animals' Angels v Secretary of Department of Agriculture, Fisheries and Forestry*, Federal Court case NSD 952 of 2012 (Sydney Registry) – watch this space.
Livestock Export From Australia: Addressing the Problems

Professor Clive Phillips
University of Queensland
Livestock Export From Australia: Addressing the Problems

Clive Phillips
School of Veterinary Science
University of Queensland

Centre for Animal Welfare and Ethics
Heat Stress Risk Management Model

Estimates risk of livestock mortality due to heat stress in closed decks on voyages from Australia to the Middle East, using:

- Weather at destination and on route
- Acclimatisation
- Coat and condition
- Ventilation characteristics of ships.
Talk outline

• Support for the trade
• Standards and guidelines
• Welfare measures on ship
• Industry research to inform standards
Support for the live export trade

- Lack of refrigerators in Southeast Asia
- Religious and cultural reasons in Middle East
- Subsidies in Middle East
  - Direct, e.g. US $ 50 million in Bahrain, 2008
  - Indirect, subsidised feed, land and water
- Government support in Australia
  - DAFF
  - Livecorp support
Public opinion on live export

- February 2011: 73% of 1500 Australians
  - transport meat overseas chilled
  - no live export to countries that don’t meet international standards

- 2010: Galaxy poll:
  - 79% of Australians → sheep exports cruel
  - 86% phase out the trade, providing there is a way to save jobs

- July 2011: 75% of 1500 Australians:
  - support or strongly support compulsory stunning of Australian livestock
  - more in rural areas and women vs. men
Relevant standards

• Australian Standards for the Export of Livestock, Version 2.3, April 2011
• Revision to be overseen by Livestock Export Standards Advisory Group, 2008-2011
• Members confidentiality clause
• LESAG replaced by Review Steering Committee
OIE Guidelines

• Minimum animal welfare and health standards during the pre-journey, loading, journey, unloading and post journey handling stages of sea transport
• Necessarily general
• Voluntary
National standards

- Australian Maritime Safety Authority Marine Orders Part 43
- Specifies pen size, deck loading capacity, rail strength and spacing, passageway width, ceiling height
- Based on ‘best practice’
Live export stages (21-86 days)

- Mustering: 0.5-1 days
- Holding in yards: 0.5-1 days
- Trucking to assembly depot: 1-2 days
- Assembly depot: 1-7 days
- Trucking to port: 0.1 day
- Enter ship: 0.1 day
- On ship: 7-25 days
- Discharge to truck: 0.1 day
- Hold at feedlot: 10-50 days
- Truck to abattoir: 0.1 day
- Unload and hold in lairage: 0.5 day
- Slaughter: 0.05 day
Transport by ship

- Main stressors
  - Loading/unloading injuries, heat, social stress, inappetence, faeces/urine, ammonia, humidity, ship motion, noise, vibration

Which are important?
Best welfare indicators on ship

* Paired $t$-test: $p < 0.05$

Relative importance (%)
Equivalent annual mortality

Sheep 37%  Vs  on land  2.5 %
Cattle 5%  Vs  on land  1 %
Temperature/humidity

- Heat stress threshold 26-28°C
- Greatest risk when cold-adapted livestock from southern ports enter summer temperatures in Middle East
- Humidity increases with wet faecal pad
- If ambient temperature > body temperature, ventilation less effective
Heat Stress Risk Management Model

Estimates risk of livestock mortality due to heat stress in closed decks on voyages from Australia to the Middle East, using:

• Weather at destination and on route
• Acclimatisation
• Coat and condition
• Ventilation characteristics of ships
Ammonia accumulation


engine block

Fore

Aft

Starboard

Port

Legend

<table>
<thead>
<tr>
<th>Color</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>purple</td>
<td>9.000</td>
</tr>
<tr>
<td>blue</td>
<td>11.063</td>
</tr>
<tr>
<td>blue-green</td>
<td>13.125</td>
</tr>
<tr>
<td>green</td>
<td>15.188</td>
</tr>
<tr>
<td>yellow</td>
<td>17.250</td>
</tr>
<tr>
<td>green-yellow</td>
<td>19.313</td>
</tr>
<tr>
<td>yellow-blue</td>
<td>21.375</td>
</tr>
<tr>
<td>blue-green</td>
<td>23.438</td>
</tr>
<tr>
<td>blue-yellow</td>
<td>25.500</td>
</tr>
<tr>
<td>yellow-red</td>
<td>27.563</td>
</tr>
<tr>
<td>red</td>
<td>29.625</td>
</tr>
<tr>
<td>red-orange</td>
<td>31.688</td>
</tr>
<tr>
<td>orange</td>
<td>33.750</td>
</tr>
<tr>
<td>orange-red</td>
<td>35.813</td>
</tr>
<tr>
<td>red-orange</td>
<td>37.875</td>
</tr>
<tr>
<td>red</td>
<td>39.938</td>
</tr>
<tr>
<td>red</td>
<td>42.000</td>
</tr>
</tbody>
</table>
Effects of ammonia

- Mucosal secretions:
  - nose, eyes, throat
  - Increased macrophage activity
- Reduced feed intake and weight loss (sheep)
Ventilation rate

• Open and closed decks
• Stocking density critical
• Affects ammonia accumulation
<table>
<thead>
<tr>
<th>Current ammonia standards for humans</th>
<th>ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Swedish Board of Occupational Safety and Health</td>
<td>10</td>
</tr>
<tr>
<td>Occupational Safety &amp; Health Administration</td>
<td>50</td>
</tr>
<tr>
<td>American Conference of Governmental Industrial Hygienists</td>
<td>25</td>
</tr>
<tr>
<td>American National Institute for Occupational Safety and Health</td>
<td>50</td>
</tr>
<tr>
<td>Australian standards – TWA 8 hours</td>
<td>25</td>
</tr>
<tr>
<td>15 min exposure</td>
<td>35</td>
</tr>
<tr>
<td>No go</td>
<td>50</td>
</tr>
</tbody>
</table>
Stocking density

- Effects on welfare unclear
- Can be determined from weight:
  - Occupied space: Area (m$^2$) = 0.022$W^{0.66}$
  - Turn around/lie down: Area (m$^2$) = 0.033$W^{0.66}$

(Petherick and Phillips, 2009)
Government framework for 2012 (response to Farmer report)

Exporter Supply Chain Assurance Scheme

1) animals will be handled and processed at or better than the internationally accepted standards for animal welfare established by the World Organisation for Animal Health (OIE);
2) they have control of the movement of animals within their supply chain;
3) they can trace or account for animals through the supply chain; and
4) they conduct independent verification and performance audits of their supply chains against these new requirements
Live export research

“Science” … can deliver “an expansion of material well-being beyond anything that has yet occurred in human experience”

Winston Churchill, 1946
Funded by Livecorp/MLA

Approximately 15 publications in scientific literature on welfare of exported livestock funded by Livecorp/MLA

(Phillips and Santurtun, The Vet Journal, in press)
Bobby calf transport

• Hunger begins approximately 9 hours after last feed (blood glucose evidence)
National standards, calf transport

- Big range in maximum transportation/time off feed time
- 6 hour transportation limit in Switzerland
- Proposed 30 hour time off feed limit in Australia
Scatterplot of mean plasma glucose, mmol/l vs time off feed, h
Conclusion

“Based on our data, and those of the similar New Zealand study, it is our conclusion that 30 h with good practice in other aspects of calf management and transport is defensible as an outer ‘legal’ limit for time off feed for bobby calves”
Conclusions

- Export of livestock by ship is a long process that represents a series of challenges to their welfare
- Mortality is significantly increased
- Legislation is national
- International guidelines from OIE
- Little research to investigate problems
- Science should inform decision makers